University of Cape Town
Research Report
2012

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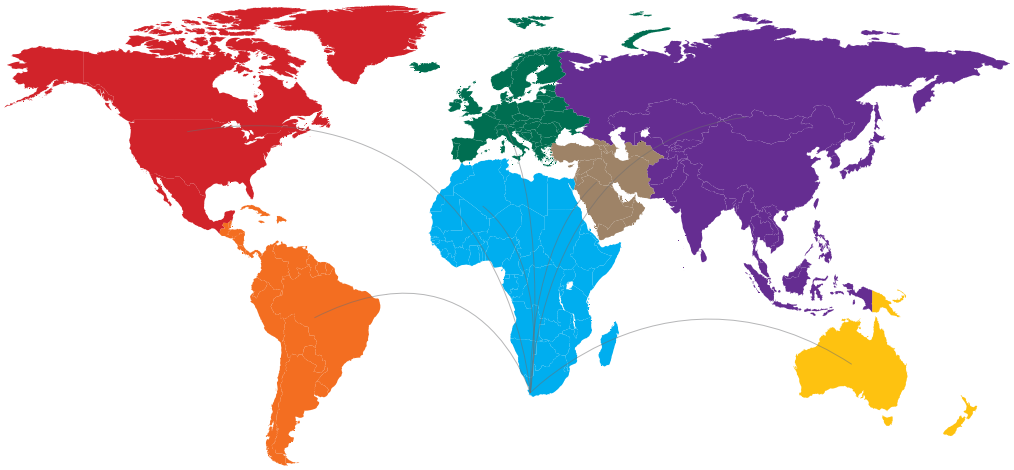
University of Cape Town • iYunivesithi yaseKapa • Universiteit van Kaapstad

SPES BONA



Our Mission Statement

UCT aspires to become a premier academic meeting point between South Africa, the rest of Africa, and the world. Taking advantage of expanding global networks and our distinct vantage point in Africa, we are committed, through innovative research and scholarship, to grapple with the key issues of our natural and social worlds. We aim to produce graduates whose qualifications are internationally recognised and locally applicable, underpinned by values of engaged citizenship and social justice. UCT will promote diversity and transformation within our institution and beyond, including growing the next generation of academics.

FOUNDATION STATEMENT UNDERPINNING THE MISSION STATEMENT

OUR RESEARCH-LED IDENTITY IS SHAPED BY A COMMITMENT TO:

- academic freedom as the prerequisite to fostering intellectual debate, and free inquiry; ensuring that research informs all our activities including teaching, learning and service to the community;
- advancing and disseminating knowledge that addresses the key challenges facing society – South African, continental and global;
- protecting 'curiosity driven research';
- nurturing and valuing creativity in the sciences and arts including the performing and creative arts;
- stimulating international linkages of researchers and research groupings.

WE STRIVE TO PROVIDE A SUPERIOR QUALITY EDUCATIONAL EXPERIENCE FOR UNDERGRADUATE AND POSTGRADUATE STUDENTS THROUGH:

- providing an intellectually and socially stimulating environment;
- inspired and dedicated teaching and learning;
- exposure to the excitement of creating new knowledge;
- stimulating the love of lifelong learning;
- the cultivation of competencies for global citizenship;
- supporting programmes that stimulate the social consciousness of students;
- offering access to courses outside the conventional curricula;
- attracting a culturally and internationally diverse community of scholars;
- guaranteeing internationally competitive qualifications;
- offering a rich array of social, cultural, sporting, and leadership opportunities;
- providing an enabling physical and operational environment.

IN ADVANCING UCT AS AN AFROPOLITAN UNIVERSITY, WE WILL:

- expand our expertise on Africa and offer it to the world;
- extend our networks on the continent, along with our global connections and partnerships;
- promote student and staff exchanges, and collaborative research and postgraduate programmes;
- engage critically with Africa's intellectuals and world views in teaching and research;
- contribute to strengthening higher education on our continent.

WE STRIVE TO PROVIDE AN ENVIRONMENT FOR OUR DIVERSE STUDENT AND STAFF COMMUNITY THAT:

- promotes a more equitable and non-racial society;
- supports redress in regard to past injustices;
- is affirming and inclusive of all staff and students and promotes diversity in demographics, skills, and backgrounds;
- offers individual development opportunities to all staff;
- is welcoming as a meeting space for scholars from Africa and around the world.

CONTENTS

MESSAGE FROM THE VICE-CHANCELLOR 5

INTRODUCTION BY THE DEPUTY VICE-CHANCELLOR 11

INTRODUCTIONS BY THE DEPARTMENT OF RESEARCH AND INNOVATION 14

RESEARCH DEVELOPMENT INITIATIVES 22

RESEARCH DASHBOARD 26
Research Funding 27
Postgraduate Students and Funding 29
Postdoctoral Research Fellows 33
National Research Foundation Evaluation and Rating 35
South African Research Chairs Initiative 42
UCT Signature Themes for Research 44
National Centres of Excellence and Competence Centres 44
Research Groupings 44

FACULTY REPORTS 212

FACULTY OF HUMANITIES 213

FACULTY OF HEALTH SCIENCES 218

FACULTY OF SCIENCE 225

FACULTY OF COMMERCE 233

FACULTY OF LAW 238

FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT 241

CENTRE FOR HIGHER EDUCATION DEVELOPMENT 246

RESEARCH THEMES 54

CELEBRATING ONE HUNDRED YEARS OF HEALTH SCIENCES AT UCT 56

POVERTY AND INEQUALITY 80

OUR WORLD AT RISK 92

REACHING FOR THE STARS 112

EVERY DROP COUNTS 122

SUSTAINABLE CITIES 130

BEING HUMAN 142

THE GREEN ECONOMY 158

ENGINEERING THE FUTURE 168

LAW IN CONTEXT 180

COMMERCE BEYOND THE NUMBERS 196

GLOBAL PARTNERSHIPS, LOCAL ICT SOLUTIONS 202

UCT Research Report

Message from the VICE-CHANCELLOR

It is the responsibility of the University of Cape Town to ensure that our research and innovation creates new information and pushes the boundaries of knowledge, for the development and transformation of society and the safeguarding of the planet. Our researchers have fulfilled this obligation admirably during the past year and I am pleased to present this report on research excellence at UCT during 2012.

We are privileged to have an exceptional community of researchers at UCT. Contributions to research, and achievements during 2012, are outlined in the report presented by the Deputy Vice-Chancellor. We showcase some prominent areas of research and inter-disciplinary themes, which continue to emerge across the university, and which play a pivotal role in our research enterprise. Some of these are:

- the enormous contribution of research being undertaken in astronomy to the national flagship projects of the Karoo Array Telescope (MeerKAT) and the Square Kilometre Array (SKA), one of the largest scientific experiments of all time;
- research that has direct relevance to national policies aimed at poverty reduction, promotion of growth, and the reduction of inequality;
- world-leading research undertaken by the Institute of Infectious Disease and Molecular Medicine;
- research on the development of new forms of digital technology to address the developmental problems within society, problems that do not exist in developed economies, where most of the world's technology is created; and
- innovative research into water treatment, which impacts a broad range of sectors, ranging from industrial and commercial applications, to impacting the lives of all South Africans in a more direct manner.

One of the highlights in the research achievements of 2012 was the selection for further development of a molecule, code-named MMV390048, by Medicines for Malaria Venture (MMV), a non-profit foundation created to discover, develop, and deliver new, affordable antimalarial drugs through effective public-private partnerships. The promising new compound that was developed by UCT's H3-D centre shows potent activity against multiple points in the malaria parasite's lifecycle. This means it not only has the potential to become part of a single-dose cure for malaria, but might also be able to block transmission of the parasite from person to person. This is the first compound researched on African soil to enter pre-clinical development in partnership with MMV.

The above initiatives are making significant contributions to addressing societal problems and influencing growth and development, both in South Africa and on the continent. In addition to these, there are four inter-disciplinary, institution-wide initiatives that play an equally important role in solving current challenges: the Safety and Violence Initiative, the Schools Improvement Initiative, the African Climate and Development Initiative, and the Poverty and Inequality Initiative. An important milestone in 2012 was the hosting of

DR MAX PRICE
Vice-Chancellor

Professor Kelly Chibale (centre), pictured with Dr Tim Wells of the Medicines for Malaria Venture and Minister of Science and Technology, Naledi Pandor. Professor Chibale speaks about the compound MMV390048 that he and international collaborators hope will lead to the development of a single-dose treatment for malaria.

Towards Carnegie3: Strategies to Overcome Poverty and Inequality on behalf of the National Planning Commission. The key purpose of the conference was to take stock of existing knowledge and debates and to stimulate cross-pollination of ideas across institutional, thematic, and geographic barriers.

One of the challenges in realising our ambitions in the research arena is to be optimally placed to collaborate internationally and advance global knowledge, while still solving local problems. This includes developing new research partnerships or strengthening existing ones with partners in Africa, and elsewhere in the global South. Increasingly, research that makes a difference in the world is being conducted by international consortia and collaborations. In our endeavours to facilitate and maintain research collaboration with international partners, UCT remained an active member in 2012 of the Worldwide Universities Network, which comprises 19 research-intensive universities spanning six continents.

Contributing to the achievements reflected in this report are our postgraduate students and postdoctoral researchers. In 2012, more than 6 000 students were registered for honours, master's, and doctoral degrees at UCT. At the same time, there were 282 registered postdoctoral researchers at the university, of whom more than half were from outside South Africa. Our responsibility to educate the future generation of leaders extends to the African continent. Through a generous grant from the Carnegie Corporation for the *Next Generation of Academics* project, a cohort of trainee academics are being trained in the fields of infectious diseases, civil engineering, and economics. This project has enabled us to work closely with the universities of Ghana, Makerere and Witwatersrand.

We are grateful to all our donors, partners and research collaborators for supporting our vision for the development of research at UCT, enabling greater impact and greater engagement. It is thanks to these individuals and organisations, and indeed the work of the entire university community, that we are able to continue to deliver world-class research that advances the university and this continent. It is our intention to continue to engage strategically with the changing higher-education landscape in South Africa and to build research partnerships across Africa that will help shape our future.

Umyalezo osuka

KUSEKELA-NGQONYELA

Luxanduva lweYunivesithi yaseKapa ukuqinisekisa ukuba uphando lwethu kunye nokuvelisa iingcamango ezintsha kukuza nenkcazelo entsha yaye sikwatyhalela phambili imida yolwazi yophuhliso kunye notshintsho ekuhlaleni kunye nokhuseleko lomhlaba wethu ngokubanzi. Ngenxa yoko, ndiyakuvuyela ukuniphathela le ngxelo yophando olugqwesileyo lwase-UCT lowama-2012.

Siyazingca ngokuba nabaphandi abakudidi oluphezulu e-UCT. Izinto esithe saphosa igalelo lethu kuzo, kunye nezinto esithe saziphumeza ngophando esilwenzileyo ngo-2012, zibaluliwe kwingxelo eziswe ngaphambili siSandla seSekela-Ngqonyela. Sibonisa iinkalo ezibalulekileyo zophando kunye nemixholo eyahlukeneyo yoqeqesho oluqhubekayo ukuvela kwiyunivesithi iphela, nolukwadlala indima enkulu kwinkqubela yophando. Nazi ezinye zezi ndima:

- igalelo elikhulu lophando lwenziwe kwiprojekthi ye-astronomi yeqela likazwelonke leKaroo Array Telescope (MeerKat) kunye neSquare Kilometer Array (SKA), enye yeemvavanyo ezinkulu zenzululwazi engazanga yabonwa.
- uphando olunokuzalana okuthe ngqo nemigaqo-nkqubo kazwelonke ejoliswe ekunciphiseni indlala, ukuphuhlisa ukukhula koqoqosho, nokunciphisa ukungalingani;
- uphando olugqwesileyo lwehlabathi olwenziwe liZiko LeziFo EzoSulelayo NoNyango LweMoletyhuli (Institute of Infectious Disease and Molecular Medicine);
- uphando kuphuhliso lweentlobo ezintsha zobuchwephesha ukujongana neengxaki zoluntu, iingxaki ezingekhoyo kuphuhliso loqoqosho apho uninzi lobuchwephesha obuhamba phambili kumazwe benziwa khona; yaye
- ilinge elitsha lophando kunyango lwamanzi, olunempembelelo ebanzi kumacandelo, ukusukela kwinkampani zemveliso kunye nokwenziwa kwentengiso kuchaphazela ubomi babo bonke abemi boMzantsi Afrika ngendlela ethe ngqo.

Ngokungaxoxisiyo, enye yezinto ezithe zagqama kwimpumelelo yophando ngo-2012 kukukhethwa kophuhliso oluqhubekayo lwemoletyhuli (molecule) ebizwa ngokuba yi-MMV390048 yePhulo LoNyango LwesiFo SeeNgcongconi (Medicines for Malaria Venture [MMV]), umbutho ongenzi nzuzo oqulunqelwe ukufumanisa, ukuphuhlisa nokubonelela ngamachiza afikelelekayo okukhusela isifo seengcongconi ngokusebenzisa ubudlelwane boluntu kwanobo babucala obusebenza ngokukuko. Umxube omtsha othembisayo oveliswe liziko le-H3-D lase-UCT ubonisa ifuthe elimandla ekulweni amanqanaba aliqela kumjikelo wobomi besimungunyi-gazi sesifo seengcongconi. Oku akuthethi nje ukuthi liza kuba yinxalenye yechiza elinye lokunyanga isifo seengcongconi, kodwa lingakwazi nokuthintela ukugqithiselwa kwesimungunyi-gazi ukusuka komnye umntu ukuya komnye. Lo ngumxube wokuqala ngqa kolu phando ukwenziwa kwilizwekazi i-Afrika ukuba ungenele uphuhliso lonyango lokuqala kwintsebenziswano kunye neMMV.

UGQR MAX PRICE
uSekela-Ngqonyela

Amalinge angentla enza igalelo elimandla ekujongeni iingxaki zoluntu nokuphembelela ukukhula kuqoqosho kunye nophuhliso eMzantsi Afrika nakwi-Afrika iphela. Ukongeza kula malinge, kukho amaziko jikelele oqeqesho olwahlukeneyo

Leading women scientists at UCT: Professor Valerie Mizrahi, Director of the Institute of Infectious Disease and Molecular Medicine, holds an A rating from the National Research Foundation. She is an international expert on Mycobacterium tuberculosis, *the organism that causes human tuberculosis. In 2012, Professor Mizrahi was named as one of 13 of the world's leading basic-science researchers to receive the prestigious Senior International Research Scholar awards, made by the Howard Hughes Medical Institute in the United States.*

adlala indima ebalulekileyo ekusombululeni imiceli-mngeni esijongene nayo ngeli thuba: uKhuseleko kunye neLinge lokulwa uGonyamelo, iLinge lokuPhucula iziKolo, iLinge loPhuhliso lweMozulu e-Afrika kunye neLinge lokunciphisa iNdlala nokungaLingani. Uvutho-ndaba olubalulekileyo ebekujoliswe kulo ngo-2012 ibikukubamba inkomfa *yeTowards Carnegie 3*: ejongene *neeNkqubo-qhinga zokoyisa iNdlala nokungaLingani eyenziwa egameni leKhomishoni yeziCwangciso zikaZwelonke*. Undoqo wenjongo yale nkomfa ibikukuthatha imfumba yolwazi neengxoxo ezikhoyo neengxoxo nokukhuthaza ukuthungelana nokwabelana ngezimvo jikelele ukuya kutsho ngaphaya kwemida yamaziko, eyemixholo neyemimandla.

Omnye wemiceli-mngeni kukuqonda amaphupha ethu kummandla wophando nokuba kumele ukuba ngumnqweno wethu ukusebenzisana namanye amazwe kunye nokuba nolwazi oluhambele phambili lwehlabathi jikelele, ngelixa sisasombulula iingxaki zasekuhlaleni. Oku kuquka ukwakha ubudlelwane obutsha bophando okanye ukuqinisa amaqhina onxibelelwano asele ekhona kunye namahlakani ethu kwiliZwekazi i-Afrika, nakwezinye iindawo kuMazantsi ehlabathi. Ngendlela eyandayo, uphando olwenza umahluko kwihlabathi luqhutywa yimbumba kunye nendibaniselwano yamazwe ngamazwe. Ngeenjongo zokugcina intlanganisela kwezophando kunye namahlakani amazwe ngamazwe, kwaye iqhubeka njengelungu loMfela-ndawonye weeYunivesithi zeHlabathi (Worldwide Universities Network) obunjwe ziiyunivesithi ezili-19, ngowama-2012 i-UCT ithabathe inxaxheba kuphando olukudidi lokuqala kumazwekazi amathandathu.

Abafundi bezidanga eziphakamileyo (postgraduate) kunye nabaphandi abasele bethweswe izidanga zobugqirha babe negalelo kwizinto esithe saziphumeza esele ibaluliwe kule ngxelo. Ngo-2012, ngaphezu kwesithandathu samawaka sabafundi sibhalisele ukwenza izifundo zehonours, i-master's kunye nezidanga zobugqirha e-UCT. Kwangaxesha-nye, bekukho ama-282 oogqirha bophando ababhalisileyo kwiyunivesithi, apho abanye babo abangaphezu kwesiqingatha bavela ngaphandle koMzantsi Afrika. Uxanduva lwethu kukufundisa isizukulwana esizayo seenkokeli esiya kuba lulutho nakwilizwekazi i-Afrika. Ngenxa yesibonelelo semali esiphuma kwiCarnegie Cooperation, esenzelwe iprojekthi yesiZukulwana seziFundiswa zeXesha eliZayo, kuqeqeshwe iqela labafundi kwizifundo ezimalunga nezifo ezosulelayo, ezobunjineli bokwakha (civil) kunye nezoqoqosho. Le projekthi yenze ukuba sikwazi ukusebenzisana neyunivesithi yaseMakerere, eGhana, kunye neyunivesithi yeWitwatersrand.

Sibamba ngazibini kubo bonke abaxhasi, amahlakani kunye nabaphandi abayintlanganisela ngokuxhasa umbono wethu wophuhliso lophando e-UCT, besenza sibe nempembelelo kwakunye nentsebenziswano emandla. Kungenxa yaba bantu kunye nemibutho, kananjalo nomsebenzi woluntu lweyunivesithi xa lulonke, ukuba sikwazi ukuqhubeka nokunikezela uphando olukwinqanaba lehlabathi olubhekisa phambili iyunivesithi kunye neli lizwekazi. Yinjongo yethu ukuqhubeka sifaka ifuthe ngendlela eyiyo ekuguquleni indlela yenkqubo yamaziko emfundo ephakamileyo eMzantsi Afrika, kunye nokwakha amahlakani ophando aya kuthi ancede ukwakha ikamva le-Afrika iphela.

Boodskap van die VISE-KANSELIER

Dit is die Universiteit van Kaapstad se verantwoordelikheid om te verseker dat haar navorsing en innovasie nuwe kennis skep en grensverskuiwend is ten behoewe van die ontwikkeling en transformasie van die samelewing en die beskerming van die aarde. Ons navorsers het in die afgelope jaar weereens hierdie plig uitstekend vervul en dus verskaf dit my besondere plesier om hierdie verslag, wat die uitnemendheid van die Universiteit van Kaapstad se navorsing tydens 2012 beskryf, aan te bied.

Die Universiteit van Kaapstad verskaf 'n tuiste aan 'n uitsonderlike groep navorsers, wie se prestasies tydens 2012 hiernaas opgesom word in die verslag van die Adjunk Vise-kanselier met verantwoordelikheid vir navorsing. Hierdie publikasie is 'n vertoonvenster vir sommige van die mees prominente navorsingsgebiede en inter-dissiplinêre temas wat voortdurend in alle dele van die universiteit ontwikkel word, en wat 'n sleutelrol in ons algehele navorsingsonderneming speel. Sommige hiervan is:

- die enorme bydrae van die navorsing wat onderneem word in sterrekunde as deel van die nasionale vlagskip-projekte van die MeerKAT (*Karoo Array Telescope*) en die SKA (*Square Kilometre Array*) radioteleskope, as deel van een van die grootste wetenskaplike eksperimente van alle tye;
- baanbrekersnavorsing wat direk betrekking het op die nasionale beleid gemik op die vermindering van armoede en ongelykheid asook die bevordering van groei;
- wêreldleidende navorsing deur die Instituut vir Infeksiesiektes en Molekulêre Medisyne (IIDMM);
- nuwe navorsing oor die skep van digitale tegnologie om die ontwikkelingsprobleme binne die samelewing aan te spreek, veral probleme wat nie in ontwikkelde ekonomieë (waar die meeste van die wêreld se tegnologie geskep word) bestaan nie; en
- innoverende navorsing ivm waterbehandeling wat 'n impak maak op 'n wye verskeidenheid van sektore, wisselend van nywerheids- en kommersiële toepassings tot 'n meer direkte impak op die lewens van alle Suid-Afrikaners.

Waarskynlik was een van die grootste hoogtepunte onder die Universiteit van Kaapstad se navorsingsprestasies gedurende 2012 die keuse deur *Medicines for Malaria Venture* ('n internasionale nie-winsgewende stigting wat geskep is om nuwe, bekostigbare malariamiddels te ontdek, te ontwikkel en af te lewer deur middel van doeltreffende openbare–private vennootskappe) om 'n molekule met die kodenaam MMV390048 verder te ontwikkel. Hierdie belowende nuwe chemiese verbinding wat deur die Universiteit van Kaapstad se H3-D sentrum ontwikkel is, toon kragtige werking teen verskeie fasette in die malaria-parasiet se lewenssiklus. Dit beteken dat dit nie net die potensiaal het om deel te wees van 'n enkeldosis-geneesmiddel teen malaria nie, maar moontlik ook in staat sou kon wees om die oordrag van die parasiet van persoon tot persoon te verhinder. Dit is die eerste chemiese verbinding wat op Afrika-bodem tot die voorkliniese-fase ontwikkel is.

DR MAX PRICE
Vise-kanselier

Leading women scientists at UCT: Professor Jill Farrant of the Department of Molecular and Cell Biology holds an A rating from the National Research Foundation. Professor Farrant was the African/Arab States recipient of the 2012 L'Oreal-UNESCO Award for Women in Science. Her research revolves around resurrection plants – plants that appear to die in drought, but recover dramatically within 24 to 48 hours after rain, even after a year in a dry state. The potential outcome of her work, the production of drought-tolerant crops, has the aim of addressing food security needs in Africa.

Bogenoemde inisiatiewe maak 'n aansienlike bydrae tot die aanspreek van maatskaplike probleme en kan 'n invloed hê op groei en ontwikkeling beide in Suid-Afrika en die res van die vasteland. Benewens bogenoemde inisiatiewe, is daar vier verdere inter-dissiplinêre, instellingswye inisiatiewe wat 'n ewe belangrike rol in die oplossing van huidige uitdagings speel: die Veiligheids- en Geweld-inisiatief, die Skoolverbeteringsinisiatief, die Afrika Klimaat en Ontwikkelingsinisiatief, en die Armoede- en Ongelykheidsinisiatief. 'n Belangrike mylpaal gedurende 2012 was die konferensie *Towards Carnegie3: Strategies to Overcome Poverty and Inequality* wat namens die Nasionale Beplanningskommissie aangebied is. Die hoofdoel van die konferensie was om bestaande kennis en debatte in oënskou te neem en kruisbestuiwing van idees oor institusionele, tematiese en geografiese hindernisse heen te stimuleer.

Een van die uitdagings in die verwesenliking van ons ambisies in die navorsingsarena is om optimaal geplaas te wees vir internasionale samewerking en om globale kennis te bevorder, terwyl plaaslike probleme terselfdertyd ook opgelos word. Dit sluit die ontwikkeling van nuwe navorsingsvennootskappe in, asook die versterking van bestaande verhoudings met vennote in Afrika en elders in die globale Suide. Navorsing wat werklik 'n verskil in die wêreld maak word al hoe meer gedoen deur middel van internasionale konsortiums en samewerking. In ons pogings om navorsingssamewerking met internasionale vennote te handhaaf en verder uit te bou, was die Universiteit van Kaapstad tydens 2012 steeds 'n aktiewe vennoot in die *Worldwide Universities Network*, wat uit 19 navorsings-intensiewe universiteite bestaan wat oor ses vastelande strek.

'n Belangrike bydrae tot die prestasies in hierdie verslag word gelewer deur ons nagraadse studente en post-doktorale navorsers. In 2012 was daar meer as ses duisend studente vir honneurs-, meesters- en doktorsgrade by die Universiteit van Kaapstad ingeskryf. Terselfdertyd was daar 282 geregistreerde post-doktorale navorsers by die universiteit, meer as die helfte afkomstig van buite Suid-Afrika. Ons beskou ons mede-verantwoordelikheid om die leiers van môre op te lei as een wat nie slegs Suid-Afrika omvat nie, maar ook die vasteland van Afrika as geheel insluit. So, byvoorbeeld, deur middel van 'n ruim skenking van die Carnegie Korperasie vir 'n projek onder die naam 'The Next Generation of Academics', word 'n groep jong akademici opgelei in die studievelde van aansteeklike siektes, siviele ingenieurswese en ekonomie. Hierdie projek het ons in staat gestel om nou saam te werk met die Universiteite van Ghana, Makerere en die Witwatersrand.

Ek wil my dank betuig teenoor al ons skenkers, vennote en medewerkers in navorsing vir die ondersteuning van ons visie vir die ontwikkeling van navorsing aan die Universiteit van Kaapstad. Dit is te danke aan hierdie individue en organisasies, en inderdaad die werk van die hele universiteitsgemeenskap, dat ons in staat is om steeds navorsing van wêreldgehalte te lewer. Dit is ons voorneme om vorentoe strategies betrokke te bly by die veranderende hoëronderwys-landskap in Suid-Afrika en om navorsingsvennootskappe regoor Afrika en die res van die wêreld te bou ten einde optimaal gestalte te gee aan ons toekoms.

Introduction by the DEPUTY VICE-CHANCELLOR

It is gratifying to report that UCT researchers have delivered a truly outstanding performance in 2012, and the university is fortunate to have been able to gather together so many dedicated people who work so hard to roll back the frontiers of knowledge, to keep the university at the cutting edge in so many fields, and to better society in our own country and beyond our borders.

It is against this backdrop that I have pleasure in reporting on progress in the past year.

The Faculty of Health Sciences became the first faculty from Africa to be listed in the top 50 of the *Times Higher Education* World University Rankings of Clinical, Pre-clinical, and Health Universities, an achievement that coincided auspiciously with the Faculty of Health Sciences' centenary celebrations. Similarly, the Law Faculty was ranked in the top 100 of the Quacquarelli Symonds (QS) World University Rankings, the only African law school to have achieved this; and the Graduate School of Business was ranked by the QS *Global 200 Business Schools Report* as the top emerging global business school with the most appeal and recognition among international employers. Our performance in the ranking systems remains a measure of consistently high international standing and reputation, relative to the thousands of other universities around the world who are ranked by these systems.

Contributing to our performance in the ranking systems is our high number of publications in international journals (close to 90% of our journal production), which influences our international visibility and impact. These figures also feed into the national publication count system, as recognised by the Department of Higher Education and Training (DHET), and I am pleased to report that UCT achieved the second-highest national publication count in 2012, a total of 1 314.40 units for research publications produced in 2011 (each year's figures are always for the performance of the previous year). The national publication count gives recognition to the production of books and conference proceedings, which also increased during the past year. In addition to this, we acknowledge the importance of the creative and performing arts as vital contributors to research and knowledge production, and their impact on society as a whole. Details of our 2012 research output are provided on the CD enclosed at the back of this report.

We continue to use the National Research Foundation's (NRF) evaluation and rating system as a measure of benchmarking our research performance within South Africa. In the 2012 cycle UCT submitted the highest number of applications in the history of the NRF (118), resulting in the number of NRF-rated researchers at UCT, totalling 415. During this cycle, new A ratings were awarded to professors Don Ross and Harold Kincaid (the first ever in any commerce faculty in South Africa), Jack van Honk (Psychiatry and Mental Health) and Heribert Weigert (Physics), confirming their status as world leaders in their respective research fields. The A ratings of professors Igor Barashenkov, Doug

PROFESSOR
DANIE VISSER
Deputy Vice-Chancellor

Leading women scientists at UCT: Professor Heather Zar holds an A rating from the National Research Foundation. She is Head of the Department of Paediatrics and Child Health and Director of the School of Child and Adolescent Health. Her research focuses on priority areas in child lung health, including pneumonia, tuberculosis, HIV-associated lung disease and asthma, developing a strong clinical translational research programme.

Butterworth (both Mathematics and Applied Mathematics), John de Gruchy (Religious Studies), Gerd Gäde (Zoology), Lionel Opie (Medicine), Clifford Shearing (Criminal Justice), and Dan Stein (Psychiatry and Mental Health), and Distinguished Professor Philippe-Joseph Salazar (Rhetoric Studies), were reconfirmed under this cycle. The NRF awarded P ratings, made to exceptional young researchers, to Dr Åke Fagereng (Geological Sciences) and Dr Andrew Hamilton (Physics).

The achievements of some of our other distinguished researchers were also recognised through a number of national awards. At the 2012 annual NRF awards function, Professor Tim Noakes (Human Biology) received the Lifetime Achiever award, Professor Kelly Chibale (Chemistry) was recognised as the Champion of Research Capacity Development at Higher Education Institutions, and Professor Anusuya Chinsamy-Turan (Zoology) received the Transformation of the Science Cohort award. Professor Alison Lewis (Chemical Engineering) was named Distinguished Woman Scientist in Physical and Engineering Sciences by the Department of Science and Technology (DST), while Dr Sindiso Mnisi-Weeks (Private Law) received the DST's Emerging Researcher Award for the Development of Rural Women. Our research and innovation achievements were evident in the 2012/13 National Science and Technology Forum – BHP Billiton Awards, where honours went to Emeritus Professor Robert Millar (Medical Biochemistry), Professor Graeme Cumming (Zoology), and the Adaptive Real-Time Internet Streaming Technology (ARTIST) Collaborative Project between UCT, East Coast Access, and the Council for Scientific and Industrial Research.

Four new Research Chairs were awarded to UCT under the DST/NRF SARChI programme in 2012: Stable Isotopes in Archaeology and Palaeoenvironmental Studies, Environmental and Social Dimensions of the Bio-Economy, Reaction Engineering, and Industrial Computational Fluid Dynamics. There are now 33 such Chairs hosted by UCT.

Across-the-board support to researchers is essential if we are to maintain this track record and grow the next generation of scholars. Such support at UCT takes the form of a range of initiatives and formal programmes to enable academics to complete higher degrees, get published, access research funding, and generally develop a passion for research. The oldest of these programmes, the Emerging Researcher Programme (ERP), reached its tenth year in 2012. To date, the ERP has provided research-related support to more than 600 emerging researchers at UCT, across all disciplines.

As a university, we have set ourselves the strategic goal of moving from a research-led university to a research-intensive university. This will require careful planning and the will to succeed, in order to overcome a number of challenges in moving towards our goal.

The most important of such challenges facing UCT (and, in fact, all higher education institutions) is to secure the right amount of funding to realise our ambitions in the research arena. While we remain grateful for the funding for research from our main South African funding agency, the NRF, the reality is that such funding – for research generally, but especially for the experimental sciences – is under great pressure. Because so much of NRF funding is tied for specially directed purposes (such as funding for rated researchers, SARChI Chairs, and Centres of Excellence), calls for the funding of actual research projects have been inadequate and irregular, and UCT's research output is already being harmed – despite the fact that the university

has done its best to shore up these researchers over the last few years. Secondly, the DHET's direct spending on research in universities is only 9.1% of the total budget devoted to higher education and this is not favourable to research-led universities. Thirdly, the ongoing economic crisis in the world has had a detrimental effect on the funding of research by industry and philanthropic funders. For UCT's research to retain its current level of impact and influence (and of course we do not want to remain static but improve), we will need to right-size the funding for our research effort.

Growing our postgraduate numbers and placing UCT as an international destination of choice for higher-degree students requires sufficient and appropriately skilled supervisory capacity. The recently established office of the Director of Postgraduate Studies intends to provide concentrated leadership at a senior level to prioritise the development of every aspect of postgraduate study and the postdoctoral sphere, and to ensure the best possible experience for the maximum number of students at this level. I am pleased to announce the recent appointment of Dr Nelleke Bak to this position.

Research that uses human participants or animals is required to undergo an ethics review. I thank UCT's research ethics and animal ethics committees, overseen by two Senate-level committees, for their commitment, diligence, and excellent work. The work of these committees contributes significantly to the high ethical quality of research that emanates from UCT. In this regard, we also look forward to the appointment of a manager of the recently established Office of Research Integrity.

In 2012, we celebrated 125 years of women in research at UCT and the pages that follow later in this report draw attention to this achievement. In a continuation of the research themes profiled in our 2011 research report, we showcase the outstanding research being conducted across the university, which is increasingly taking on a multi- and interdisciplinary approach to finding solutions for problems facing our continent and the world.

In 2012, Dr Marilet Sienaert was appointed as Executive Director, Research. The leadership role played by the Research Office in supporting and enhancing the research enterprise at UCT was recognised in the change in status of the department's Director to that of Executive Director.

I am especially grateful to our donors and sponsors who generously contribute to our research endeavour, to our research partners who choose to collaborate with UCT, and to the committees, individuals, and departments across the university who contribute to raising the profile of research at the university.

1 218
Research Contracts

R682 million
Value of Research Contracts

415
NRF-rated Researchers

33
SARChI Research Chairs

1 314.40 units
Publication Count

2 500
Journals, Books, and Proceedings

25 864
Students

8 249
Postgraduate Students

1 391
Doctoral Students

282
Postdoctoral Research Fellows

4 892
International Students

2 004
International Postgraduate Students

R159 million
Postgraduate Funding

Department of

RESEARCH AND INNOVATION

Previously consisting of three separate but complementary offices – the Research Office, Research Contracts and Intellectual Property Services (RCIPS), and the Postgraduate Centre and Funding Office (PGC&FO) – the Department of Research and Innovation was re-organised in 2012, and now comprises the Research Office and the PGC&FO under one umbrella, and RCIPS. As part of the consolidation of activities supporting the postgraduate and postdoctoral sectors at UCT, we look forward to the appointment of Dr Nelleke Bak as the Director for Postgraduate Studies in 2013.

These interventions herald an important era in the history of the institution, signalling the university's commitment to establishing UCT as a world-class higher-education institution.

Each of the offices that make up the department plays a key role in supporting UCT's research performance, from maximising access to bursaries, scholarships and grants to developing capacity and increasing research impact, as well as assisting researchers to enter into complex research contracts.

Research Office

The Research Office aims to further UCT's vision of becoming a research-intensive university with a global reach. Through engagement with relevant parties, it operates as a pivot between academics and the external research environment, and helps to align research interest and expertise with institutional priorities, as well as national and international imperatives.

The scope of activities includes expanding access to external funding opportunities and grants, developing and supporting proposals, administering a suite of internal grants through a proposal-driven, committee-managed process, accrediting and evaluating the university's research groupings, tracking UCT's research output and impact, managing researcher development programmes, fostering a culture of inter- and transdisciplinary research, forging new and strategic partnerships, and implementing the strategic projects of the University Research Committee. The office is currently organised into four units, with a fifth node envisaged for 2013, when the Office of Research Integrity will be established, which will work collaboratively with researchers and the relevant Senate ethics committees to promote responsible conduct of research, and further enhance the service-oriented ethos of the office.

DR MARILET SIENAERT
Executive Director: Research

Key to research success is the funding with which to undertake research. In a national funding landscape with rapidly diminishing resources, the Research Office invested in a database of funding opportunities that provides access to all funding opportunities for which researchers on the African continent are eligible. Research Professional Africa

is a customisable database that provides researchers with access to information about funding opportunities specific to their own research areas. When the database was rolled out to the UCT community during 2012, subscriptions peaked at 550 by year end, with more than 3 000 international funding opportunities being made available to researchers. Furthermore, the Research Office provided substantive technical support to researchers applying for funding from the United States' National Institutes of Health (NIH), which resulted in 20 such proposals being developed in 2012 with UCT as the applicant institution. On the national front, the Research Office actively provided assistance with 400 applications for funding and rating from the NRF.

In addition to supporting access to grants, another key priority is to help develop researcher capacity. The Research Office runs pioneering programmes to assist academics in furthering their profiles, in which all faculties participate.

The Emerging Researcher Programme (ERP) reached its tenth year in 2012 and continues to provide support that ranges from counselling by a programme co-ordinator to more structured mentorship sessions, as well as workshops and seminars. It awards modest grants through a developmental process of proposal writing and its impact is reflected in the rapid growth from 44 participants in its founding year to 548 by the end of 2012. Fifty-six joined in 2012 alone.

Through the Programme for the Enhancement of Research Capacity (PERC), the Research Office works with faculties, departments, and individuals to offer support to the more established researcher. Activities to support this sector of the research community include preparing staff to apply for NRF rating and/or re-evaluation, promoting inter- and transdisciplinary research, providing financial and intellectual support for Africa-based research and the production of Africa-centred knowledge.

The work of PERC and ERP is further complemented by Supervision Training and the Mellon Visiting and Retired Scholars Mentorship Project. The latter aims at giving further individualised support to young academics through structured mentoring organised within selected host departments that apply for such support through a competitive process. (*Also see feature on research development initiatives at UCT, on pages 22–25*).

The support provided by the Research Office is delivered within the framework of the university's mission and also its research strategy. In collaboration with the International Academic Programmes Office, the office strives to realise UCT's Afropolitan vision of playing a consistent and visible role on the continent that is in line with the university's position as one of Africa's leading universities. Already a recipient of the NIH's International Extramural Associate Research Development Award (IEARDA), the office was awarded a supplementary grant that enabled collaboration with other IEARDA grantees to transfer their skills to research managers and administrators on the African continent. In conjunction with the University of Zambia, Moi University in Kenya and Mbarara University of Science and Technology in Uganda, workshops were conducted in Lusaka and Cape Town in 2012. The latter workshop, hosted by the Research Office, was attended by 38 delegates from 25 institutions in sub-Saharan Africa.

UCT's relationship with international organisations plays an equally important role in fostering our engagement with the international research community. Such relationship-building is supported by the Research Office and happens in a variety of ways, including participation in formally structured bodies, such as the Worldwide Universities Network, as well as through formal agreements with strategically selected international partners where there is already evidence of strong and productive collaboration in a selected area. In 2012, special focus was given to partnerships with the International Centre for Education, Marine and Atmospheric Sciences over Africa, a joint initiative between several laboratories in South Africa and France, and the establishment of a consortium focused on social science research and PhD/researcher training with the London School of Economics and the universities of Ghana, Dar es Salaam, Ibadan, Makerere, and Nairobi.

Key to the success of each of the support structures is effective communication and the appropriate organisation and storage of knowledge. Information linking each of the above, coupled with an effective grants-management system, will soon be incorporated into an online Research Portal being developed in partnership with UCT's Information and Communication Technology Services. There is also a concerted shift towards open-access platforms, with policies and structures currently under development to maximise open scholarship in the realm of research.

Over the last year in particular, and thanks to a very efficient and hardworking team, the Research Office has expanded its partnership with the research community. We salute our researchers and look forward to an excellent year of productivity ahead as we consolidate and build on these foundations.

Research Contracts and Intellectual Property Services Office

One of the fruits of the university's research activities is the stream of ideas and inventions with commercial and social potential. This year's Innovation Evening and the associated *Innovation* brochure again left me amazed and proud – every year we have so much to celebrate and are continually blessed with new rising stars. For example, the 36 new disclosures in 2012 included 14 brand-new UCT inventors. Similarly, 19 new UCT patent holders were among the recipients of the 26 patents granted in 2012.

2012 also saw UCT taking equity in the printed silicon electronics spin-out, PST Sensors (Pty) Ltd, and in the process assigning 13 patent families (with 19 patents being granted in that portfolio in 2012) to the company. Another spin-out, Southern Access Technologies, now re-named Strait Access Technologies Holdings (Pty) Ltd & Strait Access Technologies (Pty) Ltd, received extensive support and investment from the Technology Innovation Agency (TIA) and Bidvest Ltd. In addition, CapeRay Medical (Pty) Ltd raised a second round of funding through the IDC Venture Capital Fund.

Tuluntulu (Pty) Ltd was the only spin-out company formed in 2012 based on UCT technology, following three in 2011. But a number are waiting in the wings and much time has been spent on planning for the formation of several other companies that are likely to be launched during the course of 2013. Tuluntulu (Pty) Ltd was formed to commercialise intellectual property (IP) developed by a TIA-funded consortium led by the CSIR, to which UCT had contributed IP. The technology, Adaptive Real-Time Internet Streaming Technology (ARTIST) uses algorithms to adjust quality to available bandwidth to ensure viewing continuity. The success of this technology solution was recognised through an award from the NSTF-BHP Billiton for Outstanding Contribution to Science, Engineering, Technology, and Innovation through Research Leading to Innovation in a Corporate Organisation or Institution.

Probably one of UCT's most successful social responsiveness projects, the Red Cross Children's Hospital Poison Information Centre, has launched its re-developed 30-year-old poisons information system on an Internet-enabled platform with mobile device accessibility. The database, already in use at more than 30 centres throughout South Africa, as well as Botswana, Zimbabwe, Mozambique, Kenya, and Nigeria, will, through this new platform, 'Afritox', become accessible to the broader medical-practitioner community.

PIET BARNARD
Director: Research Contracts and Intellectual Property Services Office

Research contracts to the value of R682 million were processed, which is slightly down from the R722 million of 2011. This should, however, be seen in the context of the dramatic increases that were experienced over the last few years – from R337 million in 2006, to R550 million in 2010, and the exceptionally high R722 million in 2011.

RCIPS's activities have been greatly enhanced following funding support by the National Intellectual Property Management Office (NIPMO). We were able to appoint new staff

as well as external experts to review 'innovation hotspots' within UCT and develop appropriate strategies. We thank NIPMO for this support.

Many new initiatives are on the cards for 2013, but I will mention just two. 'IP Savvy' will allow our researchers to improve their intellectual property knowledge through online modular presentations and, on successful completion of a quiz, researchers are awarded a certificate certifying them as 'IP Savvy'.

We are also going to introduce the *Café Scientifique* concept to Cape Town. These events, sometimes dubbed as 'science for the sociable', bring people together in a friendly, informal 'pub' atmosphere in an after-work, happy-hour context to discuss and explore the latest ideas in science and technology in laypersons' terms. In essence, it will start with an informal talk on a key UCT invention given by the inventors themselves, who will highlight key aspects of their research and the resulting commercial opportunities, followed by question and answer exchanges, debate and general discussion around the technology – an opportunity for everyone to express an opinion, expert or otherwise.

Always exciting, always lekker! Imnandi!

Unbundling connectivity problems

Research indicates that globally, online video usage has exploded. But this is not the case in Africa, as it simply does not work.

Associate Professor Mqhele Dlodlo and Emeritus Professor Gerhard de Jager.

A South African consortium has developed and introduced a world-first technology for the African market, facilitating video streaming to mobile devices.

The consortium, funded by the Technology Innovation Agency, and consisting of the Council for Scientific and Industrial Research (CSIR), UCT, and East Coast Access, developed the technology known as ARTIST (Adaptive Real-Time Internet Streaming Technology) that allows streaming video to be viewed on mobile devices, in low bandwidth or congested environments.

The technology was commercialised and a new company called Tuluntulu (meaning 'stream' in Zulu) launched.

ARTIST utilises patented technology to deliver unbroken live video streams with fully integrated social media interactivity. Users can use existing devices – Android smart phones and/or tablets – and existing mobile phone networks. The technology works on 3G and EDGE (low bandwidth), which is the dominant system used in rural areas in South Africa, Africa and other developing countries.

The technology can be used extensively in commerce, but also has specific application in health and education, particularly for rural areas. The intention is to launch into South Africa, into Africa and then target the Asian market, before making the offering global.

The work of the consortium, which includes UCT's professors Mqhele Dlodlo and Gerhard de Jager, was acknowledged through an innovation award at the 2012/13 NSTF-BHP Billiton Awards.

Postgraduate Centre and Funding Office

The Postgraduate Centre and Funding Office is a service-provision area accountable to the university's Postgraduate Studies Funding Committee, which in turn, reports to the Board for Graduate Studies, both of which are in the academic cluster of committees and accountable to Senate.

Increasing the absolute numbers of both local and international postgraduate students, and improving retention rates, are two of UCT's primary goals. Important for the success of these goals and objectives is a strong cohort of postgraduate students. In order to ensure that the professional sector of the country and continent is adequately provided for through the emergence of excellent graduates, broad-based support for these sectors is an imperative.

Similarly, support to postdoctoral researchers is crucial, as these academics-in-training constitute a very valuable link in the research production chain and relieve the dwindling numbers of academic staff and researchers in South Africa and on the continent of Africa. The numbers of postdoctoral researchers that register for up to five years at UCT have increased steadily since 2002, and the university hopes to further increase these numbers in the next five years.

Support structures and resource mechanisms that add quality to the lives and experience of these individuals have been established, and are constantly being monitored, reviewed, and extended. The office's work supports the university to achieve targeted recruitment and, through its policies and practices, encourages students to complete their degrees and to graduate in the minimum time-frame.

The appointment of the Director of Postgraduate Studies in 2013 will allow an increased focus on the consolidation and extension of such support structures.

Several strategic partnerships to support the postgraduate sector were continued and new ones were established in 2012. These include the UCT/CSIR Scholarship programme, the UCT/SKA Doctoral Scholarships, and master's bursaries from the African Institute for Mathematical Sciences. The UCT PhD staff bursaries as well as opportunities provided through the Worldwide Universities Network initiative will become operational in 2013. These awards target students in specific areas of study and are sponsored by the university and external partners.

Trusts, foundations, and individuals provide significant contributions to the support and development of postdoctoral research fellows and senior students at UCT. The sponsors of such programmes provide the university with opportunities to attract the country's best postdoctoral researchers and students, and enable them to pursue their research and studies with minimal financial stress. Postdoctoral research fellows are strongly supported by individual departmental fellowships, the National Research Foundation, and through generous sponsorship by the Claude Leon Foundation.

LINDA VRANAS
Director: Postgraduate Centre and Funding Office

The UCT Research Associateships were established to provide prestigious awards to reward the research excellence of master's and doctoral students, as well as to acknowledge the work of their supervisor(s). In 2012, 20 master's and doctoral awards were made.
Front row (from left): *Taryn van Niekerk, Natassja Koen, Monique Huyseman, Fatema Esmail, Elsa Bussiere, Guy Regnard, Mario de Andrade, Alexis Bick, Gerard Leteba, Anne Nzioke.* Middle row (from left): *Jonathan Strug, DVC Professor Danie Visser, Thokozani Mhlambi, Prinessa Chellan, Kyle Blumberg, Mundia Kabinga, John Fay.* Back row (from left): *Nicholas Tam, James Brown.* Absent from picture: *Suzaan Marais, Flora Mpazanje, Olivier Olela Otafudu*

The university's flagship postgraduate scholarship programmes include the AW Mellon Cross-faculty Scholarships, the Harry Crossley Research Fellowships, the UCT/Harry Crossley Green Matter Scholarship, the D & E Potter Fellowship programme, the Carnegie Corporation's *Developing the Next Generation of Academics* programme, the UCT/CSIR scholarships, and the Woolworths Fellowships. These programmes provided full-cost funding to carefully selected students, most of whom are required, as a condition of award, to plan and hold ex-departmental seminars based on their research.

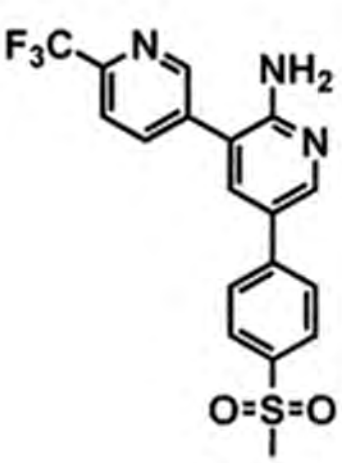
International and refugee students received around 30% of all funding administered by the office in 2012. Included are the Faculty International Students' Bursaries established to provide funds to international students to cover the International Term Fee, the UCT Scholarships for International and Refugee Students, and funds provided to international and refugee students for mobility. The generous grant from the Sigrid Rausing Trust, which provided scholarships for refugee students, and for which we remain very grateful, came to an end in 2012.

The UCT Postgraduate Centre

The Postgraduate Centre is a dedicated space for master's and doctoral students, as well as postdoctoral research fellows, in which they can meet, and use the computer and Internet stations provided. A lounge area provides space for users to read a variety of journals, magazines, and newspapers, and the adjacent TB Davie Seminar Room provides a space to hold seminars. Through its activities and available facilities, the Postgraduate Centre aims to promote the interests of postgraduate students and postdoctoral research fellows in synergy with faculty and departmental facilities and services.

Africa leads in the
Fight Against Malaria

Every year, malaria kills between 600 000 and a million people. Of those affected, more than 90% are from sub-Saharan Africa and 86% are below the age of five. The malaria parasite is beginning to display signs of drug resistance, and thus there is an urgent need to develop new drugs to treat the disease effectively. South Africa records 7 000 cases of malaria per year, and 79% of those are imported.



In a landmark development, a compound discovered in 2012 by UCT's Drug Discovery and Development Centre (H3-D), directed by founder Professor Kelly Chibale, in conjunction with the Medicines for Malaria Venture (MMV), the Eskitis Institute at Griffiths University (Australia), the Swiss Tropical and Public Health Institute (Switzerland), Monash University (Australia), and Syngene (India), has been selected by MMV for its potent activity against multiple points in the malaria parasite's lifecycle. The compound, named MMV390048, from the aminopyridine class, not only has the potential to become part of a single-dose cure for all strains of malaria, but might also be able to block transmission of the parasite from person to person.

The compound was selected on the basis of initial results by the Swiss-based MMV for further development – making it the first compound researched on African soil to enter preclinical development in partnership with MMV.

"This is a significant victory in the battle to alleviate the burden of disease in the subcontinent," declared Naledi Pandor, Minister of Science and Technology, when the discovery was announced at UCT in August 2012. "Clearly the war on this disease is not yet won, but I am excited by the role that our excellent scientists have played in this milestone in finding a potential cure for malaria, and possibly preventing its transmission."

Professor Kelly Chibale and his team (Dr Diego Gonzalez Cabrera, Dr Tanya Paquet, Dr Ze Han, Dr Aloysius Nchinda, and Dr Leslie Street) share a moment in the laboratory where they are blazing a trail in the fight against malaria.

UCT Vice-Chancellor Dr Max Price added: "H3-D was founded at UCT in 2010 for this very purpose: to develop African expertise towards solving the health problems that beset the developing world. We trust this clinical candidate is the first of many contributions Professor Chibale and his team will be making to the advancement of international medicine."

The aminopyridine series was initially identified by Griffith University scientists in Australia as part of MMV's extensive malaria-screening campaign of around 6 million compounds. A team of scientists from H3-D, led by Professor Chibale, further scrutinised and explored the antimalarial potential of the series. With parasitological, pharmacological, and contract chemistry support from the Swiss Tropical and Public Health Institute (Switzerland), the Centre for Drug Candidate Optimisation at Monash University (Australia), and Syngene (India) respectively, the H3-D team selected the most promising compounds from the series to be optimised and retested. In just 18 months the team had identified and developed a candidate suitable for preclinical development.

Dr Tim Wells, MMV's Chief Scientific Officer, reiterated that the discovery is a great achievement and an excellent example of the quality of research that can be fostered in Africa. "We look forward to seeing more exciting compounds emerge from Kelly's team and are proud to be collaborating with H3-D; not only is it conducting excellent science today, it is also providing world-class training for the next generation of African scientists."

The clinical candidate is in line to enter clinical trials in early 2014.

What is so unique and exciting about MMV390048?

- It is very potent: it displayed a complete cure of animals infected with malaria parasites in a single dose given orally, and thus has the potential to cure millions of people.
- It is active against a wide panel of resistant strains of the malaria parasite.
- Developing the drug has made possible the training of more than 10 local scientists and cemented strong relationships with international partners.

Research Development initiatives

A flagship research development and support initiative, UCT's Emerging Researcher Programme (ERP), reached its tenth year in 2012. Whereas most higher-education institutions are faced with the challenge of an ageing cohort of established researchers nearing or entering retirement, the ERP and other targeted research support interventions at UCT are proving to be successful in growing and nurturing the next generation of academics. Other interventions include the Programme for the Enhancement of Research Capacity, the Mellon Visiting and Retired Scholars Mentorship Project, and the Next Generation of Academics project.

The Emerging Researcher Programme

A cross-faculty programme located in UCT's Research Office, the ERP strives to ensure the transfer of essential research skills from experienced researchers to those academics who have yet to establish a research career. With almost a decade of experience, the ERP offers support across all scientific disciplines.

The success of this programme is evidenced by its growth: in its founding year, the programme had 45 participants; by the end of 2012, this number had increased more than tenfold, with a total of 548 academics having received some form of support from the ERP since its inception. Participation in the programme remains voluntary, and many members who have 'emerged' choose to retain links with the ERP and to receive an evolving form of support.

During 2012, the ERP offered 41 seminars and 25 workshops across all disciplines. Topics ranged from research planning and understanding the H-index and impact factors, to planning for a successful sabbatical and open-access publishing.

The ERP offers modest grants for research development purposes. The entire grants process is used as a capacity-building exercise, from assistance in developing the proposal and submitting the application, through to the production of appropriate outputs that correspond to goals identified in the proposal itself. In this way, the ERP aims to equip researchers with the skills required to compete successfully for external grants. In 2012, 82 research development grants in excess of R2.6 million were awarded. This is made possible through funding provided by the University Research Committee, the Carnegie Corporation, the Mellon Foundation, and the Education, Training and Development Practitioners' Sector Education and Training Authority.

One of the most important tasks of the ERP is to develop excellent supervisors of postgraduate research. Through the supervision training programme, novice researchers are guided through the strategic, relational, and procedural issues associated with master's and PhD supervision. The programme is open to all academic staff, whether they are supervising postgraduate students for the first time or seasoned academics who wish to update and strengthen their supervision skills.

Programme for the Enhancement of Research Capacity

The Programme for the Enhancement of Research Capacity (PERC), established in 2008, provides a framework for supporting both mid-career and established researchers. It also has a key objective of strengthening collaborative research networks with partners in the global South and particularly in Africa. It does this through a range of initiatives that encourage collaborative, cross-disciplinary research that links UCT staff to research colleagues elsewhere in Africa.

In 2012, a total of 221 academics attended one or more of the ten PERC seminars, two which were specifically geared towards mid-career support. Seminars were offered by UCT and visiting international staff, including Professor Debbie Epstein (Cardiff University) and Professor Jane Kenway (Monash University).

A large part of PERC support is directed at preparing staff to apply for an NRF rating, though support is also given for career planning, promotion goals, and publication strategies.

One of the highlights of 2012 was the visit by Professor Paulin Hountondji from the National University of Benin, who became the second annual PERC visitor. He is one of Africa's best known philosophers and Emeritus Professor and Honorary Dean of the Faculty of Humanities at the National University of Benin. Professor Hountondji presented a series of seminars and a Vice-Chancellor's

Open Lecture titled *Heritage and Progress: a Dilemma of Contemporary African Culture*.

In an effort to stimulate dialogue on interdisciplinary research at UCT, PERC hosted a series of workshops and seminars in 2012, led by a number of eminent researchers, including prominent scholar and UCT graduate Professor Frank Kessel of the College of Education at the University of New Mexico. Professor Kessel strongly supports the creation of innovative inter- and transdisciplinary approaches to research, which is also being encouraged by many global academic and funding agencies, as a way of addressing urgent social problems such as poverty, health inequities, violence, and sustainable development.

Research grants awarded through PERC are seen as developmental and applicants are supported to construct their research proposals, as well as to undertake the research. In 2012, funding from the AW Mellon Foundation enabled the awarding of three grants valued at R165,000 each, bringing the total number of current PERC projects to 10 across four faculties. One measure of the success of the PERC-funded projects is the extent to which these projects establish research ties with partners in Africa. To date, ties have been forged with researchers in Botswana, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.

The Mellon Visiting and Retired Scholars Mentorship Project

The donor-funded Mellon Visiting and Retired Scholars Mentorship Project is intended to establish a one-on-one mentorship relationship between developing researchers and a visiting or retired scholar within a mentee's specific discipline. This project dovetails with the ERP and PERC to build and strengthen a new generation of researchers. Visiting or retired scholars commit up to one year of their time to the mentee. The AW Mellon Foundation has extended its support until the end of 2014.

Since its inception, 37 mentors have participated in the project, the majority of whom are from outside South Africa: the United States of America, United Kingdom, the Netherlands, Israel, Germany, Canada, Nigeria, and Australia. Approximately 170 researchers have benefited from mentoring interventions, which have resulted in a wide range of outputs, such as peer-reviewed articles, book chapters, conference papers, grant applications, and doctoral graduands. In 2012, 35 mentees participated in the seven active mentorships.

Next Generation of Academics Project

Research support extends to ensuring that South Africa and the rest of Africa can count on a vibrant academic profession in the future. Funded by the Carnegie Corporation, the *Next Generation of Academics in Africa* project aims to develop a cohort of trainee academics in the fields of infectious diseases, civil engineering and economics to create a competitive pool of young scholars who can be recruited into academic careers in Africa. The initial two-year grant (2011–2012) has been extended by a renewal grant for a further three years (2013–2015). The fields were selected on the basis of their importance in relation to national and continental priorities, the inherent difficulty of attracting students to academia in these fields, rather than the lucrative public or private sector, supervisory capacity, and a suitable pool of candidates who meet the Carnegie dual criteria of a commitment to staying in academia and coming from previously disadvantaged population groups, including women.

The aim is to complete the training of 76 doctoral students and 16 postdoctoral fellows by 2015 in the context of innovative supervisory hubs that consist of a mixture of doctoral students, postdoctoral fellows, mentors, and supervisors. The hub models vary across the relevant disciplines, but common denominators include a team-based approach, mentorship differentiated from supervision, a teaching component, workshops, feedback seminars, and support groups.

The project has a reference group consisting of the universities of Ghana, Makerere, the Witwatersrand, and UCT. Meetings of the reference group took place in Nairobi (2011) and Kampala (2012) to share good practice and the lessons learned in the training and development of a next generation of African scholars. The third such meeting will be hosted by UCT in 2013.

Thanks to extensive quantitative and qualitative data that are being gathered from the project, the lessons learned are being documented and will be analysed to contribute to new ways of thinking about PhD training in the future, institutionally, but also nationally and on the continent.

Faridah Chebet

Growing the Next Generation

Faridah Chebet joined the University of Cape Town in 2011 as a PhD scholar under the Carnegie-funded *Next Generation of Academics in Africa* programme (described further on page 24). In 2012, she was appointed as a full-time lecturer in the Department of Civil Engineering at UCT, and continues to pursue her studies on a part-time basis. She is undertaking her doctoral research within the Geotechnical Research Group, whose main emphasis is seeking innovative and environmentally sustainable solutions to challenges of ground improvement involving soil as an engineering material.

In the midst of increasing human population and the resulting need to develop more civil engineering infrastructure to serve the growing population, geotechnical engineers in developing countries, faced with limited financial resources, continue to search for cost-effective and sustainable ways of improving the engineering properties of construction soils. Presently, polymer-based geosynthetics and geofibres are widely used in the construction industry as reinforcement materials. The Geotechnical Research Group in the Department of Civil Engineering, under the supervision of Dr Denis Kalumba, is undertaking extensive research on reusing waste material, such as tyre waste, carpet waste, and plastic bag waste as reinforcement inclusions in soil to establish viability for use in ground improvement schemes. These materials are abundant, but are by and large destined for disposal or incineration and yet their unique properties can once again be beneficial in a sustainable materials stream. Investigation into the reinforcing properties of these materials is being carried out mainly through soil laboratory testing and numerical analyses.

As a member of the Geotechnical Research Group, Faridah's main areas of interest are geotechnical engineering ground-improvement, soil reinforcement, and geo-environmental sustainability. Her doctoral thesis focus is on the improvement of engineering properties of soils by means of reinforcement, using alternative materials such as plastic waste. Soil material is extensively used to build geotechnical structures such as highway embankments, road sub-grades, earth dams, foundations, embankments for flood protection, and slope stabilisation.

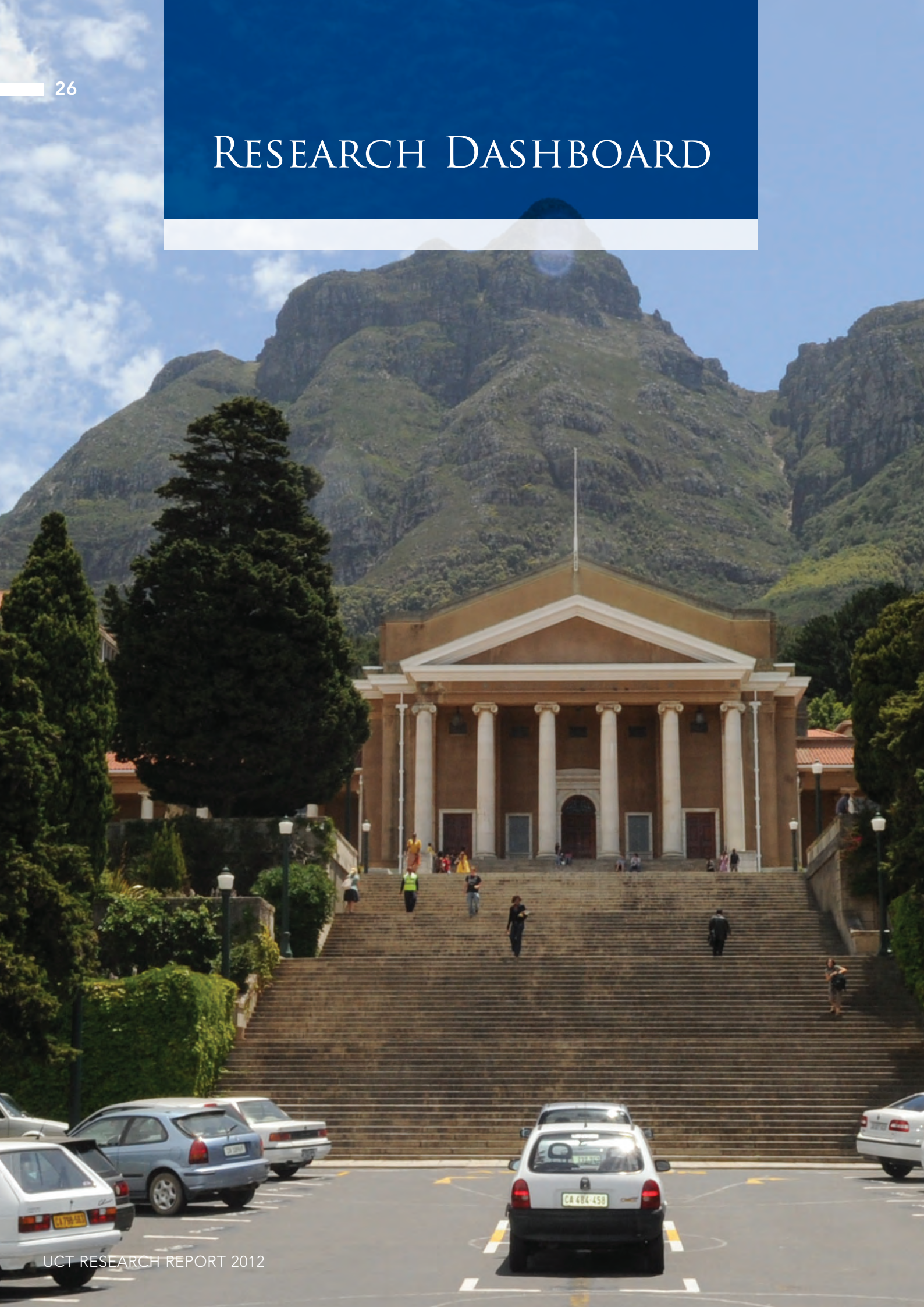
Due to expansion of cities, marginal sites that were previously disregarded due to poor engineering soils have become prime land for construction and this has created the need for modification or improvement of soils on these sites. Soils with poor strength properties can generally be made into viable construction material when properly reinforced and therefore ground improvement is increasingly considered for many infrastructure projects. To date, a paper on the research findings was submitted and presented at the International Conference on Ground Improvement and Ground Control in Australia in 2012. A second paper has been selected for presentation at the International Conference on Soil Mechanics and Geotechnical Engineering in Paris, France.

Faridah believes that the structured training within the Carnegie Programme has been invaluable in preparing her for the roles and responsibilities of being an academic and finding the balance between research and teaching. As a Carnegie Fellow, she was exposed to the day-to-day academic duties, taking on a substantial teaching load and undergoing systematic mentorship on how to facilitate student learning and respond to student needs. She describes her experience under the Carnegie Fellowship as "a journey of personal growth and continual self-discovery".

Originally from Kapchorwa, a district on the slopes of Mt Elgon in Uganda, Faridah attended Makerere University, where she completed her undergraduate studies in Civil Engineering. She went on to obtain a master's degree in Geotechnical Engineering at the University of Manchester, and then joined UCT to pursue a PhD in Geotechnical Engineering.

Faridah's appointment in 2012 as a full-time academic in the Department of Civil Engineering was a defining moment for her, which she describes as a "coming of age".

Research Dashboard



Research Funding

UCT's vision for the development of research recognises the importance of focusing our efforts and resources in selected areas, in order to take the quality and impact of our research to the next level. The DST/NRF Centres of Excellence and Competence Centres, the South African Research Chairs Initiative, and UCT's Signature Themes for research and university-accredited research groupings provide frameworks to achieve this goal. Our research is made possible through generous donations, scholarships and fellowships, and through research contracts and grants from national and international funding agencies.

Funding through research contracts

Research contracts to the value of R682 million were processed in 2012. These contracts vary from short-term contracts to multiyear contracts with multi-million-rand budgets, involving both local and international funders. In 2012, 1 218 contracts were signed.

Research contracts to the value of R90.26 million were entered into with South African government departments, public enterprises and statutory bodies in 2012. South African science councils, national research centres and non-profit entities accounted for R48.5 million, of signed contracts, whereas contracts with South African industry were valued at R111.4 million. Major South African industry partners include the Eskom Group, Anglo Group, Old Mutual, Rustenburg Platinum Mines, and the Sasol Group.

At an international level, 572 contracts to the value of R431 million were entered into with entities from 48 countries. The major source of foreign funding is the USA (R211.8 million), followed by the United Kingdom (R82.6 million), Canada (R35.6 million), Belgium (R23.5 million), and the Netherlands (R22.5 million).

The most prominent funder of research in 2012 was the National Institutes of Health, and contracts to the value of R73.3 million were, directly or indirectly (through collaboration with USA universities), entered into. Contributions through the Bill and Melinda Gates Foundation amounted to R40.7 million and the Aeras Global TB Vaccine Foundation contributed R37.4 million.

The Medical Research Council, with contracts to the value of R28.8 million, was the major United Kingdom contributor, followed by the Wellcome Trust (R24.5 million). Contracts to the value of R21.6 million and R19 million were respectively entered into with the European Commission and the European and Developing Countries Clinical Trials Partnership, which operates from the Netherlands. Canada's main contributor was the International Development Research Centre, with contracts to the value of R17.4 million.

National agency funding through research grants

The **National Research Foundation** (NRF) remains a significant funder of research at UCT. In 2012, the total grants awarded from the NRF declined to R208 million, with 766 grants at an average grant size of R271,540, compared to R224 million in 2011, with 848 grants, at an average grant size of R264,150. These amounts include carried forward grant awards from 2011 as well as the actual grant awards for 2012. The decline in 2012 can be attributed to many factors, including budget constraints and policy changes in the NRF's funding landscape and priorities. **Figure 1** shows the percentage of NRF grant awards to UCT in 2011 and 2012 by funding purpose.

Established researchers

The majority (55%) of the NRF funding support to UCT in 2012 was allocated to supporting established researchers across all knowledge areas and disciplines, through the Competitive Programmes for Rated and Unrated researchers (R19.3 million), Incentive Funding for Rated Researchers (R18.9 million), and the South African Research Chairs Initiative (R76.4 million for the DST/NRF Chairs).

National and strategic priorities

Fifteen percent (R30.7 million) of NRF funds awarded to UCT in 2012 was to support research on national and strategic priorities. The bulk of this funding is ring-fenced by the Department of Science and Technology to support their Research and Development Strategy and

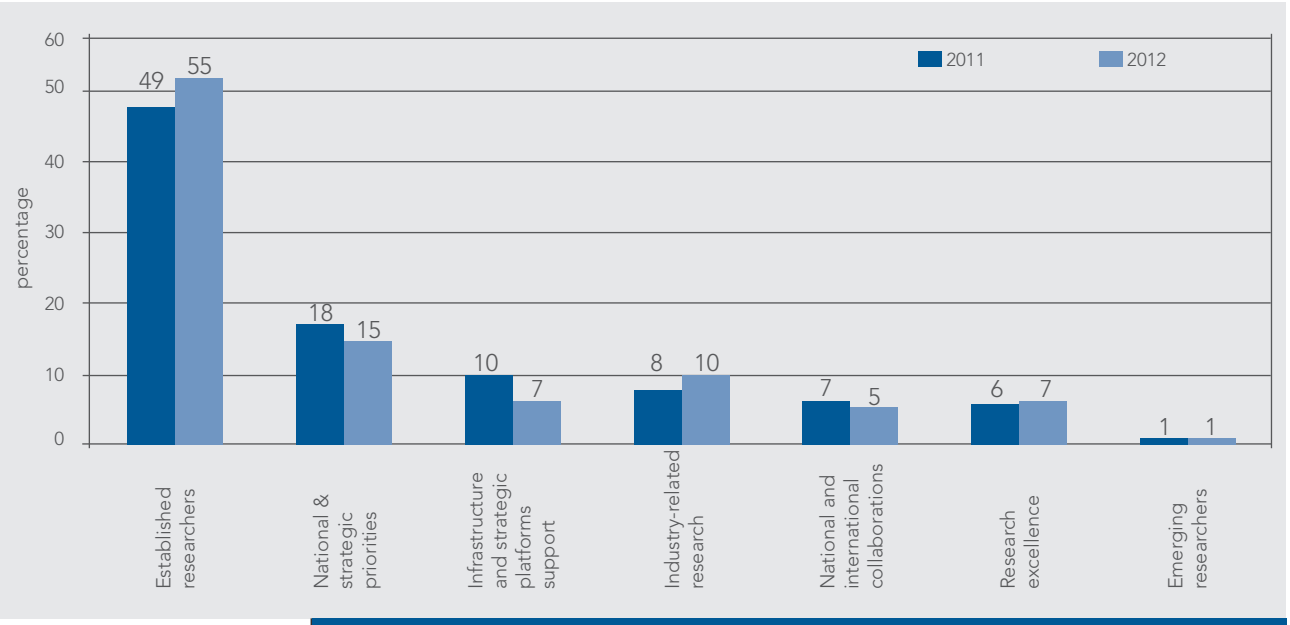


Figure 1: Percentage of NRF grant awards to UCT in 2011 and 2012 by their primary funding purpose

their Ten Year Innovation Plan. Areas of support include space science and astronomy, global change, human and social dynamics, marine research, indigenous knowledge systems, and community engagement. This investment area includes support for the Blue Skies Programme, through which R704 911 was allocated to UCT researchers in 2012.

Infrastructure and strategic platforms support

Seven percent (R14.9 million) of NRF funding in 2012 was allocated to the acquisition of state-of-the-art infrastructure and skills development to support the roll-out of national infrastructural programmes.

Applied research relevant to industry

The Technology and Human Resources for Industry Programme (THRIP) is a programme of the Department of Trade and Industry, managed by the NRF. THRIP promotes partnerships in pre-commercial research between business and publicly funded research institutions. The design of the programme is to leverage collaborative partnerships on a cost-sharing basis for research in science, engineering, and technology in order to provide technology solutions for industry, and in the process produce a flow of targeted, highly skilled, human capital for industry.

Direct funding from THRIP (i.e. excluding the industry portion) increased to R20 286 684 in 2012 (10% of total funding), from R17 827 833 in 2011 (8% of total funding). The average grant size in 2012 was R563 519.

Research excellence

UCT was awarded R13 210 177 in 2012 for the two DST/NRF Centres of Excellence, c*change (*see page 172*) and Birds as Keys to Biodiversity Conservation (*page 108*). UCT also co-hosts a node of the DST/NRF Centre of Excellence for Biomedical TB Research (*page 61*).

National and international collaborations

Five percent of UCT's funding from the NRF in 2012 was allocated to support collaborations mainly through the South African Science and Technology Bilateral Agreements and the Knowledge Interchange Programme. Mainly due to a timing difference, there was a decrease in total funding from R16 617 629 in 2011 to R10 247 305 in 2012 (with an average grant size of R119 698), with many bilateral funding calls being issued late in 2012 and the outcomes communicated in 2013.

Emerging researchers

The Thuthuka Programme aims to develop human capital for research and innovation. In 2011, the NRF launched a new Thuthuka Programme that was implemented for 2012 funding and that consisted of three funding tracks, namely the PhD track, post-PhD track, and the NRF-rating track. The NRF also set support targets for this programme in terms of black and female researchers.

These changes, together with limited NRF funding, resulted in UCT being unable to grow its Thuthuka budget in 2012, this remaining at approximately

R3 million. UCT's Emerging Researcher Programme (*see page 23*) will continue to play a complementary role in supporting this target group.

UCT is also a beneficiary of funding from the South African **Medical Research Council**, which awards research grants for individual projects, research-unit funding, and career-development and training awards. In 2012, awards valued at R15 783 326 were made for new projects and fellowships, in addition to renewal grants, and the funding for scholarships and bursaries reported on page 30.

Postgraduate Students and Funding

Increasing the absolute numbers of both local and international postgraduate students, and improving retention rates, are two of UCT's primary goals. In order to ensure that the professional sector of the country and continent is adequately provided for through the emergence of excellent graduates, broad-based support for these sectors is an imperative.

The creation of the post of Director, Postgraduate Studies, and the mandate to connect and communicate between the different structures and resource mechanisms that support postgraduate students have given new impetus to improving the UCT experience of this sector of the research community.

In 2012, 4 739 awards were administered to 2 464 honours, master's and doctoral students at UCT, to a total value of R159 455 046.

Sources of funding

- **UCT departmental awards** accounted for 32.5% of all funding administered in 2012, and included more than 30 new departmental scholarships and fellowships. These awards are intended to support continuing and new students or doctoral graduates with specific skills and research interests.

- **The National Research Foundation** continues to be a major funder of postgraduate students. In 2012, 904 bursaries and scholarships were awarded to honours, master's and doctoral students, to a total value of R46 395 844.

- **The Medical Research Council** provides support for master's and doctoral students who are studying in areas of the health sciences. In 2012, 12 bursaries and scholarships were awarded to postgraduate students, to a total value of R760 000.

- **The UCT Research Associateships** provide prestigious awards to recognise the research excellence of master's and doctoral students across all disciplines, as well as to acknowledge the work of their supervisor(s). In 2012, 20 master's and doctoral awards were made, valued at R840 000.

- In 2012, 25 master's and 45 doctoral students were awarded **UCT Conference Travel Grants**, valued at R178 397 and R627 221 respectively, which enabled them to present papers locally and internationally. **Table 4** lists the areas of study represented and the travel destinations visited during 2012.

- **UCT Scholarships for International Travel** enable master's and doctoral students to undertake research visits to internationally recognised institutions for a minimum of two and a maximum of 10 months. In 2012, awards were made to 32 master's and doctoral students for international travel, valued at R1 274 515.

- Through the **National Student Financial Aid Scheme** offered by the national Department of Higher Education and Training, 31 honours students and 12 master's students were awarded loans to the value of R1 157 819 and R366 168 respectively.

- In 2012, 12 students received scholarships valued at R1 083 486 through the **UCT/CSIR Scholarship Programme**. The awards are funded equally by UCT and the CSIR and provide high-value scholarships to honours, master's, and doctoral students whose areas of study fall within the CSIR's priorities.

- Four postgraduate students were funded through the **Commonwealth Scholarship Programme** in 2012 in the following areas of study: management science or philosophy (master's), economics for development (master's), intellectual history (master's), and environmental engineering (doctoral).

- The generous **David and Elaine Potter Fellowships** provide full-cost support to excellent master's and doctoral students who intend to contribute to civil society in South Africa by leveraging their educational advantage in any discipline. Since its inception in

2004, more than 75 students have been supported. In 2012, 19 awards were made (including continuing students) valued at R2 010 310. Areas of study ranged across disciplines, from applied mathematics, chemistry and historical studies, to philosophy and social anthropology.

- The **Harry Crossley Research Fellowships** are full-cost and are available to South African students for full-time study in any research-related degree, with the exception of students whose studies are in the areas of politics or religion. The fellowships are granted on the basis of academic merit and financial need to students proceeding to honours, master's and doctoral degrees. In 2012, 27 students received Harry Crossley Research Fellowships (including continuing students), valued at R1 868 000.

The **Harry Crossley Foundation** is one of UCT's most generous and long-standing donors. In addition to the Fellowship Programme, the Foundation provides support to postgraduate students in the form of need-based bursaries, a postdoctoral fellowship, funds for research in health sciences, and an annual grant for the supply and maintenance of equipment in the Postgraduate Centre.

- The **UCT/Woolworths Fellowship Programme** supports master's and doctoral students whose research is in the areas of environmental issues and probiotics. In 2012, four students received awards valued at R320 000.

- The **AW Mellon (cross-faculty) Scholarship Programme** provides support to master's and doctoral students registered in specific areas of study in the humanities, law, and commerce. In 2012, 21 awards were accepted to the value of R2 264 473.

- In 2012, 96 international and 20 refugee students were awarded R2 667 500 and R730 000 respectively through the **UCT Scholarships for International and Refugee Students**. International students received 31% of the total funding provided to postgraduate students at UCT in 2012. The **UCT Refugee Students' Scholarship programme** funded through the **Eric Abrahams Scholarships** was augmented by a donation from the **Sigrid Rausing Trust**, which funded 11 of the 20 refugee students. The programme commenced in 2007 and has funded 56 students to a total value of R3 574 333. This number includes some students who were funded for two degrees, i.e. honours and master's. **Table 3** illustrates the source of funds used for international student support, as well as the breakdown of students from SADC, other countries in Africa (non-SADC), and the rest of the world.

Table 1: Total awards made to postgraduate students in 2012 by source of funds

Degree	Awards	UCT (central)	Departmental funds	Donations	Investments	MRC	NRF	State	External*	Total
Honours	Number	242	93	171	59	3	191	31	79	869
	Value	R2 798 500	R2 432 472	R3 383 046	R626 793	R240 000	R5 443 000	R1 157 819	R2 745 719	R18 827 349
Master's	Number	598	558	185	203	2	407	12	285	2250
	Value	R8 129 897	R23 482 763	R5 232 506	R3 048 141	R100 000	R19 571 567	R366 168	R5 944 024	R65 875 066
Doctoral	Number	464	460	154	117	7	306	0	112	1620
	Value	R8 303 221	R25 989 895	R12 264 552	R4 027 021	R420 000	R21 381 277	0	R2 366 666	R74 752 632
Total	**Number**	**1304**	**1111**	**510**	**379**	**12**	**904**	**43**	**476**	**4739**
	Value	**R19 231 618**	**R51 905 130**	**R20 880 104**	**R7 701 955**	**R760 000**	**R46 395 844**	**R1 523 987**	**R11 056 408**	**R159 455 046**

**External awards reflect external funds for student support, and are received and processed by the Fees Office.*

Table 2: Postgraduate funding awards by degree level and faculty in 2012

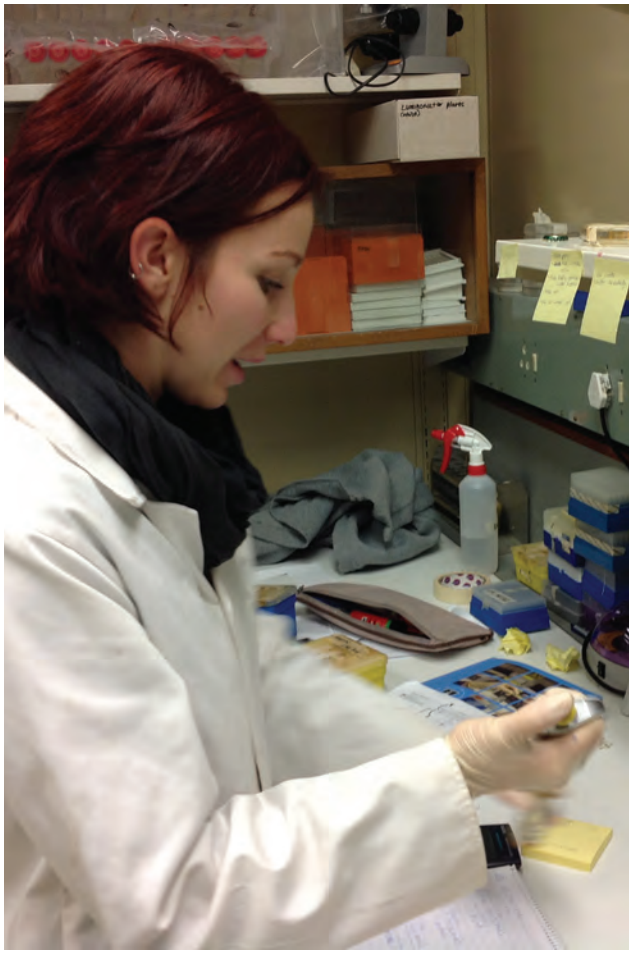
	Honours			Master's			Doctoral			Total		
Faculty	**Number of students receiving awards**	**Number of awards made**	**Value of awards**	**Number of students receiving awards**	**Number of awards made**	**Value of awards**	**Number of students receiving awards**	**Number of awards made**	**Value of awards**	**Number of students receiving awards**	**Number of awards made**	**Value of awards**
Commerce	31	53	R1 148 555	59	92	R2 697 980	75	119	R5 687 817	165	264	R9 534 352
Engineering & the Built Environment	36	49	R920 057	303	479	R17 502 536	111	179	R10 533 240	450	707	R28 955 833
Health Sciences	54	93	R2 010 235	219	337	R10 857 831	171	332	R17 654 208	444	762	R30 522 274
Humanities	229	388	R6 041 960	305	500	R10 679 137	144	271	R10 728 092	678	1159	R27 449 189
Law	0	0	R0	40	63	R1 535 145	28	58	R2 363 690	68	121	R3 898 835
Science	129	207	R5 960 823	268	494	R16 658 413	262	549	R25 418 919	659	1250	R48 038 155
Total	**479**	**790**	**R16 081 630**	**1 194**	**1 965**	**R59 931 042**	**791**	**1 508**	**R72 385 966**	**2 464**	**4 263**	**R148 398 638**

Table 3: Summary of awards made to international and African students by region in 2012

Source of Funds	Awards	Africa (non-SADC)	International	SADC	Total
UCT (central)	Awards made	228	134	83	445
	Value	R 4 362 500	R 2 537 514	R 2 189 362	R 9 089 376
Departmental funds	Awards made	136	97	210	443
	Value	R 7 857 640	R 5 559 503	R 9 841 164	R 23 258 307
Donations	Awards made	39	12	69	120
	Value	R 2 846 500	R 429 260	R 3 393 679	R 6 669 439
Investments	Awards made	15	17	46	78
	Value	R 276 740	R 390 018	R 1 305 383	R 1 972 141
National Research Foundation	Awards made	17	11	53	81
	Value	R 1 113 649	R 696 199	R 2 872 997	R 4 682 845
Total	**Awards made**	**435**	**271**	**461**	**1167**
	Value	**R 16 457 029**	**R 9 612 494**	**R 19 602 585**	**R 45 672 108**

Table 4: Conference travel destinations of postgraduate students in 2012

Faculty	Field of study	Destinations
Commerce	Business Administration, Economics, Information Systems, Statistics	Thailand, USA, South Africa (Pretoria)
Engineering & the Built Environment	Chemical Engineering, Civil Engineering, Electrical Engineering, Geomatics	Malaysia, USA, Uganda, South Africa (Langebaan), Australia, Singapore, Germany
Health Sciences	Anatomy and Cell Biology, Biokinetics, Clinical Science and Immunology, Exercise Science, Human Genetics, Neurosciences, Pharmacology, Physiology, Psychiatry, Public Health, Radiotherapy	Canada, USA, Singapore, South Africa (Port Elizabeth, Durban), Washington, Belgium, Spain, Germany, Canada
Humanities	Fine Art, French Language and Literature, Justice and Transformation, Linguistics, Philosophy, Psychology, Social Anthropology, Sociology, Theatre and Performance	South Africa (Durban, Johannesburg, Pretoria), USA, Senegal, Sweden, France, Berlin
Law	Criminal Justice	Malawi
Science	Applied Maths, Astronomy, Chemistry, Climate Change and Development, Conservation Biology, Molecular and Cell Biology, Physical Oceanography, Physics	Portugal, Scotland, South Africa (Bloemfontein, Skukuza), USA, Brazil, Sweden, Ukraine, England, Singapore, Tanzania



Institutions visited by postgraduate students in 2012 as a result of support from UCT scholarships for international travel

- **USA:** Emory University, International Space University, University of California, Athinoula A Martinos Centre, Charlestown, Harvard University, Boston, University of Connecticut, USA
- **Canada:** Simon Fraser University, Carleton University, University of Western Ontario, University of British Columbia
- **Africa and the Middle East:** University of Malawi, Malawi; Technion Haifa Institute of Technology, Israel
- **Asia:** Amedkar University, New Delhi, India
- **Europe and the United Kingdom:** National Institute for Research in Computer Science and Control, France; Ludwig Institute for Cancer Research, United Kingdom; Cambridge University, United Kingdom; King's College London, United Kingdom; University of Balearic Islands, Spain; University of Brest, France; Forschungszentrum Julich, Germany; Plymouth Marine Laboratory, United Kingdom; Royal Botanic Gardens, United Kingdom; Institute for Neural Signal Transduction, University of Hamburg, Germany; University of Central Lancashire, United Kingdom; University of Pierre and Marie Curie, France; Institut de Biologie Structurale Jean Pierre Ebel, France

Postdoctoral Research Fellows

Postdoctoral research fellows (PDRFs) are much sought after at UCT in view of their potential to strengthen the research enterprise, and relieve the dwindling numbers of academic staff and researchers in South Africa and on the continent of Africa. The number of postdoctoral researchers that register for up to five years at UCT has increased steadily since 2002, and the university hopes to further increase this number in the next five years.

In 2012, 282 registered postdoctoral research fellows received more than R52 million in funding support. As can be seen from **Table 6**, individual academic departments and the NRF remain the strongest supporters of this sector. However, donated funds, such as the sponsorship received from the Claude Leon Foundation, play a vital role in attracting and sustaining PDRFs at UCT.

The majority of PDRF registrations are in the Science and Health Sciences faculties. UCT support increasingly aims to move beyond only financial administration of the sector. To this end, increased attention is being paid to the quality of the postdoctoral experience, as well as advocacy to recognise the critical role they play.

In 2012, 35 PDRFs attended conferences in 21 countries and received mobility grants valued at R535 397. Some PDRFs are registered at UCT but receive external support which is not administered by the PGC&FO. 282 PDRFs are recorded as being registered, but only 267 of these received UCT-administered fellowships.

Table 5: Postdoctoral Research Fellowships per faculty, 2012

Faculty	Number of registered PDRFs	Number of fellowships awarded	Value
Commerce	8	19	R1 787 732
Engineering & the Built Environment	21	41	R3 324 495
Health Sciences	99	168	R20 292 827
Humanities	26	34	R3 662 981
Law	4	7	R919 291
Science	124	187	R22 157 664
Total	**282**	**456**	**R52 144 990**

Table 6: Postdoctoral Research Fellowships by source of funds in 2012

Source of funds	Number of fellowships made	Value
UCT funds	70	R4 940 168
Departmental funds	234	R29 533 179
Donations	16	R2 641 058
Investments	1	R12 000
Medical Research Council	3	R390 000
National Research Foundation	132	R14 628 585
Total	**456**	**R52 144 990**

Table 7: Postdoctoral conference and research travel, 2012

Faculty	Number of travel grants made	Value
Commerce	2	R37 463
Engineering & the Built Environment	5	R64 859
Health Sciences	8	R131 998
Humanities	3	R47 937
Law	1	R16 431
Science	16	R236 709
Total	**35**	**R535 397**

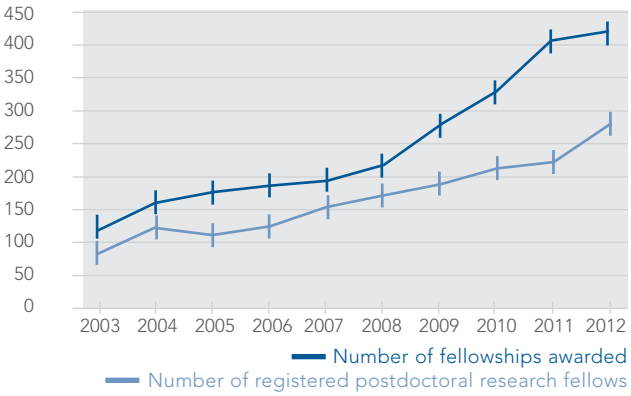


Figure 2: Growth in postdoctoral research fellows at UCT, 2003–2012

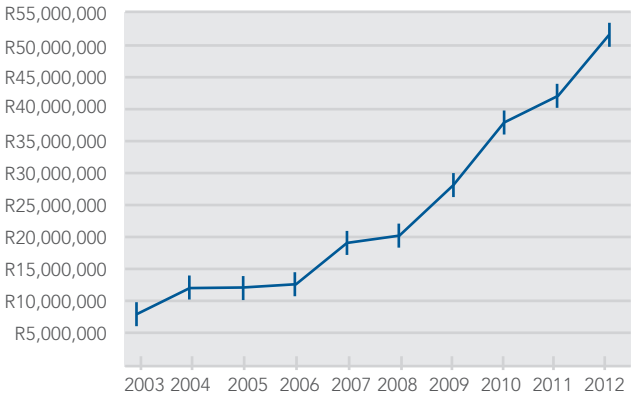


Figure 3: Value of postdoctoral fellowships, 2003–2012

National Research Foundation Evaluation and Rating

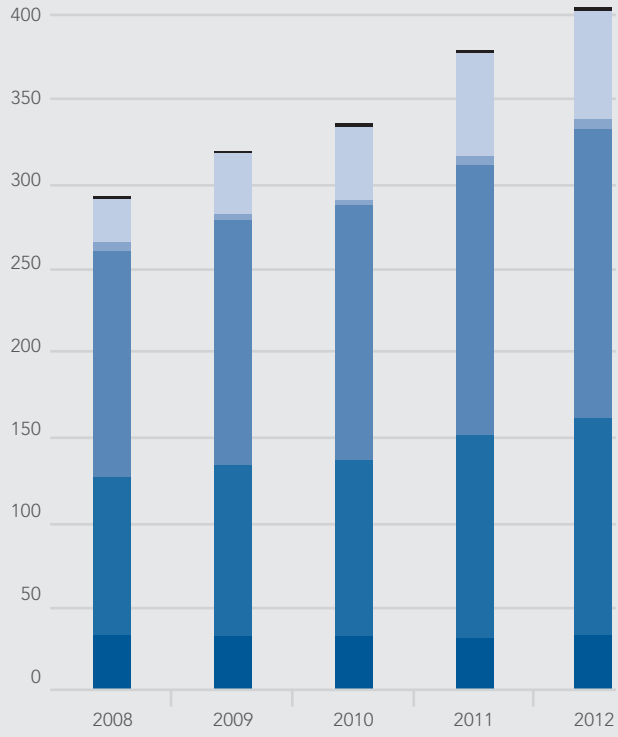
The National Research Foundation's rating system is an international benchmarking tool used to assess the quality of research. The system contributes to the building of a globally competitive science system in South Africa and encourages rated researchers to impart their skills to the next generation of researchers through supervision and collaboration.

World-leading expertise

UCT was awarded four new A ratings in 2012, to professors Harold Kincaid and Don Ross (Commerce) and professors Heribert Weigert (Physics) and Jack van Honk (Health Sciences). The A ratings of professors Igor Barashenkov (Mathematics and Applied Mathematics), Clifford Shearing (Criminal Justice), Lionel Opie (Medicine), Doug Butterworth (Mathematics and Applied Mathematics), John de Gruchy (Religious Studies), Gerd Gäde (Zoology), and Dan Stein (Psychiatry and Mental Health), and Distinguished Professor Philippe-Joseph Salazar (Rhetoric Studies), were renewed on re-evaluation.

Recognising future leaders

The NRF annually awards P ratings to young researchers who demonstrate the potential to become future leaders in their research field. Structural geologist Dr Åke Fagereng and particle physicist Dr Andrew Hamilton were the recipients of new P ratings in 2012.



Description of NRF rating categories

A World leaders renowned for the high quality and impact of their research.

B Researchers with considerable international stature.

C Established researchers who produce research of an international standard.

P Young researchers (within five years from PhD) who are recognised internationally as having the potential to become future leaders in their field.

Y Young researchers (within five years from PhD) who show promise of becoming established researchers within a five-year period after evaluation.

L Late entrants into research (this category is being phased out by the NRF).

Figure 4: Number of NRF-rated researchers at UCT, 2008–2012

NRF Ratings

Dr Andrew Hamilton

Unlocking the secrets of a simply brilliant universe

Despite what he calls the "long and often complicated path" it takes to uncover the laws of physics, Dr Andrew Hamilton, who was awarded an NRF P rating for his continuing insights into understanding the Universe at its most fundamental level, believes they are inherently simple.

Dr Hamilton's academic journey has spanned three continents and has seen him contribute to more than 200 peer-reviewed publications as a member of two large proton collider experiments, ATLAS and the Collider Detector at Fermilab in the USA. He joined UCT's Department of Physics as a lecturer in July 2011, following a five-year stint at the ATLAS experiment, which he joined as a postdoctoral fellow with the University of Geneva. The ATLAS project is one of two general-purpose detectors at the Large Hadron Collider at the European Centre for Nuclear Research (CERN), the decades-long experiment to detect the Higgs boson particle. Here, Dr Hamilton focused on helping to develop the ATLAS trigger system.

"The trigger system is a vital component of the experiment that selects which events to record for further analysis and which to discard," he explains.

His true interest, however, lies in analysing and interpreting the data collected by the trigger, specifically data related to the Higgs boson's decay into two photons, which is what the Higgs boson does in the Standard Model of the Universe.

Dr Hamilton's teaching career began at the University of Alberta as a teaching assistant in 2001, and evolved into the supervision of master's and doctoral students at the University of Geneva. He also co-ordinated the doctoral programme at the Swiss Institute of Particle Physics from 2010 to 2011. At UCT, he has been teaching physics from first-year to honours level, and previously taught nuclear and particle physics and advanced nuclear physics to senior undergraduate students.

What inspires his curiosity about the smallest stuff that makes up our Universe? "The idea of breaking down our understanding of the Universe into its most fundamental pieces attracted me to particle physics," he says. "The ability to observe a physical phenomenon as profound as the Higgs boson has kept me interested."

Dr Hamilton's present research interests revolve around Standard Model direct photon production studies. He plans to continue research at the high-energy frontier of particle physics. Due to the fundamental nature of contemporary particle physics, Dr Hamilton admits that the impact of his and his peers' research on society might not be immediately visible.

"Just as people doing fundamental research in the early 20th century could not have predicted that an understanding of quantum mechanics would lead to the development of the computer, we don't know where our current fundamental research will lead."

Seismic counts for earthquake geologist

At just 30, earthquake geologist and lecturer in structural geology in the Department of Geological Sciences Dr Åke Fagereng was awarded a P rating from the National Research Foundation in 2012. These ratings can be awarded only once, but there is an expectation that the recognition and support will grow not only his body of work, but a new generation of young geologists in his wake.

Dr Fagereng received his PhD in 2010, but already has a sizeable publications list, mostly papers published in the past two years. With funding from the South African

Dr Åke Fagereng

National Antarctic Programme, he is presently conducting a three-year project to study deep crustal processes recorded in the Antarctic rocks. That means looking for ancient, active fault lines that have been exposed to high temperatures and pressures from the Earth's shifting plates.

Studying the microscopic properties and formation of rocks, Dr Fagereng unravels the age-old stories rocks tell about the geophysical processes that occur deep in the Earth's crust. His recent research is broadening the understanding of subduction zone fault processes (where one tectonic plate, or piece of the Earth's crust, is forced under another after colliding), particularly those factors that affect the 'seismic style' of the subduction megathrust interface. The latter occurs when the ocean floor is forced under a continent and slip occurs on this interface. How the interface responds (its 'seismic style') determines whether it produces large earthquakes like those in Japan and Sumatra, or creeps along slowly and silently, as is the case in the Philippines.

Dr Fagereng also studies the physical processes behind the recently discovered seismic phenomena of episodic tremor. These are 'earthquakes' of very low frequency and slow slip, characterised by seismic rumbling, or tremor, and slow slip along the tectonic plates. Usually, these events are imperceptible to humans and are not destructive. Through his project, he is collaborating with researchers in New Zealand on the development of theoretical models for fault behaviour and conditions. They intend to compare geological observations in well-studied exhumed fault zones, regions of rock showing significant displacement along the fractures as a result of movement in the Earth's crust. A large chunk of this work will also be done off-shore, drilling through a fault section between the Pacific and Australian tectonic plates, a major earthquake zone, down through 2km of water and 6km of rock.

Dr Fagereng is renowned among the 'fault community' for his extraordinary integration of geological and geophysical data. His geological maps trace and document fault lines, those places where the rock formations and chemical compositions point to weaknesses in the Earth's crust. The field studies are used to elucidate seismogenic behaviour.

He is currently also working with students on the Naukluft Thrust, in Damaraland, Namibia, and has students working in the Cape Fold Mountains on a project to monitor intraplate seismicity at a microseismic scale.

Dr Fagereng was also recognised for the impact of his work through a UCT College of Fellows Young Researcher Award in 2012, as well as a Claude Leon Merit Award for Young Lecturers.

Professor Don Ross

A-rating milestone for Commerce dean

Professor Don Ross, economics professor and chair of the executive board of the International Network for Economic Methodology, became the first dean of a South African commerce faculty to be awarded an A rating by the National Research Foundation.

Professor Ross's research unites economic methodology, experimental economics and econometrics, cognitive science, and the philosophy of science. Among his recent achievements has been the launch of the Research Unit in Behavioural Economics and Neuroeconomics.

Professor Ross believes methodological work should be directly integrated with empirical research. Since 2008 he has led an international research team of experimental economists and psychologists in applying his 'anti-behaviouralist' approach. This emphasises modelling differences among people at the population level, rather than trying to model special features of individuals and then aggregating them. Professor Ross and his colleagues have specifically applied this method to the study of addiction and other forms of impulsive consumption. This produces results of direct relevance to policy at the population scale, rather than clinical advice. Thus the method is characterised as 'structuralist' and 'anti-individualist' empirical microeconomics.

This methodology is explored in his 2005 book *Economic Theory and Cognitive Science: Microexplanation*, also published in Chinese in 2010. He has published various papers that empirically apply the methods, as well as a book of which he is first author, *Midbrain Mutiny: The Picoeconomics and Neuroeconomics of Disordered Gambling* (2008). He co-edited, with collaborator Professor Harold Kincaid, the *Oxford Handbook of Philosophy of Economics* (2009).

In 2007, together with Professor James Ladyman, he co-published a broadened exploration of his general structuralist and anti-individualist metaphysical perspective across the whole of the sciences, particularly quantum physics. This book, *Every Thing Must Go: Metaphysics*

NRF Ratings

Naturalized (2009), received highly favourable reviews. It has been taught in graduate seminars around the world and has been the subject of book symposia at four international conferences. A follow-up collection of essays titled *Scientific Metaphysics*, which he co-edits with professors Ladyman and Kincaid, is expected for publication in 2013.

Professor Ross has produced 13 major policy reports for clients such as the National Department of Trade and Industry. Between 2006 and 2010, he was director of research for the National Responsible Gambling Programme. He has taught and applied game theory throughout his career, and it informs the majority of his work. He is the author of the game-theory article in the *Stanford Encyclopaedia of Philosophy*.

Professor Harold Kincaid

Dynamic leadership in global research

UCT's School of Economics' Professor Harold Kincaid was recognised as an international leader in his field by the National Research Foundation in 2012. Professor Kincaid joined UCT from the University of Alabama at Birmingham, USA, where he had been professor of philosophy, sociology, and epidemiology.

Broadly, his research has focused on the methodologies of social science and he has published on a host of related topics, including causal modelling, the philosophy of social science, the role of explanation as a concept in social sciences, and the medical models of addiction.

"My main focus has been on trying to sort good science from bad science."More recently, his interest has turned to how social scientists infer causes and correlations.

That last category reflects some of Professor Kincaid's recent work at UCT. He has contributed to a few projects with the Research Unit in Behavioural Economics and Neuroeconomics (RUBEN), an interdisciplinary group of researchers in the School of Economics that uses economic experiments to examine the role that social, cognitive, and emotional factors play in economic decision-making.

At RUBEN, Professor Kincaid has been involved in studies looking at the prevalence of gambling in South Africa, and at problem gamblers and at-risk gamblers.

There are particular dynamics to local gambling, he explains. In South Africa, it is by and large the poor who have serious gambling problems. Rather than frequenting casinos, they stake their money on informal and illegal enterprises, such as dice and card games, and the lotto-like numbers game called iFafi.

Professor Kincaid's current research includes a project funded by the NRF, that looks at the risk behaviour of fruit farmers, as well as a study among the poor in Cape Town and Atlanta (USA), which draws on behavioural economics to consider risk and time attitudes, as well as the social and economic factors involved in transitions in and out of extreme poverty.

New frontiers: Chemistry, the brain and behaviour

A world leader and pioneer in the multidisciplinary field of hormones, the brain, and human social-emotional behaviour, Professor Jack van Honk received an A rating from the National Research Foundation in 2012.

Almost 15 years ago he became the world's first researcher to use both hormonal manipulation and brain-stimulation techniques to gain direct insight into the psychobiological mechanisms underlying human social-emotional behaviour.

Professor Jack van Honk

An honorary professor in the Department of Psychiatry and Mental Health since 2010, Professor Van Honk first came to work at UCT in 2008, and now spends 10 months of each year at UCT and two months teaching at his alma mater, Utrecht University, in social and affective neuroscience.

Professor Van Honk leads several UCT research projects, funded by entities in South Africa, the Netherlands and the USA. His core field of research is social neuroscience and his fields of specialisation are psychoneuroendocrinology, affective neuroscience, and neuropsychology, on which he has published prolifically, with 75 research and theoretical papers in peer-reviewed journals in the past eight years alone.

His research underpins the development of innovative treatment strategies, such as hormone manipulation and transcranial magnetic stimulation, to treat fear and aggression disorders like psychopathy, impulsive aggression, psychological trauma, and human phobia.

"Social neuroscience," according to Professor Van Honk, "provides an excellent foundation for the creation of a so-called common body of knowledge, as it combines techniques and insights gained from psychology, sociology, neuroscience, biology, and economics. My personal interest in this fascinating realm is not only to gain fundamental understandings of the psychology of human social behaviour, but also to understand and seek innovative treatments for the psychopathologies of fear and aggression."

Within the Department of Psychiatry, Professor Van Honk is building capacity in psychobiological research among psychiatric populations. He also supervises research in social phobia and psychological trauma. Another project he leads, together with colleague, Dr Barak Morgan (Department of Human Biology), is a new line of research on Urbach-Wiethe disease (UWD), an extremely rare genetic-developmental disorder, characterised by bilateral focal calcifications of the amygdala in the brain. Research has shown that the amygdala play an important role in the 'social brain', processing memory and emotional reactions, such as social threat processing, empathy, and fear conditioning. The Northern Cape is home to almost 20% of the estimated 200 people worldwide to suffer from UWD.

Shedding light on the Universe's deepest secrets

Looking back into the deepest recesses of time, into a Universe immeasurably different from the one we know today, has earned UCT's Professor Heribert Weigert an A rating from the National Research Foundation.

Professor Heribert Weigert

Professor Weigert's research centres on matter as it occurred in the early Universe, very shortly after the Big Bang, when the Universe was immensely hot – more than 100 000 times hotter than the centre of the sun. "This state of matter, the quark gluon plasma, is recreated today at the most powerful particle accelerators we have – the Large Hadron Collider at CERN in Switzerland, and the Relativistic Heavy Ion Collider at Brookhaven National Laboratory (BNL) on Long Island near New York," says Professor Weigert.

He describes himself as a theoretical physicist and was one of the driving forces in the formulation of what is known today as the Colour Glass Condensate, another extreme state of matter that sets the initial conditions in the accelerator experiments at CERN and BNL. One of his reasons for moving to UCT was to join a growing group of both theorists and experimentalists directly involved in this massive international effort to uncover the deepest secrets of the Universe.

He has considerable international experience, having conducted research in Germany, the USA, the UK, and Denmark, and obtained his Habilitation at the University of Regensburg. In addition, he spent a semester as a visiting full professor in Bielefeld, Germany, and served as a research associate professor at the University of Oulu, Finland, for three years. Since April 2011, he has been an associate professor in the Department of Physics at UCT, and in 2011 he became director of the university's Centre of Theoretical and Mathematical Physics. One of his goals is to focus on nurturing and expanding the research group and linking it to the national and international scientific particle physics community.

In the meantime, Professor Weigert plans to continue navigating the labyrinthine ways of the early Universe, in his quest to shed new light on its origins and, hopefully, take a calculated step towards answering the greatest question of them all: why are we here, and how did it all begin?

NRF-rated researchers at UCT

Newly rated researchers are listed in bold text.

Abiodun, B
Abratt, RPA
Abratt, VR
Ackermann, RR
Adhikari, M
Alexander, MG
Altwegg, R
Amar, A
Ansorge, IJ
Archer, A
Archibald, M
Ardington, CS
Armitage, NP
Badri, M
Baets, W
Bagraim, J
Barashenkov, IV
Barnard-Naude, J
Barnes, K
Barr, GDI
Bassett, B
Bateman, E
Baum, R
Becker, M
Beighton, PH
Benjamin, P
Bennett, TW
Beushausen, H
Bezuidenhout, D
Bhorat, HI
Bickford-Smith, JV
Biekpe, N
Blackburn, JM
Blake, EH
Blom, D
Blumenthal, M
Bolton, JJ
Bond, WJ
Boonzaier, F
Bordy, E
Bosch, AN
Bosch, T
Bourne, SA
Bowen, PA
Branch, GM
Brattka, V
Braun, D
Breier, M
Britton, DT
Brombacher, FH
Bronner, GN
Brown, ITJ
Brundrit, J
Bruyns, PV
Buffler, A
Burch, V
Burchell, J
Burgers, W
Butler, A
Butterworth, DS
Caira, MR
Cameron, R
Carignan, C
Case, J
Chan, A
Chege, G
Chibale, K
Chidester, DS
Chigona, WMG
Chimphango, S
Chinsamy-Turan, A
Chirikure, S
Chirwa, D
Chung Kim Yuen, S
Claeys, MC
Clarkson, C
Clarkson, CP
Cleymans, JWA
Cochrane, JR
Cohen, B
Collins, M
Colvin, CJ
Combrinck, MI
Compton, JS
Comrie, CM
Cooper, BL
Coovadia, IC
Corder, HM
Corin, K
Cornille, JL
Coyne, VE
Cramer, MD
Crankshaw, O
Crawford, RJM
Cumming, G
Dalvie, MA
Dandara, C
Darch, C
Davidowitz, B
Davids, L
De Blok, E
De Gruchy, JW
De Jager, G
De Jager, K
De Vos, P
De Vries, P
Deglon, DA
Denny, LA
Deumert, A
Dheda, K
Distiller, N
Dominguez, CA
Douglas, TS
Draper, C
Driver, KA
Dunne, P
Dunsby, PKS
Dutton, Y
Dyer, R
Ebobisse, F
Eckardt, F
Egan, TJ
Ekama, GA
Ellis, GFR
Everson, V
Fagan, A
Fagereng, Å
Falowo, O
Farrant, JM
Fearick, RW
Feast, M
February, EC
Feris, L
Folly, K
Franzidis, J
Fraser, DM
Gäde, G
Gain, J
Gammon, DW
Gaunt, CT
Gillson, L
Gilson, L
Glazewski, JI
Glenn, I
Godby, M
Goedecke, JH
Gray, C
Greenberg, LJHL
Griffiths, CL
Guo, R
Haerting, M
Haines, LM
Hamann, R
Hamilton, A
Hamilton, C
Hapgood, J
Hardman, JC
Harris, C
Harrison, STL
Hart, M
Hattingh, A
Haupt, A
Hedderson, TAJ
Hellaby, CW
Herman, R
Hewett, ML
Hewitson, BC
Himonga, C
Hoadley, U
Hoffman, MT
Horowitz, WA
Horsnell, WGC
Howells, FM
Hunter, R
Ianovsky, A
Illing, N
Inggs, SC
Ingle, R
Isafiade, A
Jackson, GE
Jacobs, DS
Jacobs, M
Janelidze, G
Jawitz, J
Jeebhay, M
Jelsma, J
Kalula, ER
Kaminer, D
Kaplan, D
Kelly-Laubscher, R
Kew, MC
Khan, A
Khumalo, N
Kidson, S
Kincaid, H
Klak, C
Klatzow, PJL
Klopper, S
Klump, HH
Knutsen, RD
Koelble, TA
Kohn, T
Kolbe-Alexander, T
Kraan-Korteweg, RC
Krige, JEJ
Kritzinger, PS
Kruger, T
Kunzi, H-P A
Kuttel, M
Kyobe, ME
Lambert, EV
Lambert, MI
Lamberts, RP
Lang, CI
Lang, DM
Langdon, G
Langerman, FS
Le Roex, AP
Le Roux, P
Leaner, V
Lecour, S
Leibbrandt, M
Levitt, N
Lewis, AE
Little, F
London, L
Louw, J
Low, I
Lubbe, S
Lucas, M
Luckett, K
Luiz, J
Lund, C
Maartens, G
Mager, A
Mall, AS
Marais, P
Marco, H
Marsden, G
Martin, D
Martin, R
Mattes, RB
Mayosi, BN
McBride, V
McIntyre, D
McKinney, C
Meadows, ME
Meintjes, EM
Meintjes, G
Meissner, P
Mendelsohn, R
Mesthrie, R
Meyers, PR
Micklesfield, L
Midgley, JJ

New NRF ratings: Dr Megan Becker (left) *and Dr Kirsten Corin* (right) *of the Department of Chemical Engineering.*

Millar, R
Mishra, AK
Mizrahi, V
Mlambo, C
Moller, KP
Moloney, CL
Morrell, R
Morris, AG
Morrow, B
Mostert, H
Moultrie, T
Mowla, S
Moyo, P
Muasya, M
Mulder, N
Muller, JP
Murugan, J
Naidoo, KJ
Nassimbeni, LR
Nassimbeni, MC
Naudé, T
New, M
Ng'ambi, D
Ngwenyama, O
Noakes, TD
Novitzky, N
Nurick, GN
Nyamnjoh, F
Oelgeschläger, T
Ojuka, E
Oldfield, SE
Opie, LH
O'Riain, MJ
O'Ryan, C
Parker, MI
Parkington, JE
Parnell, SM
Pascoe, M
Penn, N
Perez, SM
Peshier, A
Petersen, J
Picker, MD
Pillay, D
Pillay, P
Piraino, P
Pirie, G
Posthumus, M
Pototsky, A
Potter, P
Prince, S
Prinsloo, MH
Raju, J
Ramon, G
Ramutsindela, MF
Ratzkin, J
Rawatlal, R
Rayner, BL
Reason, C
Reddy, BD
Reid, S
Reid, SJ
Richardson, SH
Rodgers, AL
Ross, DA
Ross, F
Rossi, M
Roth, R
Rouault, M
Russell, VA
Ryan, PG
Rybicki, EP
Salazar, PhJ
Sales, K
Sandmeier, R
Saunders, CC
Schurch, MPE
Schwikkard, PJ
Scott, H
Scriba, T
Sealy, JC
Segal, H
Sewchurran, K
Sewell, BT
Seymour, L
Shaikh, S
Shain, M
Shannon, L
Shay, S
Shearing, C
Shepherd, D
Shillington, FA
Simmons, RE
Sliwa-Hahnle, K
Smith, G
Solms, ML
Soudien, C
Spakowski, H
Spottiswoode, B
Stein, D
Stewart, TJ
Sturrock, E
Suleman, H
Swart, S
Tapson, JC
Tayob, AI
Thiart, C
Tredoux, CG
Tupper, G
Turok, I
Uliana, EO
Underhill, LG
Van As, AB
Van Belle, J-P
Van der Heyden, K
Van der Lingen, C
Van der Merwe, CN
Van der Merwe, NJ
Van der Schijff, J
Van der Spuy, ZM
Van Honk, J
Van Sittert, L
Van Steen, EWJ
Van Walbeek, C
Van Zyl, K
Van Zyl-Smit, R
Varsani, A
Vaughan, CL
Venter, G
Verboom, GA
Vivian, L
Von Blottnitz, H
Vougalter, V
Waldron, HN
Ward, C
Wardle, D
Warner, B
Warner, D
Watson, VJ
Weigert, H
Weltman, A
West, A
Wheaton, S
Whitelock, PA
Williamson, A-L
Williamson, C
Winkler, H
Wiysonge, C
Wolff, H
Wood, EAS
Wood, R
Woolard, ID
Worden, NA
Woudt, PA
Wynberg, R
Younge, JGF
Zar, HJ
Ziervogel, G
Zilla, P
Zingoni, A

South African Research Chairs Initiative

The Department of Science and Technology's South African Research Chairs Initiative (SARChI) was designed to strengthen the ability of the country's universities to produce high-quality research and innovation output and, through this, increase the quality of the training of postgraduate students, thereby contributing more directly to growing the knowledge economy in South Africa. The SARChI Programme is managed by the National Research Foundation.

The Chairs are expected to contribute significantly towards helping universities realise their strategic research plans, and the initiative is intended to provide a base on which to consolidate and extend excellence in research. Although the programme aims to attract South African and other international research expertise from abroad, internal candidates are also considered for these Research Chairs.

UCT is now home to 33 SARChI Research Chairs after a further four awards were made in 2011/12 in the following strategic areas:

- Stable Isotopes in Archaeology and Palaeoenvironmental Studies
- Environmental and Social Dimensions of the Bio-economy
- Reaction Engineering
- Industrial Computational Fluid Dynamics

DST/NRF SARChI CHAIRS AT UCT

- Animal Evolution and Systematics – Professor David Jacobs
- Functional Proteomics – Professor Jonathan Blackburn
- Archive and Public Culture – Professor Carolyn Hamilton
- Astrophysics and Space Science – Professor Thomas Jarrett
- Bioprocess Engineering – Professor Susan Harrison
- Brain Imaging – Associate Professor Ernesta Meintjes
- Cancer Biology (vacant in 2012)
- Catalysis (vacant in 2012)
- Climate Change – Professor Bruce Hewitson
- Clinical Neurosciences Research – Associate Professor Marc Combrinck
- Computational Mechanics – Professor Daya Reddy
- Customary Law – Professor Chuma Himonga
- Drug Discovery – Professor Kelly Chibale
- Social Science Chair in Economic Growth – Professor Haroon Bhorat
- Environmental and Social Dimensions of the Bio-Economy – Associate Professor Rachel Wynberg
- Health and Wealth in South Africa – Professor Diane McIntyre
- Industrial Computational Fluid Dynamics (vacant in 2012)
- Immunology of Infectious Diseases in Africa – Professor Frank Brombacher
- Infection and Immunity of Poverty-related Diseases – Professor Keertan Dheda
- Islam, African Publics, and Religious Values – Professor Abdulkader Tayob
- Land Reform and Democracy in South Africa: State and Civil Society Dynamics – Professor Lungisile Ntsebeza
- Marine Ecology and Fisheries – Professor Astrid Jarre
- Migration, Language, and Social Change – Professor Rajend Mesthrie
- Minerals Beneficiation – Professor J-P Franzidis
- Modelling of the Coupled Ocean-land-atmosphere Phenomena Related to Climate (vacant in 2012)
- Extragalactic Multi-wavelength Astronomy – Professor Claude Carignan
- Poverty and Inequality Research – Professor Murray Leibbrandt
- Reaction Engineering (vacant in 2012)
- Scientific Computing – Professor Kevin J. Naidoo
- Security and Justice – Professor Clifford Shearing
- Stable Isotopes in Archaeology and Palaeoenvironmental Studies – Professor Judith Sealy
- Urban Policy – Professor Edgar Pieterse
- Vaccinology – Professor Anna-Lise Williamson

Professor Judith Sealy

Stable Isotopes in Archaeology and Palaeoenvironmental Studies

Judith Sealy, the newly-appointed South African Research Chair in Stable Isotopes, Archaeology and Palaeoenvironmental Science, is Professor of Archaeology and the former Head of the Department of Archaeology at UCT. She also heads UCT's Stable Light Isotope Laboratory, a major facility housing analytical equipment.

Professor Sealy obtained her PhD from UCT in 1989, for a thesis centred on stable isotope techniques of dietary reconstruction in ancient human skeletons. Her work has included laboratory and field studies, investigating archaeological questions ranging from the emergence of modern humans approximately 200 000 years ago, to the origins of slaves brought to the Cape in the colonial era. Her main focus has been on coastal hunter-gatherers of the past 10 000 years, using isotope approaches to explore variations over time and space in the diets people consumed, and using these patterns to elucidate larger-scale processes of economic and social change. Her work has also contributed to the development and improvement of stable isotope methods and techniques.

Professor Sealy has published more than 75 peer-reviewed journal articles and book chapters, including articles in *Nature and Science*. She is currently an Associate Editor of the *Journal of Archaeological Science* and a member of the editorial boards of *Azania and Southern African Humanities*; she was formerly editor of the *South African Archaeological Bulletin*. She is a Fellow of the Royal Society of South Africa and of the University of Cape Town, and holds a B1 rating from the NRF. (*Also see page 106*).

Associate Professor Rachel Wynberg

Environmental and Social Dimensions of the Bio-economy

Associate Professor Rachel Wynberg holds the South African Research Chair in the Environmental and Social Dimensions of the Bio-economy, and is the deputy director of the Environmental Evaluation Unit at UCT. She holds two cum laude master's degrees from the University of Cape Town, one in Marine Biology, and the other in Environmental Science, and a PhD from the University of Strathclyde, Glasgow.

She is well recognised as a leading scholar on the bio-economy, reflected in her B2 NRF rating. Her work is focused on bio-politics, the commercialisation and trade of biodiversity, access and benefit sharing, and the social and environmental implications of new biotechnologies. She has consulted and published widely on these topics, including more than 140 scientific papers, book chapters and technical reports, and four recent co-edited books. She is currently serving on the board of three non-profit organisations and is also a member of the Expert Committee for the UK Government's Darwin Initiative, one of the largest and most significant global funders of biodiversity projects.

Associate Professor Wynberg's scholarship is characterised by an unusual breadth of experience as a researcher, policy advisor, and activist, demonstrating her strong commitment to social justice and transformation in the sphere of biodiversity conservation and use. Because of the complexity of her research topic, and the importance of developing a holistic and integrated understanding in this field, she has consciously developed a research strategy crossing many disciplines and engaging a body of literature and colleagues across the humanities, arts, and sciences. (*Also see page 162*).

UCT Signature Themes for Research

What research challenge could faculties propose to tackle, that would not only be embedded in our location in Africa but would also be of global importance?

This was one of the questions that led to the formation of signature themes at UCT, which encourage collaborative, interdisciplinary research that crosses disciplinary and faculty boundaries. Through a rigorous 'bottom up' process, faculties responded to a call to come up with problem-based collaborative research themes that would capture the imagination of students and lead to exciting discoveries. Over and above the strong research groups operating across the university, the signature theme framework intends to stimulate cross-faculty collaboration that would result in more than 'business as usual'.

Through a competitive process and with limited seed funding, five themes were established between 2006 and 2007: African Cities, Brain and Behaviour, Drug Discovery, Marine Research, and Minerals to Metals. More recently, through a strategic process led by the Vice-Chancellor, the African Climate and Development Initiative emerged as the sixth signature theme in 2011. Strong academic leadership and a vibrant research team are part and parcel of the signature theme concept. To date, the themes have been able to demonstrate the leveraging ability and impact of their world-class research, not only on their immediate environment but also more broadly on the global south. As hubs that attract increasing numbers of postgraduate students and postdoctoral fellows, the themes excel but remain under pressure to maintain a leading edge.

National Centres of Excellence and Competence Centres

Funded by the South African Department of Science and Technology, the national centres of excellence and competence centres act as hubs for high-quality research and development in areas of national priority. The centres and nodes often involve significant interdisciplinary collaboration with other universities, publicly-funded research organisations, governments, and industry. They serve as important research training sites for postgraduate students.

UCT hosts two national Centres of Excellence, Birds as Keys to Biodiversity Conservation, and c*change, and co-hosts a node of the Centre of Excellence for Biomedical TB Research. UCT also co-hosts the Hydrogen Catalysis Competence Centre with Mintek.

The Centres of Excellence are managed by the National Research Foundation.

Research Groupings

A significant part of the exciting and diverse research carried out at UCT occurs within formal research groups, which incorporate members and students from across departments and faculties. Both through discipline-specific and cross-disciplinary approaches, their research is making a significant contribution towards understanding and alleviating some of society's major challenges.

At the end of 2012, there were 71 formally constituted research groupings at UCT. These included five newly-accredited groupings in 2012: African Collaboration for Quantitative Finance and Risk Research (Commerce), the Policy Research in International Services and Manufacturing (Commerce), the UCT Tourism and Events Research Unit (Commerce), Centre for Transport Studies (Engineering & the Built Environment), and the Lung Infection and Immunity Unit (Health Sciences).

UCT Knowledge Co-op

The UCT Knowledge Co-op builds on UCT's tradition of social responsiveness, aiming to make it easier for community partners to access UCT's skills, resources, and professional expertise. In the second year of its pilot phase, the focus was on expanding the number of collaborative projects with civic society and the public sector while also enhancing its visibility within UCT and in the wider community.

During 2012, 40 new topics for collaborative research or practical support were submitted to the facility, bringing the total number to 108. Fourteen of these arose from partnerships going back to previous years, indicating a deepening of UCT–community partnerships. The topics came from organisations ranging from provincial government departments to grassroots community groups, and local and international NGOs, as well as some programmes run by UCT students.

Ten new projects were initiated during the year, and another four were carried over from 2011. These include studies into experiences of breast-cancer patients and alternative energy sources for pumping water, as well as more hands-on ones involving computer training in organisations or the design for a school hall. Forty-five students and 15 academics partnered with community groups in these projects, of which eight were completed in 2012, bringing the total completed to 15.

Alongside this a *Code of Good Practice for Engaged Scholarship with External (non-academic) Constituencies* has been produced for academics, with a student version in process. This document aims to build the capacity of academics to take on supervision of collaborative research, and to prepare students for their involvement.

Internationally, the UCT Knowledge Co-op is part of the Living Knowledge network. During May, the project manager of the Co-op participated in a Science Shop Summer School and the LK5 conference on Re-imagining Research Relationships – Co-creating Knowledge in a Democratic Society in Bonn, Germany. This was a first opportunity to share insights through a conference paper drawing on a three-year, NRF-funded study to evaluate the model of the Co-op.

The website – http://www.knowledgeco-op.uct.ac.za – has contributed to increasing the visibility of the Co-op both within UCT and beyond.

Safety and Violence Initiative

The Safety and Violence Initiative (SaVI) was established at UCT in 2010 with support from the Vice-Chancellor's Strategic Fund and facilitates debate, research and interventions across the university on understanding, and responding to violence, as well as promoting safety.

SaVI brings together scholars from various faculties across UCT, including Commerce, Health Sciences, Humanities, Law, and Engineering & the Built Environment. Its mission is to establish sustained research collaborations that will contribute to promoting safety, reducing violence, and raising awareness about these issues within South Africa (and in due course in other African countries). A key feature of SaVI's role is to develop theory and to translate this into practice. A director for SaVI (Guy Lamb) was appointed in October 2012.

UCT researchers under the auspices of SaVI undertook five distinct research projects in 2012, namely:

- Violence interrupters: establishing a specialised cohort of domestic-violence social workers through an evidence-based violence-intervention approach;
- Violence and substance abuse at a Cape Town trauma centre;
- Violence and substance abuse in South Africa;
- The development of a brief intervention for substance users attending trauma clinics in the Western Cape;
- Use of new information and communications technology to consolidate post-conflict reintegration of former combatants and peace-building in Africa.

SaVI hosted two seminars in 2012 that directly related to informing discussion and decision-making in relation to communities affected by high levels of violence in Cape Town. In response to the rapid increase in violence in Khayelitsha over the past few years, the first seminar was held to consider the conditions and developments in Khayelitsha in relation to other areas in Cape Town, as well as to initiate a public conversation about how UCT can play a constructive role in promoting safety in violence-affected areas in the Western Cape. A second seminar was held in Hanover Park – widely considered to be one of the communities in Cape Town most affected by gang violence – which discussed youth programmes and lower-risk lifestyle support programmes that could reduce and prevent gang violence in this area.

2012 NRF Special Recognition Awards

From left: ***Bertha Chibale (representing her husband Professor Kelly Chibale), Professor Anusuya Chinsamy-Turan, Dr Gansen Pillay, Minister Naledi Pandor, Deputy Minister Derek Hanekom, Professor Timothy Noakes, and Dr Albert van Jaarsveld.***

Three UCT researchers were recognised for their outstanding work in 2012, through the National Research Foundation's special recognition awards.

Professor Timothy Noakes was honoured with the NRF Lifetime Achievement award for his pioneering work in sports science research, Professor Anusuya Chinsamy-Turan received the Transformation of the Science Cohort Award for her achievements as a palaeobiologist, and Professor Kelly Chibale was named the NRF's Champion of Research and Capacity Development at Higher Education Institutions in South Africa.

Vice-Chancellor Dr Max Price said of the accolades: "These awards celebrate three remarkable academics whose work has helped position UCT as an African hub of intellectual activity and research: exploring the continent's prehistory, the science behind excellence in sports, and the potential of different chemical compounds to cure Africa's diseases. They are part of UCT's platform for nurturing the next generation of academics for many other universities in the country and on the continent."

Professor Timothy Noakes

Lifetime Achievement Award

Professor Timothy Noakes has steadily built an international reputation in the area of sports science, biokinetics, and sports medicine. His research has not only challenged established dogma in the area of exercise and sports training, but also broken new ground in our understanding of human physiology and endurance.

The work of Professor Noakes and his research group has influenced a number of areas of endurance sport. For example, his recommendations have led to changes in practice regarding fluid ingestion. This and his other work led to the awarding of the Lifetime Achievement in Marathon Sports Medicine Research Award by the International Marathon Medical Directors Association in 2009, and resulted in the publication of his book *Waterlogged: The Serious Problem of Over-Hydration on Endurance Sports*, the culmination of 30 years of research that controversially exposes the false science advocated by the sports-drink industry in the USA in the marketing of their products, and examines the serious medical condition known as exercise-associated hyponatraemia, a condition first described and causation determined by Professor Noakes.

A noteworthy focus of his work has been on the Central Governor Theory of Fatigue during Exercise, which posits that the brain regulates exercise, controlling physical activity so that its intensity cannot threaten the body's homeostasis (internal stability) by causing ischaemic damage to the heart or other organs. This work led to a series of articles in the *British Journal of Sports Medicine* in 2005. His most recent article on this topic has attracted close to 7 000 Internet views, one of the highest for any article published in *Frontiers of Physiology*.

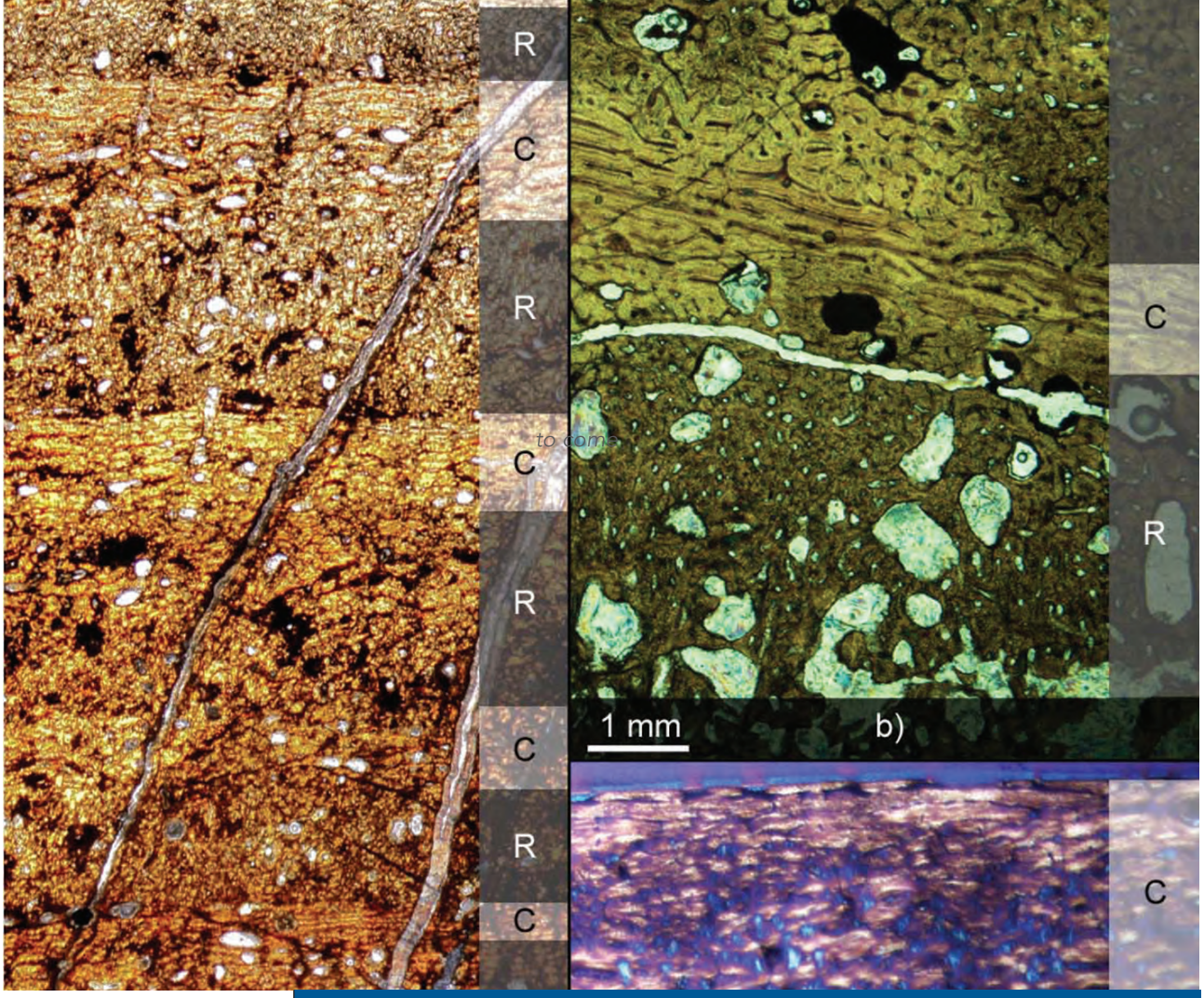
Professor Noakes began teaching of the sports sciences at UCT in 1981 and has supervised or co-supervised 77 MSc, MPhil, MD, and PhD graduates at UCT in areas such as sports medicine, exercise science, and physiology. He also founded the UCT/MRC Research Unit for Exercise and Sports Medicine, one of the longest-standing research units of the Medical Research Council. He also co-founded the Sports Science Institute of South Africa.

Professor Noakes has been a National Research Foundation A1-rated scientist since 2004. He maintains an H-index of 59 and his work has attracted well over 12 000 citations. He has authored/co-authored more than 80 book chapters, as well as over 425 internationally peer-reviewed articles in journals such as the *New England Journal of Medicine*, the *International Journal of Sports Medicine*, and the *SA Medical Journal*. He also currently serves on the editorial boards of 16 international journals.

He received the Citation Award from the American College of Sports Medicine in 1996, was elected founder member of the International Olympic Committee Science Academy in 1999, received the International Cannes Grand Prix Award for Research in Medicine and Water in 2001, and was awarded an Honorary Fellowship by the Faculty of Sport and Exercise Medicine in the UK in 2008. In 2011, he received an honorary doctorate from the Vrije University in Amsterdam. He is a Visiting Professor in Neuroscience and Biomedical Systems at the University of Glasgow, and in Sports Medicine at Sri Ramachandra University in India. In 2008, in recognition of his 'excellent contribution to the field of sport and the science of physical exercise', he was awarded the Order of Mapungubwe (Silver) by President Thabo Mbeki.

He is currently director of the UCT/MRC Research Unit for Exercise Science and Sports Medicine and Discovery Health Chair of Exercise and Sports Science at UCT.

A veteran of more than 70 marathons and ultra-marathons, Professor Noakes authored the book *Lore of Running* (1985), which is now in its fourth edition. The book, which is regarded as a runner's 'bible', draws on his research to explore the physiology of training, temperature regulation, ergogenic aids, injury prevention and treatment, and challenges much of the commonly held assumptions about running. His recently released autobiography, *Challenging Beliefs: Memoirs of a Career*, describes the significant themes and achievements in his scientific career.



Display of the alternating types of bone tissue present in the bones of the polar dinosaurs.

Professor Anusuya Chinsamy-Turan

Transformation of the Science Cohort Award

Professor Anusuya Chinsamy-Turan is a global expert on the microscopic structure of the bones of extinct and extant vertebrates. She is also head of the newly established Department of Biological Sciences at UCT (combining the former departments of botany and zoology).

The NRF award adds to several other highly acclaimed awards that recognise the value and impact of her work.

Early in her career, she received an NRF President's Award and was awarded the Royal Society Meiring Naudé Gold Medal. In 2003 she was awarded the National Science and Technology Forum Award for Outstanding Contribution to Science, Engineering, and Technology. This was followed by the 2005 South African Woman of the Year Award, which acknowledged her contribution to science in terms of both research and science communication to the wider public. In the same year she received the Distinguished Woman Scientist Award from the South African Department of Science and Technology.

She is former president of the Association of South African Women in Science and Engineering (SAWISE), former deputy president of the Academy of Science of South Africa, and has also served as director of Iziko Museums' Natural History Collections (which includes the South African Museum). Professor Chinsamy-Turan previously served as the chair of the Advisory Board of Scifest Africa, the biggest science festival in Africa, and currently serves as a board member for the US-based Jurassic Foundation. She is a Fellow of the University of Cape Town, the Royal Society of South Africa, and the World Academy of Science.

Professor Chinsamy-Turan has published extensively – both in international scientific journals (including four publications in *Nature,* and a recent publication in *Nature Communications*) and in the popular press. Her academic book *Microstructure of Dinosaur Bone – Deciphering Biology Through Fine Scale Techniques* was published by Johns Hopkins University Press, USA, in 2005 and her popular-level book for children titled *Famous Dinosaurs of Africa* was published by Struik, SA, in 2008. Her latest academic book is titled *Forerunners of Mammals: Radiation. Histology. Biology* (2012, Indiana University Press, USA), and she has another in the pipeline with Cambridge University Press.

Champion of Research and Capacity Development at Higher Education Institutions in South Africa

Professor Kelly Chibale holds the South African Research Chair in Drug Discovery at UCT, and is the director of the MRC/UCT Drug Discovery and Development Research Unit. He is a former co-director of the UCT Drug Discovery Signature Theme and established the Drug Discovery and Development Centre (H3-D) in 2010.

Professor Chibale joined the University of Cape Town in 1996 and has since built up an outstanding and impressive record of attracting and successfully supervising students and postdoctoral researchers, particularly those from designated groups. He has supervised to graduation 26 PhD and 21 MSc students. His research focuses on the discovery of potential drugs that fight malaria, tuberculosis, and helminth (parasitic worm), as well as cardiovascular and fibrosis diseases. His research group currently comprises 44 researchers, including 17 postdoctoral fellows, 19 PhD students, and 8 MSc students.

Professor Chibale has identified the need for South African scientists to enhance the drug-discovery capability of the country to address its health needs in particular, but also those of the rest of the African continent. Thus research into the discovery of potential medicines against the major diseases in South Africa and Africa is critical, along with the training of a new generation of South African and African scientists with the key modern pharmaceutical-industry skills required to discover modern medicines. In response to this need, Professor Chibale has developed a number of partnerships with major global organisations,

Professor Kelly Chibale

including pharmaceutical companies and not-for-profit organisations, which have been critical in building the much-needed research capacity and infrastructure at both UCT and other higher-education institutions in South Africa.

In a major breakthrough in 2012, Professor Chibale led the UCT drug-discovery team that discovered a compound that he and international research collaborator Medicines for Malaria Venture (MMV) hope will lead to the development of a single-dose treatment for malaria. The compound, named MMV390048, is the first compound researched on African soil to enter preclinical development in partnership with MMV. This project was voted and awarded the 2012 MMV Project of the Year award. In addition, the news of a possible single-dose cure for all strains of malaria not only dominated headlines around the world following its release in August 2012, but Elsevier's *Malaria Nexus* review voted it their most popular story of 2012. (*Also see page 20*).

Professor Chibale has published more than 130 articles in peer-reviewed journals, including a number of publications in leading journals in the field of drug discovery, such as the *Journal of Medicinal Chemistry* and *Drug Discovery Today*.

His recent awards have included the 2010/11 NSTF–BHP Billiton Awards in the category TW Kambule NRF Senior Black Researcher. This award gave recognition to Professor Chibale's role in the establishment of H3-D, Africa's first integrated modern drug-discovery centre, and the setting up of various modern technology platforms for the discovery of potential medicines. In 2009, he was elected Life Fellow of UCT and Fellow of the Royal Society of South Africa. He was also awarded the Alan Pifer Research Award for 2011. This is the UCT Vice-Chancellor's award made annually "to a single researcher at UCT in recognition of outstanding research that demonstrates relevance to the advancement and welfare of South Africa's disadvantaged people".

Naledi Pandor, South African Minister of Science and Technology and Dr Sindiso Mnisi Weeks.

Eleven UCT scholars featured among the winners of the 2012 South African Women in Science Awards, presented by the national Department of Science and Technology.

Leading the procession of UCT women was Professor Alison Lewis, who was named Distinguished Woman Scientist in the Physical and Engineering Sciences, and Dr Sindiso Mnisi Weeks who received the Emerging Researcher Award in a special category that recognised the use of science and technology to develop rural women and end poverty. This theme, which was in line with the 2012 United Nations theme for women, namely 'Empower rural women and end hunger and poverty', also took cognisance of Parliament's theme for 2012, 'Knowledge Economy and Development Opportunities'.

Professor Hanri Mostert (profiled on page 192) was runner-up in the category 'Distinguished Young Women Scientists: Social Sciences and Humanities'. DST fellowships for doctoral students were awarded to Joyce Mwangama, Gladwell Nganga, and Toni-Lee Sterley, and fellowships for master's students went to Matsopiane Maserumule, Lombe Mutale, siblings Narjis and Sumaiyya Thawer, and Akhona Vava.

Professor Alison Lewis

Distinguished Woman Scientist in Physical and Engineering Sciences

Professor Alison Lewis graduated with a BSc (Chemical Engineering), MSc (Chemical Engineering), and PhD, all from the University of Cape Town. She is a registered professional engineer and a professor in the Department of Chemical Engineering at UCT. She is also the UCT Orator.

Her interest in chemical engineering grew after she was inspired by the realisation that the practical application of mathematics and chemistry was fundamental to the field. She started a new group specialising in crystallisation and precipitation research, and the group has since become an accredited research unit at UCT. The research unit is funded by a range of national and international companies and consists of five staff members, one postdoctoral researcher, and 15 postgraduate students. Since the research unit's inception, 24 master's and PhD students have graduated and between them, they have published more than 100 international peer-reviewed publications, a patent, eight book contributions, and 85 conference presentations.

Both her MSc and PhD degrees focused on applied mathematical models for water treatment, and her research interests revolved around water treatment and, more recently, water refining.

Professor Lewis's research highlights crystallisation as a tool to purify metals such as platinum, palladium, and rhodium, as well as its potential to treat contaminated water such as acid mine drainage. She believes that it is essential to design water-treatment processes that are sustainable; they must not only produce pure water, but also recover the contaminants as useful products. This is one of her main research focus areas.

Professor Lewis has received a number of awards and honours, including the 2010 NRF President's Award for Research Capacity Development and a number of best conference paper and poster awards. She is also a member of the Academy of Science of South Africa and a fellow of the South African Academy of Engineering.

Award for the Development of Rural Women – Emerging Researcher

Dr Sindiso Mnisi Weeks completed her DPhil in Law in 2009 at the University of Oxford, where she was a Rhodes Scholar. She is a graduate of the University of Cape Town, from which she obtained a BA and LLB, both with distinction. Dr Mnisi Weeks is currently a senior researcher in the Centre for Law and Society (formerly the Law, Race and Gender Research Unit) at UCT, working on the rural women's action research programme, which combines research and policy work on women, authority, and property in terms of customary law. During 2011 and 2012, she was also a senior lecturer in UCT's Department of Private Law, where she co-taught African Customary Law.

Her publication work spans customary law, women's rights, traditional institutions, and the Constitution. Dr Mnisi Weeks has successfully supervised 17 student interns, fieldworkers, and research assistants. Her publication record includes eight peer-reviewed journal articles, three book chapters, and several legislative submissions.

Her main focus has been with rural women's exclusion from law-making and decision-making practices in traditional communities, as well as their participation in national legislative processes. Using methods that include rural women's participation, she has publicly challenged these forms of exclusion and the implications they have for rural women's ability to attain social and economic security.

Dr Mnisi Weeks's current research focuses on vernacular dispute-resolution forums in South Africa, and she has been actively involved in the co-ordination and representation of the multisector resistance to the passing of the Traditional Courts Bill. Her experience includes policy work, public education, and media publicity. As an emerging researcher, her recognition at an international level is steadily growing. She has been invited to contribute to publications alongside senior academics abroad and to deliver one of the keynote addresses at an international conference due to be held in Brazil in 2013.

Dr Mnisi Weeks is a former clerk of the Deputy Chief Justice of the Constitutional Court of South Africa, Dikgang Moseneke. She has won the Ismail Mahomed South African Law Reform Commission Essay Competition, among other awards. She was named one of the 200 Young South Africans (in the business and law category) by the *Mail & Guardian* in 2011, and she was part of the Law, Race and Gender research team that was awarded the Social Responsiveness Award by UCT in 2011.

2012/13

NSTF-BHP Billiton Awards

Seven UCT scholars were finalists in the prestigious 2012/13 National Science and Technology Forum–BHP Billiton awards, the 15th such event that recognises, acknowledges, and promotes excellence in the South African research and development community. The annual event is the flagship project of the largest and most prominent multi-stakeholder representative forum for science, engineering, technology, and innovation (SETI) organisations in South Africa.

Professor Graeme Cumming of the Faculty of Science received the TW Kambule NRF-NSTF Award to an Individual for an Outstanding Contribution to SETI through Research and its Outputs over the last 5 to 10 years. Professor Cumming is the Pola Pasvolsky Chair of Conservation Biology in the Department of Zoology (now Biological Sciences).

The ARTIST (Adaptive Real-Time Internet Streaming Technology) team (a collaborative effort between the Council for Scientific and Industrial Research, UCT, and East Coast Access) won the category for 'an Individual or a Team for an Outstanding Contribution to SETI through Research leading to Innovation: in a Corporate organisation or Institution'. From the UCT side, intellectual property (IP) was developed by a team of researchers in the Department of Electrical Engineering, headed by Associate Professor Mqhele Dlodlo, Professor Gerhard de Jager, and Dr Guy-Alain Lusilao Zodi. This IP has been licensed by the Consortium to start up Tuluntulu, which is currently commercialising it.

Professor Robert Millar, director of the Mammal Research Unit at the University of Pretoria and Senior Research Scholar in UCT's Faculty of Health Sciences, received the NSTF award made to an individual for an outstanding contribution to SETI over a lifetime.

Other finalists from UCT were Professor Dan Stein, head of the Department of Psychiatry and Mental Health and director of the MRC Unit on Anxiety Disorders at the University of Stellenbosch, Professor Karen Sliwa-Hahnle, director of the Hatter Institute for Cardiovascular Research in Africa (Department of Medicine, UCT), and director of the Soweto Cardiovascular Research Unit at the University of the Witwatersrand, and Associate Professor Kobus van Zyl, who was part of the Aqualibrium Civil Engineering Team.

T W Kambule NRF-NSTF Award to an Individual for an Outstanding Contribution to SETI through Research and its Outputs over the last 5 to 10 years

Professor Graeme Cumming, Pola Pasvolsky Chair of Conservation Biology in the Department of Zoology (now Biological Sciences), received the 2012/13 T W Kambule NRF-NSTF Award, for his research into the theory and application of complexity theory in ecological and social-ecological systems.

Professor Cumming studied Zoology and Entomology at Rhodes University and then attended Oxford University, UK, on a Rhodes Scholarship. While at New College, Oxford, he completed his doctorate on 'The Evolutionary Ecology of African Ticks'. From Oxford he moved to the University of Wisconsin-Madison, where he was funded by a D H Smith Postdoctoral Fellowship from The Nature Conservancy (TNC). In Madison, he worked with TNC and Professor Steve Carpenter at the Center for Limnology on applying species-based models to management and conservation-related problems in freshwater systems. After two years as a postdoctoral research fellow, he was hired as an Assistant Professor in the Department of Wildlife Ecology and Conservation at the University of Florida (UF). He left UF at the end of 2005 to take up the Pola Pasvolsky Chair in Conservation Biology at the University of Cape Town's Percy FitzPatrick Institute.

Professor Cumming has a wide range of interests, which centre on understanding spatial aspects of ecology and the relevance of broad-scale pattern-process dynamics for ecosystem (and social-ecological system) function and resilience. He is also interested in the applications of landscape ecology and complexity theory to conservation and the sustainable management of natural resources.

Research currently being undertaken by Professor Cumming and his students falls into two main programmes.

Professor Graeme Cumming, pictured with Minister in the Presidency, Trevor Manuel, and Dr Thandi Mgwebi of the National Research Foundation.

The first focuses on water birds and their parasites, pathogens, and movement ecology. This programme is currently addressing the complex movement patterns of waterfowl around Southern Africa and their role in the spread of pathogens (particularly avian influenza and avian malaria), plant seeds, and aquatic invertebrates. Waterfowl movements have important implications for waterfowl and wetland conservation, human health, and poultry production. The second programme focuses on the topic of spatial resilience and is using protected areas as a case study for understanding the relevance of location, spatial context, connectivity, and network membership for social-ecological sustainability.

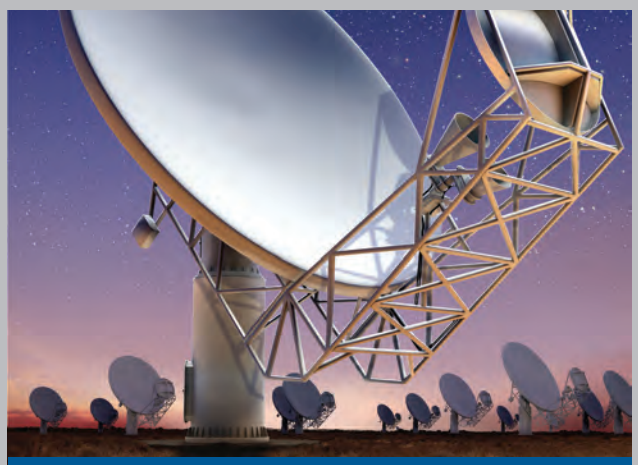
Professor Cumming has published more than 100 peer-reviewed journal articles and book chapters, including two books. He has successfully supervised more than 30 postgraduate students and is a past recipient of the Meiring Naudé Medal of the Royal Society of South Africa, which is awarded for 'scientific achievement by a scientist under the age of 35 years'. His current research is funded by the National Research Foundation and a complexity scholar award from the James S McDonnell Foundation.

RESEARCH THEMES

56 CELEBRATING ONE HUNDRED YEARS OF HEALTH SCIENCES

80 POVERTY AND INEQUALITY

92 OUR WORLD AT RISK



112 REACHING FOR THE STARS

122 EVERY DROP COUNTS

130 SUSTAINABLE CITIES

142 BEING HUMAN

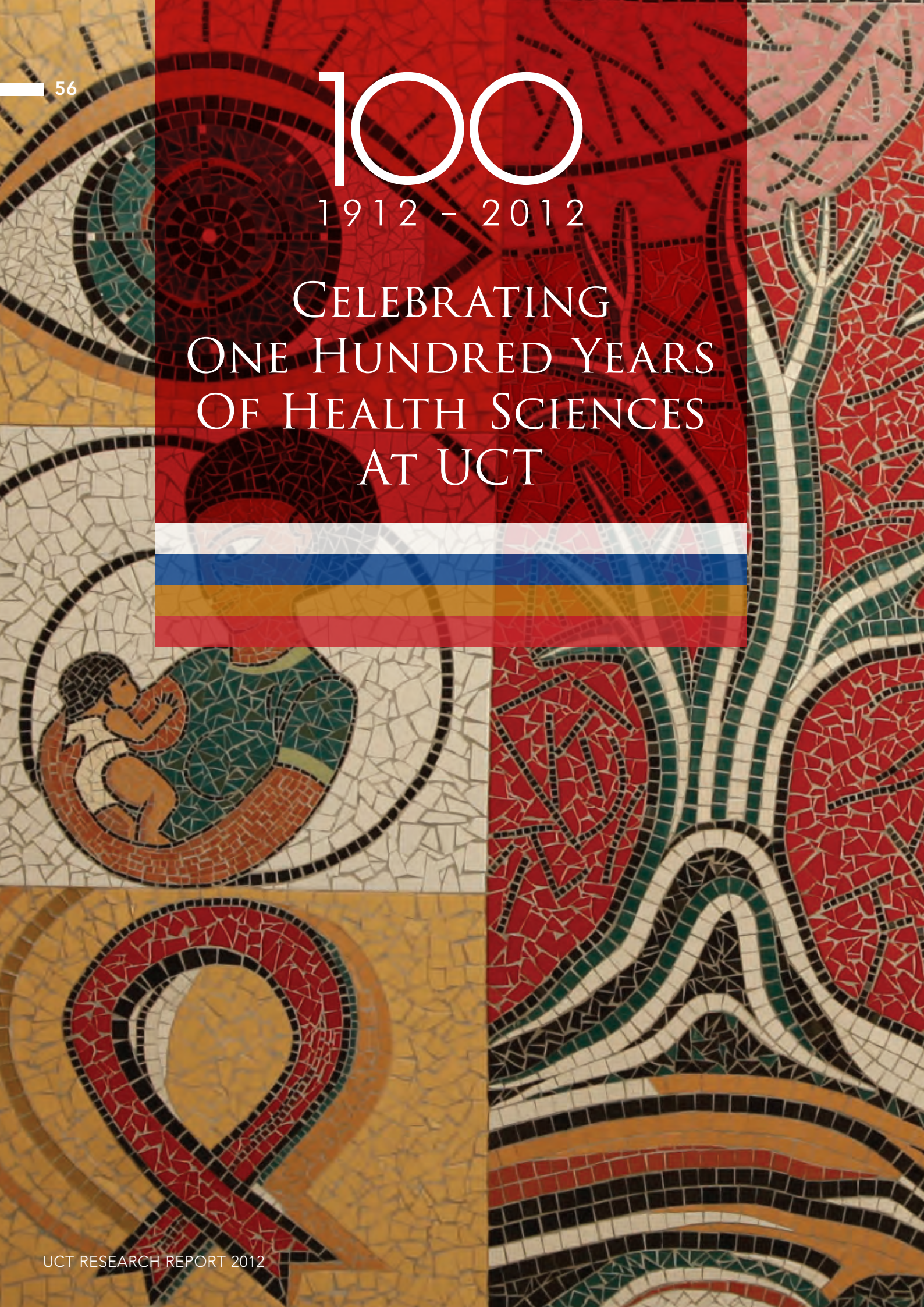
158 THE GREEN ECONOMY

168 ENGINEERING THE FUTURE

180 LAW IN CONTEXT

196 COMMERCE BEYOND THE NUMBERS

202 GLOBAL PARTNERSHIPS, LOCAL ICT SOLUTIONS



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1912 - 2012

Celebrating One Hundred Years Of Health Sciences At UCT

In 2012 the Faculty of Health Sciences celebrated a century of extraordinary growth, achievement and excellence in advancing health, nationally and globally. This milestone marked the passing of one hundred years since the opening of the first medical school buildings on the Hiddingh Campus on 6 June 1912. UCT has the oldest medical school in sub-Saharan Africa, and has educated some of the finest minds in the country. We have also produced some of the greatest medical advances to arise from Africa, such as the first test of its kind for pregnancy, the first successful heart transplant, and the research that led to the development of the computerised tomography (CAT) scanner.

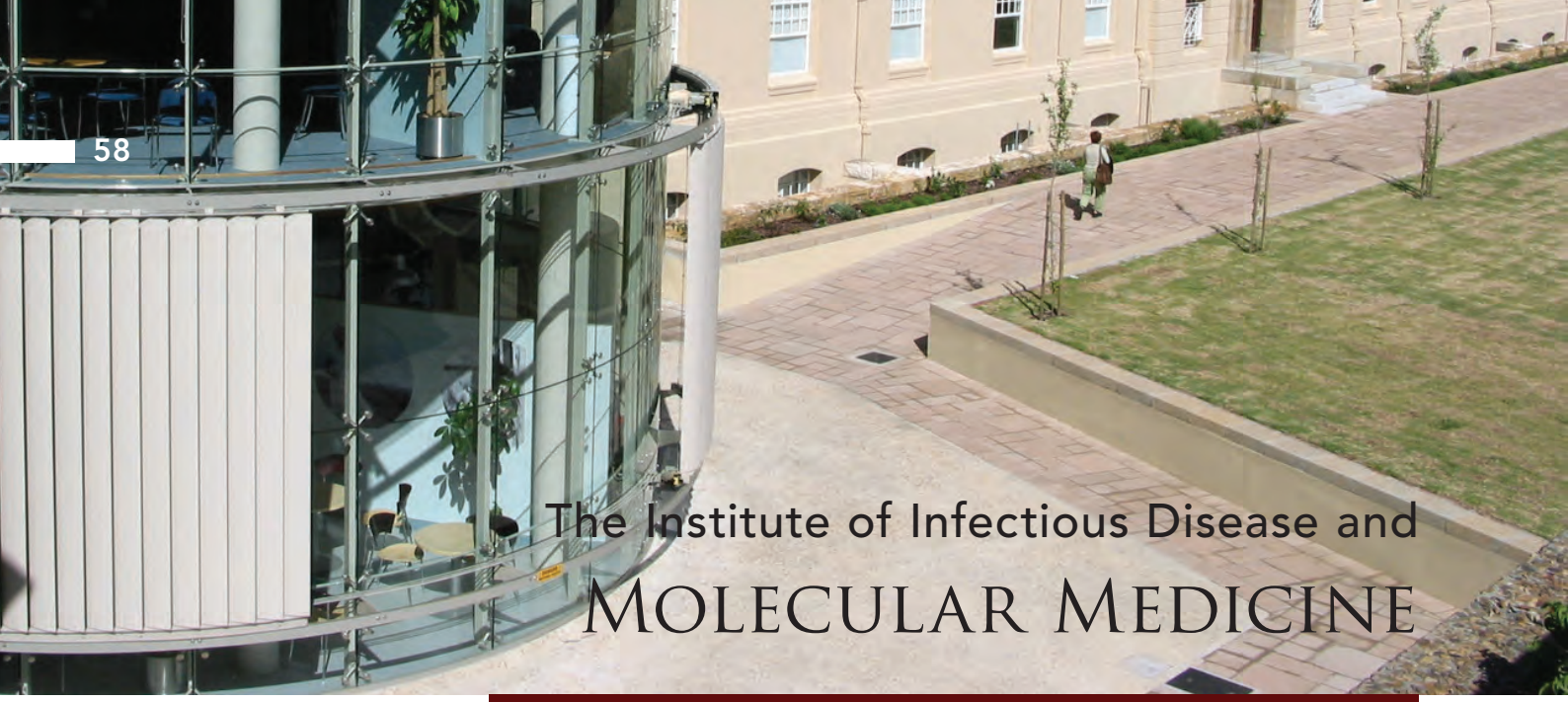
The Medical School of 1912 has grown into a 21st-century Faculty of Health Sciences, comprising a range of health disciplines including basic, clinical, rehabilitation and public health sciences. The current-day mission of the faculty is to address health challenges by promoting quality and equity in healthcare services, educating health practitioners for life and undertaking cutting-edge, relevant research. The reach and impact is extensive as the faculty keeps pace with global approaches to academic health sciences, accelerating efforts to improve health on our continent, and building a future through which we will sustain our contributions to health throughout the world. With a modernised curriculum, the demographic profile is transformed and the admissions of students from all corners of our country and beyond have increased substantially. Increasingly, the faculty's staff, like that of the rest of the university, enjoys an international reputation for excellence, and graduates continue to make their mark in the world.

The reach and impact is extensive as the faculty keeps pace with global approaches to academic health sciences, accelerating efforts to improve health on our continent, and building a future through which we will sustain our contributions to health throughout the world.

Amongst the more than 70 centenary-branded events held during 2012 were a number of research-related activities. These included the inaugural Wolfson Memorial Colloquium, with a keynote address titled *A New Agenda for Global Health* by Baron Peter Piot, Professor of Global Health and Director of the London School of Hygiene and Tropical Medicine. A centenary academic debate was held on the topic '*Cholesterol is not an important risk factor for heart disease and current dietary recommendations do more harm than good*', with arguments from UCT's Professor Tim Noakes (proponent) and Dr Jacques Rossouw of the National Institutes of Health in the USA. A a community partnership event and a more focused community-collaboration event highlighting the faculty's work with the Masiphumelele region, titled *Masiphumelele – Bringing science to the community*, and hosted by the Desmond Tutu HIV Centre. A centenary edition of the *South African Medical Journal* was created to showcase some of the academic highlights from the faculty over the last century, as well as its more recent research.

The late Emeritus Professor Chris Barnard who performed the world's first successful heart transplant in 1967 at Groote Schuur Hospital.

One of the key messages that the centenary celebrations conveyed was that the faculty has 'a prestigious reputation for medical achievement and cutting-edge research that has impacted on health globally'. Over the next pages, we share achievements of the Faculty of Health Sciences and flagship university health-related research initiatives.



The Institute of Infectious Disease and Molecular Medicine

The Institute of Infectious Disease and Molecular Medicine (IIDMM) is the largest research entity at the University of Cape Town. As a trans-faculty postgraduate research institute, its focus is on infectious diseases, particularly HIV/AIDS and tuberculosis; non-communicable diseases, such as prevalent cancers; genetic medicine; and molecular medicine, including drug discovery. In 2012, the IIDMM was home to 27 full members, nine associate, 12 affiliate (early/mid-career researchers) and nine adjunct members. 150 master's and PhD students were hosted, as were 76 postdoctoral research fellows and 140 research-funded staff.

The goals of the institute are focused on high-quality, internationally competitive research, relevant to Africa. Additionally, the institute aims to influence health policy and practice, and to be a major training hub in Africa for biomedical, clinical and public health researchers. It is particularly important that the work of the institute is translational – that the discoveries and pursuits are taken from the laboratories and applied in our communities. Importantly, the IIDMM's research themes, which are determined by members' specific interests, align closely with national health priorities.

Consistent with its established reputation, the IIDMM has continued to grow in research excellence and output. Journal publications for the institute at the end of 2012 totalled over 200, and included papers published in *Nature Medicine* (impact factor 22.5), *Lancet* (impact factor 38) and *American Journal of Respiratory and Critical Care Medicine* (impact factor 11). Collaborative research continued with colleagues based at 15 South African institutions, 17 African institutions in 12 other countries, and 122 institutions in 27 countries further afield, and included 42 consortia.

The vision of the IIDMM is to be a centre of excellence where researchers work together to tackle diseases of major importance in Africa. As a postgraduate research institute that fosters world-class research at the intersection of the basic, clinical and public health sciences, the IIDMM has become home to some rising stars whose work is attracting major attention in the global arena.

Tackling Critical Questions in TB Vaccine Research in SATVI

To implement the mission of the South African Tuberculosis Vaccine Initiative (SATVI) – "Innovative and high-quality TB vaccine research in Africa, to impact the global epidemic" – a research group, led by Professor **Willem Hanekom** and Dr **Tom Scriba**, has been testing six new TB vaccine candidates in 15 completed or ongoing clinical trials. SATVI also addresses other critical clinical, epidemiological, immunological and human genetic questions in TB vaccine development.

A large focus of the latter research is identification of markers in blood to indicate whether a person is at risk of developing TB disease, or protected against TB disease: so-called correlates of risk of disease or of protection. SATVI has emerged as a world-leading research group in this area, evidenced by multiple grants awarded from the National Institutes of Health, the European and Developing Countries Clinical Trials Partnership (EDCTP), and the Bill and Melinda Gates Foundation. For example, in 2012, the Director of SATVI, Professor Willem Hanekom, was awarded a $4.77 million grant from the Gates Foundation, while SATVI's Deputy Director for Immunology and Human Genetics, Dr Tom Scriba, was awarded an EDCTP Senior Fellowship. The longitudinal correlates studies focus on correlates of risk of TB disease in various settings: after BCG and novel vaccination against TB in infants, after community-wide TB exposure in adolescents, and after household exposure to a person with lung disease in adults. Preliminary results point to marked heterogeneity in mechanisms of risk of TB disease and, secondly, to importance of inflammation. These results have already challenged current paradigms in TB pathogenesis.

Research at the Intersection of TB and HIV

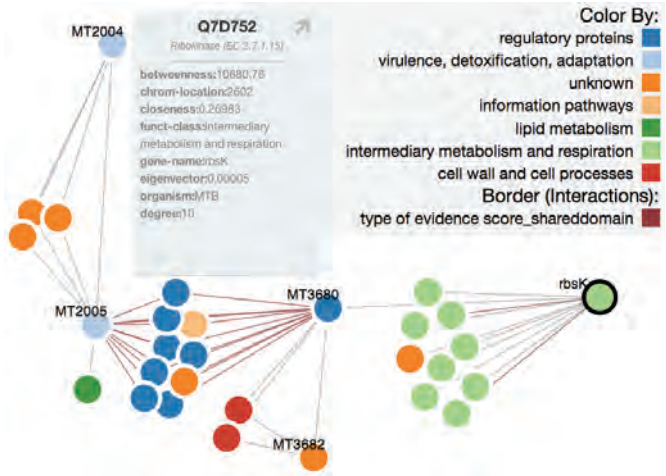
HIV has driven a dramatic resurgence of the TB epidemic and a quarter of all HIV-associated TB cases globally are diagnosed in South Africa.

The research of early- career scientists **Graeme Meintjes** and **Wendy Burgers** is focused at the intersection of HIV and TB. Associate Professor Graeme Meintjes is an infectious-diseases physician whose research is targeted at improving understanding and clinical management of conditions affecting patients with advanced HIV disease. He was awarded a five-year Wellcome Trust Intermediate Fellowship in 2012 that will support a prospective cohort study of 660 patients admitted to hospital with HIV-associated TB. This study is aimed at defining contributors to the high mortality in these patients and improving treatment strategies. He is also principal investigator of a randomised controlled trial of prednisone for the prevention of the TB-associated immune reconstitution inflammatory syndrome, a frequent complication occurring during early antiretroviral therapy in patients with HIV and TB. This trial is funded by an EDCTP Strategic Primer Award made in 2012. Dr Wendy Burgers is a UCT and University of Cambridge-trained immunologist who holds a five-year Wellcome Trust Intermediate Fellowship. She leads a growing research group of three postdoctoral research fellows and four postgraduate students, seeking to understand why HIV infection leads to a greater susceptibility to TB. Also funded by a Senior Fellowship Award from the EDCTP, her work takes the unique perspective of attempting to understand immunity to TB and the effect of HIV at the site of disease, the lung. She is also principal investigator on an NIH grant focusing on identifying the mechanisms of excessive immune activation during HIV infection, a process that drives progression to AIDS. These studies could reveal important new targets for immune intervention during HIV infection.

Research Projects

Building Capacity in Bioinformatics and Computational Biology

In 2012 Associate Professor **Nicola Mulder** and Dr **Darren Martin** from the Computational Biology (CBIO) Group at the IIDMM together published 27 papers or chapters in the international peer-reviewed literature.

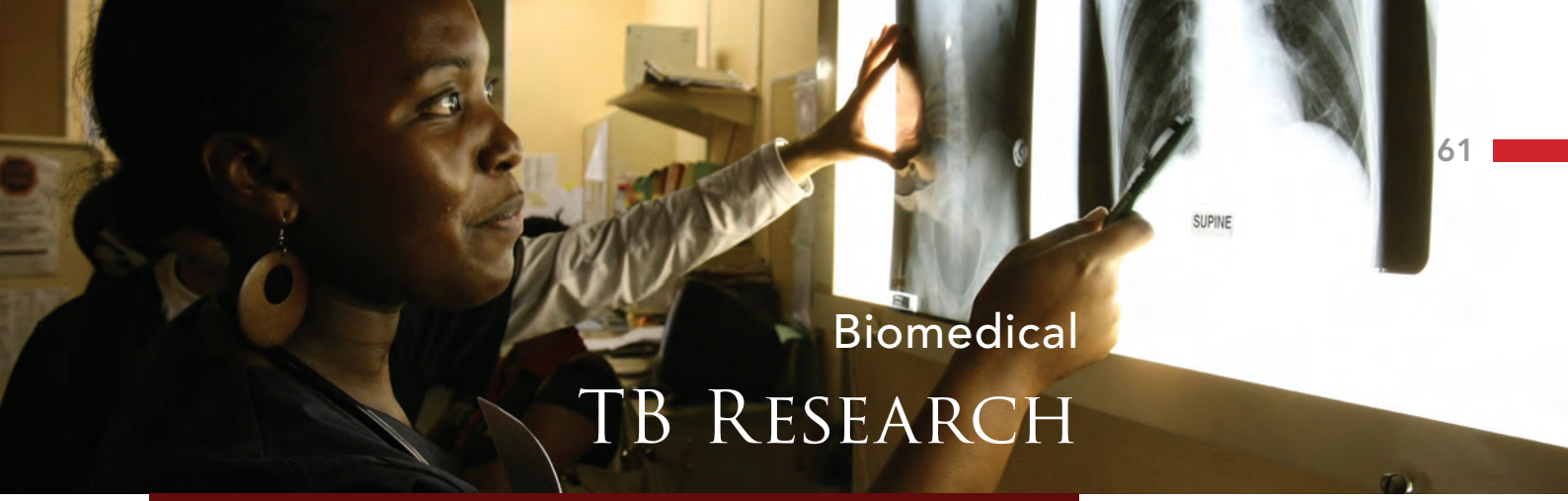


These papers covered a remarkable diversity of topics, from the development of advanced computational methods for analysing bacterial and viral protein and nucleic acid interaction networks to the application of these and other computational tools to detailed analyses of many of Africa's most prevalent infectious diseases. While the foundation of CBIO's research strategy has been the development of extensive networks of local and international collaborators (many of whom work at the cutting edge of either infectious disease or computational biology research), its success has been primarily based on the training and excellent work of a constant stream of top master's and PhD students and postdoctoral research fellows from across Africa. A particular highlight for the group in 2012 that enables this is the award to Associate Professor Mulder of a $12-million NIH-funded Human Heredity and Health in Africa (H3Africa) grant aimed at nurturing and growing computational biology-based research collaboration and student training networks across Africa. The CBIO group is co-ordinating bioinformatics groups in more than 30 institutions across 15 African countries through the H3ABioNet project. (Also see page 65.)

Tackling Critical Questions in HIV Prevention and Pathogenesis

In 2012, Professor **Carolyn Williamson** (HIV Diversity and Pathogenesis Group) and Associate Professor **Jo-Ann Passmore** (HIV Mucosal Immunology Group) together published 20 papers in international peer-reviewed journals and one book chapter focusing on HIV prevention and pathogenesis.

A highlight was a paper in *Nature Medicine* which demonstrated that HIV mutation, in an attempt to avoid host immune detection, was required for the evolution of potent HIV-specific broadly cross-neutralising antibodies. Understanding how to elicit broadly cross-neutralising antibodies though vaccination is a major question in Professor Williamson's field and her laboratory played a leading role in this discovery. She and Associate Professor Passmore also co-authored two important studies in the *Journal of Infectious Diseases* highlighting the failure of the syndromic management approach to adequately treat sexually transmitted infections in women in communities with high HIV incidence rates. After the acquisition of HIV, genital inflammation remained a significant predictor of worse clinical HIV disease outcome. In recognition of their notable track record in mucosal immunology and HIV transmission, Professor Williamson, Associate Professor Passmore and four other members of the IIDMM were awarded a competitive R5-million EDCTP Strategic Primer grant aimed at bringing together a multicentred mucosal immunology consortium of investigators committed to establishing scarce skills capacity for mucosal research surrounding HIV prevention trial sites in South Africa.



Biomedical

TB Research

The major focus of the UCT node of the DST/NRF Centre of Excellence for Biomedical TB Research (CBTBR), which was established in 2011, is on strengthening the node's research thrusts in fundamental research in the physiology and metabolism of *Mycobacterium tuberculosis* of relevance to drug discovery and drug resistance. The node is engaged in three inter-related drug-discovery projects. Two of these form part of large international TB drug consortia funded by the Bill and Melinda Gates Foundation and the European Union Seventh Framework Programme respectively. The third project is being carried out under the auspices of the South African Tuberculosis Research and Innovation Initiative, funded by the Technology and Innovation Agency. This project has formed the basis of a new university-wide collaborative partnership with Professor Kelly Chibale's group in the H3-D Centre for Drug Discovery.

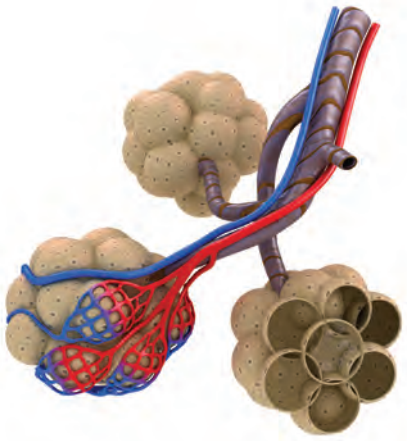
Further efforts in 2012 have focused on identifying opportunities for new collaboration with other TB research groups in the IIDMM, including the Desmond Tutu HIV Centre, the Clinical Infectious Diseases Research Initiative and the South African Tuberculosis Vaccine Initiative, in studies that can capitalise on the CBTBR's expertise in mycobacterial genetics, genomics, biochemistry and physiology. Encouraging progress has been made in this area, with several new projects under discussion.

A major research output in 2012 was a publication in *Chemistry & Biology* by Dr Garth Abrahams, Professor Valerie Mizrahi and international collaborators at the US National Institute of Allergy and Infectious Diseases, Seattle BioMed and Cambridge University describing the development and application of engineered strains of *Mycobacterium tuberculosis* as novel tools for TB drug discovery. In another important development, Dr Krishmoorthy Gopinath and Dr Digby Warner succeeded in identifying the protein responsible for uptake of vitamin B12 by *Mycobacterium tuberculosis*. This work, which was carried out in collaboration with colleagues at the Swiss Federal Institute of Technology in Lausanne with funding from the Swiss-South Africa Joint Research programme, was presented at two international conferences in France, and has been submitted for publication.

Professor Mizrahi was selected as a Senior International Research Scholar of the Howard Hughes Medical Institute (HHMI) in 2012. Her five-year grant from the HHMI will support programmes in fundamental TB research and advanced postgraduate training at the UCT node.

Research in
Child Lung Health

Driven by the large burden of childhood respiratory illnesses in South Africa and Africa, Professor Heather Zar of UCT's Department of Paediatrics and Child Health has built a strong clinical translational research programme focused on developing strategies to improve child lung health. This has been underpinned by the growth of a busy clinical research unit at the Red Cross War Memorial Children's Hospital and training of several master's and doctoral students. She is currently leading a new initiative that will see an expanded paediatric clinical research unit completed this year, with satellite sites in community settings, enabling growth of clinical research and building much capacity in child health in South Africa and Africa.



This research addresses the leading causes of childhood illness and death in African children – tuberculosis, pneumonia, HIV-associated respiratory illness and asthma. A strong focus has been on evolving new strategies for diagnosis, prevention and treatment of pneumonia – the major killer of children under five years of age – including those for HIV-infected children. A recently completed project included a study of the impact of the new pneumoccocal conjugate vaccine (introduced in 2009 in South Africa) on hospitalisation for childhood pneumonia and on the cause of pneumonia. Tuberculosis, the major cause of death in South Africa and a relatively neglected, important cause of childhood illness, has been another focus, particularly the development of better ways to diagnose and prevent childhood TB. This work has been supported by grants from the National Institutes of Health (NIH) and the European Developing Country Clinical Trials Partnership.

Together with Professor Mark Nicol (Head of Microbiology at UCT) and a research team, Professor Zar recently published the first landmark papers showing the usefulness of GeneXpert – a rapid way to diagnose TB that simultaneously diagnoses drug-resistant disease – when used in children. The studies, published in the leading journals *Lancet Infectious Diseases* and *Clinical Infectious Diseases*, showed that TB could be rapidly detected on induced sputum or on nasal mucus in 75% of children with culture-confirmed disease. Such findings have changed global practice, with potential major impact for improving diagnosis and treatment of childhood TB; the World Health Organisation has recently recommended this as the standard of care for children with suspected TB living in areas of high HIV prevalence or drug resistance.

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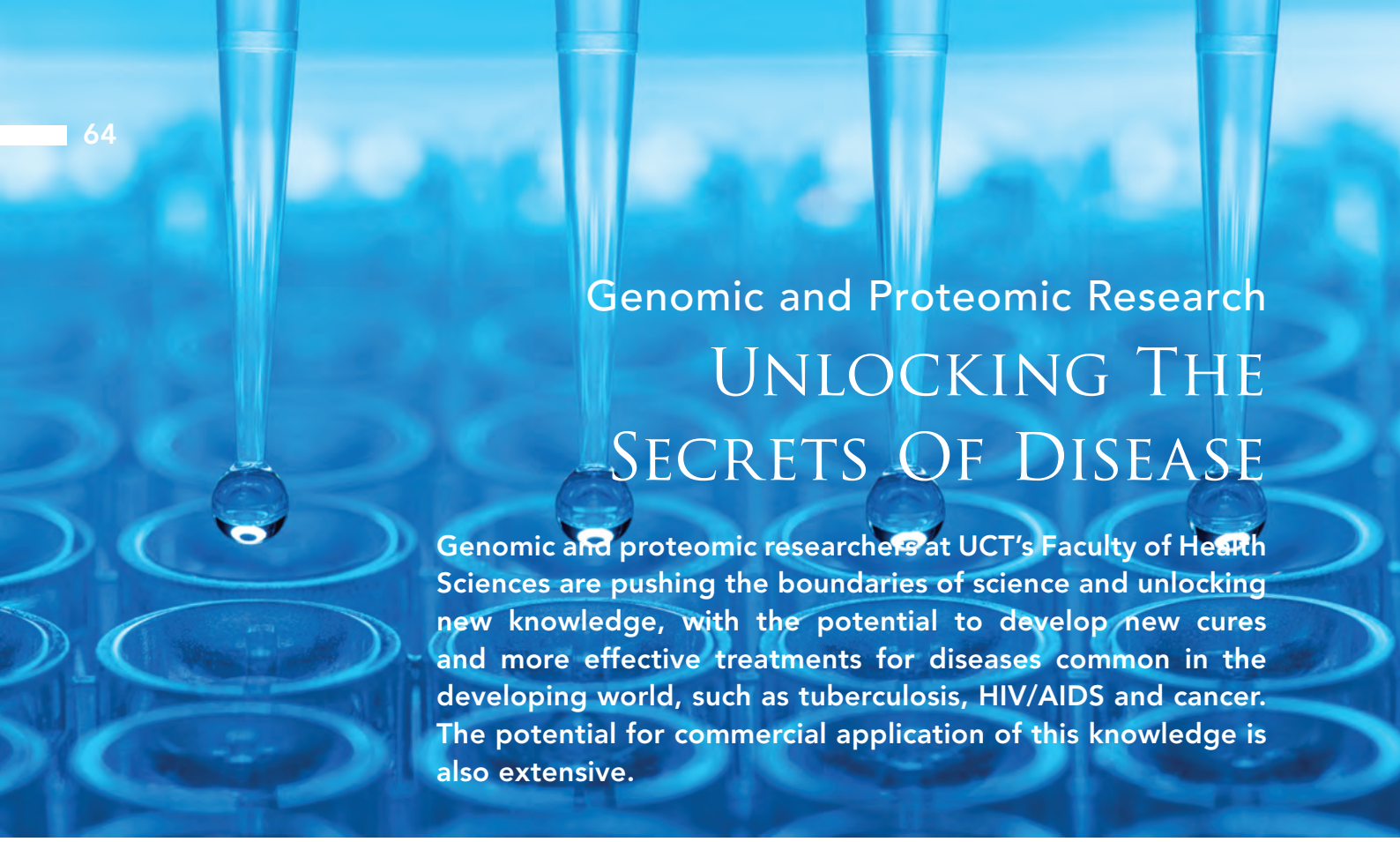
Prevention of TB in HIV-infected children has been another strong area of research. Professor Zar and her group have previously shown that isoniazid (INH), a drug used to treat TB, was highly effective in reducing mortality and preventing TB in HIV-infected children with advanced HIV/AIDS. Building on this, a key recent publication showed that INH had an additive effect to antiretroviral therapy in preventing TB in such children. In 2012, Dr Lisa Frigati, a MMed student supervised by Professor Zar, received the best-publication award in the Department of Clinical Sciences for a young investigator for this work, which was published in the prestigious journal *Thorax*.

In a first for the African continent, Professor Zar recently set up a birth cohort study (the Drakenstein Child Lung Health Study), which is funded by the Bill and Melinda Gates Foundation. This multidisciplinary study investigates the determinants of pneumonia and the long-term impact on child health with focus areas including nutrition, infectious diseases, environmental exposures, psycho-social factors, maternal and paternal health, and genetic and immunological factors. To date, almost 500 pregnant women have been enrolled and 260 babies born. There are 13 postgraduate students working on different aspects of the study; several have been awarded prestigious

national and international grants for sub-studies nested in the Drakenstein cohort. Exciting preliminary results have emerged from some of these areas, particularly those led by Professor Mark Nicol (microbiology aspects), Professor Landon Myer (epidemiological aspects), Professor Dan Stein (psychosocial aspects) and Dr Aneesa Vanker (environmental aspects). Another first for the African continent is the use of infant lung function in this study, which has been led by Dr Di Gray, a PhD student, for which she received a Wellcome Trust training award. The pilot results from infant lung-function testing indicate excellent success in performing this, and substantial differences in lung function in six-week-old infants compared to their European or North American counterparts, suggesting an innate vulnerability to pneumonia.

More recently, the research focus has expanded to include a study of the health of HIV-infected adolescents, a growing population with unique, but poorly understood, health needs. Together with co-investigator Professor Landon Myer, Professor Zar was awarded a large five-year grant from the NIH to study the development and progression of respiratory, cardiac and neurocognitive disease in a cohort of HIV-infected adolescents. This multidisciplinary research involves collaborators in the Departments of Paediatrics and Child Health, Medicine, Public Health, and Psychiatry, and the IIDMM, and has the potential to identify mechanism of disease and novel preventative and treatment strategies.



Genomic and Proteomic Research

Unlocking The Secrets Of Disease

Genomic and proteomic researchers at UCT's Faculty of Health Sciences are pushing the boundaries of science and unlocking new knowledge, with the potential to develop new cures and more effective treatments for diseases common in the developing world, such as tuberculosis, HIV/AIDS and cancer. The potential for commercial application of this knowledge is also extensive.

Functional genomics research has the potential to yield the sort of information, discoveries, and inventions that translate into future biomedical advances and commercial activity. For instance, a functional genomics programme that studies patterns of protein and lipid expression in peripheral fluids taken from a group of tuberculosis (TB) patients could lead researchers to discover molecular markers that diagnose TB. These would then form the basis of a new point-of-care diagnostic test for TB that works in low-resource settings. This would be a major healthcare innovation in the developing world, and generate commercial activity worldwide.

This field of speciality requires state-of-the-art, high-throughput analytical technologies. Fortunately, these are now available locally and Department of Science and Technology investments in the Centre for Proteomic and Genomic Research, along with capital equipment acquired by UCT and partner universities, is transforming the Western Cape into an oasis of genomic and proteomic research.

The future prospects for major breakthroughs at UCT in both infectious and non-communicable diseases are bright, even though it is a long and often rocky road that leads to discovery and validation of the sort of disease-associated biomarkers that can be translated into lifesaving health care innovation.

Research programmes in this area are heavily dependent on the availability of sophisticated bioinformatics tools and the expertise to analyse and make sense of the vast quantities of raw experimental data generated – an area of increasing strength for UCT.

South Africa provides a remarkable wealth of clinical resources, including a population that represents more than 95% of the world's human genetic diversity, along with

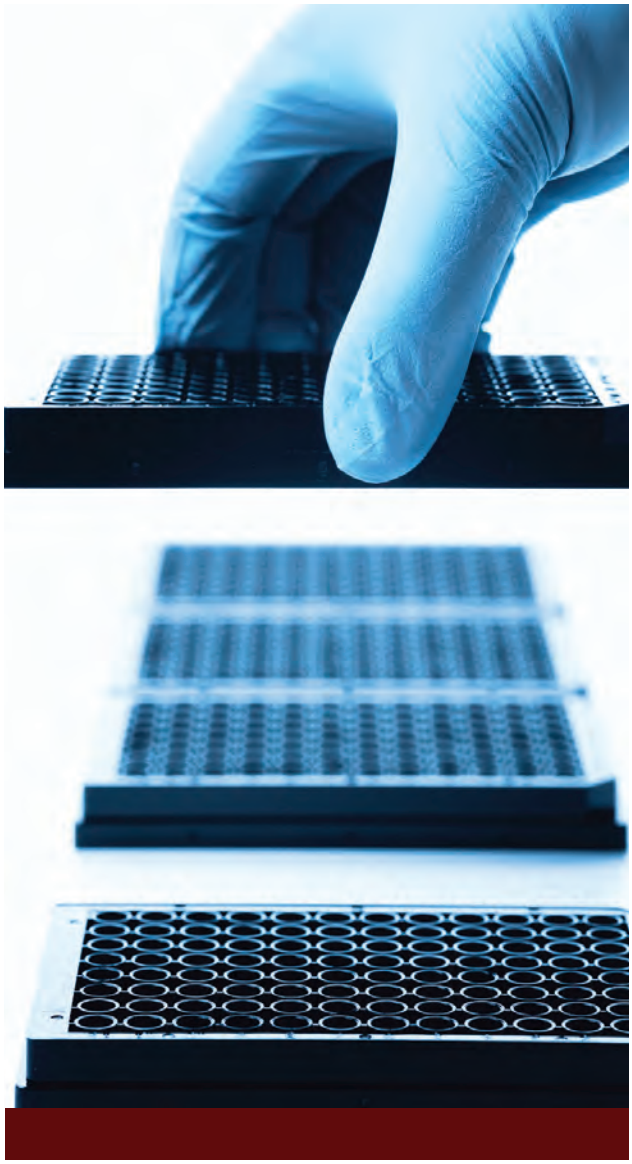
a heavy burden of existing and emergent diseases. However, programmes are notoriously expensive, due to the scale of research – many thousands of genes, proteins, or small molecules are measured in parallel, through time and under different environmental conditions, in a large number of biological samples, in order to enable statistically significant quantitative conclusions.

Research is heavily dependent on the availability of sophisticated bioinformatics tools and expertise to analyse and make sense of the vast quantities of raw experimental data generated – an area of increasing strength for UCT.

This is beyond the scope of traditional South African funding agencies. Fortunately, major international donors are increasingly committing to funding functional genomics research at UCT. Examples of these partnerships include the National Institutes of Health and the Wellcome Trust that, together with the African Society for Human Genetics, fund the Human Heredity and Health in Africa initiative (H3Africa); the Bill & Melinda Gates Foundation (BMGF); the European and Developing Countries Clinical Trial Programme (EDCTP); and the Canadian Institutes for Health Research (CIHR).

South Africa provides a remarkable wealth of clinical resources, including a population that represents more than 95% of the world's human genetic diversity, along with a heavy burden of existing and emergent diseases.

The H3Africa initiative studies the genomic and environmental determinants of disease in Africa, supporting African population-based genomic studies of common, non-communicable and communicable diseases. It also aims to build capacity for genomics research; create and expand genomics research infrastructure on the African continent, by supporting the development of a bioinformatics network and pilot biorepositories; and fund studies of the societal implications of genetic and genomics research.



African population-based genomic studies of common, non-communicable disorders, such as heart and renal disease, and communicable diseases like tuberculosis, is critical and is being led by African scientists – many of whom are at UCT.

Researchers typically work in multidisciplinary collaborations across a number of experimental platforms, which are made possible through established collaborative networks within UCT and beyond.

The future prospects for major breakthroughs in both infectious and non-communicable diseases is bright, even though it is a long and often rocky road that leads to discovery and validation of the sort of disease-associated biomarkers that can be translated into lifesaving healthcare innovation.

Brain Behaviour

Given the complexity of human psychology, research on brain and behaviour requires a multidisciplinary approach, spanning molecular biology, cognitive and affective neuroscience, and public mental health. Women in a number of different departments across the university have made a significant contribution to the efforts of the Brain and Behaviour Initiative (BBI), one of UCT's signature themes. The BBI initially focused on psychological trauma and resilience, but over time these scientists have also addressed other questions that are particularly relevant to South Africa, including neuroHIV/AIDS and addiction.

Professors Nicola Illing and Vivienne Russell investigate the molecular aspect of brain-behaviour studies. Professor Illing has a particular interest in gene expression, with an interest in how psychological stress changes gene expression in the brain. In order to begin to address this question, she mentored a student project that focused on comparing gene expression in white cells and in the brains of rodents exposed to stress. The data were the first to be published in this area, and have led to a patented test. She is currently working with a postdoctoral research fellow on gene expression in white cells in people who abuse methamphetamine.

Genes are ultimately translated into proteins. Professor Russell and postdoctoral research fellow Dr Jacqueline Dimatelis have focused on protein expression in animal models of stress and of substance use. Their work suggests that the combination of early-life adversity and later methamphetamine use results in more alterations in protein concentration in a key area of the brain – the nucleus accumbens – which is involved with reward

processing. Ultimately, the hope is that, by understanding such molecular processes in more detail, new targets for treatment can be developed.

Professor Ernesta Meintjes is the DST/NRF SARChI Chair in Brain Imaging, and has played a particularly important role in conducting clinical research relevant to the BBI mission. Her work has included studies of children with fetal alcohol syndrome, as well as children with neuroHIV/AIDS, and involves collaborations with clinician-scientists abroad and locally. Much of her research is funded by the National Institutes of Health. As children are not easily able to lie still during imaging, she and her collaborators at the Massachusetts General Hospital have developed new MRI sequences, which facilitate motion correction during the analysis of scans.

Professor Dan Stein, Director of the BBI, says that he is pleased that women scientists are making such a large contribution to the BBI, and notes that, when it comes to BBI postdoctoral research fellows and doctoral students, women are again taking the lead.

Dr Katherine Sorsdahl, the project manager of the BBI, represents the public health aspect of brain-behaviour studies. Together with her mentor, Honorary Associate Professor Bronwyn Myers, she has been involved in intervention studies for people suffering from substance-use disorders. Given the resource constraints that local mental-health services face, she has focused on using lay counsellors to provide the interventions, an idea known as "task-shifting". Her preliminary findings indicate that such interventions can make a large difference. Dr Sorsdahl is enthusiastic about continuing to study treatments that are simple and inexpensive enough to be rolled out to the public on a large scale.

Professor Dan Stein, Director of the BBI, says that he is pleased that women scientists are making such a large contribution to the BBI, and notes that, when it comes to BBI postdoctoral research fellows and doctoral students, women are again taking the lead. Their research projects range from those focusing on molecular science (Shareefa Dalvie, Nastassja Koen and Jacqueline Womersley) to neuroimaging (Samantha Brooks, Jacqueline Hoare, Anne Uhlmann, Sarah Cotton, and Daniella Vuletic) and clinical and public mental-health aspects (Sonja Pasche, Nicole McAnda, Taryn Amos, Maxine Spedding, and Claire van der Westhuizen).

A number of young scientists have focused on translational science in particular, moving between "the bench and the bed": Dr Fleur Howells, for example, has undertaken a series of animal and human studies in order to address the role of particular neurotransmitter systems in mental disorders.

"Our aim," Professor Stein says, "is to go from bench to bed and beyond, in order to begin to address key questions in the brain-behaviour sciences, and to find new approaches to the diagnosis and treatment of mental disorder." The BBI is keen to attract more staff and students to work in this area.

The importance of EXERCISE

Physical activity and exercise are the fulcrums around which the UCT/MRC Research Unit for Exercise Science and Sports Medicine (ESSM) research is conducted, and the unit adopts an integrated approach to research. Broadly, the unit's research falls into three focus areas, covering the spectrum from physical activity for health, to clinical sports medicine, to exercise for performance. These focus areas are inter-linked by a multidisciplinary approach that borrows from the disciplines of, among others, genetics, molecular science, nutrition, physiology, biochemistry and biomechanics to better understand every aspect of physical activity and exercise. That broad strategy, delivered through the application of basic and applied sciences, has resulted in a number of key research projects in 2012.

The Study and Promotion of Physical Activity for Health

The goal of this project is to study barriers to and factors that facilitate health-seeking behaviours such as physical activity, in various settings and populations, in order to develop and then measure the effectiveness of interventions aimed at improving these lifestyle behaviours and health status. This project is led by Dr Tracy Kolbe-Alexander, who leads ESSM's public health and physical activity research, along with Professor Vicki Lambert.

Working in conjunction with Discovery Vitality, academics from the University of the Witwatersrand, and Emory University, Dr Kolbe-Alexander has helped to develop and evaluate the Healthy Company Index in South African companies. The first in a series of peer-reviewed publications was published in the *Journal of Occupational and Environmental Health*. In recognition of her research in this area, Dr Kolbe-Alexander was asked to serve as a panelist and speaker at the recent Global Healthy Workplace Awards and Summit in London. A similar project is the South African Fittest City Index, which compares the health and fitness profiles of eight metropoles. Finally, in an African first, Dr Kolbe-Alexander investigated the relationship between the built environment and physical activity in older adults, finding that neighbourhood safety was one of the main barriers to physical activity while the neighborhood aesthetics played a role in increasing activity among those over the age of 60 years.

Professor Lambert and her team have been focusing on the ecological determinants of adult and childhood obesity, as part of the five-country, NIH-funded, Modelling the Epidemiological Transition Study, spearheaded by the Department of Epidemiology and Community Health at Loyola University in Chicago, and including the Seychelles, Ghana, Jamaica, USA and South Africa. More recently, Professor Lambert has served as the in-country PI for the 12-country ISCOLE Study (International Study of Childhood Obesity, Lifestyle and the Environment). Data from this study will be used to formulate the third in a series of Healthy Active Kids South Africa Report Cards (2007, 2010, and now 2014), and forms the basis of two doctoral studies. Finally, Professor Lambert was a member of a prestigious writing group for *The Lancet's* Physical Activity Series of five scholarly peer-reviewed manuscripts which appeared in July 2012 in conjunction with the London 2012 Olympics, and had as the primary focus the global evidence for physical activity and health.

Prevention and Management of Chronic Diseases

South Africa faces enormous challenges as a result of the rising prevalence of obesity and associated disease such as cardiovascular disease and diabetes. Paradoxically, these diseases of "excess" occur against a South African context of poverty, and the combination has significant implications for the health of our country.

For the last couple of years, Dr Lisa Micklesfield and Dr Julia Goedecke have explored various methods to measure visceral adipose tissue (VAT), the fat around the organs associated with metabolic disease. Waist circumference can be used as an indirect measure of VAT; however, there are a number of limitations with this method, and for this reason they have assisted with developing a method to more accurately estimate VAT using dual x-ray absorptiometry technology.

This work was subsequently published in the *Journal of Obesity*, and has subsequently received a fair amount of attention both internationally and locally. This methodology has since been included in the dual energy x-ray absorptiometry software (DXA) to allow for more accurate measurement of VAT using this technology. Future research will include examining the association between this DXA-derived measure of VAT and disease outcomes in different populations and hopefully will increase our understanding of this association.

Research Project

Sporting Performance, Medicine and Sports Injuries

The Paralympic Games of London in 2012 were the biggest, most successful and, by virtue of a comprehensive series of research studies conducted by ESSM in partnership with the International Paralympic Committee, the most researched Paralympics in history.

The 2012 London Paralympics showcased the performances of over 4,000 athletes from 164 nations. It was also the opportunity for a comprehensive evaluation of injury and illness from a team of ESSM researchers, led by Professors Wayne Derman and Martin Schwellnus, in collaboration with the International Paralympic Committee.

The research, published in a series of papers in the *British Journal of Sports Medicine*, described a web-based surveillance system that captured statistics of 3,565 athletes, from 160 nations, to provide a goldmine of data involving 49,910 athlete days.

Among the intriguing findings was that the patterns of injury and illness are different from those of able-bodied athletes – more upper-limb injuries (shoulder, hand, wrist and elbow) occur in Paralympic athletes than in able-bodied athletes. "Interestingly," explains Professor Derman, "this is true even in lower-limb amputees, and is likely because normal daily activities like getting in and out of cars places a greater load on the upper limbs, making them more susceptible to injury as a result of sports participation."

The research also found that one in nine athletes developed an illness during the Paralympic Games, and that non-respiratory tract illnesses, including urinary tract and skin conditions, are more common than respiratory tract infections in Paralympic athletes. "The implication is that medical care for Paralympic athletes is very different from that of able-bodied athletes, and team physicians must be mindful of these differences when planning their intervention strategies for both prevention and treatment of illness and injury," explains Professor Derman.

Sporting performance and injury research also has a genetic slant through the work of Professor Malcolm Collins and Drs Alison September and Mike Posthumus. Having previously identified various DNA sequence variants associated with tendon and ligament injuries, the group has continued this but with the ambition of expanding into a more mechanistic understanding of genes and injury. "It is important for us to move beyond simply associating gene variants with injury. We want to determine how these variants are involved in altering risk," explains Professor Collins. This means borrowing from other techniques, including cell and molecular biology, to add to world-leading genetic research already conducted by ESSM.

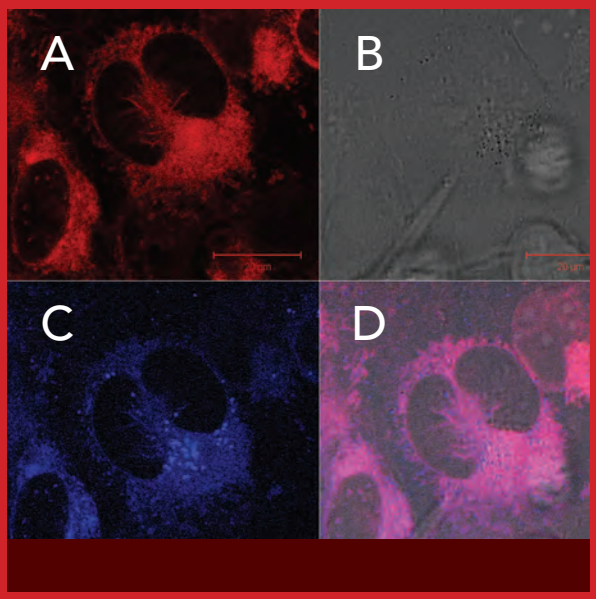
ESSM have also, over the last year, developed a research-consultant relationship with SA Rugby's safety programme, BokSmart, directed by Dr Wayne Viljoen, an ESSM graduate. "SA Rugby has set up an excellent infrastructure to log and monitor cases, and we are helping analyse the data to identify how to improve implementation and direct future policy," explains Professor Mike Lambert, who has overseen the project from ESSM's side, along with PhD student James Brown.

Developing the Potential of Garlic to Fight Cancer

Garlic *(Allium sativum)* has been used in folk medicine for centuries both as a food flavour-enhancer and for its beneficial health effects. Although the pungent garlic taste is not universally loved, the beneficial medicinal properties are widely known to fight infections, heart disease and cancer. These medicinal properties are attributed to the organosulfur compounds found in crushed cloves, of which the compound *E/Z*-ajoene is one of the major constituents ("ajo" comes from the Spanish for "garlic").

Traditional garlic extracts have yielded low amounts of ajoene as part of a mixture of products. Professors Roger Hunter and Iqbal Parker and Dr Catherine Kaschula have developed the first synthetic route to ajoene analogues, which has been patented by UCT. The researchers identified the ajoene anti-cancer "pharmacophore" (the group of atoms in the molecule of a drug that are actually responsible for the drug's action) to be the disulfide, with the vinyl and sulfoxide groups further enhancing activity. This facilitates the design and synthesis of more-potent ajoenes than the natural product. These are currently undergoing pre-clinical evaluation.

Recently, a fluorescent-tagged ajoene has for the first time enabled the UCT researchers to track ajoene's activity within the cancer cell, as shown in the photomircographs. It is now thought that ajoene interferes with protein-folding in the cancer cell, which induces programmed cell death (apoptosis). This novel anti-cancer mechanism can be used in a multi-pronged approach with current anti-cancer therapeutics to kill cancer cells.



Fluorescent images of MDA-MB-231 breast cancer cells treated with a blue fluorescing-ajoene. Breast cancer cells (B) were stained with a dye which causes the endoplasmic reticulum (ER) of the cell to fluoresce red (A) and then treated with the blue-fluorescing ajoene (C). An overlay of both red and blue fluorescent signals shows a "pink" signal (D) indicative of the fluorescing ajoene localising to the ER (red + blue = pink).

Research Groupings
associated with this theme

Lung Infection and Immunity Unit

The Lung Infection and Immunity Unit (LIIU) comprises approximately 40 students and staff embedded within the Division of Pulmonology in the Department of Medicine at UCT. The research focus is on lung infections and diseases of poverty, including tuberculosis, pneumonia and HIV. The unit also has a clinical trials division, which is located within the UCT Lung Institute. The unit's research focus areas include the pathogenesis, diagnosis and outcomes of multi-drug-resistant pulmonary infections, the development and evaluation of field-friendly diagnostics for TB and other pulmonary infections, and the immunology of pulmonary infections with special emphasis on regulatory T-cells and innate immunity.

The LIIU is a WHO-associated African Network for Drugs and Diagnostics Innovation Centre of Excellence. The work of the unit has informed policy documents on drug-resistant TB and diagnostics, and seminal work has been published about the immunology of pulmonary TB.

Capacity-development activities have included the organisation of several popular annual courses attended by researchers from all over Africa, the establishment of clinical recruitment infrastructure at clinical trial sites in Cape Town, and the training and mentorship of clinician scientist PhD students. A recently filed patent has spawned a UCT spin-off company that is developing a diagnostic test for extrapulmonary tuberculosis.

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Hatter Institute for Cardiovascular Research In Africa

The aims of the Hatter Institute for Cardiovascular Research in Africa are to facilitate national and international research collaborations, to consolidate and expand existing efforts to combat the most serious cardiovascular threats to health, and to improve overall prosperity in the region. Major research areas are cardiac disease and maternity, cardioprotection, cardiovascular genetics and Heart of Africa projects. In Africa, cardiovascular disease is the most common cause of maternal death in pregnant women. The objective of the institute's Cardioprotection Group is the delineation of novel cardioprotective pathways that can be activated to limit cell death in various pathophysiological conditions such as heart failure, myocardial infarction or diabetes. The Cardiovascular Genetics Group aims to discover the genetic basis of inherited heart diseases that cause sudden death. This work involves the study of rare families with monogenic disease (that is, inherited cardiomyopathies and arrhythmogenic disorders), and the delineation of the genetic architecture of complex traits associated with sudden death (such as cardiac hypertrophy). These studies hold promise of discovering the critical biological pathways that can be targeted by drugs to prevent sudden cardiac death. The Heart of Africa Pan-African Hypertension Cohort was established in 2010 to describe the epidemiology and characteristics of pulmonary hypertension in Sub-Saharan Africa.

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Members of the Lung Infection and Immunity Unit

Adolescent Health Research Unit

Adolescents face a wide range of health problems, owing to a combination of biological, social, and psychological factors. There is thus a niche for a research facility that focuses specifically on the health needs of adolescents. The Adolescent Health Research Unit at UCT builds on existing research and collaborations to co-ordinate, promote and facilitate research into all aspects of adolescent health. The specific aims of the unit are to facilitate cutting-edge inter-disciplinary research that addresses key national public adolescent health priorities; to promote networking among adolescent health researchers, practitioners, and policy makers; to increase the profile of the Faculty of Health Sciences in the arena of world-class adolescent health research; to provide policy consultation at local, provincial, national, and international levels; and to increase and improve educational offerings in adolescent health at undergraduate and postgraduate levels.

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MRC/UCT Cape Heart Centre

This combined research entity is the largest heart research group in South Africa and forms part of the Cape Heart Group, which links research between UCT and the other universities in the region. The Hatter Institute, which is part of the MRC/UCT Cape Heart Centre, is involved in the study of the molecular and cellular biology of ischaemic heart disease, as well as the molecular and cellular pathophysiology of cardiac hypertrophy and heart failure. The goal of the research programme is to contribute to the fundamental understanding of the mechanisms in the development of ischaemic heart disease, cardiac hypertrophy, and heart failure. The Cardiovascular Research Institute, to which is allied the Medtronics Institute, is studying biocompatible materials for vascular and valvular prostheses. Lipidology is concerned with research into lipid and lipoprotein disorders in patients in the region and novel treatment strategies for these disorders. Its research also includes new diagnostic assays for local problems in health care and lipid peroxidation.

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Cardiovascular Research Unit

The core research pursuit of the Cardiovascular Research Unit centres around the concept of regenerative medicine, with the goal of engineered regeneration of diseased structures through co-ordinated and site-directed signalling to facilitate gradual in-situ remodelling of surgically replaced hybrid biosynthetic devices. These offer patients an immediate dramatic improvement in quality of life through return to functionality of these diseased structures.

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Centre for Infectious Disease Epidemiology and Research

The Centre for Infectious Disease Epidemiology and Research (CIDER) aims to be an African Centre of Excellence in infectious disease epidemiology and related research. The centre has a strong base that spans a number of disciplines and conducts public health research, integrating laboratory, clinical, epidemiological, social science, and health systems research into infectious diseases that have high priority in Southern Africa (in particular, HIV and tuberculosis) in order to improve the prevention and management of these diseases. The centre maintains strong links with health services at all levels in order to identify research priorities, and assists policy makers, programme managers, and services managers with the implementation of the results of research. The centre aims to be a centre of excellence in the surveillance and monitoring of infectious diseases and infectious disease programmes and services, and in the conduct of robust observational research, based on routine data sources. CIDER provides extensive postgraduate level teaching and supervision in epidemiology.

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MRC/NHLS/UCT Molecular Mycobacteriology Research Unit

The Molecular Mycobacteriology Research Unit (MMRU) was established in 2000 as an extramural research

Research Groupings
associated with this theme

unit of the MRC, hosted jointly by the National Health Laboratory Service and the University of the Witwatersrand. In 2011 the MMRU was transferred to the University of Cape Town, where it is now based in the Institute of Infectious Disease and Molecular Medicine. The mission of the MMRU is to carry out fundamental research on aspects of the physiology and metabolism of relevance to tuberculosis drug resistance and drug discovery. By adopting a research strategy that is based on investigating specific aspects of the metabolism and physiology of Mycobacterium tuberculosis, the MMRU has positioned itself at the front-end of TB drug discovery research.

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Web: http://www.health.uct.ac.za/research/groupings/mmru/; http://www.mrc.ac.za/mycobacteriology/mycobacteriology.htm

Desmond Tutu HIV Centre

The activities of the Desmond Tutu HIV Centre (DTHC) are underpinned by research and evaluation. It aims to impact on policy and practice, both nationally and internationally, through relevant research, peer-reviewed publications, and feedback to government, civil society, and the community at large. DTHC is driven by a passion for humanity and a vision of South Africa without AIDS. Over the years, it has become a source of advice for medical practitioners, support for people seeking testing or treatment, and leadership in preventative education. With an experienced and dedicated team of more than 165 doctors, nurses, researchers, and community-trained field workers, the Desmond Tutu HIV Centre offers a holistic approach to the HIV epidemic.

Director: Professor R Wood
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Institute of Infectious Disease and Molecular Medicine

Concentrating our research efforts on infectious diseases, particularly HIV/AIDS and tuberculosis, and on non-communicable diseases prevalent in Africa, the Institute of Infectious Disease and Molecular Medicine aims to be a centre of research excellence in Africa, and a major training hub for biomedical, clinical, and public health researchers. The institute provides its members, affiliates, and visiting scholars from around the world with an environment that is highly interactive,

allowing complex scientific problems framed in a public health context to be tackled in a multidisciplinary way. Collaborations, partnerships and networks contribute to our world-class scientific endeavours. Our strong scientific base spans many areas of modern, molecular-based enquiry, including molecular and cell biology, immunology, virology, microbiology, genetics and genomics, biochemistry, pharmacology, vaccinology, molecular epidemiology, and structural, high-throughput and computational biology. Our aim is to apply scientific discovery from the bench to the bedside and to the community through a dynamic interplay between basic, clinical, and public health research.

Director: Professor V Mizrahi
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Drug Discovery and Development (H3-D) Centre

The Drug Discovery and Development Centre (also known as H3-D) was founded in 2010. The centre aims to bridge the gap between basic and clinical studies, and to train a new generation of African scientists with the key skills required for drug discovery

and development, thereby integrating medicinal chemistry, biology and pharmacology, as well as drug metabolism and pharmacokinetics studies, as reflected in the processes of absorption, distribution, metabolism and excretion. H3-D also focuses on the beneficiation of clinically used drugs, including generic medicines. Drug beneficiation, among other things, involves the selection of the optimum form of a solid drug candidate for pharmaceutical development and (re)formulation.

Director: Professor K Chibale
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Web: http://www.h3-d.co.za

MRC/UCT Immunology of Infectious Diseases Research Unit

Human infectious diseases are a high-priority area for South Africa and Africa, where they continue to be a leading cause of childhood and adult morbidity and mortality. Thus the MRC/UCT Immunology of Infectious Diseases Research Unit focuses on the understanding of host-protective immune responses and the development of effective vaccine strategies for the eradication of diseases that are identified as priority areas by the World Health Organisation: tuberculosis, leishmaniasis, helminthis diseases (bilharziosis) and African trypanosomiasis (sleeping sickness). The unit's mission is to be relevant as an excellent multidisciplinary and international team, embracing both basic and applied research, in order to improve capacity, teaching, and training in the immunology of infectious diseases.

Director: Professor F Brombacher
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MRC/UCT Oesophageal Cancer Research Group

The MRC/UCT Oesophageal Cancer Research Group is an inter-disciplinary and inter-institution group (UCT, MRC and the University of Stellenbosch), established by the MRC in 1997. Squamous cell carcinoma of the oesophagus is one of the eight most common cancers worldwide. High-incidence areas include China, Japan, and certain hot spots in France, Iran and South America. More important is the fact that the incidence of squamous cell carcinoma of the oesophagus is very high in Southern and Eastern Africa, but virtually absent in West Africa. This group is investigating the environmental and genetic factors that predispose Africans to this disease.

Director: Professor MI Parker
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Web: http://www.iidmm.uct.ac.za/iparker/index.htm

MRC/UCT Receptor Biology Research Group

The mission of the group is to study the structure and function of G protein-coupled receptors and to apply the research to understanding and treating diseases that have major effects on the social and economic welfare of South Africa. The group focuses on the gonadotropin-releasing hormone receptors and on the kisspeptin receptor, which are central regulators of the reproductive function, on the prostaglandin receptors and their role in cervical cancer, and on the CCR5 chemokine receptor and its role in Human Immunodeficiency Virus (HIV) entry and infection.

Co-Directors: Associate Professor AA Katz, Dr CA Flanagan and Professor RP Millar
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UCT Leukaemia Unit

The UCT Leukaemia Unit was established with the objective of fostering basic and clinical research in the area of haematological stem cell disorders and blood malignancies. Some of the current interest includes the marrow microenvironment in multiple myeloma, molecular genetics of acute or chronic leukaemias, and clinical studies in lympho-proliferative disorders. As a consequence, a laboratory with a comprehensive array of equipment is available where honours, master's and doctoral students are running research projects. Based on these studies, a number of clinical and laboratory programmes have been developed. In this regard, the only university-based haematopoietic stem-cell transplantation programme in the country is located at Groote Schuur Hospital. Parallel studies focusing on haematopoietic stem-cell biology and immune reconstitution after transplantation are ongoing.

Director: Professor N Novitzky
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Research Groupings
associated with this theme

Albertina and Walter Sisulu Institute of Ageing In Africa

The Albertina and Walter Sisulu Institute of Ageing in Africa is a cross-disciplinary group within the Department of Medicine in the Faculty of Health Sciences and incorporates the divisions of Geriatric Medicine, Geriatric Neuropsychology, Geriatric Neurosciences and Geriatric Psychiatry, and a Gerontology programme. The institute strives to be an academic and research centre of excellence that addresses critical issues of ageing in Africa, and serves as a catalyst for local, national, and regional expertise and a focal point for the development of research services and training. Its mission is achieved through inter-disciplinary and cross-national partnerships and research collaboration, human-resource development, and policy information in the national context and on the African continent. Areas in which research projects are currently conducted at the institute include physical, cognitive and social functioning, and quality of life; vascular risk factors and stroke; falls in older persons and quality of care; and dementia and risk factors for cognitive disorders.

Director: Dr S Kalula
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Web: http://www.instituteofageing.uct.ac.za

MRC/UCT Human Genetics Research Unit

The group's current focus is on the genetics of colorectal cancer, inherited forms of blindness, and neuropsychiatric diseases. Recent breakthroughs include identifying the genetic basis of retinitis pigmentosa and developing therapeutics to stem loss of vision in individuals shown to carry the disease-causing mutation. A greater effort is being put into engaging with high-throughput technologies and the mapping of genes for common chronic disorders.

Director: Professor R Ramesar
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MRC/UCT Medical Imaging Research Unit

The mandate of the Medical Imaging Research Unit (MIRU) is to conduct world-class research in medical imaging that specifically addresses the healthcare needs of Africa. Although located in the Western Cape, the MIRU sees itself as a national facility, with the responsibility of providing an imaging platform that is available to the wider research community in the country. Our research focuses on the role of medical imaging in addressing problems such as trauma, cancer, tuberculosis, HIV/AIDS, neuromuscular disorders, cardio-vascular disease, and alcohol abuse, all of which pose serious threats to public health in South Africa. In addition to using established techniques to address local healthcare needs, we are developing novel imaging methods in areas such as magnetic resonance imaging, mammography and microscopy, which are appropriate for our national context but will also find application in the rest of the world. The unit has strong collaborative links with Western Cape hospitals, the local medical device industry, and international institutions.

Director: Associate Professor T Douglas
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Women's Health Research Unit

The Women's Health Research Unit, established in 1996 in the School of Public Health and Family Medicine, is involved in research, teaching, technical health service support, and advocacy in the areas of women's health, and gender and health. It is made up of a multidisciplinary team of researchers with expertise in public health, epidemiology, sociology, and anthropology. The unit works closely with the national, Western Cape provincial, and City of Cape Town Departments of Health, as well as with other academic institutions and NGOs, in sexual and reproductive and women's health. Key research areas include HIV and reproductive health, gender and HIV, health systems research (reproductive health), female cancers, contraception, and termination of pregnancy.

Director: Dr J Harries
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UCT/MRC Research Unit for Exercise Science and Sports Medicine

The UCT/MRC Research Unit for Exercise Science and Sports Medicine is part of the Department of Human Biology, within the Faculty of Health Sciences. The

primary functions of the unit are to research factors influencing physical performance and health, and to disseminate knowledge and skills through education. Specifically, the research aims to develop a novel understanding of integrated human function during exercise and to use this knowledge to promote health and well-being; to treat and prevent specific chronic diseases; to treat and prevent injuries and medical conditions associated with sport and exercise; and to optimise exercise performance.

Director: Professor TD Noakes
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Centre for Supramolecular Chemistry Research

Located in the Faculty of Science, this group was constituted in 1997 and focuses on the physical chemistry of supramolecular systems. Various host-guest compounds are synthesized, their structures analysed by means of powder and single crystal X-ray diffraction, as well as thermal and spectroscopic techniques, and the results related to their physical properties. Our research efforts concentrate on the beneficiation of drugs through investigation of their polymorphs, solvates, co-crystals, and cyclodextrin inclusion complexes; on the synthesis and characterisation of open framework transition metal structures and purely organic porous materials, and on the synthesis and characterisation of large supramolecular assemblies and the study of guest selectivity in organic host-guest systems.

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Structural Biology Research Unit

The Structural Biology Research Unit co-ordinates and promotes the experimental determination of biological structure at the University of Cape Town. The Unit is a grant funded entity, operationally located in the Division of Medical Biochemistry, Department of Clinical Laboratory Sciences, that employs staff, provides a home for post-graduate students and post-doctoral fellows and conducts research. It has members who are UCT academics who wish to conduct structural research and who are prepared to apply for grants to fund research in the Unit. The Unit also has affiliates, either from South Africa or abroad, who participate in the activities of the Unit in a variety of ways – including but not limited to: providing advice and expertise, exchanging materials, providing resources and using the resources of the Unit.

The visualization of the structure of biological objects ranging from cells to macromolecules with microscopic or atomic detail is essential for understanding how living systems work. The knowledge of the structures can be exploited to produce medicines and vaccines, ecologically friendly industrial processes and agricultural products. The unit specializes in determining structures experimentally by electron microscopy and X-ray crystallography and makes extensive use of computer based modelling to extend the results. The unit has access to unique resources for the purification and preliminary characterization of proteins, cryo-electron microscopy and X-ray diffraction at a synchrotron beamline. It plays a pivotal role in South Africa's BioEconomy strategy by providing the core expertise for establishment of the discipline of Structural Biology in the whole country and applying the technology to a wide range of problems of scientific, medical and industrial interest.

Director: Professor BT Sewell
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Gender, Health and Justice Research Unit

The Gender, Health and Justice Research Unit at the University of Cape Town's Faculty of Health Sciences (Division of Forensic Medicine and Toxicology) conducts progressive research in the area of women's rights. Faced with staggering levels of violence against women in South Africa, the unit is dedicated to improving access to health and justice services for survivors of gender-based violence. The unit uses inter-disciplinary methods from various academic fields, including law, the social sciences, and public health, to contribute to policies and laws, and to advocate for social justice. Among its current projects are monitoring legislation relating to sexual and domestic violence, as well as inter-disciplinary research relating to women in prisons, domestic and rape homicide, access to post-exposure prophylaxis after rape, "conflicting laws" and torture in post-conflict African states.

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DST/NRF SARChI Chairs
associated with this theme

Professor Jonathan Blackburn

Applied Proteomics and Chemical Biology

Professor Jonathan Blackburn holds the SARChI Chair in Applied Proteomics and Chemical Biology and is head of the ANDI Centre of Excellence in Proteomics and Genomics. He obtained his DPhil degree in Chemistry from the University of Oxford, and carried out postdoctoral research at the Medical Research Council (UK). Professor Blackburn serves on a number of national and international committees, including the National Health Research Committee, the Biotechnology committee of the International Union of Pure and Applied Chemistry, and the Nominations and Election Committee, Human Proteome Organisation. He sits on the editorial advisory boards of the *Journal of Proteome Research*, *Journal of Proteome Science and Computational Biology,* and *Expert Review of Proteomics*. He also sits on the Scientific Advisory Board of GenTel BioSciences (USA), and on the Research Advisory Panel of the Council for Scientific and Industrial Research Biosciences.

Associate Professor Ernesta Meintjes

Brain Imaging

Associate Professor Ernesta Meintjes completed her undergraduate studies at the University of KwaZulu-Natal, Pietermaritzburg, and master's and PhD degrees in Physics at Oregon State University, USA. Since July 2000, she has been employed as a research officer and lecturer in the Department of Human Biology and in 2007 she was awarded the South African Research Chair in Brain Imaging. Her current research focuses on both magnetic resonance imaging methods development and application. She has significant expertise in prospective motion correction and application of these methods to study brain development in children with fetal alcohol spectrum disorders and HIV infection, and in the study of cardiac disease.

Associate Professor Marc Combrinck

Clinical Neurosciences Research

Associate Professor Marc Combrinck is a neurologist who trained in medicine and biochemistry at the University of Cape Town and Groote Schuur Hospital. He was a research fellow at the University of Oxford before returning to South Africa in 2004. His research interests lie in dementia, neuro-inflammation and mechanisms of neuro-degeneration. He continues this work in Cape Town, using clinically based observational studies of cognitive impairment in the elderly and in HIV-associated brain disorders. In March 2011, Associate Professor Combrinck was also appointed to the prestigious William Slater Chair of Geriatric Medicine, the first endowed chair in the sub-specialty of geriatric medicine in South Africa.

Professor Kelly Chibale

Drug Discovery

Professor Kelly Chibale obtained his PhD in Synthetic Organic Chemistry from the University of Cambridge in

the UK with Stuart Warren (1989–1992). This was followed by postdoctoral stints at the University of Liverpool in the UK as a British Ramsay Research Fellow with Nick Greeves (1992–94) and at the Scripps Research Institute in the USA as a Wellcome Trust International Prize Research Fellow with K.C. Nicolaou (1994–96). He was a Sandler Sabbatical Fellow at the University of California San Francisco in the USA (2002), a US Fulbright Senior Research Scholar at the University of Pennsylvania School of Medicine in the USA (2008) and a Visiting Professor at Pfizer in the UK (2008). Professor Chibale's current research interests include discovery of potential drugs that fight malaria, tuberculosis and helminth (parasitic worm), as well as cardiovascular and fibrosis diseases.

Professor Frank Brombacher

Immunology of Infectious Diseases in Africa

Professor Frank Brombacher, a NRF A1-rated researcher, holds the SARChI Chair in Immunology of Infectious Diseases in Africa, and heads up an extramural MRC Research Unit in addition to his ICGEB Scientific Co-ordinator position for Immunology and Infectious Diseases. His group investigates immunological mechanisms, regulation and protective host effector functions in experimental murine infectious disease models that are relevant to Africans, such as tuberculosis, African trypanosomiasis, leishmaniasis and helminthic infections, including bilharzia – four of the top ten WHO-declared human threats. In addition, he and his group are interested in chronic diseases, including allergic asthma and colitis, that cause high morbidity and mortality in humans.

Infection and Immunity of Poverty-related Diseases

Keertan Dheda is Professor of Respiratory Medicine and Director of the Lung Infection and Immunity Unit within the Division of Pulmonology, Department

Professor Keertan Dheda

of Medicine. He is the recipient of several prestigious awards, including the 2010 International Union Against Tuberculosis and Lung Disease Scientific Award, and holds several large local and multinational grants, including those sponsored by the EU. His main research interests are the study of the immunopathogenesis, epidemiology and diagnosis of tuberculosis, including drug-resistant TB. He is the co-author of more than 100 peer-reviewed publications, holds patents that are being commercialised, and serves on the editorial boards of several peer-reviewed international journals.

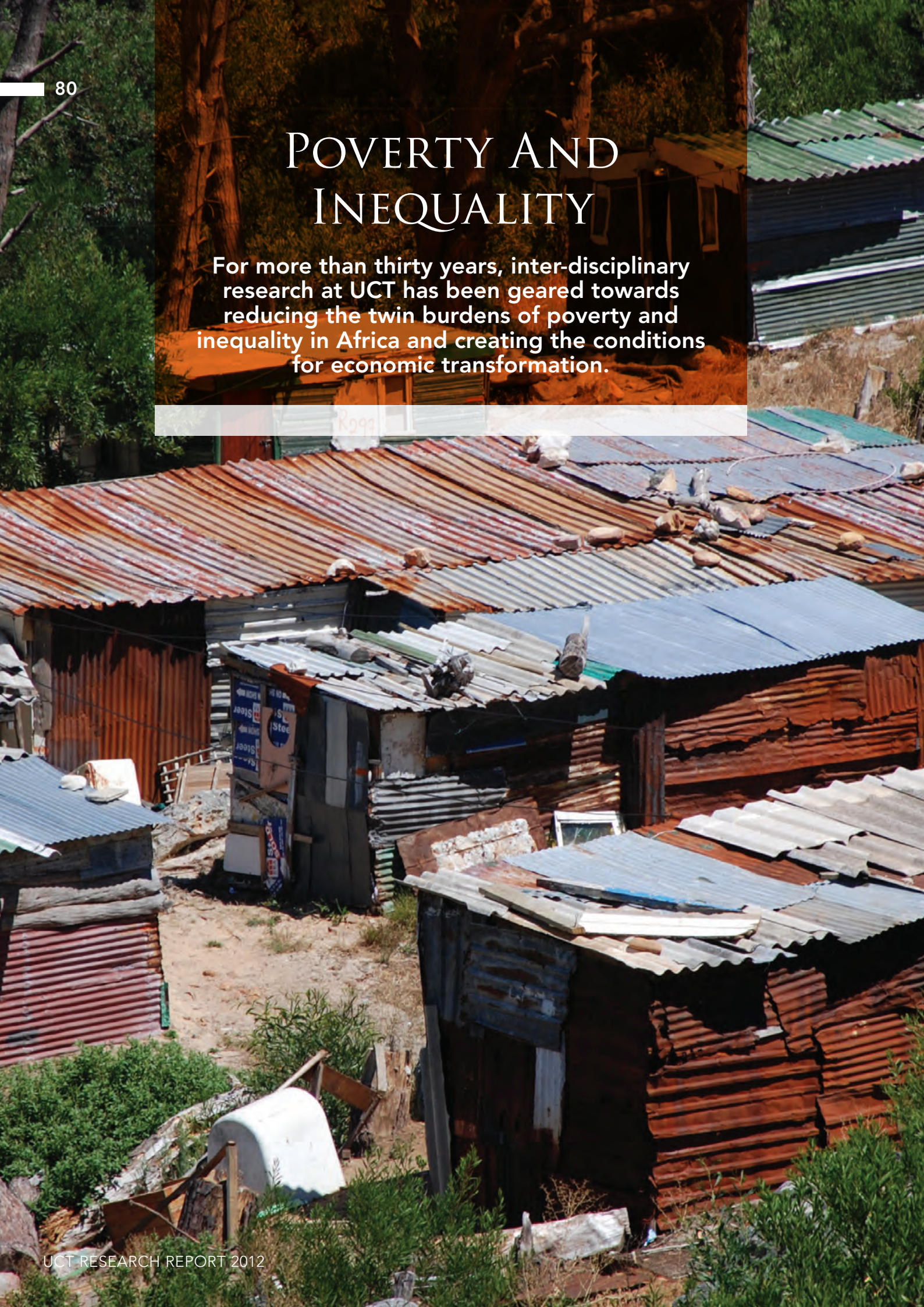
Professor Anne-Lise Williamson

Vaccinology

Professor Anne-Lise Williamson is a virologist on the joint staff of the University of Cape Town and the National Health Laboratory Service (NHLS). As she is a full member of the IIDMM, her research activities are housed in this Institute. She is internationally recognised for both her HIV vaccine and Human Papillomavirus (HPV) expertise. She has headed the South Africa AIDS Vaccine Initiative-funded vaccine development team since 2000. This team of people has been responsible for the development of two vaccines currently in Phase 1 clinical trials in the USA and South Africa, and the ongoing potency assay for one of the vaccines is currently performed in the UCT Vaccine Research Group Good Laboratory Practice Facility. Professor Williamson is head of the World Health Organisation's HPV Labnet lab for the Africa Region and joint head of the Molecular Epidemiology Laboratory (UCT/NICD/NHLS).

Poverty And Inequality

For more than thirty years, inter-disciplinary research at UCT has been geared towards reducing the twin burdens of poverty and inequality in Africa and creating the conditions for economic transformation.



"On the best side, South Africa has continued to surprise even the biggest sceptics with its ability to maintain relative stability and economic calm through stormy financial periods and a larger-than-life World Cup. Yet poverty and inequality, in coldly economic terms, continue to threaten every aspect of the social and economic well-being of the vast majority of South Africans. The reality is as stark as the Gini coefficient. Although so much is already being done, the rift between the top 20% and the bottom 80% of the population isn't getting any smaller." - Francis Wilson

The causes of both poverty and inequality lie deep within South African history, and can be traced through the long process of conquest as it fused with the country's race-biased industrial revolution in the century after the mineral discoveries of the late nineteenth century. This history cannot, of course, be rewritten but it is important to understand and acknowledge it if the country is to find ways of overcoming this dimension of its heritage.

UCT is home to a long and eminent tradition of basic and applied inter-disciplinary research into the challenges posed by poverty and inequality in South Africa. For more than thirty years, this research has been linked to the goals of political, social and economic transformation. The Southern Africa Labour and Development Research Unit (SALDRU), established by Professor Francis Wilson in 1975, organised the landmark 1984 Carnegie Conference on Poverty and Development in Southern Africa and – in association with the African National Congress and its allies – the 1993 household living standards survey. The Development Policy Research Unit was founded in 1990 with the goals of providing evidence-based advice to then extra-state actors on public policy with respect to development and labour. The Centre for Social Science Research (CSSR) was established in 2001/02 to build on the growing strengths of economics in deepening capacity in systematic basic and applied research in the other social sciences. Research in the units that make up the CSSR has spanned diverse disciplines, including not only the social sciences but also collaborations with scholars in the humanities and law, and in the natural and medical sciences. In much the same way that the CSSR fosters cross-faculty collaborations, so too does SALDRU nurture its partnerships.

DataFirst was originally established, under Professor Francis Wilson's leadership, as part of the CSSR, before later becoming a freestanding centre that has pioneered in Africa easy access to user-friendly and high-quality survey data. The Children's Institute was also established in 2001, with the goal of contributing to policies, laws and interventions that promote equality and realise the rights and improve the conditions of all children in South Africa, through research, advocacy, education and technical support. Another of the key research groups working in this area is the Health Economics Research Unit (HEU), which was established in 1990 in the School of Public Health and Family Medicine. The HEU works to improve the performance of health systems through informing health policy and enhancing technical and managerial capacity in sub-Saharan Africa.

The following pages reflect key achievements of the last year within some of these research groups, in moving towards reducing the twin burdens of poverty and inequality in South Africa and the greater African continent.

Southern Africa Labour And Development Research Unit (SALDRU)

In the contemporary world, researchers are being called to provide evidence-based policy research in the context of rapidly changing societies. Those working on post-apartheid South Africa have faced this challenge for close to two decades and SALDRU's 2012 work programme evidences recognition of the fact that this has prepared us to make a significant contribution to the international research enterprise.

The National Income Dynamics Study (NIDS) is SALDRU's largest ongoing project, undertaken on behalf of the Presidency. The project, which commenced in 2008, aims to track income, consumption and expenditure of approximately the same 28 000 individuals and their households over time. Surveys, or waves, are conducted every second year. In mid-2012, Wave 2 data were released to the research community via DataFirst, which was subsequently downloaded more than 1 000 times by the end of the year. Downloads of the Wave 1 data are approaching the 2 000 mark. The release of the data was accompanied by presentations of preliminary results to the Inter-ministerial Cluster on Poverty Alleviation chaired by the Deputy President and to a full sitting of the National Planning Commission. In 2012 the fieldwork for Wave 3 was successfully completed; this massive process required a third visit to each of the 28 000 individuals that make up the NIDS sample, many of whom have relocated. The release of the NIDS Wave 3 data will take place in 2013.

This is a dream research agenda as it combines maximum social relevance with the possibility of frontier social science.

After NIDS, the largest SALDRU project is J-PAL Africa, which works to improve the effectiveness of social programmes in sub-Saharan Africa. 2012 was a remarkably busy year in the J-PAL Africa office, with a highlight being a large national initiative that saw the piloting of a number of potential labour market policy interventions. In addition, a number of other pilot projects evaluating education and health interventions were trialled in 2012. After this period of careful pre-testing, J-PAL Africa will be looking to fund full-scale evaluations of a number of the interventions in 2013.

For SALDRU, producing NIDS panel data as well as its core participation in the Cape Area Panel Study, a longitudinal study of the lives of youths and young adults in metropolitan Cape Town, is a means to the end of enabling SALDRU researchers (and the researcher community in general) to investigate South Africa's evolving

social dynamics. This is a dream research agenda as it combines maximum social relevance with the possibility of frontier social science. Quantitative analysis of social dynamics is SALDRU's particular strength in both the South African milieu and the international one and 2012 reflected this well:

- SALDRU won a large, three-year NRF/DST grant under a "Grand Challenges" call to undertake research and training on South Africa's unfolding human and social dynamics: Evidence from longitudinal data.
- SALDRU joined a 19-country consortium that won a European Union "NoPoor" competition to undertake a five-year research programme on effective poverty alleviation policies.
- A research proposal on the impact of fertility on education and employment outcomes was one of eight successful proposals at the end of a two-round international call for research on population and poverty by a group of funding agencies from the USA, the UK, the Netherlands and Norway.
- Canada's International Development Research Centre funded an eighteen-month project on the impact of social grants on youth labour supply.

All of these opportunities require the application of international best practice in evidence-based policy-making from SALDRU's researchers and those who work with this group.

A major event in 2012 was the Carnegie3 national research initiative *Strategies to Overcome Structural Poverty and Inequality in South Africa*, which was led by Professor Francis Wilson, the founding director of SALDRU. In addition to the extensive conference programme, special sessions were run by NIDS and by J-PAL Africa on the use of evidence in policy-making. (see project insert).

Furthermore, in a programme that is highly complementary to the Carnegie3 process, SALDRU was tasked by the National Treasury to lead a three-year research initiative that focuses national research energies on issues of employment, income distribution and inclusive growth and creates a national dialogue in these areas. This research project was launched at the Carnegie3 conference, and the associated Econ3X3 online forum was launched in November (see project insert).

The Children's Institute's *Child Gauge 2012* focused on inequality and SALDRU was privileged to partner with the Institute in this Gauge. Associate Professor Ingrid Woolard was one of the editors and there were a number of SALDRU contributors. During 2012, SALDRU also undertook research for the Organisation for Economic Co-operation and Development and the World Institute for Development Economics Research.

Apart from SALDRU's role in national and international research initiatives, the unit was active in a number of capacity-building programmes in 2012. J-PAL Africa undertook an ambitious training agenda for researchers and senior policy makers in South Africa, Malawi, Kenya and Ghana. In addition, SALDRU's UCT Training Programme in Social Science Research Using Survey Data ran for the 14th year in January, and trained 140 researchers from Southern Africa in basic survey analysis. This was replicated in Ghana in July. Subsequently, two courses were held in South African and one in Uganda in advanced panel data analysis, thereby extending the reach of the unit to the continent.

Deputy President Kgalema Motlanthe speaking at the Carnegie3 conference hosted by UCT

Emeritus Professor Francis Wilson

Towards Carnegie3

Professor Francis Wilson, the founding director of SALDRU, was appointed as UCT's Acting Pro-Vice Chancellor, Poverty and Inequality, with his major task being to launch the three-year Carnegie3 national research initiative *Strategies to Overcome Structural Poverty and Inequality in South Africa*. More than 500 delegates attended the September 2012 launch conference, which was hosted by UCT and supported by the Carnegie Foundation and the National Treasury.

The Carnegie3 conference sought to focus attention on understanding the lived experiences of inequality and the causes and dimensions of persistent inequality, and considered policies and actions that are aimed at significantly reducing inequality and poverty in both the short and long term. The conference focused less on describing the problems of poverty and inequality, and more on practical strategies to overcome them. The emphasis was on practical strategies to mobilise the energies of people at all levels of society in creative and effective ways which address structural poverty and inequality and shifting power relations. It sought to provide a platform for serious and deep debate about difficult policy choices that must be made in tackling these issues of poverty, inequality and the underlying facts of massive unemployment.

Appropriately, for a conference that was jointly organised by UCT and the National Planning Commission, participants reflected the full spectrum of those involved in implementing, designing or evaluating the diverse set of policies that are needed to tackle the social ills of poverty and inequality. They included senior policy makers, NGOs, community groups, researchers, participants from government at national, provincial and local levels, and representatives of trade unions, faith-based organisations and the business sector.

A 'Rough Guide' draft report providing an overview of some key themes addressed in over 300 presentations from researchers representing 19 different institutions, with particular focus on identifying gaps and areas in need of further research and sharing effective models, is currently being circulated to authors and presenters. The final conference report will be published by the end of 2013.

REDI3x3 (Research Project on Employment, Income Distribution, and Inclusive Growth)

Launched in 2012, the Research Project on Employment, Income Distribution and Inclusive Growth (REDI3x3) is a multiyear collaborative research project that intends to address the triad of unemployment, inequality and poverty currently gripping South Africa.

The project is designed to generate an independent, rich and nuanced knowledge base and expert network that could, inter alia, contribute to co-ordinated, consistent and effective policies directed at these three critical problem areas. Managed by SALDRU and supported by funding from the National Treasury, the project comprises three focus areas (unemployment and employment, income distribution, and inclusive growth), each of which is led by an academic convenor. UCT's Professors Murray Leibbrandt and Haroon Bhorat convene income distribution and inclusive growth respectively, while the unemployment focus area is led by Professor Frederick Fourie of the University of the Free State.

The project seeks to advance an integrated response to unemployment, inequality and poverty.

The research agenda therefore has a strong focus on generating cross-discourse engagements, drawing on insights from several methodologies, data types and sources, sub-disciplines and disciplines, including labour economics, macroeconomics, development economics, poverty studies, sociology, political science, and law.

The project aims to inspire and develop a community of researchers from an inclusive network of South African universities and research entities. Through this inclusive approach it has started to involve South Africa's leading researchers on labour markets, inequality, poverty, development, growth and social policy (including several DST/NRF Research Chairs), support postgraduate work in the focus areas, and build the capacity of students and researchers from historically black universities.

Another explicit aim is to improve public understanding of, and public discourse on, these complex problems. Critical debate will be stimulated through an online forum (www.econ3x3.org), workshops, seminars, conferences, publications and books, and effective media liaison.

Health Economics

Policy And Systems Research

A wide range of socially relevant research is undertaken by two divisions in the School of Public Health and Family Medicine, both of which have a particular focus on health-system work: the Health Economics Unit (a university-accredited research unit), which is home to the DST/NRF South African Research Chair in Health and Wealth, and the recently established Health Policy and Systems Division.

Tackling the complex challenges of health-system development demands an inter-disciplinary knowledge base, and research that is applied (addressing real-world policy and practice issues) and disseminated in ways that inform and support decision-making. Research focuses on supporting current efforts to transform the health system, both at the national policy level (particularly in terms of healthcare financing reform), and through a focus on policy implementation at the district and service delivery level.

A more recent area of work, which falls directly under the DST/NRF Chair in Health and Wealth, is exploring the social determinants of health within the South African context.

There is a strong emphasis on equity in the research being undertaken, particularly on identifying ways of promoting health-system equity. Another area that is contributed to on an ongoing basis is the evaluation of cost-effectiveness of alternative diagnostic and treatment interventions for diseases of major public health concern, including TB, HIV, malaria and cervical cancer. A more recent area of work, which falls directly under the DST/NRF Chair in Health and Wealth, is exploring the social determinants of health within the South African context.

Finally, the Heath Policy and Systems Division houses the International Religious Health Assets Programme, which seeks to develop systematic evidence about religious health assets and their role within health systems, as well as being actively engaged in deliberately learning through doing, in several projects, about the challenges and opportunities of field-building for this area of research.

Strategies for Health Insurance for Equity in Less Developed Countries (SHIELD)

The SHIELD project, funded by the European Commission and the Canadian International Development Research Centre, aimed to identify the major equity challenges in the health systems of three African countries (Ghana, Tanzania and South Africa) through an understanding of financing incidence (which socio-economic groups pay for which aspect of health care) and benefit incidence (who benefits from health care and to what extent).

It also modelled the equity and sustainability implications of alternative health financing options in each country and evaluated the political feasibility of these options from a stakeholder-analysis perspective. This research has provided a unique evidence base for health-system reform in African (and other low- and middle-income) countries. It has confirmed that paying for health care out of one's earnings is not indicative of a progressive society, and that health schemes which require contributions from individuals who are not formally employed could have dire consequences. Instead, in lower-income countries, consideration should be given to charging taxes as a healthcare-funding mechanism. Results from the study also highlighted that the benefits from using health services are not distributed across socio-economic groups in line with their relative share of need for care (or burden of ill-health) and that the access factors influencing this benefit incidence constitute the greatest challenge facing many health systems in Africa.

The modelling of alternative financing structures has informed reform policies in the study countries. A large number of publications have arisen from this work, including a special issue of *Health Policy and Planning* and an overview paper in *The Lancet*. Four SHIELD researchers (two from Ghana, one from South Africa and one from Tanzania) graduated with PhDs based on aspects of the project, three of whom were supervised at UCT.

Collaborating partners have included UCT's Health Economics Unit and the Centre for Health Policy, University of the Witwatersrand, in South Africa; Navrongo Health Research Centre and Health Research Unit, Ghana Health Service in Ghana; Ifakara Health Institute in Tanzania; London School of Hygiene and Tropical Medicine; Koninklijk Instituut voor de Tropen in the Netherlands; Karolinska Medical Management Centre in Sweden; and Antwerp Institute for Tropical Medicine in Belgium.

Researching Equity in Access to Health Care (REACH)

Over a five-year period (2007–2012), the REACH project explored access barriers to health care.

Focusing on three healthcare interventions (maternal health deliveries, tuberculosis care and anti-retroviral therapy for HIV), the project mapped inequities in service utilisation and access nationally, conducted in-depth studies in four health 'sub-districts' (rural and urban), and identified relevant responses in the policy and practice environment. Funded by a Teasdale-Corti Team Grant, which was administered by Canada's International Development Research Centre, the project was a collaboration between UCT's Health Economics Unit, the Centre for Health Policy (University of Witwatersrand) and McMaster University in Canada. The research team comprised a multidisciplinary team of economists, anthropologists, clinicians, and health-systems and policy researchers within each stage of the research programme.

A mixed-methods programme of research that specifically focused on developing a multidimensional understanding of access inequities in South Africa's public health system was implemented. Triangulating findings across methods, interventions and sites, this approach afforded numerous insights into access inequity in South Africa. An understanding of the access dynamics underlying inequitable access fed into, and was shaped by, the active engagement of user partners across the course of the project. Additionally, report-back meetings, seminars and workshops allowed the research team to sensitise a number of stakeholders (researchers, academics, public-sector managers, front-line health workers and civil society groups) to the range of access constraints that need to be addressed, providing insights into practical strategies for doing this, and creating opportunities for taking the research into action.

Universal Coverage in Tanzania and South Africa: Monitoring and Evaluating Progress (UNITAS)

UNITAS is a five-year research partnership project funded by the European Commission. Launched in 2011, it is a collaborative project with partners from UCT's Health Economics Unit, the Centre for Health Policy, University of the Witwatersrand, and the Africa Centre, University of KwaZulu-Natal (in South Africa), Ifakara Health Institute (in Tanzania), the London School of Hygiene and Tropical Medicine, and the Institute of Tropical Medicine Antwerp (in Belgium).

The goal of universal health coverage is receiving increasing international attention. South Africa is introducing a system of universal healthcare entitlements to be funded from general tax and additional dedicated tax revenue. Tanzania is integrating existing health-insurance schemes for formal and informal-sector workers under the management of a single insurer. In both countries, financing reforms are being supported by wide-ranging efforts to improve the delivery and management of health services. Combined, these reforms intend to reduce existing health-system inequalities and improve population, health service and healthcare-cost coverage.

South Africa is introducing a system of universal healthcare entitlements.

Translating such health financing, service delivery and management reforms into intended changes 'on the ground' requires a well-functioning monitoring and evaluation system which provides data that allow policies to be improved over time, and consequently strengthen their potential to achieve universal health coverage. While many questions about the most appropriate design of universal coverage reforms in different contexts remain, even less is known about how to implement reform policies effectively. There is an urgent need to gain detailed insights into reform implementation processes to improve the likelihood of successful health-system reform. The UNITAS project aims to support the implementation of reforms intended to achieve universal coverage in South Africa and Tanzania by monitoring and evaluating the policy processes.

District Innovation and Action for Health Systems Development (DIALHS)

The DIALHS project is an action-learning partnership between the Provincial Government of the Western Cape, the City of Cape Town and researchers from the Schools of Public Health at the universities of Cape Town and the Western Cape.

Initiated in 2010 within the Mitchell's Plain sub-district in Cape Town, this collaborative project applies iterative cycles of learning, reflection and action, with the aim of better understanding how to act to support strengthened functioning within the district and primary healthcare system.

The focus of work to date has centred on issues of governance and governing, including understanding the complexity of the sub-district, as well as the organisational and personal capacities needed to support primary health care. Identifying the particular importance of the tangible and intangible software elements of organisational capacity, the work so far has focused on the soft skills needed by sub-district and primary healthcare managers, and mechanisms to support these managers in their work, the role of formal and informal (tacit) knowledge in routine healthcare decision-making processes, the identity-transition process undergone by primary healthcare nurses when becoming facility managers, and approaches to implementing meaningful community participation in health and health care. While the project has included some formal data collection elements (largely through in-depth interviews and facility observations), the key approach to learning has been through participation. In distilling lessons, partners have drawn on reflective practice and theories of change approaches and have sought to work with colleagues in the system to learn lessons together.

Social Determinants of Health

In 2005, the World Health Organisation launched the Commission on Social Determinants of Health (SDH). This was intended to explore ways of tackling increasing health inequalities both within and across countries, through actions around the social determinants of health.

Broadly, the SDH include the social, political, economic, environmental and cultural factors that affect health status. In order to address social determinants, there is a need to compile scientific evidence on the SDH both within and across countries. In South Africa, as in many other African countries, such evidence is sparse. The Health Economics Unit is currently compiling existing global and domestic evidence on social determinants of health (broadly defined) both at disease-specific level and for health in general. Specific disease conditions that are currently being explored include malnutrition in children, obesity, diabetes, hypertension and mental health. Based on this synthesised evidence and the broad WHO framework for SDH, the HEU is developing a conceptual framework for more fully understanding the causal pathways and mechanisms through which SDH operate within the South African context. The ultimate goal is to inform domestic policy actions that can address key social determinants (e.g. through macro-economic and social policies) and improve population health status.

Economics of Tuberculosis

Over the years, the HEU has undertaken various economic evaluations of interventions to address key public-health challenges.

At present, a major focus is on TB interventions. The XTEND study is evaluating the cost-effectiveness of the new TB diagnostic technology Xpert MTB/RIF in the context of the national roll-out of this technology in South Africa. This study will determine the cost-effectiveness of Xpert MTB/RIF from a patient and programme perspective, and will use mathematical modelling to predict the likely population-level impact on TB transmission. A sub-study, called XPHACTOR, will identify an evidence-based algorithm, which is feasible to implement within HIV clinics, to guide the utilisation of TB diagnostic investigations. The results will complement the XTEND study, and provide evidence to guide the rational use of Xpert MTB/RIF in South Africa and other settings where HIV and TB are both prevalent. Another study under way explores the cost-effectiveness of adding the MVA85A vaccine to the BCG vaccine in children from the perspective of the South African government. The recently published results of the Phase IIb clinical trial conducted in Worcester, South Africa, showed the efficacy of the MVA85A vaccine in preventing TB in infants to be 17.3%, making the vaccine essentially ineffective. This has a noticeable effect on the outcomes of the cost-effectiveness analysis. However, a Markov model that has been developed for this vaccine could also be used to determine the cost-effectiveness of other new TB vaccines being tested in infants.

Research Groupings
associated with this theme

Development Policy Research Unit

The Development Policy Research Unit (DPRU) specialises in socio-economic research with a focus on labour markets, poverty and inequality. The DPRU's mandate is to undertake academically sound, high-quality policy relevant research; to maintain and develop effective networks with government, civil society and the research community in Southern Africa; to engage in training and teaching activities; and to participate directly in the process of formulating, implementing and evaluating policy. The DPRU further aims to train a new generation of research economists within the unit. During 2012 the DPRU continued its engagement with labour-market issues, and its partnership with the Africa Growth Initiative (AGI) at the Brookings Institution has also been highly successful. The AGI aims to raise the African voice in global policy debates on Africa and the partnership has resulted in the publicationof two labour-market policy papers. The Labour Market Intelligence Partnership, was formally launched in September 2012 by the Minister of Higher Education and Training, and focuses on creating a credible labour-market intelligence framework to ensure better information-gathering, analysis and overall systems synergy.

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Southern Africa Labour and Development Research Unit

The Southern Africa Labour and Development Research Unit (SALDRU) conducts research directed at improving the well-being of South Africa's poor. It was established in 1975 and played a central role in documenting the human costs of apartheid through conferences and the Second Carnegie Enquiry into Poverty and Development in South Africa (1983–1986). From 1992 to 1994 SALDRU co-ordinated South Africa's first non-racial national living standards sample survey and, in the post-apartheid period, it has continued to gather data and conduct research directed at informing and assessing anti-poverty policy. SALDRU hosts the J-PAL Africa, the regional office for Africa of J-PAL. SALDRU's largest contemporary project is the running of South Africa's first national longitudinal survey of well-being, the National Income Dynamics Study, on behalf of the Presidency. Every year SALDRU offers extensive training in the analysis of survey data to a broad array of South Africa's academics, graduate students and researchers from NGOs and government.

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Health Economics Unit

The Health Economics Unit (HEU) was established in early 1990 in the School of Public Health and Family Medicine and was accredited as a formal research entity in the university in 2007. The HEU works to improve the performance of health systems through informing health policy and enhancing technical and managerial capacity in sub-Saharan Africa. Its foundation is academic excellence in health economics and management. The core objectives of the HEU are to conduct high-quality research in health economics, health policy, and systems; to develop capacity in health economics, health policy, and systems research in Africa through postgraduate training and related capacity development initiatives; and to translate research findings into policy and practice.

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Centre for Social Science Research

The Centre for Social Science Research (CSSR) is an inter-disciplinary research centre dedicated to conducting and building capacity for systematic, evidence-based, policy-relevant, replicable social science research in South Africa and across Africa. CSSR projects are usually team-oriented, bringing together multiple local and international researchers, and offering postgraduate students significant opportunities for hands-on training. Substantively, the CSSR conducts research in the broad areas of globalisation, industrialisation, democratisation, development, poverty, and public health. The four units that comprise the CSSR conduct research on a range of social dynamics, using survey data (especially the Cape Area Panel Survey and the Cape Area Survey) and related qualitative data, a range of issues around democratisation in South and Southern Africa, using public-opinion data but also creating new systematic databases on elections, legislatures and local government, the social impact of HIV/AIDS, including issues of parenting, disclosure, sexual behaviour and public welfare, and on globalisation, industrialisation, innovation, and the dynamics of global value chains on developing-country industrial sectors.

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Professor Haroon Bhorat

Economic Growth, Poverty and Inequality: Exploring the Interactions for South Africa

Haroon Bhorat is Professor of Economics and Director of the Development Policy Research Unit and holds the DST/NRF South African Research Chair in Economic Growth, Poverty and Inequality. His research interests cover labour economics, poverty and income distribution. He has co-authored two books on labour-market and poverty issues in South Africa, and has published more than 150 academic journal articles, book chapters and working papers. Professor Bhorat has undertaken extensive work for several South African government departments, most notably the South African Department of Labour, the Presidency and the National Treasury. He consults regularly with international organisations such as the International Labour Organisation, the World Bank, and the United Nations Development Programme.

Professor Murray Leibbrandt

Poverty and Inequality Research

There is widespread recognition of the importance of ensuring that South Africa's growth processes embrace the poor and those in the bottom half of the income distribution. The appointment of Professor Murray Leibbrandt, Director of the Southern African Labour and Development Research Unit (SALDRU), to this Chair facilities a sustained programme of research to measure and analyse South Africa's unfolding poverty and inequality dynamics. For the last thirty years, SALDRU has been conducting large social surveys to generate the data needed to inform such analysis of poverty and inequality.

Professor Diane McIntyre

Health and Wealth in South Africa

Professor Diane McIntyre is a professor in the School of Public Health and Family Medicine and was the founding Director of the Health Economics Unit in the Faculty of Health Sciences.

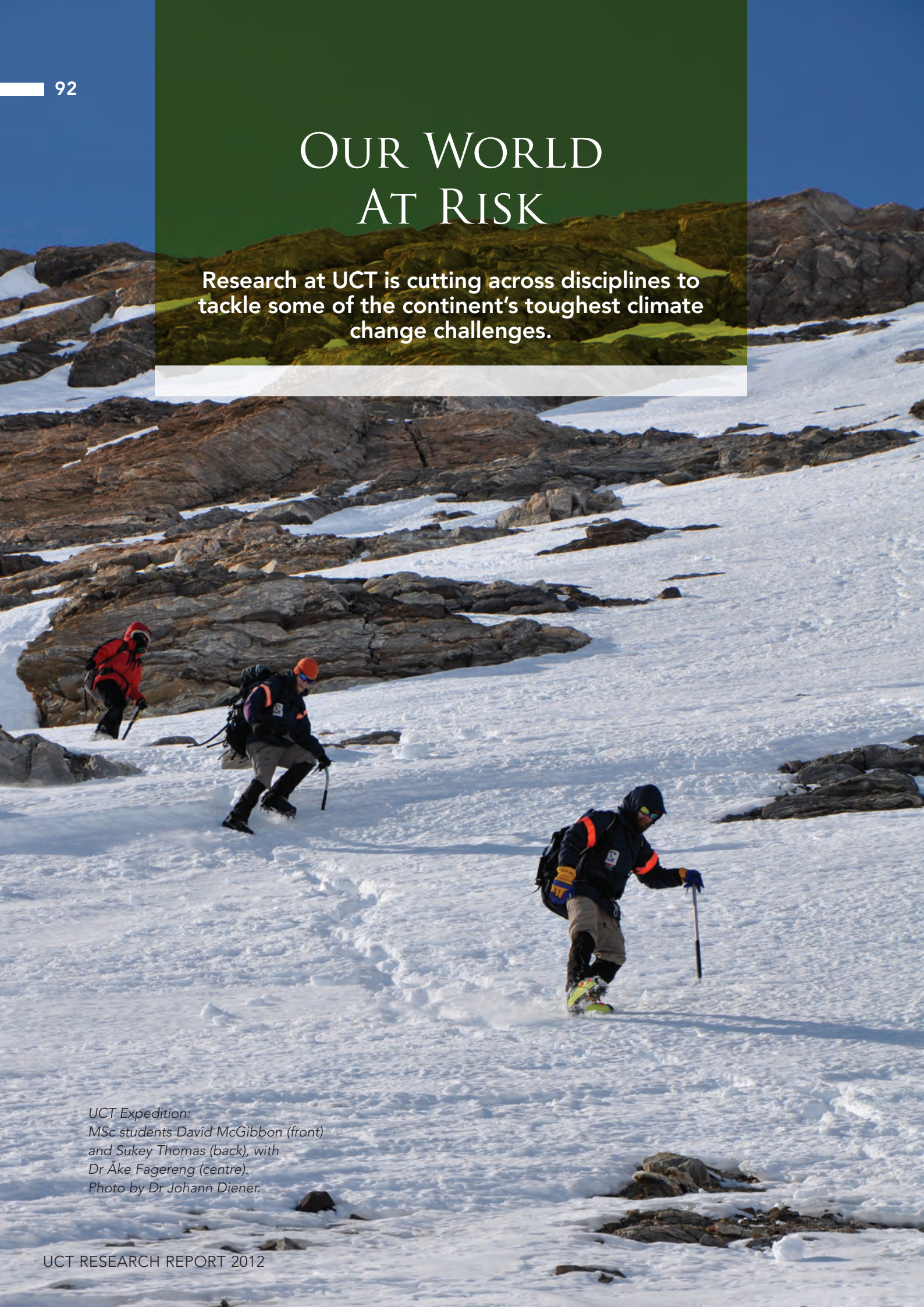
Her current focus is on conceptual and empirical research centred around how to achieve universal healthcare coverage in low- and middle-income countries.

Professor McIntyre has provided extensive and high-level policy inputs within South Africa and other African countries, particularly in relation to healthcare financing issues, including currently contributing to the development of the National Health Insurance policy.

Her current focus is on conceptual and empirical research centred around how to achieve universal healthcare coverage in low- and middle-income countries. She has also been centrally involved in developing health economics capacity within the African region. She holds the SARChI Chair in Health and Wealth in South Africa in recognition of her pioneering work in this area.

Our World At Risk

Research at UCT is cutting across disciplines to tackle some of the continent's toughest climate change challenges.



UCT Expedition:
MSc students David McGibbon (front) and Sukey Thomas (back), with Dr Åke Fagereng (centre).
Photo by Dr Johann Diener.

There is growing urgency across the globe to address the effects of climate change. Academic research at the University of Cape Town is rising to the challenge by spearheading cutting-edge and proactive programmes and projects on regional and local issues where climate change is of concern.

Climate change has become a critical global concern affecting all countries and continents. Developing nations are particularly at risk as rising temperatures, floods and droughts have more devastating effects in areas afflicted by poor infrastructure, inadequate housing, poverty and a lack of resources. Because of the complexity of the problem, the University of Cape Town has been working to stimulate cross-disciplinary research and teaching to address a range of dilemmas raised by climate change.

Principal amongst these initiatives is the university's flagship African Climate and Development Initiative (ACDI), launched in 2011 with the aim of advancing inter-disciplinary research and graduate training on climate change from an African development perspective. ACDI harnesses the research being undertaken across the university under a unified umbrella and takes a holistic approach towards all research projects.

A ground breaking new postgraduate course at UCT offers an integrated approach to climate change topics.

The past year represents the first full year of ACDI being in operation, after the appointment of Professor Mark New, in mid-2011 as Pro-Vice-Chancellor and director of the initiative. The aims of ACDI in 2011/2012 were to establish the ACDI master's programme, to enhance activities and exchanges within the university's many departments, to pilot deeper research enquiries, and to develop research partnerships with external stakeholders.

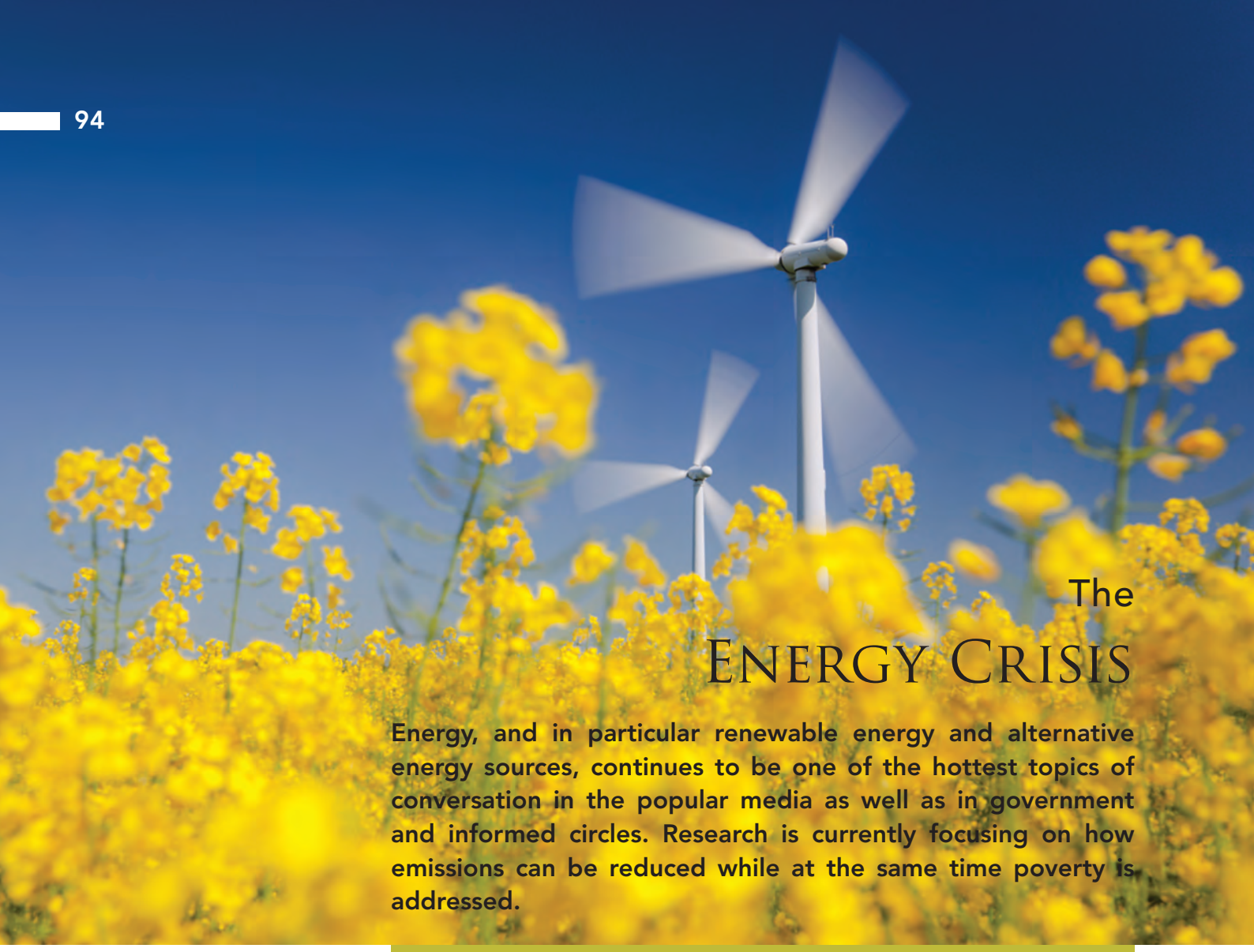
ACDI accepted its first cohort of nine students on the master's in Climate Change and Sustainable Development; all of whom will graduate in June 2013. This MSc programme breaks new ground at UCT, offering an integrated approach to climate-change topics, with contributions to core and elective courses from a number of departments representing all UCT faculties.

An ACDI highlight in 2012 was the initiation of research exploring climate and development issues in the Berg River area of the Western Cape, supported by the Carnegie Corporation. This project is unique in bringing together UCT researchers from seven departments and a range of actors in the Berg River municipal area – from regional and local government, commercial agriculture and industry, to nature conservation. In addition, serving as a laboratory to explore the success, challenges and opportunities that inter- and transdisciplinary research presents to the university, the project has facilitated the "bottom-up" development of several collaborative research projects, where the research questions and methods are co-produced collectively between researchers and practitioners.

Undoubtedly, climate change is both a global and a very personal phenomenon. It affects just about every area of our lives. This interconnectedness is what is driving UCT's inter-disciplinary approach to climate-change studies. From the economics of poverty and inequality to energy security, palaeosciences and marine and bird research, there is a wide range of research at UCT that, impacts upon and feeds into the work of ACDI.

ACDI research projects undertaken by students

- Climate risks and constraints to adaptation for sustainable livelihoods of the rural poor
- The co-benefits of environmental job-creation projects in Cape Town
- The University of Cape Town's food system and its relation to the institutional carbon footprint
- Socio-economic implications of the implementation of coastal development setback lines
- Urban agriculture in Cape Town and the City of Cape Town Urban Agriculture Policy 2007
- Measuring, reporting and verifying mitigation actions at the municipal level: City of Cape Town
- Energy efficiency and environmental performance of the South African cement industry since 1980
- Mechanisms encouraging transport modal shifts from private to public transport to reduce transport emissions in the City of Cape Town
- Public perception of climate change in Lavender Hill, Cape Town



The Energy Crisis

Energy, and in particular renewable energy and alternative energy sources, continues to be one of the hottest topics of conversation in the popular media as well as in government and informed circles. Research is currently focusing on how emissions can be reduced while at the same time poverty is addressed.

The accumulation of greenhouse gases (GHGs) in the atmosphere is a long-term problem, but immediate action needs to be taken. The impacts caused by climate change potentially threaten any development and especially affect poorer members of society. Climate change may be an environmental issue but it deeply affects our society and economy – in particular the energy sector.

Changing how we use energy and finding new technologies and systems to produce low- and zero-carbon energy require rigorous evidence, based on research.

In South Africa and globally, most emissions come from the use and supply of energy, in particular the burning of fossil fuels. Changing how we use energy and finding new technologies and systems to produce low- and zero-carbon energy require rigorous evidence, based on research. This involves quantitative analysis, including modelling, policy analysis, stock-taking through inventories and carbon accounting, analysis of climate-friendly technologies, and understanding how to change behaviour – with a view to living well while using less energy. UCT's Energy Research Centre (ERC) has worked on climate-change mitigation – reducing GHG emissions – since the 1990s. The ERC's Energy, Environment and Climate Group, working with others at UCT and beyond, is engaged in a number of projects that focus on energy modelling, poverty, efficiency and renewables.

Mitigation Action Plans and Scenarios

UCT is actively involved in climate-change mitigation research, which focuses on concrete actions aimed at reducing or limiting damage caused by climate change. Mitigation action plans and scenarios (MAPS) is a collaborative research project between developing countries like Colombia, Chile, Brazil, Peru, Argentina and, more recently, India. Particular research streams include poverty, economy-wide and sectoral modelling, and possible mitigation actions in the energy, transport and agriculture sectors. The MAPS programme is being undertaken by the ERC and the organisation SouthSouthNorth.

The collaboration aims to link climate-compatible economies with similar economic-development and poverty-alleviation programmes. MAPS builds on the experience of South Africa's long-term mitigation scenarios, and will crucially include a participative process with stakeholders from all sectors. In this sense, MAPS is not simply another research study – the information will be produced in partnership with the best indigenous and international research. Through strategic collaboration, MAPS offers an opportunity to establish synergies and share lessons with participating developing countries as well as the broader climate-change and development community.

Particular research streams include poverty, economy-wide and sectoral modelling, and possible mitigation actions in the energy, transport and agriculture sectors.

The ERC's Professor Harald Winkler is one of the directors of MAPS, with Professor Marta Torres (Oregon State University, USA) co-ordinating research, and MAPS includes a long list of researchers involved in a wide range of research activities and products.

In addition to continuing engagement with in-country researchers and facilitators in Peru, Chile, Colombia and Brazil in 2012, a number of research papers were completed and a knowledge platform was established.

Reducing Poverty and Emissions

This project investigates how developing countries can reduce emissions and poverty at the same time. ERC researchers Dr Britta Rennkamp, Anya Boyd, Holle Wlokas and Tara Caetano and doctoral student Loveline Che are approaching this big question in two research projects. In the first, funded through the Climate Change Capacity Development Network, the ERC developed a South African Mitigation Action Impact Matrix in 2012, based on the country's low-carbon development goals.

The matrix helped to establish how the different electricity-generating technology options such as wind, solar and nuclear power impact on the country's development goals as stated in its recent development and energy plans: emissions reductions, poverty and inequality reduction, GDP growth, job creation and increasing renewable energy in the overall energy mix. The innovative research design combined a quantitative modelling exercise with qualitative case studies and a participative rating with experts. Results showed that solar and wind energy technologies contribute better to the development goals than nuclear technologies.

At the same time, large parts of the population live below the national poverty lines.

The ERC's research on poverty and climate-change mitigation is ongoing. In a new project funded through the Volkswagen Foundation, the question asked is how low-carbon development interventions such as carbon taxes, renewable energy programmes and green housing programmes impact on poverty and income distribution in three developing countries: South Africa, Mexico and Thailand.

Each of the three countries has a semi-industrialised economy and a substantial portion of their emissions derives from industrial processes, coal burning and oil refining. At the same time, large parts of the population live below the national poverty lines. In this multi-disciplinary research project, the UCT team collaborates with five research institutions and structures the research in a comparative design with Mexico and Thailand.

Looking towards
Our Oceans

Marine ecosystems are extremely vulnerable and sensitive to climate change. UCT's Marine Research Institute is conducting various programmes and research projects across the African continent that focus on the effects of human activity on marine ecosystems, fish populations and health as well as other related topics.

The University of Cape Town has gained an international reputation for its cutting-edge marine research. The location of the Marine Research Institute (Ma-Re) at the tip of the African continent and its proximity to three major oceans has contributed to its importance.

There are two South African Research Chairs with close ties to Ma-Re: Marine Ecology and Fisheries, headed by Associate Professor Astrid Jarre, and the Chair in Ocean Climate Modelling, which is hosted by the Oceanography Department and is currently vacant.

Under the leadership of Honorary Professor Larry Hutchings and Associate Professor Astrid Jarre and in collaboration with the Department of Environmental Affairs, St Helena Bay has been the focus of research into ocean change. St Helena Bay is a very productive ocean region and a nursery ground for many juvenile fish. The results from this research have highlighted variability and changes in the Benguela region, and the importance of human activity on observed ecosystem changes. This project is funded by the SARChI Chair in Marine Ecology and Fisheries, the Department of Environmental Affairs, and NansClim.

One of the outcomes of UCT's long-standing association with the Council for Scientific and Industrial Research (CSIR) was the awarding of the ACCESS Centre of Excellence in 2010. This is hosted by the CSIR but is a joint initiative with UCT and several other partner institutions. In 2012 UCT received R4.65 million from ACCESS across seven themes, of which R3 million was earmarked for bursaries. Many of the ACCESS students funded by ACCESS are affiliated with Ma-Re.

St Helena Bay is a very productive ocean region and a nursery ground for many juvenile fish.

Also working in this area is the Nansen-Tutu Centre for Marine Environmental Research, which was established in 2010 with the founding partners including Ma-Re and the Department of Oceanography, ACCESS, the Nansen Environmental and Remote Sensing Centre (NERSC), the Institute of Marine Research Centre for Development Co-operation in Fisheries, the University of Bergen (Norway), and Princeton University.

The centre's aim is to contribute to developing and implementing operational oceanography and data-assimilation methods around Southern Africa, including the South Atlantic and Indian Oceans, and the Southern Ocean. Its main focus areas are ocean state, marine environmental and ecosystem modelling (including climate and global teleconnections), research and capacity building.

One of the outcomes of UCT's long-standing association with the Council for Scientific and Industrial Research (CSIR) was the awarding of the ACCESS Centre of Excellence in 2010.

In 2012 the Nansen Tutu Centre funded two African MSc Students (Joseph Amollo and Francisco Francisco) and two postdoctoral research fellows (Drs Bjorn Backeberg and Issufo Halo). The Nansen Tutu Centre also contributed to the MESOBIO project, which is a multinational collaboration on marine research in the Mozambique Channel.

The centre contributes to various successful programmes and projects, such as the African Coelacanth Ecosystem Programme, and personnel also teach in the Applied Marine Science and Ocean Climate Dynamics master's degrees and the Oceanography Honours course.

Exploring Deep Waters

Ma-Re BASICS is the focal research activity of Ma-Re. The four-year initiative began in mid-2010 and is funded from a number of sources, the main one being the Vice-Chancellor's strategic initiative fund for the project *Marine multi-scale data and models: the key to predicting climate variability in Africa and its biological and social consequences.* It is structured as a network of research across multiple disciplines, departments and faculties at UCT. BASICS provides the umbrella framework to link diverse projects on marine social and ecological systems. Some of these are listed in this section to give an indication of the breadth of research under way.

The initial aim of Ma-Re BASICS was to provide students and researchers with a common identity, a common goal and a supportive, stimulating and informative research environment. During 2011 and 2012 a number of events were organised to stimulate and encourage communication, awareness and collaboration among staff and students undertaking diverse individual projects. Ma-Re held a series of focused discussions, such as the "themed lunch" on a marine law theme, led by Professors Jan Glazewski and Loretta Feris of the Institute of Marine and Environmental Law. The discussions during this first themed lunch resulted in further discussion and a collated response to the recent Green Paper on the *National Environmental Management of the Ocean.*

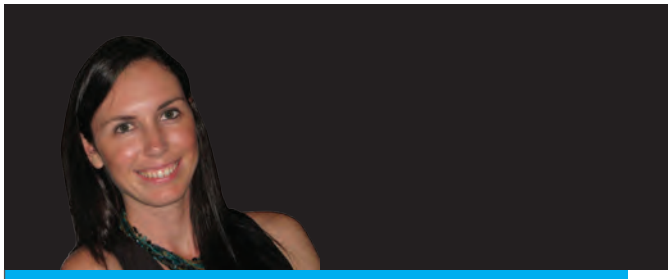
The Air We Breathe

One of BASICS's projects looked at bromoform – a chemical compound found in the air above the sea surface produced by marine plants. Most bromoform is produced naturally and readily crosses the sea-air boundary into the marine-boundary layer. Once in the atmosphere, bromoform is broken down by light energy into bromine radicals, which destroy ozone in the lower and upper troposphere.

Brett Kuyper and the Applied Marine Science master's students at the South African Weather Services.

Brett Kuyper and colleagues developed a simple, cost-effective method to detect and quantify bromoform in environmental air samples. They then measured bromoform concentrations at the Cape Point Global Atmospheric Watch station. These concentrations were found to be 5–7 times greater than in most other studies, although they fell within the range reported for similar marine environments.

The high concentrations are probably caused by the extensive kelp beds that occur in close proximity to the measuring station, although a possible anthropogenic influence from the nearby urban areas of Cape Town could not be excluded. This project is funded by ICEMASA and Ma-Re.



Postdoctoral research fellow Dr Laura Blamey.

Monitoring Marine Species

Over the past two decades, several marine species have changed their distributions in waters off the South African coast. One of the species that has moved its population centres is the commercially important rock lobster (*Jasus lalandii*), which has decreased in abundance on the West Coast and increased on the South Coast, east of Cape Hangklip. The reasons for the shift are not fully understood, but are probably linked to changes in environmental conditions.

Postdoctoral research fellow Dr Laura Blamey and colleagues applied three different statistical methods to environmental and biological data sets to try and identify what factors might have contributed to the shifts. They found that rock lobsters grew much more slowly from the mid-1980s and progressively moved eastward during the early to mid-1990s, at a time when summer winds strengthened and coastal upwelling was very variable.

From the mid to late 1990s there were fewer Bank Cormorants (which eat rock lobsters) on the West Coast and more on the South-West coast, probably in response to the movement of their prey. Rock lobsters eat sea urchins, so increased numbers of rock lobsters on the South Coast have also caused sea urchins to virtually disappear. In turn, sea urchins provided shelter from predators for juvenile abalone, and when the sea urchins disappeared many more juvenile abalone were eaten, impacting the adult populations at a time when they were being affected by uncontrolled illegal fishing. The results of this research are part of the effort under Ma-Re BASICS to develop environmental indicators to act as early warning signals for long-term ecosystem-scale changes. This project is funded through the SARChI Research Chair in Marine Ecology and Fisheries, and BASICS.

Many Fish in the Sea

Postdoctoral Research Fellow Dr Hilkka Ndjaula used long-term historical records of lengths and weights of fish to develop an index that can be used to assess changes in the health of fish populations. An average fish of any species will weigh a standard amount for a given length, but will weigh less when it is in poor condition and more when it is in good condition.

Fish will typically be in good condition when food is plentiful, as might occur when fish population sizes are small or when food sources have increased. Dr Ndjaula used enormous historical data sets to identify periods of good and bad fish condition for three species of fish: sardine (*Sardinops sagax*), anchovy (*Engraulis encrasicolus*) and redeye round herring (*Etruneus whiteheadi*). She adopted a new statistical method to analyse the historical length and weight data, in collaboration with Dr Ken Gerow from the University of Wyoming, USA, and found a consistent decrease in the index for all three species over the past decade.

These results indicate common environmental conditions experienced by the fish on a system-wide basis. The index is being used in a knowledge-based system developed by a current PhD student, an example of cross-pollination across projects within BASICS. This project is funded by SARChI Research Chair in Marine Ecology and Fisheries, and BASICS.

Marine Collaboration

A joint initiative between several laboratories in South Africa and France, that emerged from collaboration between UCT, Marine and Coastal Management and the French Institut de Recherche pour le Développement (IRD), has resulted in the International Centre for Education, Marine and Atmospheric Sciences over Africa (ICEMASA) collaboration.

ICEMASA focuses on Marine Sciences (marine ecosystems, resources management, physical oceanography, ocean-atmosphere exchanges, and biogeochemistry) over the Southern African coasts and the Southern Ocean. Its approach is richly multidisciplinary and is designed to attract collaborators from the Department of Environmental Affairs (Oceans and Coasts), the Department of Agriculture, Forestry and Fisheries (Fisheries Branch), UCT (Ma-Re and the Departments of Oceanography and Biological Sciences), Laboratoire de Physique des Océans, Centre de Recherche Halieutique Méditerranéenne et Tropicale – Ecosystèmes Marins Exploités, Laboratoire des sciences de l'environnement marin, the IRD, the Institut National des Sciences de l'Univers, and Université de Bretagne Occidentale (UBO, France).

ICEMASA works closely with the African Centre for Climate and Earth Systems Science (ACCESS), a DST/NRF Centre of Excellence that is hosted at the Council for Scientific and Industrial Research. ACCESS offers various educational programmes that include workshops and advanced seminars, research projects and computer modelling.

Under ICEMASA, the IRD provides funding for postdoctoral research fellows and postgraduate students as well as for foreign students. Linked to the ICEMASA initiative, Ma-Re and the IRD received funding from the PEERS programme for the joint execution of a research and training project entitled *South-African/French Co-Masters in Marine Sciences* (SAFCOMS). The purpose of this project is to provide bursary funds to students in marine science master's programmes at UCT and UBO for 2012/13.

Under the banner of ICEMASA and hosted by Ma-Re, five scientists from the IRD presented a postgraduate course on end-to-end marine ecosystem modelling at UCT. The course was attended by 25 participants from all over the world, including Seychelles, France, Kenya, Senegal, Peru and Holland, as well as South Africa.

How are Birds Affected?

The impact of climate change on bird populations in South Africa is a key research field for UCT researchers. Birds are particularly sensitive to changes in their habitat, with a rise in temperature of only a few degrees contributing to the extinction of some species.

Although the conservation of rare species is to some degree reactive, studies of the conservation issues related to global change, especially climate change, are more proactive in nature. We know that the world's climate is changing: we also know that many species, birds included, are already responding to these changes. The key challenge is predicting how these nascent biological changes will manifest themselves in the future in terms of changing biological communities, and what the larger ramifications of these changes might be.

We know that the world's climate is changing: we also know that many species, birds included, are already responding to these changes.

To date, much climate-change research has remained the domain of modellers, and there has also been significant documentation of biological changes, especially for specific species. However, what is lacking is a good understanding of the mechanisms that lead to such changes. The FitzPatrick Institute is contributing to filling this niche and building the bridge between modelling and empiricism.

Climate Change and Fynbos Birds

South Africa's most dramatic global biodiversity hotspot is the Cape Floral Kingdom or fynbos biome. Its remarkable biodiversity is one of its strategic advantages for tourism, rural economic development and human well-being. Fortunately much of the mountain fynbos is protected for water catchment, and the threat posed by invasive plants is well understood. However, it is crucial to assess the vulnerability of the biome and its avifauna to climate change.

The project to assess the vulnerability and adaptation of fynbos endemic birds to climate change explores how the six passerine species endemic to mountain fynbos are impacted by climate change and changing fire regimes. Fynbos birds are increasingly threatened by the unravelling of plant-pollinator mutualisms, invasion by woody plants and too-frequent fires.

The key questions pertain to the vulnerability of fynbos-endemic birds to climate and land use change, how the endemic birds disperse across ecosystems and how conservation planning and management can help birds adapt to global change. The research team includes ornithologists, pollination ecologists, population and stress ecologists, behavioural ecologists, a veterinarian, a small network of volunteer observers and amateur bird-ringers.

Catching 3000 Birds

Postdoctoral research fellow Dr Alan Lee initiated a biome-wide fynbos-endemic bird survey at the start of 2012. Summer and winter surveys were conducted at 900 points from the Cederberg to the eastern Baviaanskloof. This data has been used to calculate density estimates for the endemic birds, allowing the first robust estimates of their global populations. Cape Sugarbirds (*Promerops cafer*), Orange-breasted Sunbirds (*Anthobaphes violacea*) and Victorin's Warblers (*Cryptillas victorini*) appear to be vulnerable to changes in vegetation structure expected to occur if predictions of a warmer, drier and more fire-prone environment come about.

A ringed Cape Sugarbird

In addition to a broad overview of the biophysical limits on the ranges of endemic birds in the biome, the project has various study sites. Given the potential importance of habitat fragmentation, birds were mist-netted and ringed during 2012 at sites of varying distances apart in the Kouga, Outeniqua and Kammanassie mountains. More than 3000 birds have been captured with no evidence of movement between sites. At a fine scale, researchers are assessing the extent to which urbanisation creates opportunities and poses novel threats for fynbos birds. For example, birds might be able to seek refuge in urban gardens during fires, hot dry winds or rainstorms, but at the same time be exposed to commensal predators and pathogens. The research will increasingly cast light on conservation planning, policy and land management. As attention is paid to the security of biodiversity in the fynbos, this project will help guide landowners to make more robust conservation-planning decisions based on fine-scale understanding of the implications of climate-driven change in this very special biodiversity hotspot.

Hot Birds

The "hot birds" project, initiated in 2009, seeks to predict how climate change will affect birds living in hot, arid environments such as the Kalahari Desert. During 2012, a team of researchers led by Professor Phil Hockey and Professor Andrew McKechnie (University of Pretoria) examined the role of body size in determining susceptibility to heat stress, the links between physiology and behaviour, and how temperature affects the fitness of breeding birds. The team also expanded the project to investigate the heat tolerance and evaporative cooling capacity of Kalahari birds.

A White-browed Sparrow-weaver panting to dissipate heat

Using data for 35 Kalahari species, PhD student Ben Smit showed that activity levels and body mass played a major role in heat dissipation and found data providing exciting insights into how species cope with very high temperatures, shedding new light on how populations inhabiting climatically distinct regions may vary in their biology. In related research, Postdoctoral Research Fellow Rowan Martin used heat-transfer models to predict how birds of different sizes use thermal landscapes in the Kalahari.

And as part of the project's Southern Hemisphere scope, Grace Russell, a BSc Honours student at the University of Western Australia, examined behaviour among bird species in the Upper Gascoyne region of Western Australia to establish whether the same relationships between heat-dissipation behaviour, body mass and ecological variables occur in Australian species.

Postdoctoral Research Fellow Susie Cunningham completed her study of the links between temperature and breeding success in Common Fiscals (*Lanius collaris*) at Tswalu Kalahari Reserve. As temperatures increase, breeding adults spend more time in shaded sites, reducing their foraging efficiency and thus their provisioning rates to nestlings. High maximum daily temperatures also compromise nestling mass gain.

During 2012, PhD student Tanja van de Ven initiated a study of how temperature affects fitness, and the threshold temperatures above which fitness costs begin to increase in the Southern Yellow-billed Hornbill (*Tockus leucomelas*). Hornbills are vulnerable to high maximum daily temperatures because the female seals herself into the nest cavity as a protective mechanism against predators. She spends most of the chick-rearing period inside the cavity, and this places high demands on the male as he is solely responsible for food provisioning.

In 2012, researchers collaborated with the South African Weather Service to assess how patterns of hot weather events have changed over the last five decades in the north-western regions of South Africa. Results showed temperatures increasing, with more heat waves as well, paving the way for the use of the technique as a conservation planning tool.

And, lastly, MSc student Maxine Whitfield investigated evaporative cooling and body- temperature regulation in a variety of species. While resting and inactive, all species appear able to avoid hyperthermia even at air temperatures higher than those that currently occur in the Kalahari.

Karoo Birds on a Line

The open, arid Karoo is home to six bustard species and South Africa's national bird, the Blue Crane (*Anthropoides paradiseus*). Unfortunately, bustards and cranes are relatively cumbersome in flight, and are unable to react rapidly when they encounter unexpected aerial obstructions. Historically, they have had the freedom of open skies, but the proliferation of power lines and the future installation of wind turbines pose a real threat to these birds. FitzPatrick Institute students have been investigating the implications of power-line collisions in the Karoo, particularly for the endemic Ludwig's Bustards (*Neotis ludwigii*).

Jess Shaw recently graduated with a PhD for her research into the impact of power-line collisions on large Karoo birds. By regularly surveying hundreds of kilometres of high-voltage power lines in her Mazda Wildlife Fund vehicle, she was able to count bird carcases, and noted that many were not found because they were overlooked, or were removed by scavengers. Shaw also regularly looked for dead birds along low-voltage power lines, finding that these are nearly as lethal for Ludwig's Bustards as the larger power lines. Considering that the low-voltage line network is nearly four times the size of the high-voltage grid, this is of great concern. She estimates that power lines kill tens of thousands of Ludwig's Bustards annually.

The proliferation of power lines and the future installation of wind turbines pose a real threat to these birds.

But, surprisingly, she also found little population decrease compared with 20 years ago, suggesting that Ludwig's Bustards may be more productive breeders than previously thought.

Marking power lines with devices to make them more visible is the standard international mitigation for collisions, but evidence that it works for the Ludwig's Bustards and Blue Cranes is lacking. In the autumn of 2011, together with staff from the Endangered Wildlife Trust and Eskom, the researchers put up a large-scale line-marking experiment over 70 km of high-voltage power lines from a helicopter in the eastern Karoo.

This will test whether the marking devices reduce bird-collision mortality, particularly for Ludwig's Bustards and Blue Cranes.

Avian Malaria in the Western Cape

We are familiar with malaria as a human disease that is almost unavoidable in sub-Saharan Africa, and indeed across several other regions of the globe. But human malaria has many counterparts in the animal kingdom, one of which is avian malaria. Unlike the human form, which is caused by parasites of the genus *Plasmodium*, avian malaria is caused by three genera: *Plasmodium*, *Haemoproteus* and *Leucocytozoon*.

Avian malaria is capable of devastating impacts on its hosts, with the best-known case study of what can occur when an alien infectious disease is introduced into a region having taken place in Hawaii. Following the introduction of a mosquito vector, several forms of avian malaria contributed to the extinction of several honeycreepers, and had serious consequences for many other endemic Hawaiian birds. There is evidence that rising temperatures in Africa and elsewhere may facilitate the expansion of the range for avian malaria.

Avian malaria prevalence varies among bird species, with weavers, wagtails and canaries having higher infection rates than other bird families.

The Western Cape is blessed that it remains free of human malaria. However, the same cannot be said for avian malaria, which causes isolated fatalities in chickens, penguins and ostriches, with resultant socio-economic impacts. Many wild African birds can act as natural carriers of the disease without succumbing to its effects. In spite of this, not much is known about the ecology of avian malaria, especially in an African context. Former PhD student Sharon Okanga and her colleagues investigated the incidence of avian malaria in Western Cape passerine birds. She assessed which bird species were more susceptible to infection and looked for signs of preference in the malaria parasites. Blood samples were taken from 1 000 birds at 26 wetlands in the Western Cape. Avian malaria prevalence varies among bird species, with weavers, wagtails and canaries having higher infection rates than other bird families. Research continues into various areas of avian malaria.

The Threat to Penguins

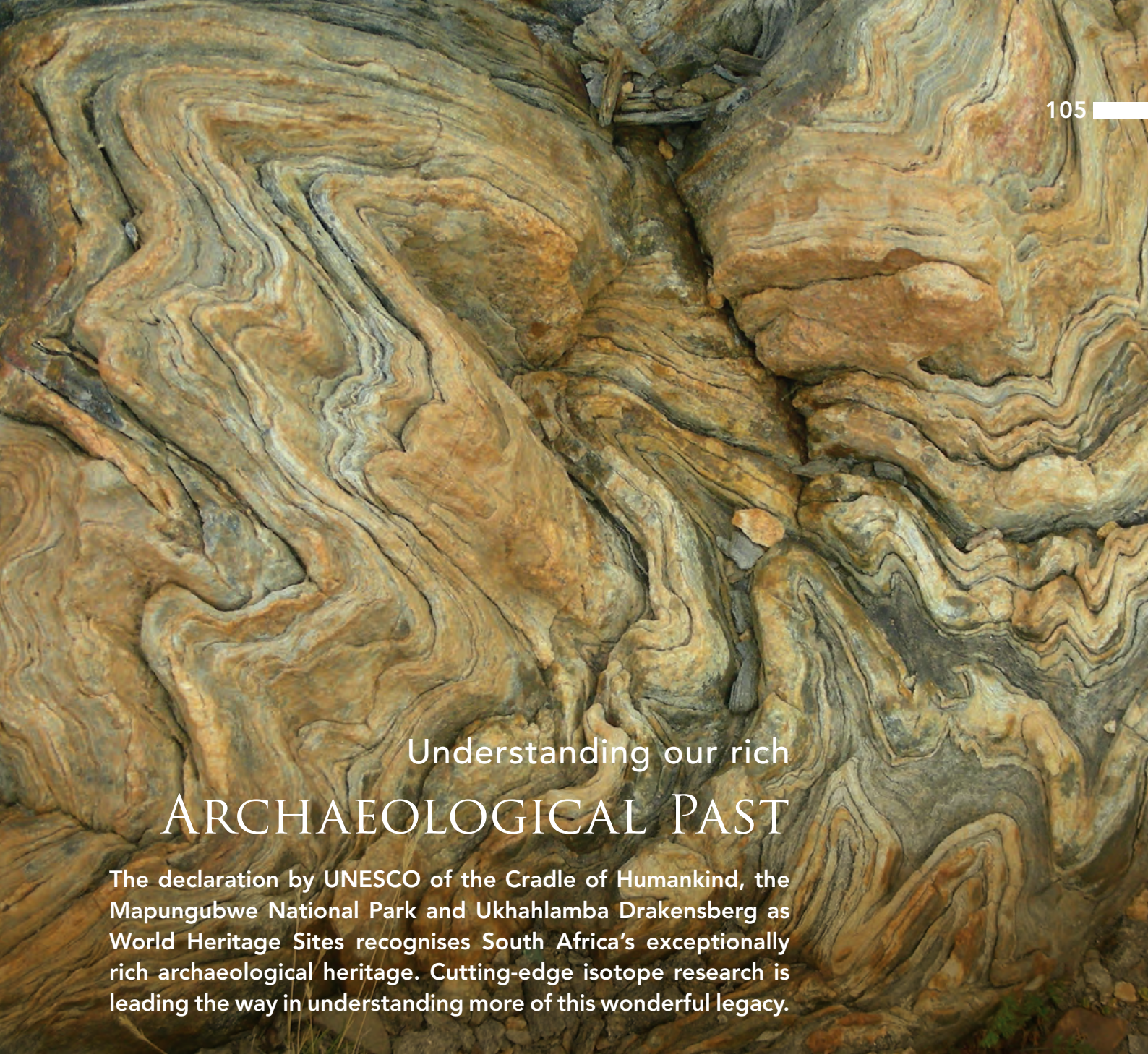
Research by the FitzPatrick Institute, in collaboration with the Department of Environmental Affairs, SANParks and the Centre National de la Recherche Scientifique, revealed that relatively small no-fishing zones can be of great benefit to breeding African Penguins (*Spheniscus demersus*), which rely on highly mobile pelagic fish prey.

Postdoctoral Research Fellow Dr Lorien Pichegru replacing a penguin chick in its nest on St Croix Island

African Penguins were upgraded to *Endangered* in February 2010, following a 60% decrease of their global population between 2001 and 2009, leaving only 26000 pairs in the wild. The dramatic drop in their numbers is attributed mainly to a lack of food, after the distribution of anchovies and sardines shifted 500km eastwards. Purse-seine fisheries exploiting the remaining pelagic fish stocks off the West Coast increase this food shortage.

During 2009, Marine and Coastal Management, the South African government agency responsible for fisheries management, closed an area of 20 km in radius to purse-seine fishing around the world's largest African Penguin colony at St Croix Island in Algoa Bay, Eastern Cape.

After the fishing ban, penguins on St Croix spent less time foraging for food and needed to spend less energy each day looking for food. This showed the immediate benefits of no-fishing zones for breeding penguins, which seem to respond extremely rapidly to concomitant changes in pelagic fish distribution. Appropriately designed Marine Protected Areas therefore benefit threatened top predators, even those relying on mobile prey over a small area.



Understanding our rich
ARCHAEOLOGICAL PAST

The declaration by UNESCO of the Cradle of Humankind, the Mapungubwe National Park and Ukhahlamba Drakensberg as World Heritage Sites recognises South Africa's exceptionally rich archaeological heritage. Cutting-edge isotope research is leading the way in understanding more of this wonderful legacy.

South African researchers are fortunate in having easy access to a treasure trove of fossil and archaeological collections and the natural environments from which they came, providing local researchers with a special advantage. UCT researchers in particular have been able to use the South African environment as a natural laboratory in which to explore questions about isotope systematics – how stable isotopes are distributed through ecosystems. This type of approach is not possible in more polluted or ecologically degraded parts of the world.

Palaeontological research aims to understand how and why humans evolved as they did as well as why certain climatic events occurred in some parts of the world and not in others.

The *Ten-Year Plan for Science and Technology* of the Department of Science and Technology (DST) identifies palaeontology (together with earth systems and environmental sciences) as being among South Africa's Science Missions, in which it advocates the

exploitation of "South Africa's 'living laboratories'" of local resources and geographic advantage.

The South African Strategy for Palaeosciences, approved in 2012, furthermore recognises the importance of and the need for archaeological and palaeontological research. The appointment in 2012 of the DST/NRF South African Research Chair in Stable Isotopes in Archaeology and Palaeoenvironmental Studies was UCT's response to this national imperative to prioritise and revitalise research in the palaeosciences.

Stable light isotopes reflect primarily the types of foods consumed in life, while heavy isotopes can be used to track movement across geological zones.

Stable isotopes are a key tool in the earth and life sciences. They are also essential in the palaeosciences that underlie and enhance our understanding of our human past, especially palaeoecology (including palaeodiets), palaeoenvironments and palaeoclimates. These fields form the foundations for the interpretation of the hominid fossil record and associated archaeology from the earliest stages of human evolution up until the last few hundred years.

Collaborations in palaeoscience research are nurtured with several research units and departments at UCT, as well as other institutions around the country. The Department of Archaeology at UCT pioneered aspects of stable isotope research and its applications to human palaeosciences.

Climate changes during our current geological era are well documented in some parts of the world (mainly in the northern hemisphere) but poorly known in the south, including South Africa.

In other related research, palaeobiologist Professor Anusuya Chinsamy-Turan from the Zoology Department (now Biological Sciences) is an internationally recognised expert on the microscopic structure of the bones of extinct and extant vertebrates. Among recent highlights in her work has been the discovery of information recorded in the bones of duck-billed dinosaurs that lived in the Arctic about 70 million years ago, providing fascinating insights into the lives of these ancient creatures. This project was carried out with collaborators from Temple University (USA) and the Museum of Nature and Science (USA).

Stable Isotopes in Archaeology and Palaeoenvironmental Research

Understanding our past a little bit better is the focus of the South African Research Chair in Stable Isotopes in Archaeology and Palaeoenvironmental research. In these studies, stable-isotope techniques are the primary tool. Stable isotopes of light elements are a key tool in many areas of the earth and life sciences and are naturally occurring, non-radioactive atoms that allow for the study of detailed chemical reactions in certain processes – specifically the metabolisms of people and animals.

Isotopic analyses of archaeological and other remains can help us understand how and why humans evolved as they did, as well as why certain climatic events occurred in some parts of the world and not in others. Climate changes during our current geological era are well documented in some parts of the world (mainly in the northern hemisphere) but poorly known in the south, including South Africa. This work will link with other programmes at UCT on climate and environment, notably the African Climate and Development Initiative.

Isotopes also provide a powerful means of studying human behaviour. Stable light isotopes reflect primarily the types of foods consumed in life, while heavy isotopes can be used to track movement across different geological zones. A major focus of the research programme for this Chair is to study pre-colonial times which lack documentary records. Southern Africa is one of the areas of the globe that has been continuously inhabited for the longest time. For the majority of that time, it was occupied entirely by hunter-gatherers. Research in this area will expand on ways in which humans were able to live as hunter-gatherers.

The focus of the Chair is therefore strongly inter-disciplinary, with connections to both the humanities and the sciences. The intention is to build collaborative links across disciplines and departments at UCT and beyond.

Cold Dinosaurs

Dinosaurs are well known from all parts of the world, and from many different latitudes. However, the discovery of dinosaurs from areas that were well within the Arctic and Antarctic during the Mesozoic is fascinating. These so-called polar dinosaurs pose a biological enigma: how did they cope with the hostile polar winters? Did they migrate? Did they overwinter? And if they did stay, how did they survive? These questions have long plagued paleobiologists, and various theories have been put forward to explain these findings.

A recent study by a team of dinosaur palaeontologists from UCT, Temple University (USA), and the Museum of Nature and Science (USA) has uncovered information recorded in the bones of duck-billed dinosaurs that lived in the Arctic about 70 million years ago which suggests that they did not migrate, but rather endured the long, dark, polar night.

How did they cope with the hostile polar winters? Did they migrate? Did they overwinter? And if they did stay, how did they survive?

One of the collaborators in this study, Dr Anthony Fiorillo, and UCT palaeobiologist Professor Anusuya Chinsamy-Turan reasoned that perhaps clues pertaining to how these dinosaurs lived at such high latitudes might be recorded in the microscopic structure of their bones. This collaboration grew to include UCT postdoctoral researcher Dr Daniel Thomas and Temple University's Allison Tumarkin-Deratzian.

These researchers found that the bones of the polar dinosaurs had an unusual texture, similar to tree rings – the bones showed periodic changes in texture which suggest a fast and slower rate of bone deposition, which probably correspond to a summer and winter bone pattern and are likely to be related to the availability of food.

The research is particularly exciting because the data from the bone histology independently corroborates what researchers are seeing in the field. The results highlight the importance of both biological and geological evidence for interpreting the life habits of extinct organisms.

Studying Dwarf Elephants

Matthew Scarborough of the Palaeobiology Research Group in UCT's Department of Biological Sciences is a PhD student investigating the rather unusual evolution of fossil dwarf elephants and mammoths on Mediterranean islands (particularly Sicily, Malta and Sardinia) over the last one million years. Scarborough's research is aimed at gaining a better understanding of how elephants and mammoths adapted to different kinds of island environments.

1m high dwarf elephants (Palaeoloxodon 'falconeri') from Spinagallo Cave, Sicily. With kind permission of the Museo di Palaeontologia, Roma, Italy.

The research enables collaboration at an international level; he has spent time in Rome, Palermo and Basel studying the anatomy of the feet and limbs of Sicilian dwarf elephants. For the most part, his recent research has focused on explaining several unusual anatomical features in the feet of dwarf elephants, using a comparative approach to investigate to what extent dwarf elephant locomotion was adapted to the very hilly environment of Sicily. During the course of conducting fieldwork, he visited caves and a quarry in north-western Sicily where these dwarf elephants were found. Scarborough is attempting to date the age of the fossils from Alcamo Quarry using a radiometric dating technique (Uranium-Thorium dating), and is also planning to investigate the palaeogeography of Sicily.

A rather unexpected recent finding has been the documentation of dwarf elephant bones which fall outside the size ranges currently accepted for the two dwarf elephant species which inhabited Sicily. Research on the possible existence of a third species of dwarf elephant on Sicily and Malta is still ongoing.

Centres of Exellence
associated with this theme

DST/NRF Centre of Excellence at the Percy FitzPatrick Institute of African Ornithology, "Birds as Keys to Biodiversity Conservation"

The Centre of Excellence (CoE) at the Percy FitzPatrick Institute undertakes scientific studies involving birds that contribute to the theory and practice affecting the maintenance of biological diversity and the sustained use of biological resources. The centre continued to achieve its targeted number and quality of scientific publications, with 87 papers published in peer-reviewed journals in 2012, including 28 in journals with ISI science impact factor ratings of 3.5 or higher. Seven contributions to semi-technical books and 40 semi-popular articles were also published.

During 2012, the centre supported 13 postdoctoral fellows, 19 PhD and 40 MSc students, and one BSc Honours student, of whom 18% were black and 50% were women. Sixteen postgraduate students graduated during 2012 (three PhD, one MSc thesis and 12 MSc in Conservation Biology).

The CoE co-hosted and funded a local conference, *Frontiers in South African Ornithology*, with BirdLife SA and an *International Blue Swallow Action Plan Review Workshop* with the Endangered Wildlife Trust during 2012.

CoE members also presented seminars and illustrated talks at numerous universities, bird clubs, and membership-based societies. A broad range of close collaborative working relationships with scientific peers and a variety of conservation NGOs and governmental organisations exists both nationally and internationally. The CoE continues to build much-needed African capacity in the broad arena of biodiversity conservation. It also continues to be active in advising conservation organisations, government departments and industry on a variety of research projects. During 2012, CoE members served on 18 journal editorial boards, reviewed at least 158 papers for 64 peer-reviewed journals, and participated on 47 advisory boards.

CoE research projects have recently generated 29 full-time jobs and 93 part-time jobs, mostly filled by women. These include 19 full-time and 49 part-time jobs in previously disadvantaged communities in South Africa, 10 full-time and 40 part-time jobs in Zambia, and four part-time jobs in Angola.

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Remembering Professor Phil Hockey

Professor Philip Hockey, the Director of the Percy FitzPatrick Institute of African Ornithology, passed away in January 2013 after a long battle with cancer. Professor Hockey was instrumental in elevating the centre to one of the top three in the world and he was recognised as an expert in his field. During his career, he graduated 18 PhD and 33 MSc students, supervised eight Postdoctoral Research Fellows and some 30 honours projects. In addition to more than 120 scientific papers, Phil published over 150 semi-popular articles and 12 books and book chapters. He co-authored the best-selling regional field guide *Sasol Birds of Southern Africa*, and was editor-in-chief, along with Richard Dean and Peter Ryan, of the seventh edition of *Roberts Birds of Southern Africa*.

Marine Research Institute

The Marine Research (Ma-Re) Institute, one of UCT's signature themes, serves as an umbrella body to stimulate and co-ordinate marine research across all faculties and departments involved in research into the salty waters around Southern Africa. It also serves as a window between the outside world and UCT for marine research and marine contracts. It hosts the Marine Remote Sensing Unit and the Research Dive Unit.

The Ma-Re Institute has two SARChI Chairs associated with it, the Chair in Marine Ecology & Fisheries, and the Chair in Modelling of the Coupled Ocean-Land-Atmosphere (phenomena related to climate). It has been instrumental in getting the Applied Centre for Climate and Earth System Science (ACCESS) and the Nansen-Tutu Centre for Marine Environmental Research off the ground. Both the Marine Ecology & Fisheries Chair and the Ma-Re flagship research project BASICS (Benguela and Agulhas Systems supporting Interdisciplinary Climate-change Science) are inter-disciplinary programmes that aim to tackle aspects of climate-change research and an ecosystem approach to fisheries.

Photo of a sea snail taken by Ma-Re student Grea Wessels while diving.

Ma-Re co-ordinates and convenes a taught master's degree in Applied Marine Science (by coursework and dissertation), runs a weekly seminar series, and has initiated bilateral research and teaching exchange agreements with Norwegian, French, British, and other European Union institutions, as well as American ones. It has also played an important role in promoting marine research in the South African Global Change Grand Challenge and in the marine component of the India-Brazil-South Africa (IBSA-Ocean) trilateral agreement on science and technology.

Ma-Re is active in outreach to the public through interactive sessions at schools, the Two Oceans Aquarium and Science Centres. Ma-Re also participates in the national Science Festival (Scifest), and in developing curriculum-relevant educational resources concerning the role of the oceans in climate change.

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African Climate and Development Initiative

The African Climate and Development Initiative (ACDI) co-ordinates exciting inter-disciplinary research and training on the twin issues of climate change and sustainable development. ACDI brings together natural scientists, engineers, social scientists, lawyers, economists, and urban planners, among others, from UCT and beyond, to provide an African perspective, grounded in strong science, addressing issues relating to climate variability and global change affecting the African continent. It actively creates opportunities for African researchers and young scholars to contribute their own perspectives to these issues.

Through the establishment of strong partnerships throughout Africa, ACDI contributes towards developing African leaders of the future who have an intimate understanding of the physical and human needs of Africa, and who will contribute to address this all-important issue facing mankind.

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Research Groupings
associated with this theme

Energy Research Centre

The Energy Research Centre (ERC) conducts high-quality, targeted and relevant research, as well as offering postgraduate opportunities at master's and doctoral levels. The four main research areas are energy efficiency, energy, environment and climate change, energy poverty and development, and energy systems analysis and planning. ERC staff members have qualifications in engineering, natural and environmental sciences, urban and regional planning, economics, law, politics, sociology, and anthropology.

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Environmental Evaluation Unit

The Environmental Evaluation Unit (EEU) is an independent, self-funded research, consulting and training unit based at UCT. Founded in 1985, the EEU has established itself as a leader in the fields of integrated environmental and coastal management and sustainable development, responding to local, regional and global environmental challenges using an inter-disciplinary and participatory approach. During this time, the EEU has undertaken work throughout South Africa and Southern Africa, has participated in global research and policy initiatives, and has provided expertise to leading private and public corporations, research institutions, planning and development organisations, state departments, local authorities, and communities. The EEU has implemented a wide diversity of projects that have contributed to academic debates and informed policy while having practical impacts on the ground. The EEU works in five main thematic areas: integrated environmental planning, management and assessment; integrated coastal and small-scale fisheries management; biodiversity use, trade, livelihoods and social justice; sustainable business and cross-sector collaboration; and public participation.

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Nansen-Tutu Centre for Marine Environmental Research

The Nansen-Tutu Centre for Marine Environmental Research, under the patronage of Nobel Laureate Archbishop Emeritus Desmond Tutu, was set up in 2010 to assist in the worldwide need to develop the capacity to understand, model and predict the state of the ocean and its ecosystems, just as the meteorological services do for weather and climate. The founding partners of the Nansen-Tutu Centre in Norway and South Africa have the necessary complementary expertise and knowledge to address these challenges in the three oceans around Southern Africa. A central theme for the centre is to undertake research into the science underpinning operational oceanography, particularly in numerical ocean modelling, as well as continuing to develop skilled African postgraduate marine scientists. The centre actively contributes to the OceanSAfrica initiative, with partners from the Department of Environmental Affairs' Ocean and Coasts Branch, the South African Weather Service, the Council for Scientific and Industrial Research, and the South African Earth Observing Network.

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Plant Conservation Unit

The Plant Conservation Unit (PCU), established in 1993 and located in the Science Faculty, undertakes research and teaching directed at improving the conservation status of the vegetation of Southern Africa, with a particular focus on the winter rainfall region. Staff and students within the PCU investigate palaeoecological, historical, and current impacts on the vegetation of the region and work closely with land users to conserve and prevent further transformation of the region's biodiversity.

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Animal Demography Unit

The mission of the Animal Demography Unit (ADU) is to contribute to the understanding of bird populations, especially bird-population dynamics, and thus contribute to the conservation of avian biodiversity. The ADU achieves these goals through a variety of projects in which para-ornithologists throughout Southern Africa can participate. These projects range from identifying bird species, through undertaking census surveys, to making detailed observations on breeding productivity.

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DST/NRF SARChI Chairs
associated with this theme

Professor Bruce Hewitson

Climate Change

Professor Bruce Hewitson heads the Climate Systems Analysis Group focusing on climate modelling, variability, change, and regional projections. He is extensively engaged with capacity-building in Africa and with the communication of regional climate information supporting responses to climate change. He plays numerous roles internationally, including that of co-ordinating lead author in the Intergovernmental Panel on Climate Change (IPCC), and currently co-chairs both the IPCC Task Group on Scenarios for Climate and Impact Assessment and the World Climate Research Programme (WCRP) working group on regional climates. He is a lead co-ordinator in the WCRP global Coordinated Regional Climate Downscaling Experiment programme to develop regional climate projections.

Professor David Jacobs

Animal Evolution and Systematics

Professor David Jacobs holds a PhD in Zoology from the University of Hawaii, where he completed a thesis titled "Character release in the endangered Hawaiian hoary bat, Lasiurus cinereus semotus". He has been at the University of Cape Town since 1994, where his main research interests are focused on all aspects of evolutionary biology. He has conducted research all around the world, including Australia, Costa Rica, Belize, Israel, Canada, Namibia, and Zambia. He has supervised more than 20 postgraduate degrees and many of his students have won prestigious awards such as the Purcell Memorial Award for the best PhD thesis and the SA Association for the Advancement of Science – S2A3 Bronze Medal for the best master's degree thesis.

Professor Judith Sealy

Stable Isotopes, Archaeology and Palaeoenvironmental Science

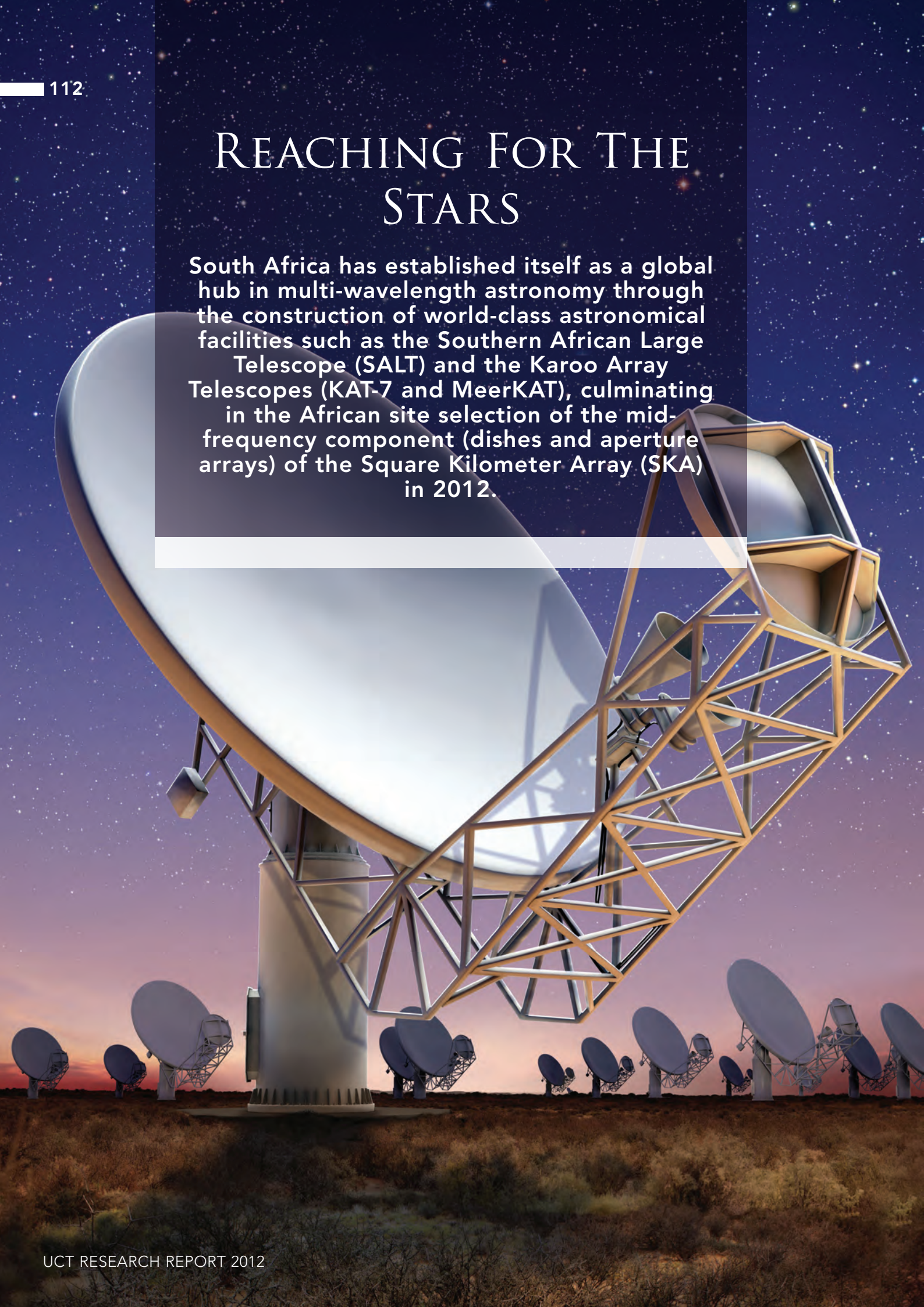
Judith Sealy is Professor of Archaeology and the former head of the Department of Archaeology at UCT. She also heads UCT's Stable Light Isotope Laboratory, a major facility housing analytical equipment. Professor Sealy obtained her PhD from UCT in 1989 for her thesis entitled "Reconstruction of Later Stone Age diets in the south-western Cape, South Africa: evaluation and application of five isotopic and trace element techniques". Her main research interests include the development and application of stable-isotope techniques for dietary reconstruction, hunter-gatherer archaeology across the period from the emergence of modern humans to the recent past, and the beginnings of food production in Africa. She has published more than 75 peer-reviewed journal articles and book chapters, including articles in *Nature* and *Science*.

Ocean Climate Modelling

The focus of this SARChI Chair (previously held by Professor George Philander) is multi-disciplinary and it is well poised to build research capacity in ocean-atmosphere studies, particularly with regard to satellite remote sensing of the oceans, numerical modelling, data assimilation, and forecasting of the coupled ocean-atmosphere ecosystem. The Chair will enable us to better understand and model the properties of the oceans around Southern Africa and its impact on climate change not only regionally but globally as well.

Reaching For The Stars

South Africa has established itself as a global hub in multi-wavelength astronomy through the construction of world-class astronomical facilities such as the Southern African Large Telescope (SALT) and the Karoo Array Telescopes (KAT-7 and MeerKAT), culminating in the African site selection of the mid-frequency component (dishes and aperture arrays) of the Square Kilometer Array (SKA) in 2012.



The site decision by the international SKA consortium was welcomed by UCT as a red-letter day in the development of science in South Africa. Astronomers at UCT and across the country celebrated the outcome of the site bid and congratulated Dr Bernie Fanaroff, head of the SKA South Africa project, on this achievement.

This is one of the biggest scientific research ventures ever undertaken and it confirms that developing nations can also be part of solving the big questions of our day. It will bring scientists from all over the world to South Africa (and to UCT in particular) and thus greatly enhance not only South Africa's but also UCT's international research collaboration.

Work on the South African SKA precursor array entered a new and exciting phase in 2012 with the commissioning of the seven-dish radio interferometer KAT-7. Across the various science teams involved with the MeerKAT SKA precursor array, the staff and postdoctoral research fellows of UCT's Astronomy Department in particular are actively participating in the commissioning phase of KAT-7.

The department is also leading the early science enabled by the KAT-7 array, exploring the unique capabilities that a combination of the world's largest optical telescope – the 10 metre Southern African Large Telescope (SALT) – and the SKA precursor offer in studying the universe.

Observations taken in 2012 with KAT-7 of the accreting neutron star binary Circinus X-1, and the nearby galaxy NGC3109, show the excellent potential of KAT-7 for long-term monitoring of actively varying binary stars in the Milky Way (Circinus X-1) and studying the extended emission from nearby galaxies respectively. Both observations have been accepted for publication in prestigious astronomy journals.

In 2012, the Department of Astronomy also welcomed Professor Thomas Jarrett from the California Institute of Technology, as the incoming DST/NRF SARChI Chair in Astrophysics and Space Science. Professor Jarrett works on the study of extragalactic large-scale structures, the Zone of Avoidance, interacting galaxies, star formation processes and galaxy evolution.

The research of Professor Jarrett dovetails with that of the DST/NRF SKA Chair in Extragalactic Multi-wavelength Astronomy, a position held by Professor Claude Carignan, who specialises in the study of stellar and gas motions in galaxies through radio and optical observations of nearby galaxies.

The number of postgraduate students in the Department of Astronomy reached new heights in 2012: 15 PhD and 19 MSc students were registered for their postgraduate research degrees in astronomy. These postgraduate students are predominantly from South Africa (22), with additional representation from amongst the SKA African partner countries – Madagascar (four), Mauritius (two) – and a range of other countries, including Uganda, Egypt, Ethiopia, France, India and the USA.

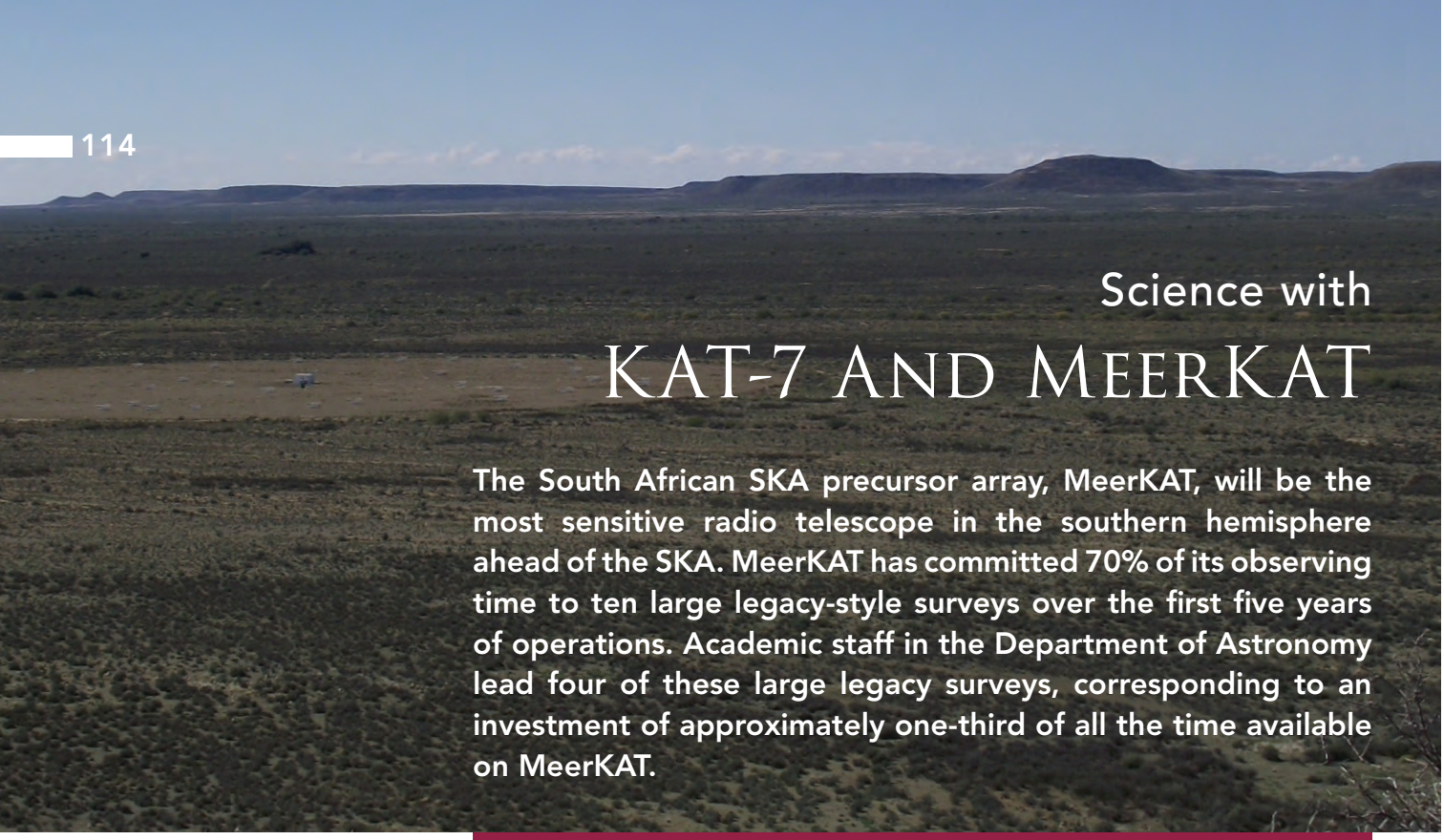
Dr Bernie Fanaroff

Through support from the DST/NRF South African Research Chairs Initiative, the National Astrophysics and Space Science Programme (NASSP), the Youth in Science and Engineering capacity development programme of the SKA South Africa project, UCT's Astronomy Department – often jointly with the South African Astronomical Observatory – is preparing the next generation of African astronomers to take on leading roles in the scientific exploration of the universe with SALT and the SKA.

The highest number of postgraduate research students in astronomy at UCT to date graduated in 2012. Of the eight students who graduated, four will continue their careers in astrophysics abroad: one student was selected as a Rhodes Scholar to pursue a DPhil at the University of Oxford, and three have gone to the Netherlands (to embark on PhD studies at the universities of Groningen and Nijmegen) and will be jointly supervised by UCT faculty.

On average, approximately 80% of UCT's astronomy graduates continue to postgraduate studies and about one-third go overseas after completing their UCT degree (MSc or PhD) to continue their academic careers. It is particularly heartening to see that many of them return to South Africa to take up postdoctoral research fellowships or even permanent academic positions.

Apart from the essential international experience, these young researchers bring back new research collaborations and networks to the South African astronomical community. It clearly demonstrates the success of the capacity-development programmes in astronomy that the astronomical community in South Africa embarked on in 2003 (NASSP) and 2005 (SKA South Africa).



Science with KAT-7 and MeerKAT

The South African SKA precursor array, MeerKAT, will be the most sensitive radio telescope in the southern hemisphere ahead of the SKA. MeerKAT has committed 70% of its observing time to ten large legacy-style surveys over the first five years of operations. Academic staff in the Department of Astronomy lead four of these large legacy surveys, corresponding to an investment of approximately one-third of all the time available on MeerKAT.

The LADUMA survey (Looking At the Distant Universe with the MeerKAT Array), co-led by Dr Sarah Blyth, aims to make the deepest observations of neutral hydrogen in emission before the SKA comes online. These observations will measure the evolution of the gas content in galaxies over half the age of the universe in order to probe galaxy evolution over cosmic time.

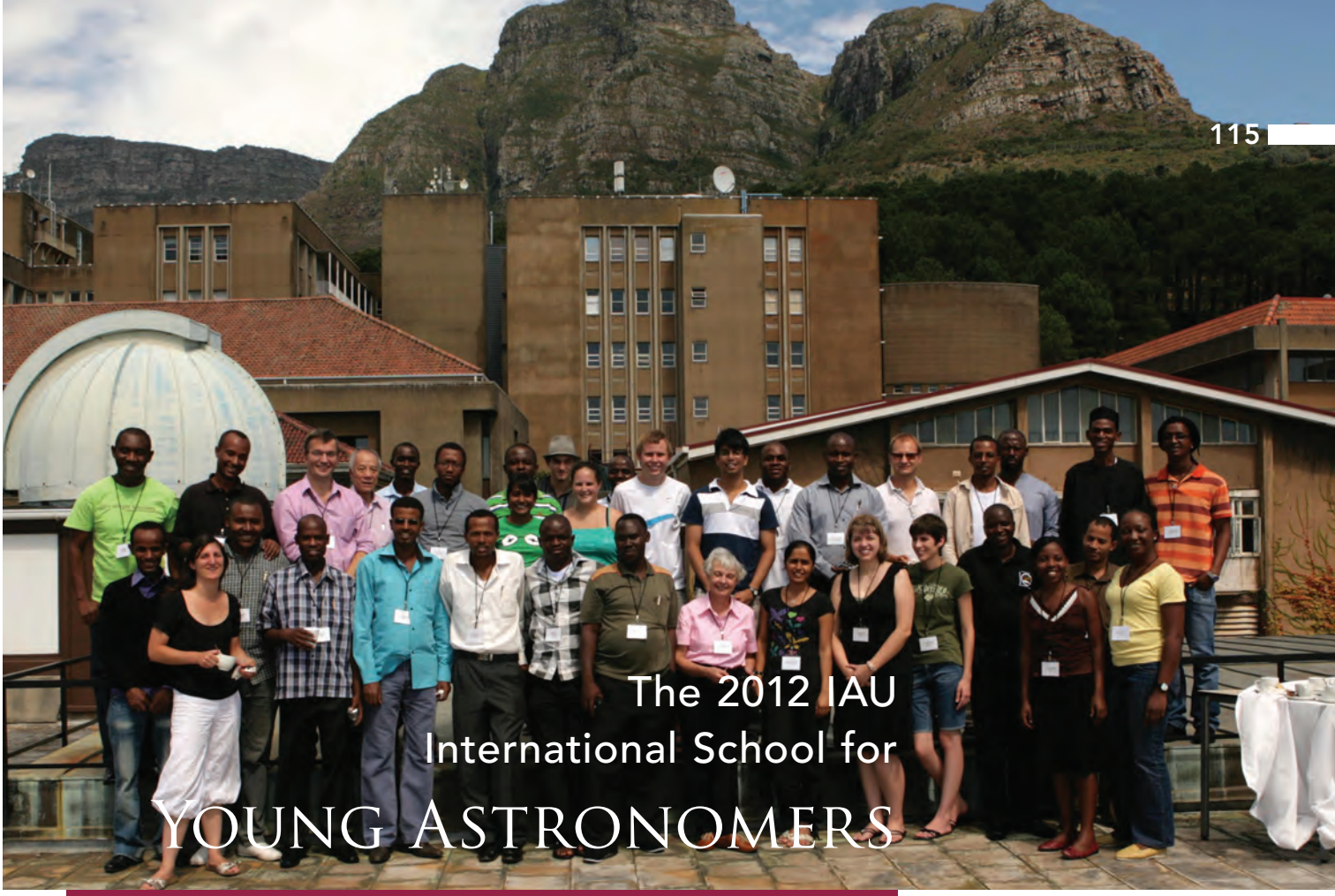
The MIGHTEE survey (MeerKAT International GigaHertz Tiered Exploration), co-led by Dr Kurt van der Heyden, is a deep radio continuum survey, which will investigate the relation of star formation to the growth of supermassive black holes as well as study galaxy evolution by detecting galaxy clusters as a function of look-back time in the universe.

The ThunderKAT survey (The Hunt for Dynamic and Explosive Radio Transients with MeerKAT), co-led by Associate Professor Patrick Woudt and Professor Rob Fender (SKA visiting professor), will study a wide range of transient phenomena in radio sources, through pointed observations of, for example, exploding stars and relativistic jets from compact stellar remnants, as well as blind searches for new kinds of transient sources.

A fourth MeerKAT large survey, MHONGOOSE (MeerKAT HI Observations of Nearby Galactic Objects: Observing Southern Emitters), led by UCT honorary Professor Erwin de Blok, will observe neutral hydrogen in nearby galaxies to investigate dark matter, properties of different galaxies, and the cosmic web.

The MeerKAT construction is ongoing and the full array of 64 radio telescopes is expected to be operational from 2016 onwards. KAT-7, a seven-dish radio interferometer built on the MeerKAT site and a precursor to the MeerKAT, is already fully operational and has started the engineering and scientific commissioning in 2012 of a wide range of observing modes.

The MeerKAT legacy surveys have been closely involved in the commissioning of the KAT-7 telescope, both to test newly developed software relevant to the surveys and to explore niche research areas enabled by KAT-7. Staff, postdoctoral research fellows and postgraduate students at UCT working on ThunderKAT and MHONGOOSE have made a number of observations during science commissioning of KAT-7 and first scientific results are being published in the international astronomical literature.



The 2012 IAU International School for Young Astronomers

From 5 to 26 February 2012, the University of Cape Town and the South African Astronomical Observatory (SAAO) jointly organised and hosted the 34th International School for Young Astronomers (ISYA), the first one held on the African continent, under the auspices of the International Astronomical Union (IAU).

This research school was aimed at MSc and PhD students from sub-Saharan Africa and attracted 32 young astronomers from a wide range of African countries (South Africa, Namibia, Ethiopia, Kenya, Nigeria, Tanzania, Uganda and Zambia). The theme for 2012 was "Observational astronomy in the optical and infrared".

Professor Anton le Roex, the Dean of the Faculty of Science, welcomed the participants to the University of Cape Town on the first day of the school, followed by welcomes by the Director of the SAAO (Professor Patricia Whitelock) and the IAU (represented by Professor Michèle Gerbaldi).

Following a week of lectures on the UCT campus, the participants continued the school at the SAAO, both in Cape Town and at the Sutherland station, where they spent one week on the various telescopes, training in aspects of observational astronomy. The observational projects were the backbone of the school, and were highly valued by the participants.

Observations by one of the lecturers (Professor Michel Dennefeld) and the IYSA students of a supernova candidate PSN J23255963-8154333 confirmed the nature of this object using the SAAO 1.9 metre telescope and spectrograph. This result was published during the school as an IAU Telegram (CBET 3028) and included the 13 IYSA students as co-authors.

Professor Renée Kraan-Korteweg elected vice-president of the International Astronomical Union

Professor Renée Kraan-Korteweg, Chair of Astronomy and Head of the Department of Astronomy at UCT, was elected Vice-President of the Executive Committee of the International Astronomical Union (IAU) at the 2012 General Assembly of the IAU in Beijing.

She becomes the third member of the Astronomy Department to have been elected to this position. This prestigious post was previously also filled by Honorary Professor Michael Feast (1979–1985) and Emeritus Distinguished Professor Brian Warner (2003–2009).

Professor Renée Kraan-Korteweg

Professor Kraan-Korteweg is a world-renowned expert in the mapping of large-scale structures hidden by the plane of our Milky Way, in relation to the dynamics and cosmic flow fields in the nearby universe. She is the principal investigator of various international collaborations and uses a multi-wavelength (combined optical, infrared, radio astronomy) approach in her research.

Her more recent efforts have focused on mapping the extent and mass of the Great Attractor, a gravity anomaly in intergalactic space that reveals the existence of a localised concentration of mass equivalent to tens of thousands of galaxies, each of which is the size of the Milky Way. A research highlight was the discovery of another major attractor hidden within the most obscured part of the Perseus Pisces Supercluster, the northern counterpart of the Great Attractor. In a project led by her, this structure is investigated in detail using new radio observations with the Westerbork Synthesis Radio Telescope in the Netherlands. The survey was designed in such a way that it will serve as a preparation for SKA Pathfinder HI surveys.

Professor Claude Carignan

Multi-wavelength Astronomy at UCT

Professor Claude Carignan currently holds the South African Square Kilometre Array (SKA) Research Chair in Multi-wavelength Astronomy in the Department of Astronomy. Recruited from the University of Montreal (Canada) in 2011, he is also an Emeritus Professor at the Laboratoire d'Astrophysique Expérimentale of the Département de physique of the Université de Montréal, and Associate Professor in the Laboratoire de Physique et Chimie de l'Environnement and in the Observatoire d'Astrophysique de l'Université de Ouagadougou, both in Burkina Faso. He has also been very involved in the development of astronomy in Burkina Faso and in the setting up of the African Astronomical Society (AfAS) in that country.

Professor Carignan is an expert on galaxy dynamics and dark matter and specialises in the study of the mass distribution in galaxies, using both radio synthesis and optical Fabry-Perot interferometric techniques. His primary contribution to research in Astrophysics has been the study of the mass distribution in late-type spiral and dwarf galaxies, carried out in the last twenty-five years. His research in this area has demonstrated that the contribution of dark matter to the total mass of dwarf galaxies (~90%) is much more important than in massive spirals (~50%). Moreover, contrary to the situation in spirals where dark matter contributes mainly in the outer parts, dark matter in dwarfs contributes at all radii. This is demonstrated for the galaxy DDO 154, now a prototype of its class. Most of this work was done using radio HI kinematical data.

Astrophysics and Space Science

Professor Thomas Jarrett has held the DST/NRF South African Research Chair in Astrophysics and Space Science in the Department of Astronomy since mid-2012. Professor Jarrett is an internationally renowned researcher who was based for more than 20 years in the United States as a mission scientist at the Jet Propulsion Laboratory of the California Institute of Technology, specialising in star-formation and extragalactic studies using space-borne instrumentation.

Leading or co-leading over 125 peer-reviewed articles in high-impact journals, his research efforts have focused on key elements of extragalactic science. Travelling to locations spanning the globe, he employs in his fieldwork ground-based, airborne and space-based observatories and remote-sensing instrumentation to gather data for analysis of the physical processes that govern the cosmos. His expertise with infrared astronomy spans the entire window: from the near-infrared (1 to 3 microns) that is used to study the stellar mass of galaxies, to the mid-infrared (4 to 50 microns) that is sensitive to star-formation and interstellar medium processes, and the far-infrared (50 to 500 microns) which traces the coldest and most massive gas and dust content of galaxies. His most recent article that highlights this research, entitled *A Cosmic Perspective, Multi-wavelength Astrophysics*, will be published in the Spring issue of the South African *Quest* magazine.

In anticipation of the SKA Era, Professor Jarrett's research has also exploited the unique capabilities of the radio window to study continuum (3, 6 and 20 cm) and 21 cm hydrogen line emission by galaxies. Combining information from a plethora of multi-wavelength instrumentation, he will explore the interconnection between the gas reservoir, as traced by HI (atomic hydrogen) observations, and the tracers of past-to-present galaxy evolution as measured using ultraviolet, visual, infrared and sub-millimetre observations. In conjunction with these themes, Professor Jarrett is a founding or key member of a number of large-science teams, including Spitzer (the fourth and final of the NASA Great Observatories programmes) and WISE (NASA's Wide-field Infrared Survey Explorer), and is an active science-team member of a number of studies, including the SKA-Pathfinder studies and MeerKAT key-science projects.

Professor Jarrett currently supervises three postdoctoral research fellows, one PhD student and two MSc students. He is currently actively involved in the development of a long-term strategy plan for astronomy in South Africa.

Professor Thomas Jarrett

Cosmology at UCT Tackling the

Mysteries Of The Universe

We live in a unique time in the history of science. Cosmological observations are able to pinpoint with great precision details of the universe on the largest scales, while particle physics experiments probe the nature of matter on the very smallest scales with equally astounding precision. Research in cosmology lives at exactly the dual point – developing the theory from a fundamental mathematical framework and testing it in a plethora of experiments and observations requiring sophisticated statistical knowledge. This is at the heart of the research undertaken by the different cosmology-related research groups at the University of Cape Town, which is striving to gain an understanding of our universe that to previous generations would have seemed perhaps unknowable.

The significant results of the Planck satellite, released in early 2013 by the European Space Agency, revealed the most precise map of the ancient universe ever made. Scientists believe these results are matched only by the groundbreaking discovery of the first fundamental scalar particle at CERN during 2012. The map has already led to new theories of the age, composition and future of the universe. The coming decades thus promise a great synergy between particle physics and cosmology as the international community at large grapples with some of the greatest unsolved problems of our time. These questions cannot be tackled by one discipline alone, and the move to interdisciplinarity is a global phenomenon. At UCT it has swept together key research groups who work together towards answering only the biggest questions about space and time. The synergies amongst these groups are generating a vibrant and interactive research culture.

At the heart of this research is the UCT-accredited Astrophysics, Cosmology and Gravity Centre (ACGC). The ACGC has 20 academic members from the faculty, and includes a DST/NRF SKA Chair held by Professor Claude Carignan and a DST/NRF SARChI Chair held by Professor Thomas Jarrett. The Centre is also particularly strong in its development of young scientists, with more than 20 postdoctoral research fellows and over 30 graduate students at any given time.

Within the ACGC, the Cosmology and Gravity Group, hosted in the Department of Mathematics and Applied Mathematics, focuses on both observational aspects of cosmology and theoretical cosmology. The Cosmology and Gravity Group is renowned for challenging the standard paradigm and proposing tests to the standard concordance model of cosmology. This is particularly pronounced in studies of the Dark Universe.

All of the substance making up planets, stars and oceans is fractional compared to the vast amount of the universe that is dark, quite literally – not observed through the electromagnetic field.

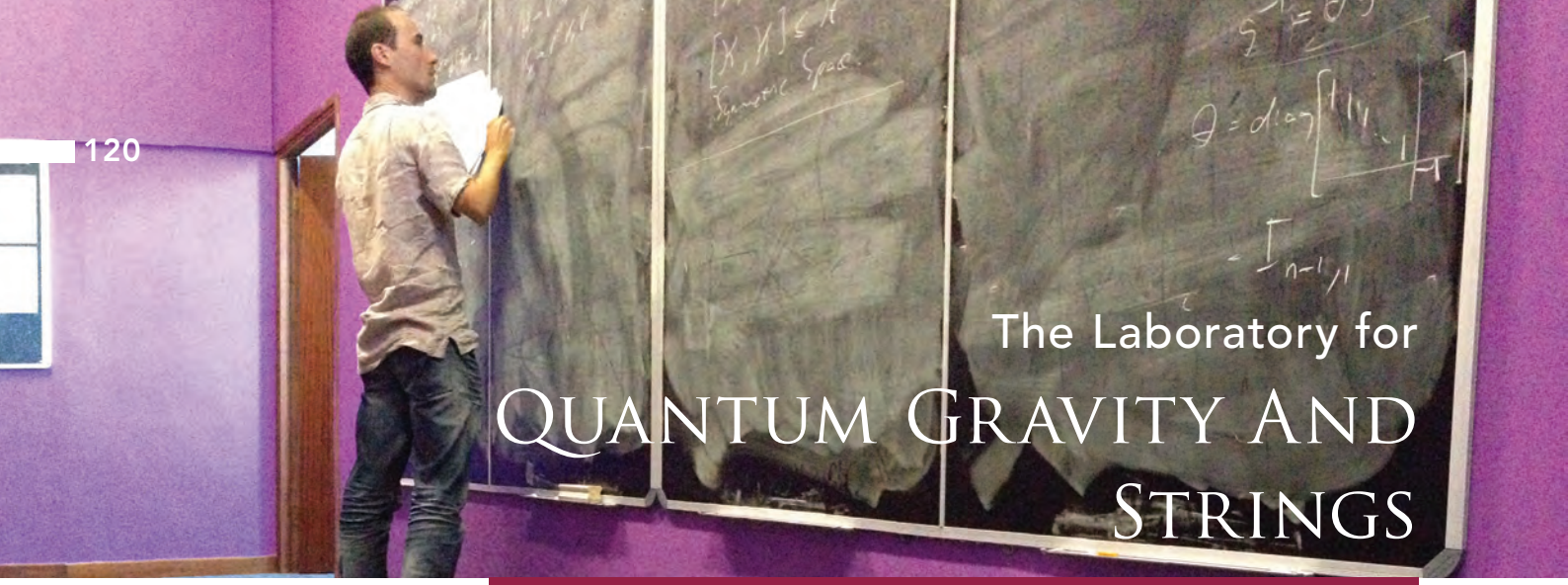
Everything we see and experience on all scales of human experience makes up less than 5% of the total matter in the universe. All of the substance making up planets, stars and oceans is fractional compared to the vast amount of the universe that is dark, quite literally – not observed through the electromagnetic field. The remaining 95% is split between Dark Matter (DM – 23%) and Dark Energy (DE – 72%).

DM clusters and DE clusters can be inferred from their effects on galaxy rotation curves as well as on gravitational lensing. DE drives the universe to expand ever faster with time – the observation of which earned scientists in the field the Nobel Prize for Physics in 2011. Remarkably, there is no convincing explanation of either the driving force behind DE or indeed the coincidental timing. DE seems to dominate our universe coincidentally around the era of humanity's existence, when we are here to observe it as such.

Explaining these observations and indeed challenging the status quo is all in a day's work for UCT's cosmologists. Alternative explanations to this concordance model are studied using a multipronged approach to test if our application of Einstein's General Relativity Theory is applicable on the scales considered by testing key assumptions underlying all of present day cosmology. UCT's Dr Chris Clarkson, Emeritus Professor George Ellis, Professor Charles Hellaby, Professor Peter Dunsby and Dr Amanda Weltman all study different approaches to this challenge.

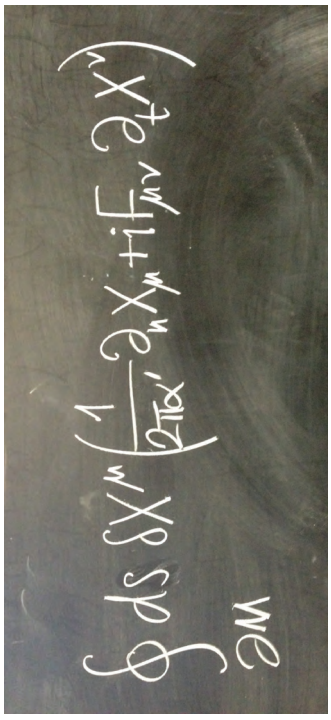
Collaborations between members of the Cosmology and Gravity Group (Professor Ellis) and the recently established Laboratory for Quantum Gravity and Strings (QGaSLab) (Dr Jeff Murugan) have resulted in a publication on the trace-free Einstein equations as a viable alternative to general relativity, selected by the journal *Classical and Quantum Gravity* as one of the 'Highlights of the 2011–2012 collection'. In addition, Professor Ellis contributed another highlight to this collection with his 2012 work 'Inhomogeneity effects in cosmology'. The group is renowned not just for challenging the standard paradigms of modern cosmology but also for offering viable alternatives. In particular, the Chameleon particle, a compelling and testable DE candidate that can be observed not only through its effects on the largest scales but also in purpose-built laboratory experiments, was pioneered by UCT's Dr Weltman. Research in this area has driven a new industry in DE testing with significant investment internationally. A flurry of experiments has ensued in the USA and Europe to test this theory, with Dr Weltman playing a key role in the GammeV and GammeV CHASE experiments at Fermilab, a US Department of Energy national laboratory specialising in high-energy particle physics.

Dr Amanda Weltman and Dr Albert van Jaarsveld, CEO of the National Research Foundation



The Laboratory for Quantum Gravity And Strings

What if the world you take for granted around you, the air you breathe, the buildings, the trees, the universe, the very space and time you occupy were not real? Not "not real" as in a dream but "not real" as in not fundamental, not a permanent stage on which the cosmology of the universe unfolds. What if everything we perceive emerged from the billions and billions of quantum interactions that ultimately and collectively resulted in the classical world we see around us. Before one ridicules the idea as the philosophical ramblings of idle academics, it is worth noting that precisely this picture leads to the emergent macroscopic behaviour of water from its underlying microscopic, molecular constituents and more and more evidence points to a very similar picture of human intelligence as an emergent phenomenon arising from the billions and billions of interactions in the intricate synaptic circuitry of the human brain.



These questions of the fundamentality of space, time, geometry and topology are exactly the kind of mind-bending mental gymnastics that occupy researchers in the newly formed Laboratory for Quantum Gravity and Strings (QGaSLAB). Located in UCT's Department of Mathematics and Applied Mathematics, QGaSLAB forms the third node of the Astrophysics, Cosmology and Gravity Centre. The laboratory is currently headed by Dr Jeff Murugan with affiliate members Dr Amanda Weltman (joint with CGG) and Dr William Horowitz (joint with UCT's Department of Physics). They are joined by Dr Jonathan Shock, recently recruited from the Max Planck Institute for Gravitational Physics in Munich, Germany.

In addition to faculty members, QGaSLAB includes current postdoctoral research fellows Dr Per Sundin (Claude Leon Fellow, formerly of Humboldt University) and Dr Michael Abbott (formerly of the Tata Institute for Fundamental Research), Dr Sugumi Kanno (joining from Tufts University in late 2013 and joint with ACGC), as well as two PhD students, three MSc students and two honours students. The group is one of only two string theory groups in South Africa and is already well recognised internationally. It is currently, together with the University of the Witwatersrand and CERN, one of the only non-EU members of the EU COST network grant "The String Theory Universe".

Research in the group is focused on four major themes: integrability, the emergence of spacetime, strongly coupled Quantum Field Theory and string theoretic physics.

Astrophysics, Cosmology and Gravity Centre

The Astrophysics, Cosmology and Gravity Centre (ACGC) is a research centre incorporating members of the UCT Department of Astronomy and the Cosmology and Gravity Group from the UCT Department of Mathematics and Applied Mathematics. The ACGC aims to create a research environment at UCT in which South African-led cutting-edge science projects will be discussed, developed and taken to fruition. Maximising the opportunities for interaction between theorists and multi-wavelength observers is essential for stimulating new approaches to research. The centre also aims to become an attractive location for postgraduate students and postdoctoral research fellows, as well as international visitors.

Directors: Professor RC Kraan-Korteweg and Professor PKS Dunsby
E-mail: kraan@ast.uct.ac.za and peter.dunsby@uct.ac.za
Web: http://www.acgc.uct.ac.za/

Centre for Theoretical and Mathematical Physics

The Centre for Theoretical and Mathematical Physics (CTMP) is an interdepartmental research unit devoted to the promotion of interdisciplinary research in these areas. CTMP is part of the National Institute of Theoretical Physics. CTMP has twelve local members from the departments of Astronomy, Mathematics and Applied Mathematics, and Physics. It also has five international members who visit the centre on a regular basis. Postgraduate students doing theses on related research fields are admitted to CTMP for the duration of their studies. An international advisory board of seven internationally acclaimed scientists was appointed in 2006.

Director: Professor I Barashenkov
E-mail: Igor.Barashenkov@uct.ac.za
Web: http://www.uct.ac.za/faculties/science/research/astrophysics/

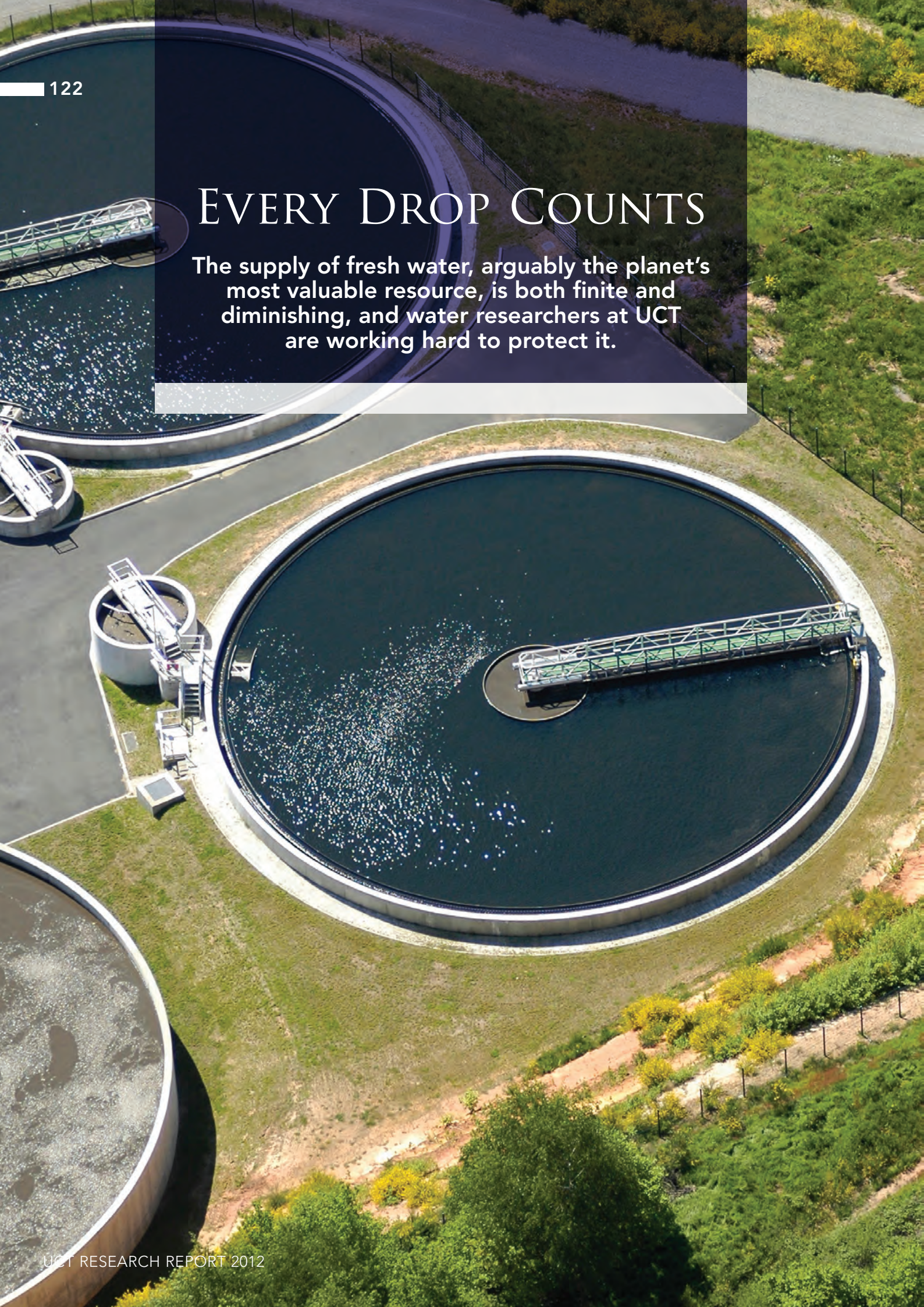
UCT-CERN Research Centre

The UCT-CERN Research Centre was established in 2003 out of a confluence of certain research programmes within the Department of Physics. As implied by the name of the centre, there is extensive collaboration with CERN, the European Centre for Particle Physics, which is one of the most prestigious research laboratories in the world. In particular, the UCT-CERN Research Centre has close collaboration with the next-generation ultra-relativistic heavy-ion experiment at CERN's Large Hadronic Collider (LHC), named ALICE (A Large Ion Collider Experiment).

Director: Professor JWA Cleymans
E-mail: Jean.Cleymans@uct.ac.za
Web: http://hep.phy.uct.ac.za/

Every Drop Counts

The supply of fresh water, arguably the planet's most valuable resource, is both finite and diminishing, and water researchers at UCT are working hard to protect it.



As a rapidly urbanising country, South Africa faces multiple water challenges, including shortages, the growing burden of wastewater produced by the emergent and urbanising population, and the expanding and varying trajectory of the resource-based industrial sector, associated environmental issues, and fragmented and complex institutional structures.

Amongst the results of increased pollution are elevated salinity levels and nutrient enrichment (higher concentrations of nitrogen and phosphorus in water). The deteriorating quality of South Africa's surface and groundwater resources is particularly challenging as these supply systems underpin social and economic development in the country and impact directly on ecosystems. Water security is therefore of particular concern and climate change, water scarcity and water quality have the potential to worsen systemic water shortages over the medium to long term. Addressing these issues require ongoing inter-institutional and interdisciplinary research and the continuous improvement of the governance of water to ensure a successful transition towards water sensitivity, thereby building towards the nation's social, environmental and economic well-being.

Water research at UCT is a multidisciplinary endeavour, drawing in some of the highest-ranked academics across departments and faculties, many of whom have inspired postgraduate students to join them in working towards local water-management solutions. However, water research at the university is not limited to senior academics. Rather, the valuable mentoring that these leading researchers provide is creating rising research stars, with postgraduate students consistently achieving accolades for their contributions. This can be attributed to the sharing of a fundamental vision to optimally manage the survival of this precious resource.

State-of-the-art

Water Laboratory In The Pipeline

Recognising that water is a national resource under considerable stress, UCT is committed to ensuring that it is optimally managed in all sectors and at all levels within the country.

Demonstrating this commitment, the university will, through the Crystallization and Precipitation Research Unit (CPU), establish a new laboratory with the capacity to provide a comprehensive service to water researchers. The H2O (aq) laboratory is expected to open in the Department of Chemical Engineering, possibly in 2013, and will feature a combination of new and existing research practices. The nature of the water research undertaken by the CPU already focuses on novel techniques for water treatment.

H_2O (aq) will offer specialist water and brine analysis, as well as research. The intention is to be able to offer a service to researchers who are investigating various water-related questions; in other words, it is not a standard water-analysis laboratory. For example, the laboratory will accommodate a researcher looking at how different river contaminants affect the aquatic life, a researcher investigating the effect of trace metals on water-treatment processes, and yet another studying the effect of water composition on concrete corrosion of bridges. Over the last decade, water analysis has become increasingly technical and, as such, requires the use of state-of-the-art equipment and fewer wet-chemistry techniques (although wet chemistry does still have a place). H_2O (aq) will use Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS) for metal analysis, High-Performance Liquid Chromatography (HPLC) and spectrophotometry for anion analysis, and total organic carbon for bacterial tests, but the basic tools, such as pH testing and conductivity, will also be utilised. It is expected that such analyses will lead to multidisciplinary research projects and also to collaborations across faculties and between the projects through the common theme of water.

Drinking Acid Mine Water

The philosophy of Professor Alison Lewis, Director of the Crystallization and Precipitation Research Unit, is that researchers need to consider both water and its contaminants as resources, and to design processes that recover both.

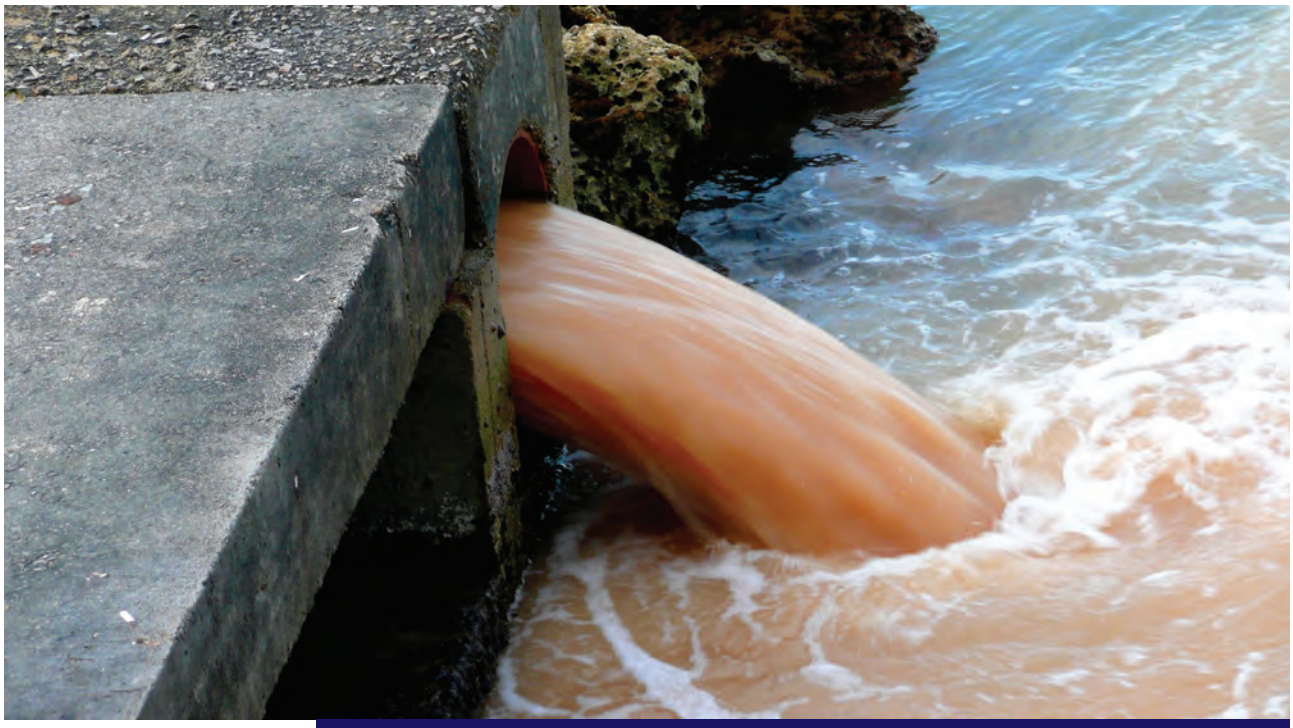
Master's student Michael Kapembwa

With this in mind, she and her team have devised a means of treating acid mine water so that it is 'good enough to drink', and are taking one step closer to achieving the goal of water security, one of the most significant challenges facing the country. In her technique, known as Eutectic Freeze Crystallization (EFC), the contaminated waste stream is frozen to a point where both ice and salt are formed – ice is the form in which water is recovered. For this reason, it is important that the ice formed is pure to ensure that good-quality water is obtained. The process, which is both environmentally friendly and cost-effective, also allows for usable salts to be extracted from the toxic acid mine water. It can, furthermore, be used in a broad range of industrial sectors that produce wastewater.

Master's student Michael Kapembwa won an award for the Outotec "Sustainability in Mineral Industry" best paper presentation at the Southern Africa Institute of Mining and Metallurgy-SAIMM MinProc 2012 workshop for his paper *Ice growth mechanisms in electrolyte aqueous solutions*. Michael was born in Luanshya, a small mining town in Zambia, and completed his primary and secondary education in Livingstone. In 2009 he graduated with a bachelor's degree in Metallurgy and Mineral Processing from the University of Zambia. After working at different mines in mineral processing and hydrometallurgy and in a full-time job with Non-Ferrous Africa Mining Cooperation as a Metallurgist (Foreman), he decided to join the Crystallization and Precipitation Research Unit to further his studies in chemical engineering with a focus on wastewater and mining brine treatment.

Paying for Storm Water?

Professor Neil Armitage of the Department of Civil Engineering and director of the interdisciplinary Urban Water Management Group, is accustomed to pooling the perspectives and resources of academics from various departments to find integrated, sustainable solutions to water-management problems, particularly as they affect Southern African communities. Professor Armitage is also the only African representative on the joint committee on urban drainage of the International Association of Hydraulic Engineering and Research and the International Water Association.



In a recently completed project, Professor Armitage and PhD student Lloyd Fisher-Jeffes examined the possibility of charging for storm water in South Africa. While this may seem incomprehensible and possibly even nonsensical, it should perhaps be viewed in the context of the social, economic and environmental impacts of poor water quality on South Africa's urban aquatic systems, which are increasingly being highlighted by the media. Improving the water quality in these systems will require catchment-wide strategies, including the monitoring and management of point and non-point source pollution collected in storm water. Significant costs may be incurred; however, international experience suggests that these are outweighed by the benefits.

Municipalities across South Africa charge their citizens for potable water and sewerage. Storm-water management, however, is generally funded through municipal rates. Competition with other pressing needs frequently results in the storm-water departments being significantly under-funded – at times only receiving a tenth of what is required for water-quantity management. Internationally, an increasing number of cities have introduced a direct charge for storm-water management in order to secure the funding required to manage storm water and its associated water pollution, and to serve as a disincentive to polluting practices on the part of landowners. The study has found that, in order to ensure adequate funding for storm-water management in South Africa, municipalities will need to consider charging for storm-water management based either on an Equivalent Residential Unit or a Residential Equivalent Factor, combined with an appropriate discount scheme for on-site storm-water management. This project was supported by the Water Research Commission.

Urban Water Management

Urban water management – and the impacts that rapid population growth, industrialisation and climate change are having on it – is gaining increasing attention worldwide.

In South Africa, cities are under pressure to respond not only to the challenges of water availability and quality, but also to economic transformation and social division. New solutions for improving the sustainability of cities need to be found, including the development of tools to guide decision-makers. Several benchmarking initiatives have been implemented in the South African water sector – mostly in terms of performance measurement of specific water services for regulatory purposes – but none provide an integrated analysis to enable a deeper understanding of sustainability.

The research undertaken by Dr Kirsty Carden and Professor Neil Armitage focused on using a systems approach to create an understanding of, and measurement of the potential for, sustainability in a South African urban water context. The research resulted in the development and evaluation of a composite index, the Sustainability Index for Integrated Urban Water Management (SIUWM). The first step involved compiling a vision of sustainability for the South African water sector, and expanding it into a sustainability framework to help identify suitable indicators for the assessment process, as well as those which link with existing measurement initiatives. Key performance indicator results from the Department of Water Affairs' Regulatory Performance Management System and the Blue Drop/Green Drop schemes were used as partial input to the SIUWM, and scores were computed for the nine member cities of the South African Cities Network. The SIUWM links the results from the regulatory systems with a broader sustainability assessment process to provide a more detailed analysis which can be used to establish goals and inform strategic processes to leverage support for improved water services. In this way, the connections that link the different aspects of urban water management can be used to generate a greater awareness of the underlying issues by key decision makers and thus guide appropriate action.

Research Project

Social Norms and Moderation of Water Consumption in Cape Town

A study by master's student Grant Smith and Associate Professor Martine Visser of the Environmental Policy Research Unit involved testing a strategy of managing water consumption by delivering comparative norms-based reports on water use to households in the city of Cape Town.

In doing this, they assessed, by means of a randomised control trial, the various behavioural elements usually involved in such a strategy. The aim of the study was to influence consumer behaviour by using behavioural interventions rather than using price mechanisms. The results are encouraging in that they strongly suggest that behavioural elements may be leveraged in order to reduce household water consumption at the municipal level. Although the savings were roughly 1% of total water consumption, they were significant. Across a municipality, such savings would certainly be meaningful in relatively water-scarce months. Of the treatments considered, it was the method that utilised a simple comparative social-norms strategy which yielded the most consistent water saving. This is the first study that illustrates the impact of social norms on demand for water for a developing country.

Research Groupings
associated with this theme

Crystallization and Precipitation Research Unit

Industrial crystallisation research began in the Department of Chemical Engineering in 2000 and the Crystallization and Precipitation Research Unit was formally accredited by UCT in 2006. Although crystallisation and precipitation are some of the oldest unit operations known, understanding of these processes is still very limited. In this context, the main aim of the unit is to advance existing fundamental knowledge in the fields of crystallisation and precipitation, especially related to mineral processing and extractive metallurgy.

Although crystallisation and precipitation are some of the oldest unit operations known, understanding of these processes is still very limited. The main aim of the unit is to advance existing fundamental knowledge in these fields.

Particular interests of the research group are modelling and simulation approaches to industrial research, such as the particle-rate process approach for modelling of industrial crystallisation processes, aqueous chemistry modelling and computational fluid dynamics modelling. All these modelling techniques are aimed at deepening the understanding of these chemically complex, multiphase processes. The ultimate objective of furthering this scientific understanding is to optimise and control industrial crystallisation and precipitation processes, including treatment of effluent streams. Another interest of the research unit is the development of Eutectic Freeze Crystallisation for the treatment of hypersaline mining brines. The unit is also involved in the development and presentation of various continuing professional education courses that satisfy the demand for skills in this area, from both an industrial and an academic standpoint.

Director: Professor AE Lewis
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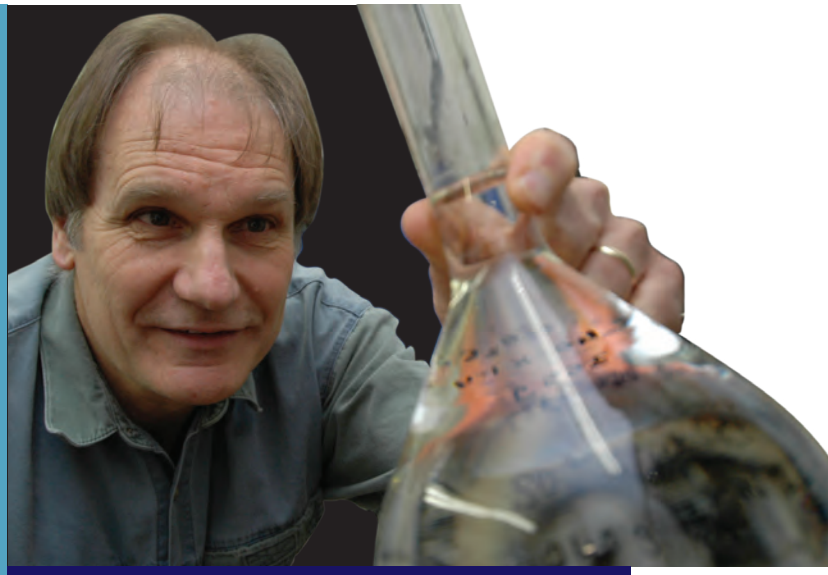
International Award for Professor George Ekama

Working in close collaboration with faculty members and postgraduate students, NRF A-rated Professor George Ekama has been recognised internationally for his research that has provided innovative solutions to enhancing and improving wastewater treatment and, in so doing, has helped South Africa find answers to its water-shortage problems. He lives by a simple research credo: "Locally inspired, globally relevant".

Professor George Ekama was part of an international team which received a Global Grand Honour Award in the Applied Research category at the 2012 Project Innovation Awards for their project "Making use of seawater as an alternative resource". His team members were representatives from Hong Kong University of Science and Technology, Hong Kong Airport Authority, Hong Kong Drainage Services Department, and Delft University of Technology. The Project Innovation Awards Programme was established by the International Water Association (IWA) in 2006 to recognise excellence and innovation in water-engineering projects throughout the world. The awards programme supports IWA's goal to "connect water professionals worldwide to lead the development of effective and sustainable approaches to water management".



Professor Ekama is to be awarded in Silver, the National Order of Mapungubwe, by the Presidency of South Africa in 2013. The Order will recognise Professor Ekama's research excellence and exceptional achievements which have benefitted communities in both South Africa and beyond.

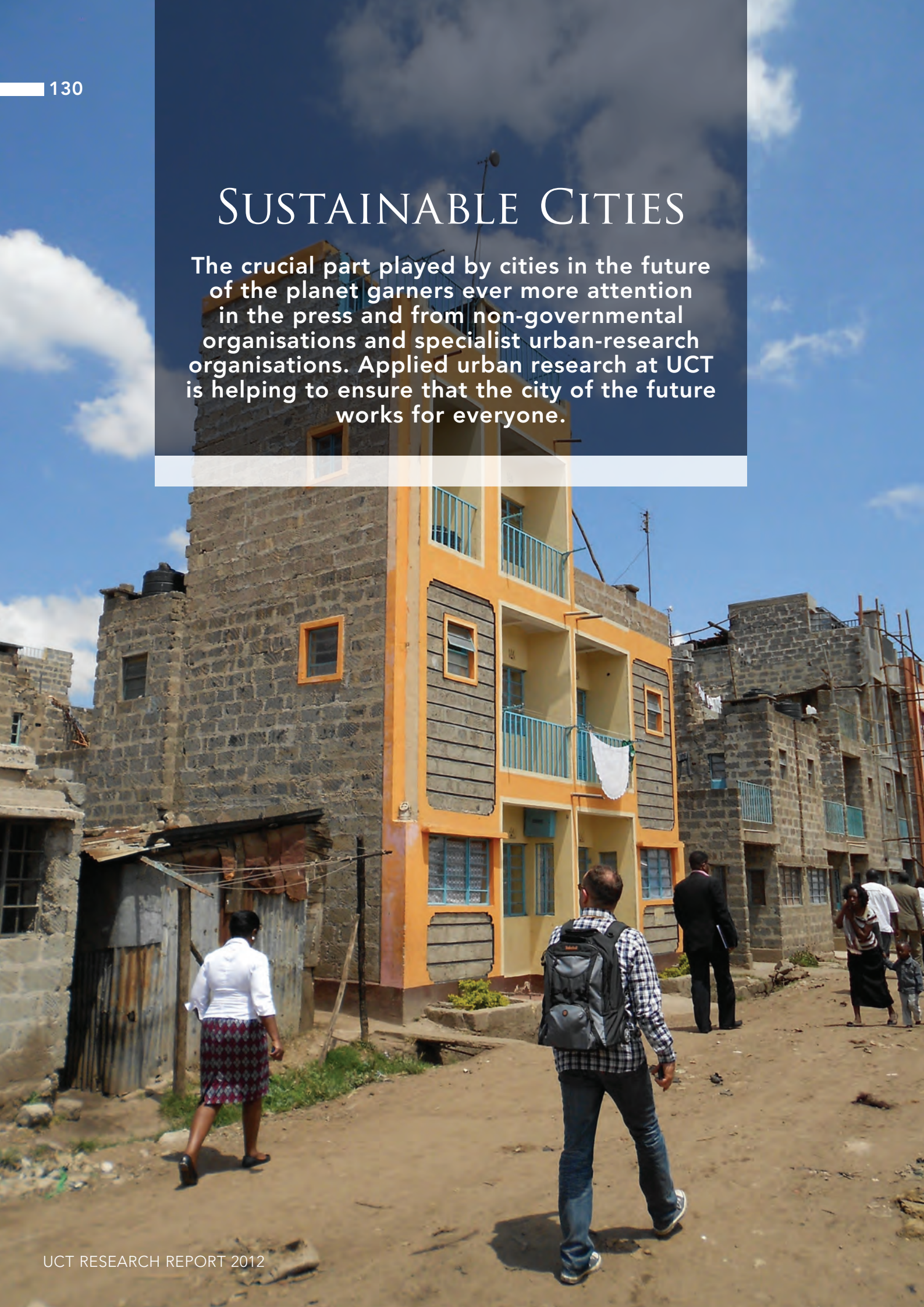
Water, food, energy and sanitation are basic humanity needs. Nevertheless, water scarcity, water pollution, global warming, and food shortages are affecting many parts of the world. Although the planet has plenty of water, 97% is in the ocean, which is too salty for human consumption. The aim of the research is to make use of seawater as an alternative resource of water, energy and fertiliser through an integrated Triple Water Supply (TWS) System, the SANI (sulfate reduction, autotrophic denitrification and nitrification integrated) Process and the Urine Phosphorous Recovery (UPR) System. The TWS System integrates freshwater supply, seawater supply for toilet flushing, seawater-based cooling and grey-water reuse as an integrated water-supply and sanitation system. This has been applied in the Hong Kong International Airport, saving 52% of its freshwater demand and 30,000 MWh of electricity annually.

Making use of sulfate originating from seawater, the SANI Process introduces a sulfur cycle into the carbon and nitrogen cycles for sewage treatment. Sulfur acts as the electron carrier for passing the electron from organic carbon to oxygen through heterotrophic sulfate reduction, autotrophic denitrification and autotrophic nitrification. As all the three biochemical reactions produce minimal sludge, the SANI process effectively minimises sludge handling and disposal, which can save 50% of cost and one-third of energy consumption. Making use of the magnesium ion in seawater, the new UPR technology recovers phosphorus from urine in the form of magnesium ammonium phosphate, a valuable phosphorus and nitrogen containing fertiliser, by mixing hydrolysed urine with seawater. While the TWS, SANI and UPR systems can be applied individually, the integrated system would provide the greatest financial and environmental benefits, especially for islands and coastal cities of developing countries.

Professor Ekama has published over 150 research papers together with his research group have been co-authors of four of the IWA Scientific and Technical Reports on activated sludge modelling, community analysis and secondary settling tanks. He has been a visiting professor at Virginia Tech, the University of Padua and the UNESCO-IHE Institute for Water Education in the Netherlands. He is one of only a few environmental engineering professors listed on Thomson Reuters (ISI) Highly Cited Research website.

Sustainable Cities

The crucial part played by cities in the future of the planet garners ever more attention in the press and from non-governmental organisations and specialist urban-research organisations. Applied urban research at UCT is helping to ensure that the city of the future works for everyone.



Urban issues are increasingly receiving attention in social media websites and blogs, including UrbanAfrica.net, a website managed by the 'State of Cities in Africa' programme hosted by UCT's African Centre for Cities (ACC). Urban affairs is one strand of UCT's suite of strategic research initiatives, this one firmly located in the ACC Signature Theme; careful scrutiny of city governance and urban livelihoods complements another strategic research thrust, the Safety and Violence Initiative. Urban affairs also resonate well with UCT's drive to research the urbanisation of poverty.

During 2012, the African Centre for Cities continued to spearhead applied urban research at UCT, and to be a forum for public and scholarly conversations about pressing urban issues. These include matters of public service delivery, climate change and urban resilience, informality, food security, safety, public housing, public art and public spaces, flooding risk, public health, and governance. Urban transportation is the focus of UCT's Centre for Transport Studies, and there exist multiple close linkages between the research of these two units.

The daunting range of livelihood and policy challenges in all cities of the global South creates an opportunity to reconsider conventional ways of intervening in urban affairs, as well as an opportunity to think differently about cities as places, and how to generate the appropriate knowledge to make them more liveable, sustainable and equal.

Issues include matters of public service delivery, climate change and urban resilience, informality, food security, safety, public housing, public art and public spaces, flooding risk, public health, and governance.

The ACC is passionately vested in all aspects of this work, notably through its published research, and CityLabs and Knowledge Transfer Programmes. As part of its advisory services, in 2012 the ACC Director, Professor Edgar Pieterse, was appointed convenor of the Urban Section of the National Planning Commission, an initiative of government chaired by the Minister in The Presidency. ACC staff, together with other researchers in the Faculty of Engineering & the Built Environment, work across faculties in a highly interdisciplinary research programme. This is illustrated in the strong collaborative links with Environmental Sciences, Planning, Sociology, the African Climate and Development Initiative, the Energy Research Centre, and the Association of African Planning Schools, and is given impetus by maintaining strong academic and research links with major urban research groups and funders in the UK, Europe, and the USA, while new ties are braiding into Africa, Latin America and India.

During 2012, ACC personnel and affiliates travelled extensively to speak at conferences and meet colleagues in Boston, Dakar, Gothenburg, Johannesburg, Lagos, London, Manchester, Nairobi, New York, Paris, Stockholm and Tokyo. A large delegation participated in the World Urban Forum in Naples, a professional 'shop window' for urban authorities and practitioners. Conferences hosted in Cape Town included one on 'Migration, Urbanization and Food Security in Cities of the Global South', with delegates coming from across Africa as well as from Canada, the Caribbean and India.

Co-produced KNOWLEDGE

A key plank in contemporary Cities research at UCT is the notion of 'co-produced knowledge'. The basis of this idea is that cities are now too large and complex to permit the conceit that any one profession – let alone any single university department – can marshal all the information, insight and resources necessary to deal with the diversity of urban problems.

Questions of sanitation, poverty alleviation, congestion, disease, pollution, physical degradation and unemployment are fundamentally inter-disciplinary; part of the reason for the failure to combat these problems is that they have been addressed as distinctive rather than as systemic issues. There has also been profound neglect of the processes of governance and civic leverage in rapidly changing urban formations. Equally, there has been too little attention given to the counter challenges of innovation, fulfilment, affirmation, dignity and hope in the slums that now characterise most of the world's fastest-growing cities in Africa, India, China and Latin America.

The Cities research agenda at UCT aims to keep abreast of these key urban fault lines and prospects by bringing regulators, legislators, scholars, practitioners, citizens and activists into regular contact via conferences, seminars, CityLabs, Think Tanks, and jointly produced research. Informal personal networks make crucial points of contact and knowledge sharing.

One instance of formally co-produced knowledge in our own backyard is the immensely innovative and successful programme of hosting selected City of Cape Town officials in the ACC for two months, and placing PhD students in the City for seven months a year. The students are working with the City on climate-change policy, the 'Green' economy, and land-economy models. Now in its second year, the mutual learning and exchange has exceeded expectations. Support from the

City and from Mistra Urban Futures, an international centre for sustainable urban development, has been vital. A bursary from Bigen Africa for a master's student to conduct research on sustainable settlements in resource-rich parts of South Africa complements the Department of Chemical Engineering's new Master of Philosophy course specialising in sustainable mineral resource development.

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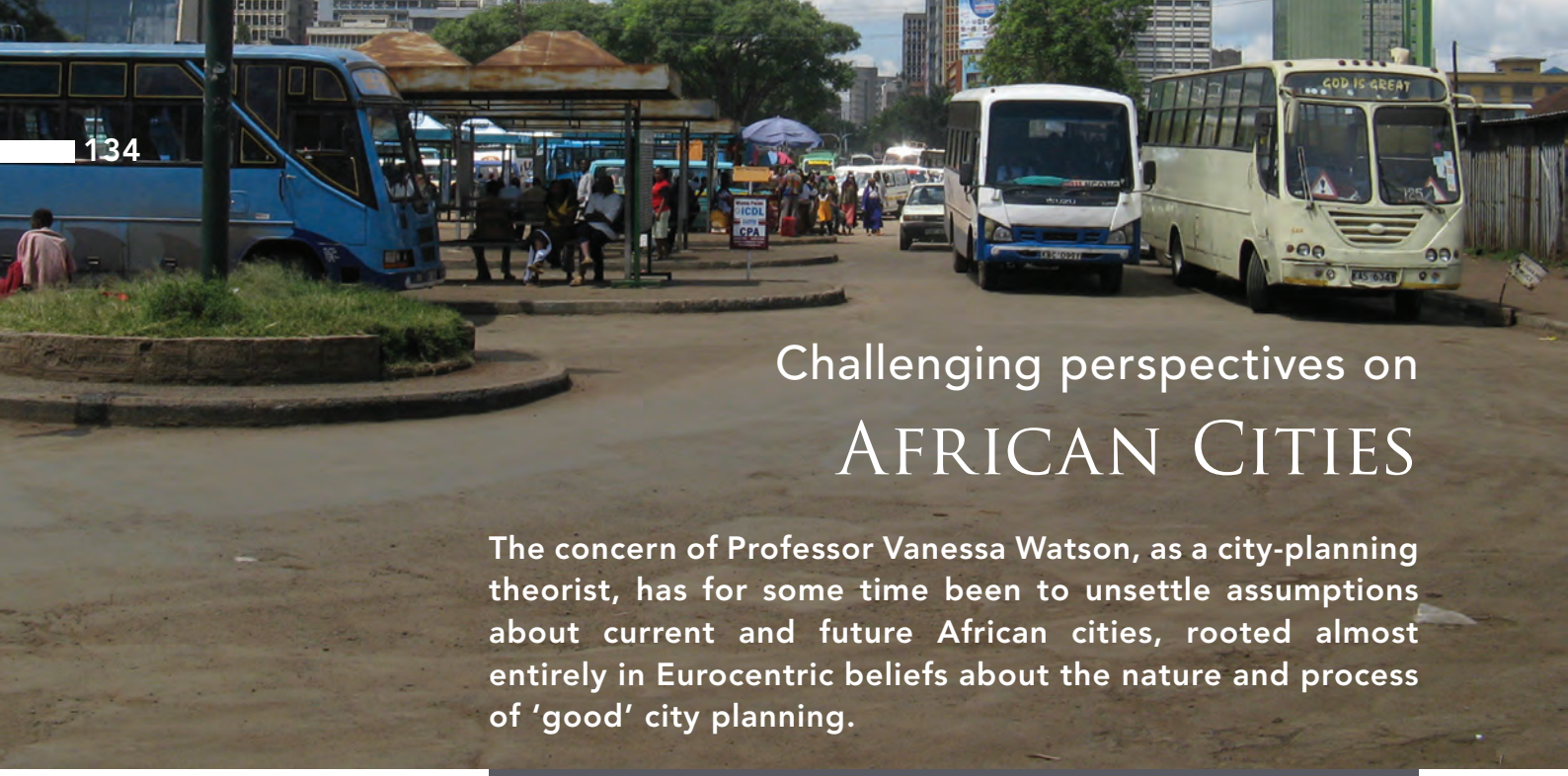
Conscientising diverse publics and constituencies about critical urban conditions and inequalities is a key challenge. Likewise, publicising the results of research and inspiring students and citizens with new visions for our cities are crucial facets of any university research programme. The ACC at UCT also supports scholarship in conventional ways by publishing books, chapters and academic papers. Recent publications have covered topics such as urban governance, alcohol in the city, urban ecology, property law, and urban climate change. A research monograph about cultural entrepreneurship as an agent of urban change in West Africa is anticipated from Dr Jenny Mbaye, recipient of the prestigious Ray Pahl Fellowship allocated to the ACC in 2012.

The ACC also strives to communicate and provoke in unconventional ways, supported in part by a Rockefeller Innovation Award. The *Cityscapes* magazine and the *African Cities Reader* both aim to publish visually striking and innovative pieces that present cities and the lives of their residents in unfamiliar and provocative registers. In this spirit, too, ACC participated in UCT's 'Curate Africa' event in 2012. With support from the Goethe Institute, the ACC was also involved in tracking and reflecting on three public art projects in Johannesburg. In the context of Cape Town having been designated World Design Capital 2014, the ACC partnered with the Social Justice Coalition in convening the 5th annual Irene Grootboom Memorial Dialogues, held at two sites in Khayelitsha, as well as in Woodstock, in the Cape Town CBD, and on the UCT campus. Leading activists, designers, community leaders, academics and Cape Town residents debated how design might be used as an instrument for advancing social justice and reducing urban inequality.

Cities are here to stay. More than that, in the global South metropolitan areas medium-sized cities are home to an increasing number of people, and are the sites where some of the best social and environmental interventions can be made for sustaining economies, ecologies and societies. The diverse research on cities at UCT aims to co-ordinate and catalyse a fair slice of the inquiry, and to contribute significantly to policy that improves the prospects of cities and all their citizens.



Challenging perspectives on AFRICAN CITIES

The concern of Professor Vanessa Watson, as a city-planning theorist, has for some time been to unsettle assumptions about current and future African cities, rooted almost entirely in Eurocentric beliefs about the nature and process of 'good' city planning.

Planning, as an activity of the state (but increasingly also of communities and business), often appears to involve a purely technical set of decisions around the correct location of land-uses, movement routes and so on. Yet, as planning theorists argue, planning is also deeply political, involving usually contested decisions about the allocation of public resources across urban space and legal constraints which can fundamentally affect the lives of urban dwellers. Understanding the socio-technical interface generated by planning processes, how this is shaped by power and politics, and how it can be steered to promote goals such as social justice and sustainability has therefore been a focus of planning theory worldwide.

Visions of 'the good city' usually cite Amsterdam, Stockholm or Portland, taking for granted strong and resourced governments, organised civil society, manageable growth and little informality.

Professor Vanessa Watson

However, in both colonial and post-colonial times, African cities have been on the receiving end of planning theories and policies generated in the 'global North' and universalised to the rest of the globe based on assumptions that urban society and space everywhere is little different from that in Europe or the United States and, if it is, then the task of planning is to shift cities in this direction. Visions of 'the good city' usually cite Amsterdam, Stockholm or Portland, taking for granted strong and resourced governments, organised civil society, manageable growth and little informality. Professor Watson's research has challenged the underlying assumptions of this body of theory and has emphasised the importance of building planning theory from an understanding of context. Given that in years to come an increasing majority of the world's urban population will live in global South cities, and that in Africa the urban population is likely to increase threefold by 2050, she has stressed the urgent need for planning theory with a global South perspective, which takes as its starting point a very different set of assumptions and research methodologies from those currently informing planning thought. Much of her own research has been involved in exploring (with her PhD students) what these different starting points might be (both philosophical and practical) and how planning can re-conceptualise the urban socio-technical interface in global South and African contexts.

But re-theorising planning is unlikely to have sufficient impact on the impending urban crisis in Africa: other initiatives are necessary. Given the paucity of urban and policy research on the continent, Professor Watson formed part of the cross-faculty team that collaborated to establish the African Centre for Cities in 2007. The Centre has flourished and in 2013 will take the significant step of co-ordinating a meeting of the 16 most prominent urban-research centres on the continent, together with major donors, to collaboratively shape an urban research agenda for Africa.

A longer-term strategy has been to shift the nature of planning education at universities on the continent, given that many curricula are still strongly shaped by post-World War British planning ideas. Hence planning professionals are being produced who have little understanding of the real challenges of African urbanisation and are equipped only with planning ideas from a very different time and place. The ACC-hosted Association of African Planning Schools (AAPS) has grown significantly, and this network of 50 urban planning schools is now a recognised influence on planning education and practice in Africa, and has generated significant educational research amongst its members.

One reason why it is hard to shift planning curricula is that national planning laws in many African countries were inherited from British (and French) colonial administrations and persist to the present day. This binds planning schools to producing planners trained to operate these outdated legal systems, but the planning laws themselves are also unable to recognise or respond to the current drivers of African urban change. It has therefore been necessary to initiate a research project aimed at revealing the weaknesses of this legislation across the continent and developing both processes and outcomes to bring about planning-law reform

Planning Education and the Association of African Planning Schools (AAPS)

AAPS is a peer-to-peer network of African university programmes that educate and train urban and regional planners.

Its 50 members are drawn from 19 countries, located in all regions of Africa (Botswana, Egypt, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Morocco, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia and Zimbabwe). As a knowledge network, AAPS aims to facilitate exchange on curriculum development and research areas between members, primarily through digital communication and social networking tools. With generous funding from the Rockefeller Foundation since 2007, and with the enthusiastic help of researcher James Duminy and his colleague Dr Nancy Odendaal, AAPS has held workshops on key research themes and methods related to planning issues in African cities, has facilitated co-publishing, has developed educational 'toolkits' for new planning courses, and has recently developed a master's curriculum for the University of Lusaka's new planning programme.

Nothing changes the mind-set of students more profoundly than these direct engagements, which also equip them with the sensitivities needed to promote inclusive urban planning practices.

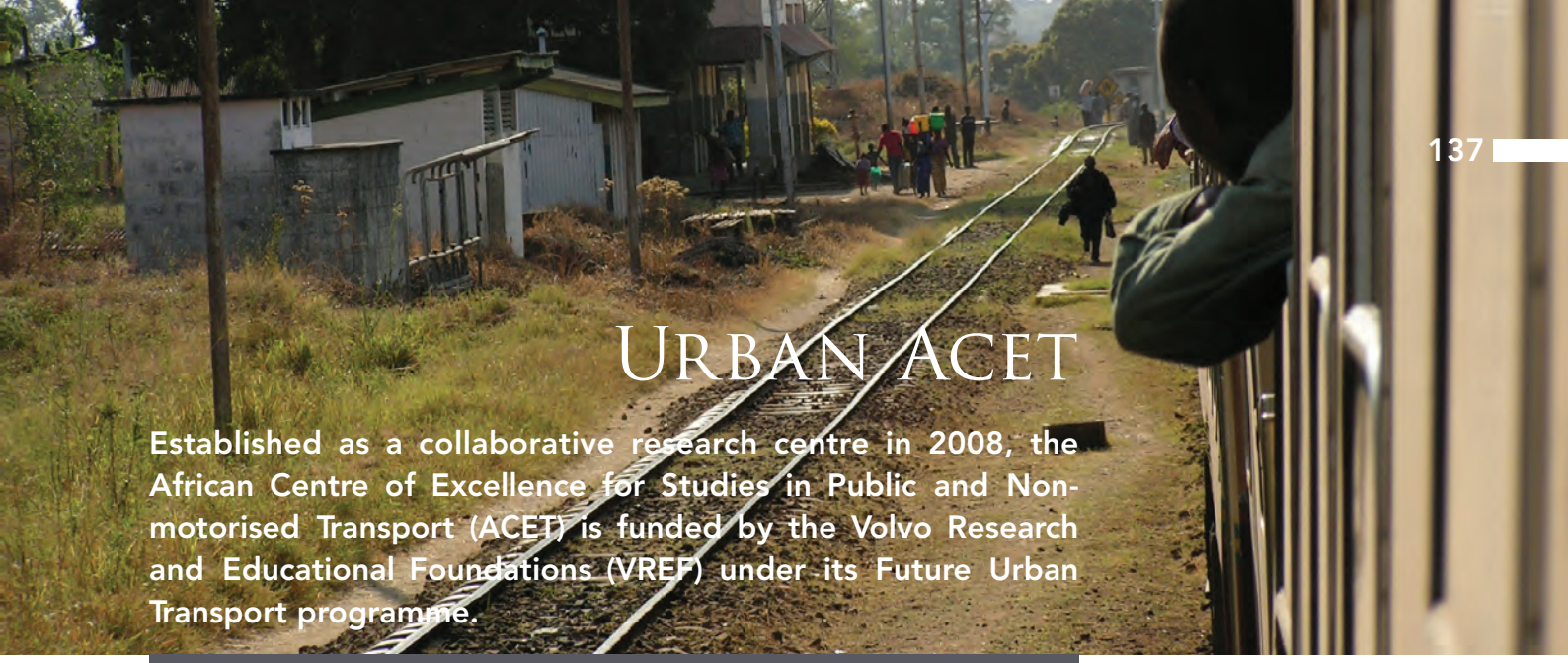
Particularly significant is the memorandum of understanding signed with Slum Dwellers International in 2010, committing planning schools to work with informal communities to expose their students to 'experiential' learning processes. Six studios have now been run on various parts of the continent, in which planning students work collaboratively with slum-dweller organisations on 'real-life' urban upgrade projects. Nothing changes the mind-set of students more profoundly than these direct engagements, which also equip them with the sensitivities needed to promote inclusive urban planning practices. The engagements have also stimulated research on planning pedagogy and how the education of planning professionals needs to respond to the particularities of the African urban context.

Building a Platform for Urban Legal Reform in Africa

Since 2010, and working through AAPS and the ACC, researchers have been building a policy argument for changing and improving urban laws in Africa and supporting a network of academics and practitioners contributing to these debates. The initiative is being led by Adjunct Associate Professor Stephen Berrisford, a land-law and planning expert with experience of planning-law reform in Africa.

The starting point for this research and lobby initiative is the belief that legal frameworks that govern urban development – especially urban planning, land and housing and urban governance – are outdated and inappropriate. Research has focused on identifying why it is so difficult to change planning law in Africa, leading to exploration of the entrenched nature of these laws, how power is derived from them, and how particular social groups tend to benefit from them. A journal special issue in 2011 was a first attempt to capture the experiences and difficulties of urban-law reform efforts in Africa.

The building of a platform to take forward urban-law reform in Africa has so far produced a major workshop of key political and international agency representatives, as well as a plenary dialogue at the 2012 World Urban Forum. Now, together with Cities Alliance, UN-Habitat, Urban LandMark and the World Bank, UCT researchers have initiated the process of compiling an *Urban Legal Guide*, a practical guide to support processes of urban legal reform in Sub-Saharan African countries.



Urban ACET

Established as a collaborative research centre in 2008, the African Centre of Excellence for Studies in Public and Non-motorised Transport (ACET) is funded by the Volvo Research and Educational Foundations (VREF) under its Future Urban Transport programme.

It is part of an international network of ten VREF-funded centres all focusing on the development and implementation of future urban transport solutions. ACET comprises academics and postgraduate research students from three main partner universities: the Centre for Transport Studies at UCT, the Department of Transportation and Geotechnical Engineering at the University of Dar es Salaam, and the Institute for Development Studies at the University of Nairobi. This Centre of Excellence is the primary collaborative network for the university's Centre for Transport Studies.

The ACET research programme is focused on the two main areas of public transport and paratransit, and non-motorised transport. Paratransit is defined as an alternative, flexible mode of passenger transportation that does not follow fixed routes or schedules (such as the minibus taxis that dominate the Cape Town public-transportation scene).

African cities have experienced a decline in scheduled public transport, and the emergence of weakly regulated and unscheduled paratransit. A major challenge facing authorities is the transformation of these services into integrated, regulated, safer and more efficient systems. Many previous attempts to do this have been developed without sufficiently grounded knowledge of 'real world' business, operating and regulatory conditions, and of governance capacities.

African cities, fairly ubiquitously, have inadequate infrastructure to support the non-motorised transport (NMT) modes upon which large impoverished populations depend. Poor levels of NMT accessibility and unsafe and uncomfortable travel conditions are the inevitable results. For many decades NMT has been ignored or underestimated, and treated as an add-on or afterthought. Both these research areas are situated in a context of responsible government agencies with low capacities, limited resources and poorly developed planning frameworks.

The spectrum of the ACET research programme includes projects focused on travel behaviour patterns, road safety, paratransit operations and regulation, public transport system assessment, non-motorised travel and infrastructure, intelligent transport systems, travel behaviour change, school travel planning, and city restructuring.

ACET's objective is to produce and disseminate knowledge on the development and governance of public and non-motorised transport in African cities, and to serve as a hub of research and capacity-building. The Centre of Excellence aims to empower researchers in Africa to set their own research agendas and engage directly with the transport challenges they face. An overarching objective is to facilitate an increase in journal publication, and greater involvement of African researchers in international conferences and in other forms of scholar interaction.

Associate Professor Roger Behrens

Paratransit Operations and Regulation in Cape Town

Led by Associate Professor Roger Behrens and funded by the Volvo Research and Educational Foundations, this ongoing project explores appropriate policies with respect to urban public transport system reform.

Public transport systems in contemporary sub-Saharan African cities are heavily reliant upon paratransit services. These services are typically poorly regulated and operate as informal businesses. Common results of weak public sector regulation, and a fare strategy in which owners claim a fixed daily revenue target and drivers keep the balance as income, are destructive competition and poor quality of service. There is a strong case for improving the quality, reliability and coverage of public transport systems, and some city governments have attempted to do so by initiating reform projects that envisage the phased replacement of paratransit operations with formalised bus rapid transit systems. There are, however, path dependencies and institutional and financial constraints that limit the possible extent of reform. Paratransit operations also have some inherent advantages with respect to demand responsiveness and service innovation. Attempts to eradicate paratransit may therefore be neither pragmatic nor strategic. It is hypothesised that two future scenarios are likely: hybrid systems comprising both paratransit and formally planned modes, and systems improved by upgrades and strengthened regulation of existing paratransit services.

Using information obtained from international case studies (e.g. Hong Kong, Jakarta, Recife, Santiago and Quito), the project is exploring appropriate regulatory frameworks for hybrid public transport systems in which formal and informal services coexist in a complementary manner. Drawing from engagement with minibus-taxi operators in Cape Town, the project is also uncovering the sources of paratransit resistance to the bus rapid transit (BRT) system implementation, and is developing an understanding of the heterogeneous nature of paratransit operator aspirations and the associated path dependencies these impose. The project researchers contend that policies that recognise paratransit, and seek contextually appropriate complementarity with formalised planned services, will produce greater benefits than policies that ignore their continued existence.

City Restructuring

This project focuses on exploring the potential to reduce the amount of motorised travel in the three main partner cities (Cape Town, Dar es Salaam and Nairobi) and investigating the impact of reduced commute distance travelled by workers.

Cities of the global South have relatively low car-ownership rates (between 18 [Kenya] and 144 [South Africa] vehicles/1,000 persons) compared to cities of the global North (between 400 and 700 vehicles/1,000 persons). The growing economies of the cities of the global South will translate into increased incomes and increased car-ownership rates. In parallel to this, the populations of these cities are also growing.

It might be argued that coal and nuclear power can be used to power electric public transport vehicles, but these resources are also limited.

These forces are likely to encourage the development of space economies and transport infrastructure suited to the motorcar. In contrast to this trend is the prospect of declining global fuel resources and increasing costs. This will reduce the number of persons and households that can afford to use a car to meet their transport needs. This will have a significant impact on the economies of cities and the well-being of their populations, more especially on those cities that have been structured to suit private motorised transport, and even more so on those that are poorer. (It might be argued that coal and nuclear power can be used to power electric public transport vehicles, but these resources are also limited. Oil, coal and nuclear power resources are forecast to peak in 2006, 2020 and 2040 respectively, resulting in serious shortages, and therefore very high costs, by 2025, 2070 and 2100 respectively).

The aim of this research is to estimate the positive and negative effects that would result from restricted private and even public motorised travel and the effect of informality in cities of the global South on these estimates. Project activities in 2012 focused on the administration of surveys in Cape Town to assess the consequences to employers and employees of restricting motorised commuter travel.

The project is led by Associate Professor Romano Del Mistro and funded by the Volvo Research and Educational Foundations.

Non-Motorised Travel and Infrastructure in Cape Town

This project focuses on the safety of non-motorised transport users (e.g. cyclists and pedestrians), and their interaction with other road users and infrastructure measures. Traditionally, road-safety assessments are conducted retrospectively.

The results of these investigations aggregate the causes of crashes under human, vehicular and environmental factors. The interaction between these factors is poorly understood, and safety counter-measures continue to be derived from historic crash statistics, or cluster analysis of incidents. Crashes are, however, random events and can occur anywhere and at any time. Historical crash-location patterns may not be the best indicator of future risks.

This project explores the use of microsimulation techniques to evaluate the relative safety of infrastructure and the interaction of road users through surrogate and proximal safety techniques, and contrasts the results with published findings. It also reviews road-safety assessment methods currently in use (e.g. traffic-conflict analysis and risk-assessment indices) and uses elements of these in conjunction with simulation to provide a sound basis for road-safety assessment. Test cases and analysis have been undertaken using some hazardous locations in Cape Town. Project activities in 2012 focused on completing the modelling work and initiating the write-up of results.

This project explores the use of microsimulation techniques to evaluate the relative safety of infrastructure and the interaction of road users through surrogate and proximal safety techniques, and contrasts the results with published findings.

The project is led by Associate Professor Marianne Vanderschuren and funded by the Volvo Research and Educational Foundations.

Signature Themes
associated with this theme

African Centre for Cities

Achieving well-governed and sustainable cities is becoming increasingly important to the future health of the planet. The African Centre for Cities partners closely with African universities and policy-making centres in order to provide an alternative perspective on dealing with critical urban issues. It provides an intellectual base and home for interdisciplinary, urban-related research at UCT, from which relations can be established with selected international think tanks, scholars, social movements, and funders.

Director: Professor E Pieterse
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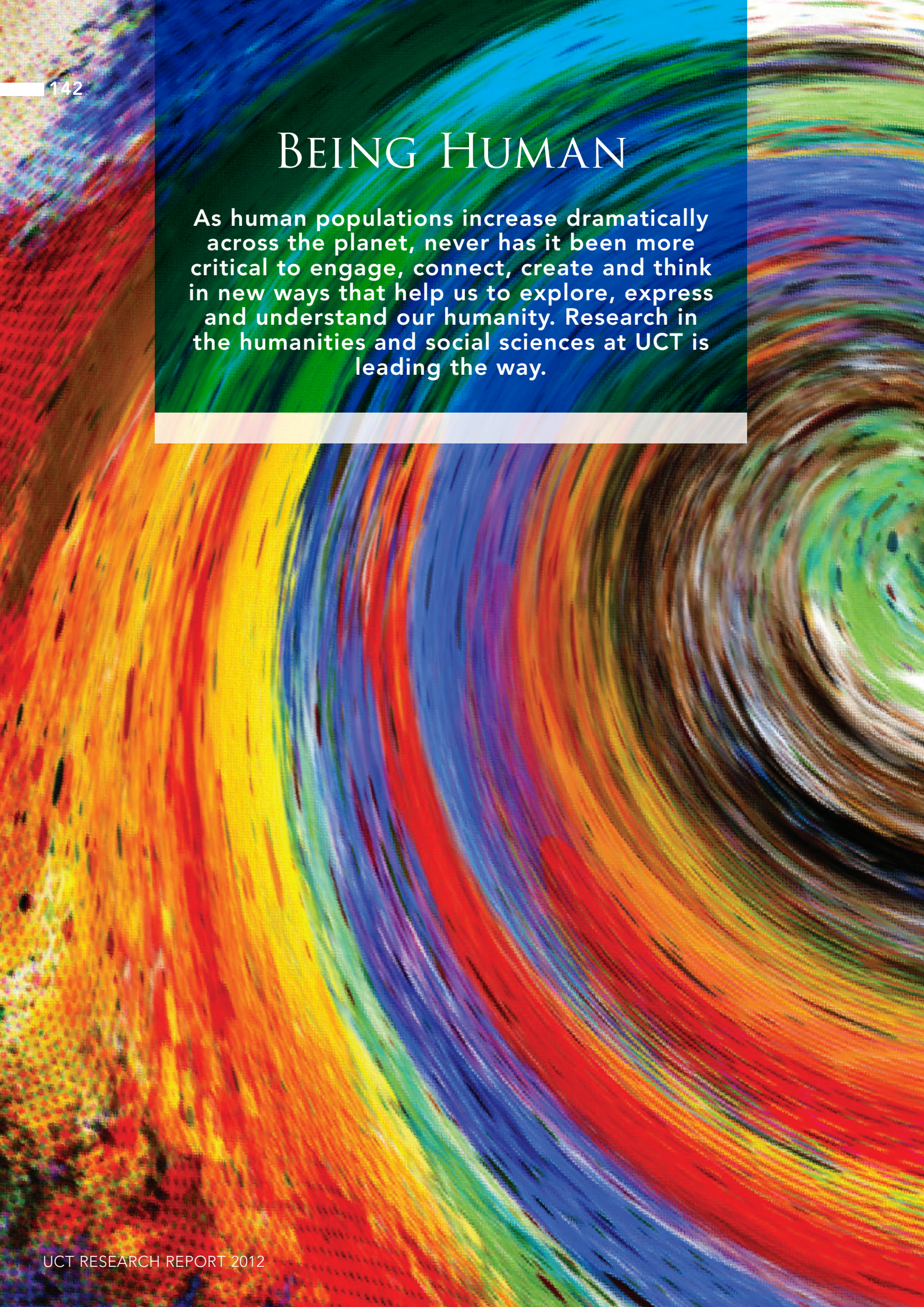
SARChI Chair
associated with this theme

Urban Policy

Professor Edgar Pieterse holds a PhD from the London School of Economics, a master's degree in Development Studies from the Institute of Social Studies (The Hague, the Netherlands) and BA-Honours from the University of the Western Cape. He is the holder of the SARChI Chair in Urban Policy and directs the African Centre for Cities at the University of Cape Town. His research is wide-ranging, covering themes such as African urbanism, cultural planning, regional development, governance, and macro development issues. He is a founder member of the Isandla Institute, serves on the boards of Magnet Theatre, the Sustainability Institute, and the Cape Town Partnership. He regularly provides advisory services to international development agencies such as UN-Habitat, African Development Bank, the Development Bank of South Africa, the Organisation for Economic Co-operation and Development, and the UN Environment Programme. Recently, Professor Pieterse was asked to serve on an international advisory committee for Cooper-Hewitt, the National Design Museum curating an international exhibition, *Critical Mass: Design and Urbanization.*

Being Human

As human populations increase dramatically across the planet, never has it been more critical to engage, connect, create and think in new ways that help us to explore, express and understand our humanity. Research in the humanities and social sciences at UCT is leading the way.



Relevance is key to UCT's research-led culture. Whether information proves of practical use to society at large depends on its frame – which is why all UCT research is framed within a contemporary South African context that seeks to successfully contribute to development and transformation in the country. Its strategy remains the identification of those vital attributes necessary for sustaining a research practice that continues to be globally competitive.

Recent investment by the university has focused on a broader-based development of research capacity with an emphasis on the humanities and social sciences. This invigoration is particularly relevant in light of the 2011 Academy of Science of South Africa report *The Consensus Study on the State of Humanities in South Africa,* and the *Charter for Humanities and Social Sciences,* which pointed to a worrying decline in the humanities and social sciences across the country, a trend that UCT is bucking.

The emphasis on humanities and social sciences at UCT has seen measurable growth in the area of research and publications, despite relative stagnation in these areas nationally.

This trend looks likely to continue, particularly as all three DST/NRF South African Research Chairs awarded in 2007 in the humanities were renewed in 2012. A fourth Chair, held by Professor Carolyn Hamilton in Archive and Public Culture Research Initiative, has also performed strongly in its first five years and looks set to be renewed in 2013. This Chair works closely with other humanities-based research initiatives at the university: the Centre for Curating the Archive, the recently established Institute for Humanities in Africa (HUMA) and the Gordon Institute for the Performing and Creative Arts (GIPCA).

These units provide direct and valuable intellectual support to a vibrant, thriving university research culture, whether individually, in collaboration, or through external partnerships. One such partnership extends northward into Africa – the Tombo*UCT*ou Manuscripts Project – led by Associate Professor Shamil Jeppie of HUMA. Its initial focus was on the research and translation of the Timbuktu Manuscripts in Mali, but it has broadened to include writing cultures from other parts of Africa.

UCT's contribution to the humanities endeavours to move beyond what is conventional. Just as the Michaelis School of Fine Art, the School of Drama and the College of Music create a rich and vibrant tapestry of work, so too the global revival of religion that impacts all forms and levels of individual and social life cannot be denied or ignored. A study of religious discourse is crucial for understanding modern religions, their sources of inspiration and their underlying structures.

The Department of Religious Studies, headed by the DST/NRF South African Research Chair in Islam, African Publics and Religious Values, Professor Abdulkader Tayob, offers an open and dynamic approach to the study of religion that recognises the importance of creative and critical thinking in a changing and culturally diverse South Africa.

Some credit can be claimed by the university for the national revival of linguistics research with a programme spearheaded by Professor Rajend Mesthrie of the DST/NRF South African Research Chair in Migration, Language and Social Change.

The emphasis on humanities and social sciences has already seen UCT demonstrating measurable growth in the area of research and publication despite relative stagnation in these areas nationally.

UCT's active linguistics unit collaborates closely with colleagues in the School of Education and the Centre for Higher Education Development, along with the linguistics department at the University of the Western Cape. Sociolinguistics – described as one of the fastest-growing strands of linguistics – focuses on language and communication in society and social interaction. It carefully analyses everyday encounters in order to understand larger structures and processes like globalisation, inequality, social creativity, and the formation and contestation of identities. Its aim is to bring together empirical analysis and social and linguistic theory, as well as socio-political engagement.

The university recognises the importance of the humanities to both intellectual endeavour and the shaping of society, and remains committed to this sometimes undervalued area of academics.

Preserving the treasures of national heritage:

The Archive and Public Culture

The Archive and Public Culture Research Initiative works closely with other humanities-based research at the university to provide valuable intellectual support to a vibrant, thriving university research culture.

South Africa has a vast archival inheritance from the colonial and apartheid eras, which includes documents, images found in archival repositories and other collections, bones, natural specimens, art works, and maps. This inheritance, shaped in complex ways by the dominant concerns of the time, presents significant epistemological, conceptual, methodological, and ethical challenges for anyone delving into the treasure trove. And further complexity is added by post-apartheid policies and activities that now augment the collection and challenge the very perimeters and definition of archive itself.

Further complexity is added by post-apartheid policies and activities that now augment the collection and challenge the very perimeters and definition of archive itself.

Two aspects of archive have operated in especially stark ways in South Africa. The absence of a documentary archive was used to designate black South Africans as timelessly traditional and tribal, while the Truth and Reconciliation Commission bears the weight of managing the political history of the apartheid era. Critical interrogation of the notion of archive, and specific archives, is therefore a South African research priority.

At UCT, research in this area has been given renewed vigour under the Chair in Archive and Public Culture, which offers privileged insights into the normative understandings of the workings of archive, and an opportunity to interrogate afresh the definition of archive and develop new theoretical tools and conceptual vocabularies to be used in

approaching questions that challenge and extend older metropolitan ideas. Taking the initiative still further, it considers what the notion of archive enables and what it forecloses, and explores new methods for approaching archival and similar materials.

The initiative investigates to the fullest the circumstances of the making of the archival inheritance, its refashioning over time, and processes of inclusion and exclusion. This is accomplished by focusing on how archives shape public, political and academic discourses and practices, and were, themselves, shaped by public, political and academic discourses and practices.

This draws attention to the relationship between academic disciplines and their archives. Former UCT Vice-Chancellor Professor Njabulo Ndebele's observation that "[t]here can be no transformation of the curriculum, or indeed of knowledge itself, without an interrogation of archive" informs the initiative's exploration of these relationships in a variety of disciplines.

There can be no transformation of the curriculum, or indeed of knowledge itself, without an interrogation of archive.

Along with Professor Pippa Skotnes from UCT's Michaelis School of Art, the DST/NRF Chair in Archive and Public Culture anchors a UCT-wide initiative, Archive and Curation (ARC): The Visual University and Its Columbarium. ARC engages with projects that investigate the university's extended columbarium (the many research collections, both in formal university repositories and in informal bottom drawers of professors' desks or hidden in departmental cupboards), encouraging self-reflection of the relationships between disciplines and their archives within the university.

The initiative is committed to inter- and transdisciplinary modes of work and social learning formats. Close attention is given to postgraduate pedagogy and the production of future academics, with postgraduate research structured around regular research development workshops and active support for sole-authored student publications.

The platform has achieved high recognition, nationally and internationally, as a trusted voice with the will and power to speak out in support of archival institutions and the public interest, as well as for its trailblazing work as a novel form of popular media-based activist intervention.

District Six Museum

Institute for Humanities in Africa

Food for thought and room for lively, intellectual debate

A full and lively events programme in the Institute for Humanities in Africa (HUMA) – some 60 events in 2012 – was critical to realising the mission to create and champion a space for inter-disciplinary research and debate for graduate students and their peers. Events included two regular weekly seminars: a series structured by the dual research themes *On Being Human* and *Circuits of Consumption,* and a series of 'book lunches' intended to open discussion with authors of books published in the humanities.

Perhaps the liveliest 'book lunch' – in a room filled with people and strong views – was that of *The Second Sexism* by David Benatar, in which he maintains that men are the victims of new and pernicious modes of gender discrimination.

The year saw the launch of Continental Connections – seminars, lectures and workshops presented by invited visitors from Mali, Ghana, Uganda, and Nigeria. The first event dealt with discourse analysis: a combination of two lectures grappling with the genealogy of the concept of discourse, and a workshop focused on conducting discourse analysis.

A one-day symposium to mark the 50th anniversary of the publication of Rachel Carson's *Silent Spring* proved an especially successful event, convened around the visit to HUMA of keynote speaker Professor Rob Nixon (University of Wisconsin, Madison). The symposium planted the seed for an inter-disciplinary master's in Environmental Humanities – a first in South Africa.

Certain events are conventionally academic; others are intended for the wider public. Cape Town Commons is a HUMA public platform for debate on matters of citizenship in this city. The focus event for 2012 was the scandalous waste of public funds by the National Lotteries Board directly affecting the lifelines of a surprising number of Cape Town NGOs. The event was attended by hundreds from Cape Town and its wider environs.

Other notable events held in 2012 included a series of seminars held under Shamil Jeppie's research programme on African Arabic writing cultures in which local western-style calligraphers and scholars of Arabic writing spoke about the theory that informs their practice. Renowned Moroccan calligrapher Hamidi Belaid also ran a calligraphy course at the Michaelis School of Fine Art.

Research highlights included Deborah Posel's work on the politics of consumption in South Africa, which produced an analysis of the ANC Youth League under Julius Malema, and Ilana van Wyk's twin research emphases on prosperity gospel churches and the South African lottery, which resulted in a series of publications and lectures.

Zethu Matebeni's research, delving into questions of sexuality, and sexual and identity politics, culminated in a well-attended public debate in Langa township. A short film about the politics of gay and lesbian pride in South Africa was produced from this event. Matebeni concluded a four-year research project concerning HIV risk and the vulnerability of women in Southern Africa. A journal article published in *Agenda* addressed issues around pornography and feminism in South Africa, and Matebeni also published the book *Black Lesbian Sexualities and Identity in South Africa*, based on her PhD thesis.

The Tombo*uctou* Manuscripts Project

Associate Professor Shamil Jeppie, who leads the Tombo*uctou* Manuscripts Project, has made regular trips to the UNESCO world-heritage site of Timbuktu to work with an archive of handwritten texts in Arabic and African languages in the Arabic script, produced between the 13th and the 20th centuries.

A United Nations expert mission estimates that around 4 000 ancient manuscripts were destroyed by Islamic fundamentalists during their occupation of Timbuktu in early 2013. This is approximately one-tenth of the manuscripts that were stored in the city. Most documents were saved by the devotion of the library's Malian custodians, who spirited them out of the occupied city in rice sacks, on donkey carts, and by motorcycle, boat and 4-wheel drive.

Lamu Endangered Archives

During 2012 Associate Professor Jeppie took his interests in Islamic culture eastward to Lamu in Kenya, one of the original Swahili settlements in East Africa.

Funded by the British Library Endangered Archives Programme, Associate Professor Jeppie, together with Norwegian colleague Anne Bang and Ethiopian student Hasan Kawo, ran a project to catalogue the manuscripts of a small library at the Riyadha madrasa in Lamu. The 19th century Riyadha Mosque is one of the oldest and most influential Islamic teaching institutions in the Swahili world. During this visit, digitisation of the entire manuscript collection of unique copies on Islamic education in East Africa for the past 120 years was completed, generating a total of 35 000 digital images of the full collection.

Giving Vibrant Voice to Great Literature

The Coetzee Collective is the leading international research group on the writings of J.M. Coetzee, the South African 2003 Nobel laureate in literature. Coetzee's work has sparked an extraordinarily vibrant culture of research, teaching and conversation among postgraduate students in literature at UCT.

Coetzee Collective, Rebecca Saunders (Illinois State)
The Concept of Foreignness in Waiting for the Barbarians

The research hub, originally founded in 2006 as an informal discussion group, is hosted by Associate Professor Carrol Clarkson of the Department of English Language and Literature. A series of seminars at the university is sponsored by the hub, often featuring overseas visitors, while links are fostered with acclaimed researchers and postgraduate students throughout the world.

UCT postgraduate students in the English Department are at the core of the burgeoning international and inter-disciplinary field of "Coetzee Studies" which, in addition to the study of South African and world literatures, includes scholarship in fields like animal ethics, translation, linguistics, film studies and jurisprudence.

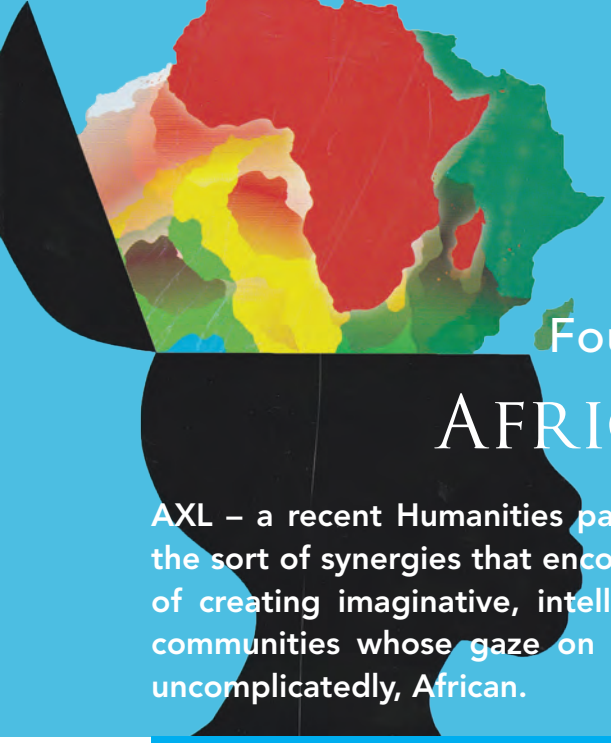
Two postgraduate students – Joshua Maserow and Eckard Smuts – presented papers at an October 2012 conference on Coetzee at Justus-Liebig University in Giessen, Germany. The event presented an opportunity for the Coetzee Collective to broaden the scope of its network and strengthen ties with its international members. A positive outcome of the conference has been an ongoing correspondence between researchers from the two universities.

Maserow has since graduated with distinction while Smuts is about to submit his doctoral thesis. They are joined by Daniella Cadiz Bedini, who wrote her MA on Coetzee, and will graduate with distinction in June 2013.

Still more good news: Dr Hedley Twidle's essay on Coetzee won the Bodley-Head Financial Times Essay Award – a major international honour in the field.

The 2012 highlight for the collective, which took place in December, was undoubtedly a visit to UCT by J.M. Coetzee himself. He read from his new novel, *The Childhood of Jesus*, not yet published at the time.

Coetzee's latest work, in a departure from previous novels, is the story of a young child's co-operative relationship with a man who is not his father and explores the myriad assumptions about the world normally invisible in ordinary adult life, and the limits and provisionality of any single explanation of a phenomenon.



Four times the focus on
AFRICAN STUDIES

AXL – a recent Humanities partnership – has begun to forge the sort of synergies that encourage debate on the challenges of creating imaginative, intellectual, and politically engaged communities whose gaze on the world is, unqualifiedly and uncomplicatedly, African.

The merging in 2012 of four previously distinct academic departments in the Faculty of Humanities has created the School of African and Gender Studies, Anthropology and Linguistics (AXL) and it's an exciting place to be. Instead of working in silos, staff and students are encouraged to locate synergies, explore innovative ways of working and share knowledge and resources. The partnership consolidates years of research by African academics and is already bearing fruit in the form of cross-functional collaboration.

It is clear that AXL is uniquely positioned to provide exploration and insight into issues of what it means to be 'African', the meaning of culture, feminist discourse in Africa, the construction of identity and race, and the role of language alongside the continent's political and social development. The value of the school, according to its director, Associate Professor Jane Bennett, is its ability to examine familiar themes more critically, in new ways and from a quintessentially Afrocentric perspective.

Instead of working in silos, staff and students are encouraged to locate synergies, explore innovative ways of working and share knowledge and resources.

The journey towards AXL has not been without controversy. In 2011, the merits of the proposed amalgamation were hotly debated, leading to months of discussions by students, staff members and faculty executive, under intense media scrutiny. At the heart of the debate was the perceived devaluation of African Studies at the institution and concern about the loss of departmental independence for the Centre for African Studies (CAS).

These anxieties have been set aside following significant gains achieved since the launch, key among them the appointment of Professor Lungisile Ntsebeza (SARChI Chair in Land Reform and Democracy) to the AC Jordan Chair in African Studies. This has brought Professor Ntsebeza's renowned intellectual achievements and vision into the heart of the school.

Another gain in 2012 was the National Excellence for Teaching and Learning Award from the Higher Education Learning and Teaching Association of Southern Africa to

Associate Professor Jane Bennett, Director of AXL.

Research Project

Dr Susan Levine (Social Anthropology), a recipient of UCT's Distinguished Teacher Award in 2011.

Through the AGI and Gender Studies, AXL students and staff benefited from the visit of internationally acclaimed documentary film-maker and writer Yaba Badoe (Ghana) in August. Badoe spent a week at UCT giving seminars and screening her award-winning documentary *The Witches of Gambaga*, which explores the negative impact of cultural beliefs and superstition in parts of Africa. The visit was co-ordinated in collaboration with the faculty's African Cinema Unit.

The Linguistics section hosted a successful residential seminar, titled *Language and Desire, which was attended by* AXL postgraduates, affiliates and faculty members.

The three SARChI Chairs held within AXL have, through a first-class array of seminars, digital production and research publications, continued to stimulate the school and wide range of affiliated researchers and writers.

The value of the school, according to its director, Associate Professor Jane Bennett, is its ability to examine familiar themes more critically, in new ways and from a quintessentially Afrocentric perspective.

AXL also published three issues of *Feminist Africa* and two editions of *Social Dynamics* in 2012. The *African Feminists: Talking the Walk* is another project that connects UCT academics and students with their counterparts in different African contexts. Initiated in 2011 by the African Gender Institute, the programme presents the work and ideas of African feminists in order to answer the question: What do African feminists look and sound like? Key events included seminar presentations, book launches, documentary screenings and panel discussions, including a visit from feminist activist Sara Longwe, who gave a talk on "Legal Voice: feminist activism from the body up" – an account of her legal struggles for equality in Zambia.

An important milestone for AXL has been the establishment of the Centre for African Languages Diversity, a research unit headed by Dr Matthias Brenzinger, created to stimulate the study and documentation of African languages to promote linguistic diversity on the continent. Through its scholarship programme and collaborations with international institutions, the unit will soon attract MA and PhD students from around Africa.

A Champion for Integrated African Studies

Professor Lungisile Ntsebeza has been appointed as the new AC Jordan Chair in the School of African and Gender Studies, Anthropology and Linguistics (AXL). This professorial chair in the field of African Studies was established at UCT in 1993 and is named after Archibald Campbell Mzolisa Jordan, who was a pioneer in the field of African Studies under apartheid.

According to Professor Ntsebeza, Africans, in particular South Africans, do not know enough about their own continent and have yet to prioritise a meaningful study of African issues. The AC Jordan Chair aims to address this challenge by championing the integration of African Studies into research, teaching and learning at undergraduate and postgraduate level across the institution.

Examples of this commitment to an African agenda can already be found in UCT's Afropolitanism drive, and in the work of the School of African and Gender Studies, Anthropology and Linguistics and the recently established Centre for African Language Diversity, as well as in the teaching of isiXhosa in the Health Sciences.

African Studies is in a sense inherently cross- and multidisciplinary, providing an opportunity for individuals from different disciplines and professions to address selected topics, problems or themes related to Africa.

South Africa's Chinese Diaspora and the Multilingual Transformation of Rural Towns

China's economic ties with Africa have strengthened in the last decade as more Chinese migrants settle here – recent estimates are as high as 400 000 compared to 20 000 in 1990.

Most recent migrants are from mainland China and are engaged in the retail sector. Iconic of this development are the so-called "China shops" found in almost every South African town, shops that do not cater to a niche ethnic market, as is common in the global North, but to a local African clientele.

The project looks at the multilingual transformation of rural towns, with ethnographic fieldwork focusing on the Eastern Cape towns of Tsolo, Cala and McClear – off the beaten track and rarely discussed in migration literature, which focuses instead on urban, metropolitan contexts. These three towns are vibrant market towns servicing a population engaged in subsistence agriculture, small-scale farming and some professional and government employment.

Since the late 1990s, trading in these towns has been transformed by international migration, with traders coming from China, from India and Pakistan, and from other African countries like Ghana and Senegal.

The project endeavours to understand how global migrants, especially the "new" Chinese diaspora, negotiate the linguistic, social and economic challenges of trade and everyday life in these rural African towns. Local residents are primarily isiXhosa-speaking with varying levels of English, yet Chinese traders have developed strategies to facilitate economic transactions: signage drawing on local meanings and languages, basic isiXhosa-Afrikaans-English jargon, and employment of language mediators to interact with customers. Further fieldwork will take place in November 2013 and throughout 2014, focusing on issues of ownership and consumption, and changing communication practices.

The project is funded by the National Research Foundation and conducted jointly by Associate Professor Ana Deumert (AXL, Linguistics) and Mr Nkululeko Mabandla (AXL, CAS) who are also involved in the recently established European Consortium on Globalization at the Margins, initiated jointly by Professors Jan Blommaert (University of Tilburg) and Leonie Cornips (University of Maastricht).

Texting Africa – Multilingual Digital Writing

Digital communication technologies, in particular popular and affordable texting, have opened new spaces for the informal use of written African languages.

Research has to date focused largely on the global North – Manuel Castells and his colleagues note in *Mobile Communication and Society:* "'We know a good deal about Norway because of the quality of the Norwegian research in the field, while we know little about Nigeria because of the scant reliable evidence on this important country."

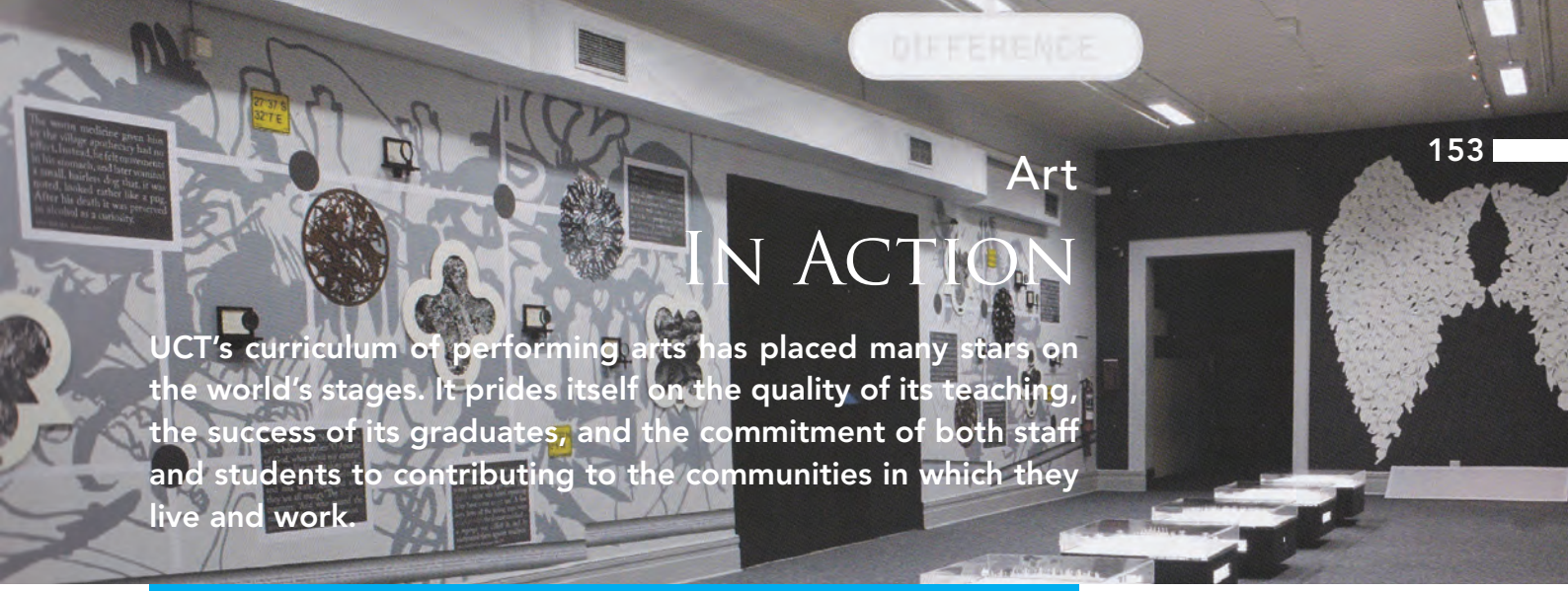
The Texting Africa project contributes to closing the research gap by focusing on digital literacy practices in Côte d'Ivoire, Ghana, Nigeria and South Africa. Data include text message corpora and screen data for other digital applications like Facebook and Twitter, as well as survey, interview, observation and focus-group data.

The Texting Africa project contributes to closing the research gap by focusing on digital literacy practices

The project began in 2010, but recent publications have focused on the role of creativity and linguistic play in digital writing. Good texters have an ability to manipulate language and create new words and expressions and, while much of this formal creativity happens in English or French, writers make skilful use of African language resources.

The data shows such practices to be widespread, and multilingual linguistic creativity to be a hallmark of the genre. For many African writers – educated in a school system which privileges former colonial languages – digital writing is a place where they write African languages on a regular basis, unsupervised, a space where African languages are cool and alive.

The project, led by Professor Ana Deumert (AXL, Linguistics), is funded by the National Research Foundation and South Africa Netherlands Research Programme on Alternatives in Development. The work benefited from research collaboration with Dr Kristin Vold Lexander, University of Oslo, and a specialist in texting in Senegal. Future collaboration is anticipated with the recently launched Centre for Multilingualism in Society Across the Lifespan (MultiLing, University of Oslo).



Art

In Action

UCT's curriculum of performing arts has placed many stars on the world's stages. It prides itself on the quality of its teaching, the success of its graduates, and the commitment of both staff and students to contributing to the communities in which they live and work.

UCT is renowned for its performing arts curriculum spanning music, dance, film, drama and art. In the past year the work of students and faculty in the performing arts shone both locally and internationally.

Special mention must go to pianist Jane Yu, an alumna of the South African College of Music, who is delighting audiences around the world with her extraordinary musical abilities. After completing her honours degree at UCT, and following a highly successful performance at Carnegie Hall earlier this year, she has been chosen to pursue her master's degree at the Manhattan School of Music.

UCT's School of Dance students also returned triumphant from the International Theatre School (ITS) Festival in Amsterdam, having won the coveted ITS Guest Award for best international performance. *A Journey from Past to Present* interpreted four themed pieces that formed part of the South African story. The students did not try to emulate European dance styles but delivered an authentic and technically skilled performance. Judges were impressed with the novel way in which the performance merged traditional and international dance styles in a manner both unique and exciting.

To ensure that more South Africans have the opportunity to pursue careers on the stage, key advances have been made in finding funding for the arts at UCT. UCT's Opera School has a proud legacy of discovering talent in disadvantaged communities rich in musical culture, yet its programmes remain some of UCT's most expensive. To further the university's broader transformation agenda of developing inclusive curricula and engaging African voices, the Opera School Endowment Fund was launched in 2012 to make pledging donations more accessible to both individuals and organisations.

A key role of arts at UCT is to explore, express and interpret what it is to be South African and African. Several important exhibitions took place in 2012, including the annual Michaelis School of Fine Art's Graduation Exhibition, which showcased the extraordinary work of 52 students. Key among these was the exhibition by Associate Professor Johann van der Schijff at the Iziko South African National Gallery titled *Community Punching Bags*. In a collaboration with several Cape Town high schools, the punching bags, adorned with faces, demonstrated that issues often not spoken of, such as violence, discrimination, racism and xenophobia, can be addressed in a collaborative and creative way through interactive art.

The African Cinema Unit, under the directorship of Associate Professor Lesley Marx, hosted the first Alternative Africa Film Festival, *Right-wing Vampires, Ritual and Rapture*. Other activities from the unit included the launch of Professor Jyoti Mistry's book *We remember differently: Race, Memory, Imagination,* and the presentation by South African film-maker Ross Devenish of his film and television work. Award-winning director Oliver Hermanus was also showcased, while students benefited from a screenwriting and screen production master class.

DST/NRF SARChI Chairs
associated with this theme

Professor Carolyn Hamilton

Archive and Public Culture

Professor Carolyn Hamilton holds the DST/NRF Chair in Archive and Public Culture, and leads the inter-disciplinary research initiative in Archive and Public Culture based at the School of African and Gender Studies, Anthropology and Linguistics. Professor Hamilton was previously head of the Constitution of Public Intellectual Life Project and director of the Graduate School for the Humanities at the University of the Witwatersrand. She was also a member of the Board of the South African History Archive and founder member of the Gay and Lesbian Archive. Her archive work is rooted in an ongoing interest in the history of South Africa in the eras immediately before colonialism for which there are limited written archives. Other illuminating materials will need to be explored. Professor Hamilton was responsible, in partnership with the Nelson Mandela Foundation, for the establishment of the Archival Platform – an electronic civil-society-based intervention in the politics of archive.

Professor Rajend Mesthrie

Migration, Language and Social Change

Rajend Mesthrie is Professor of Linguistics in the School of African and Gender Studies, Anthropology and Linguistics, and holds the DST/NRF Chair in Migration, Language and Social Change. He is a past president of the Linguistics Society of Southern Africa (2001 to 2009) and head of the Linguistics Section at UCT (1998 to 2009). He was elected honorary life executive member of the Linguistics Society of Southern Africa in 2012. He is currently an executive member of the International Society for English Linguistics and an elected member of the SA Academy of Science. Professor Mesthrie has published widely in the field of sociolinguistics, with special reference to language contact and variation in South Africa. He is co-editor of the Cambridge University Press journal *English Today*, which produces scholarship dealing mostly with English in global and migratory contexts. He is a board member of another 12 journals in the fields of sociolinguistics, globalisation and English, South African sociolinguistics, sociology, and African studies, and holds an A rating from the NRF.

Professor Rajend Mesthrie with students at the annual linguistics workshop.

Islam, African Publics and Religious Values

Abdulkader Tayob is Professor of Islamic Studies, Head of the Department of Religious Studies and holds the DST/NRF Chair in Islam, African Publics and Religious Values. He obtained his doctoral degree in 1989 from Temple University in the United States. Professor Tayob is a recognised scholar in the study of modern Islam in general, and Islam in South Africa and Africa in particular. His current research spans religion education in South Africa, modern Islam, and biographies of religious engagement. By pursuing these interests, he examines the way religion is taught in public life. Building on the work of Islam in public life, he will examine the role of religion studies as part of life orientation and religious studies as a free-standing subject in South African schools. He will continue his cutting-edge research into how to approach the study of Islam in the modern world, with the main area of

Professor Abdulkader Tayob

focus being the link between present and past, along with the categories used to best interpret the present. His third area of research is a focus on the personal dimension of religious revival. Taking a biographical approach, he questions what motivates people to join religious revival groups. These questions are posed to Muslim activists in South Africa, Egypt and Nigeria, and Muslims and Christians in East Africa.

Professor Lungisilie Ntsebeza

Land Reform and Democracy in South Africa

Professor Lungisile Ntsebeza holds the DST/NRF Research Chair in Land Reform and Democracy in South Africa. He has conducted extensive research on the land question in South Africa, specifically on land rights, democratisation, rural local government, traditional authorities, and land and agrarian movements. Professor Ntsebeza has published *Democracy Compromised: Chiefs and the Politics of Land in South Africa* (Brill Academic Publishers, Leiden, in 2005 and the HSRC Press in 2006). He has also co-edited *The Land Question in South Africa: the Challenge of Transformation and Redistribution* (HSRC Press, 2007, with Ruth Hall), and *Rural Resistance in South Africa: The Mpondo Revolts after Fifty Years* (Brill Academic Publishers, Leiden, 2011, and UCT Press, 2012, with Thembela Kepe). His current research interests, apart from land and agrarian questions, include an investigation of African Studies at UCT and a related project on the political and intellectual history of the late Archie Mafeje.

African Cinema Unit

The African Cinema Unit is an initiative within the Centre for Film and Media Studies that is committed to promoting the study of African cinemas, taking account of the richness and diversity of the film cultures that have emerged from the countries that make up this vast and complex continent. Associate Professor Martin Botha's book *South African Cinema 1896–2010* (Intellect) was published in 2012, and represents the first broadly based text that encompasses the history of South African cinema in its entirety. Under the directorship of Associate Professor Lesley Marx, several events also showcased alternative African cinema (e.g. the first Alternative Africa film Festival) and brought film-makers to the university.

Director: Dr I Rijsdijk
E-mail: ian.rijsdijk@uct.ac.za
Website: http://cfms.uct.ac.za/african-cinema-unit/

Centre for Contemporary Islam

The Centre for Contemporary Islam (CCI) was established in 1996 to co-ordinate research conducted at UCT on Islam and Muslim societies, and the dissemination of findings to a broader public. The main projects of the CCI include Islam and Public Life in Africa; Sufism, Gender and Islam; and the Timbuktu Manuscripts Project. The CCI publishes the annual *Journal for Islamic Studies*. The centre is based in the Department of Religious Studies, and has the active participation of scholars from outside the department.

Director: Professor A Tayob
Email: abdulkader.tayob@uct.ac.za
Web: http://www.cci.uct.ac.za

Centre for Popular Memory

The Centre for Popular Memory (CPM) is an Africa-focused oral-history research, advocacy and archival centre linked to the Department of Historical Studies. Research prioritises multilingual approaches to the impact of post-traumatic legacies in Africa and specialises in multileveled technology outputs through academic journals, exhibitions and film, including scholarly content for portable media platforms.

Research Groupings
associated with this theme

Through the African Oral History Archive project, the CPM has more than 3 000 oral history recordings in 12 languages, many with full transcripts and translations, preserved, migrated and gathered over 25 years.

The African Memory Project (AMP) aims to increase access to, and use of, oral and visual collections in Africa. To this end, it collaborates with international leaders in fields of oral history and memory studies to analyse Africa-centred research materials. Memories of Apartheid is a key project of AMP that seeks to engage civil society on various levels and includes a number of transnational and international research and educational partners. The project will develop a large-scale oral-history programme and conduct filmed oral-history interviews with people who lived through apartheid, across South Africa. It will also develop a centralised digital archival model for the gathering and dissemination of audiovisual archival material for educational use on an international scale.

Director: Dr S Field
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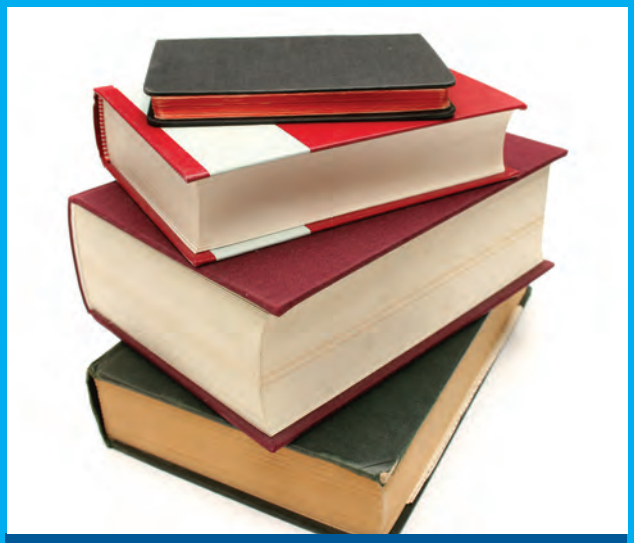
Web: http://www.popularmemory.org.za



Centre for Rhetoric Studies

The centre was founded in 1995 and remains unique on the continent, where it has pioneered the emergence of rhetoric studies (as mentioned in Blackwell's *International Encyclopedia of Communication*). It concerns itself with multidisciplinary research in public rhetoric, deliberative democracy and argumentative culture. The centre engages in three main activities: hosting research fellows, organising academic conferences and registering postgraduate students (master's and PhD). It publishes its findings through the *African Yearbook of Rhetoric* (AfricaRhetoric Publishing). The Centre has a success rate of nearly 100 per cent in numerous competitively funded international research projects.

Director: Distinguished Professor Ph-J Salazar
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Institute for Comparative Religion in Southern Africa

The Institute for Comparative Religion in Southern Africa (ICRSA) is dedicated to the postcolonial study of religion and religions in South Africa and the Southern African region. In addition to developing resources for the study of religions and reconfiguring the study of religion from a Southern African perspective, ICRSA has participated in international research projects on religious education and cultural heritage. ICRSA houses the peer-reviewed, accredited *Journal for the Study of Religion*.

Director: Professor DS Chidester
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Isaac and Jessie Kaplan Centre for Jewish Studies and Research

The Isaac and Jessie Kaplan Centre for Jewish Studies and Research was established in 1980 under the terms of a gift to the University of Cape Town by the Kaplan Kushlick Foundation and is named in honour of the parents of Mendel and Robert Kaplan. The centre, the only one of its kind in South Africa, is autonomous and has its own governing body. It seeks to stimulate and promote the entire field of Jewish studies and research at the university with a special focus on the South African Jewish community. The centre is multidisciplinary in scope and encourages the participation of scholars in a range of fields including history, political science,

education, sociology, comparative literature, and the spectrum of Hebrew and Judaic studies.

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Lucy Lloyd Archive, Resource and Exhibition Centre

The Lucy Lloyd Archive, Resource and Exhibition Centre (LLAREC) is a research centre to promote the visual as a site of meaning and knowledge. Its focus is on collections and curatorship in which objects are allowed to become both sites of knowledge and mnemonics in which reference can be made to a wider meaning.

At the heart of the centre's curatorial practice is the issue of representation; many of its projects interrogate the ways in which the historical, social and medical construction of identity are revealed through representation. Major projects have included the publication of the Bleek and Lloyd archive, the production of portfolios and artists' books, and the installation of exhibitions at various venues. LLAREC incorporates the Katrine Harries Print Cabinet, and is now part of the Centre for Curating the Archive, which includes major photographic collections and a visual history archive, as well as the projects that curate them.

Director: Professor P Skotnes
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Research Institute on Christianity and Society in Africa

The Research Institute on Christianity and Society in Africa (RICSA) is engaged in research into religion in public health, globalisation, and public theology. Its primary activity has been the International Religious Health Assets Programme (IRHAP) – a multi-institutional, multisite, inter-religious, transdisciplinary collaborative research project co-ordinated at UCT.

Initiated in 2003 together with colleagues from Emory University, it includes academics and practitioners from other South African centres, and has a strong partnership with Methodist Le Bonheur Healthcare (a seven-hospital system in Memphis, USA), while working with other partners in Africa, Europe and the USA.

IRHAP maps and assesses religious health assets, policy processes, and capacity-building at the interface of religion and public health. Its more recent work is with the Hospice Palliative Care Association of South Africa, building community partnerships for the strengthening of health systems. It is conducting research on male peace and safety in the context of interpersonal violence (three sites in South Africa and the USA, in conjunction with the Medical Research Council and the UNISA-based Peace and Safety Lead Programme), and is taking more of an interest in health systems and primary health care. RICSA is also known for its published multiyear, multivolume project on the social history of Christianity in South Africa (UNISA Press, CD-ROM).

Director: Professor JR Cochrane
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The Green Economy

Greening the economy is a crucial process if countries want to improve human wellbeing and social equity while reducing environmental dangers and ecological shortages. UCT research across many disciplines is breaking new ground and helping to speed up the transition.

At UCT, a number of researchers across the university are engaged in various inter- and multidisciplinary research projects, with the aim of contributing substantially to a greener economy, and thereby improving the well-being of all South Africans. A number of these projects extend into Africa, broadening the reach and increasing the impact. The research being undertaken in the Faculties of Science and Engineering & the Built Environment has been particularly ground-breaking, and promises to make fundamental contributions to this area, and to inspire and train the next generation of scholars.

Clean technology and cleaner production have been research themes in UCT's Department of Chemical Engineering since the time of the 1992 Earth Summit in Rio de Janeiro. Initially viewed as newcomers to academic research, such themes have steadily gained in importance as the magnitude of local and global environmental degradation became clearer. The 2011 'Green Economy' report of the United Nations Environment Programme (UNEP) signalled a new globally concerted effort to address the Millennium Development Goal 7 (ensuring environmental sustainability). This concept of a green economy was readily taken up in South Africa, to realise its economic development potential. Green economy desks or programmes have since been established in national, provincial and many local governments.

But is more research needed? Is it not enough to simply deploy tried and tested wind turbines and photovoltaics so as to start greening South Africa's electricity supply?

The large-scale use of renewable energy for electricity generation undoubtedly is a necessary condition for sustainable development. In this regard, the recent global green economy push is making significant gains on earlier programmes. But, according to UCT researchers, a programme only focused on green energy is unlikely to be sufficient, as it does not link strongly enough to development concerns, or address environmental problems related to the material rather than the energetic dimension of our consumption-based economy.

Globally, this material dimension of sustainable development has been receiving concerted new attention through the work of the International Resource Panel established by UNEP in 2011. UCT scholars have made contributions to its work on urban material flows and on metals.

National research capacity in these fields remains thin. The "resource efficiency" concern has been formally branded into the work of the National Cleaner Production Centre hosted by the Council for Scientific and Industrial Research, but scholarly work has remained isolated to no more than a handful of studies, an important one in 2012 having been a DST-commissioned study on the higher-education dimension of modernised waste management.

Most importantly, outside the realm of natural resource management, very little scholarly work in South Africa appears to be tackling the difficult linkages between environmental sustainability and social development: conditions such as extreme inequality, poor basic education and extreme violence are likely to hinder green-economy efforts as much as they obstruct the struggle of our generation for a better quality of life for all. It is in this difficult crossover area that UCT researchers have located some of their research projects.

But is more research needed? Is it not enough to simply deploy tried and tested wind turbines and photo-voltaics so as to start greening South Africa's electricity supply?

A major critique emerging in the sustainability sciences is that traditional academic work entrenches the division of knowledge into discipline silos and thus hinders complete solutions to development challenges in the real world. Piecemeal solutions leave behind legacies for future generations. As a response, inter- and transdisciplinary approaches to knowledge generation are increasingly being considered an essential component of sustainability research.

UCT has started to recognise this imperative formally with the formation of the African Climate and Development Initiative. In the work of the Department of Chemical Engineering, this process has been more organic, and internal collaboration spans a diverse network of university-accredited research groupings, Signature Themes, and DST/NRF SARChI Research Chairs.

Research Project

Towards a Technology-specific Innovation System for Harnessing Waste-based Bioenergy

This project aims to unlock the energy and greenhouse-gas mitigation potential of waste biomass in South Africa, drawing on UCT's 20-year experience of researching clean technologies, waste minimisation and industrial ecology, and on supporting existing expertise of the University of Venda to realise key objectives.

The energy potential of waste biomass in Africa and South Africa has repeatedly been estimated to be sizeable. Theoretically, the project aims to better understand, and then help activate, the potential of a technology-specific innovation system to convert the identified potentials into sustainability gains, through processes of societal learning.

Much of the required technology exists in Asia and in Europe, but innovation is still required to make these technologies work in the South African context. Researchers at UCT are inspired by the recent spontaneous, bottom-up emergence of a technology-specific innovation system for biogas in Germany and are beginning to investigate the similar emergence of such an innovation system in South Africa.

The project is based at the University of Cape Town, in the Faculty of Engineering & the Built Environment, contributing to its "social innovation" ambitions, but tying into UCT's African Climate and Development Initiative. Since a key feature of biogas technology is its cross-cutting nature covering matters of sanitation, solid-waste management, energy supply and nutrient cycling, there are collaborations and interactions with colleagues in the Department of Civil Engineering, the Energy Research Centre and the African Centre for Cities. However, as the potential waste biomass is occurring in both urban and rural areas, as are South Africa's sustainable development challenges, the project is run in partnership with colleagues at the University of Venda who already have developed some expertise in biogas technology in rural settings.

Key features of the project work plan include describing the present state of the biogas innovation system and in so doing to identify mechanisms that induce or block adoption of the technology. The project also aims to stimulate the direction of the biogas innovation system by the planning, construction and operation of four demonstration facilities, designed to give effect to key functions of the university in a technology-specific innovation system. These demonstration facilities are harnessed in a targeted work plan to initiate learning of technologies and to track the uses to which this learning is put.

The project is funded by the National Research Foundation's Global Change, Society and Sustainability Research Programme, 2012–2014.

Technology Deployment for Sustainable Urban Development – "Township Caterers"

(In collaboration with UCT's student initiative "Engineers without Borders", 2010–2012, supported by the Vice-Chancellor's Strategic Fund)

'The number of people relying on the traditional use of biomass is projected to rise from 2.7 billion today to 2.8 billion by 2030. Using World Health Organization estimates, linked to our projections on biomass use, it is estimated that the household air pollution from the use of biomass in inefficient stoves would lead to over 1.5 million premature deaths per year, over 4000 per day in 2030, greater than estimates for premature deaths from malaria, tuberculosis or HIV/AIDS.' (World Energy Outlook, 2010).

Roadside catering is widespread in African towns and cities – and it mostly makes use of open fires. Fuel wood is either harvested or obtained from commercial or construction and demolition activities. With a significant amount of construction timber treated with insecticides, notably with chromated copper arsenate (CCA), it may well be that food preparation and consumption is undertaken in the presence of toxic heavy metals. This concern was investigated in several informal dwellings or townships in Cape Town and surrounding areas. The primary objectives of this project were:

- to determine whether or not CCA-treated wood was being used, particularly for food preparation, and what food it was being used to prepare;
- regardless of whether this concern could be confirmed, to do the investigation in such a way as to harness student social-engagement enthusiasm to impact on the well-established health burden of wood and smoke exposure.

If the result was found to be positive, the further objectives were:

- to determine the specific exposure to CCA from handling the wood, handling the ash, and breathing in the air from the combusted wood;
- to determine whether caterers exposed to CCA displayed elevated levels of these substances.

Since this was quite a diverse project, the consortium of involved parties was extensive. While it was driven by the Environmental and Process Systems Engineering Research Group, a strong partnership was formed with Engineers without Borders, with collaboration from UCT's Centre for Occupational and Environmental Health, the Centre for Transport Studies and the Environmental Policy Research Unit and, later, indispensable ties with the Energy Research Centre.

Professor Harro Von Blottnitz (back, right), who leads the "Township Caterers" project, together with students and caterers.

The following milestones have since been achieved: the collection and analysis of wood samples which confirmed some use of treated timber (CCA); the collection and testing from human subjects has also been undertaken. These findings are the subject of three journal papers to appear in 2013. They have been communicated to both the City of Cape Town's Air Quality Management Department and the South African Wood Preservation Association, with both bodies having initiated responses to address the problem. Lastly, Nyanga in Cape Town was selected as pilot site for testing the alternative technology (efficient wood stoves) that reduces exposure.

Environmental and Social Dimensions of
The Bio-economy

The past two decades have witnessed a surge of interest in the use of biodiversity, biological products, and biological processes in the mainstream economy, on a scale unprecedented in history, linking markets in virtually every corner of the globe.

Located at the interface of leading genetic and information technologies, and the juncture of a wide range of developing social, political and ethical concerns, the so-called bio-economy has fundamentally changed the way in which biodiversity is used and commercialised. New applications for genetic resources in the biotechnology industry have led to novel and varied demands for biodiversity, in forms previously unimagined. Intended products include new drugs, climate-resilient crops, industrial processing, novel ingredients for the food, herbal and personal-care industries, and other advances that generate significant benefits for society, financial returns for the companies that market products, and a range of benefits for countries that provide the biological material. At the same time, livelihood opportunities have opened up for rural communities engaged in commercially harvesting and producing supplies with high value in global and local markets.

The Chair's strong focus on engagement with communities, indigenous knowledge holders, and policy-makers, embeds within it a practice of engaged scholarship and social responsiveness.

There is a growing focus on the opportunities of the bio-economy throughout the industrialised and developing world. Yet, despite the profound societal implications of these developments, our understanding of the environmental and social dimensions remains poorly developed. This has been made all the more challenging by the immense changes in global economic systems, the rate of scientific change, and the information revolution. Environmental degradation and global climate change overlay these transformations and their multifaceted consequences on the bio-economy are only just beginning to be recognised.

In 2012, UCT was awarded a DST/NRF South African Research Chair in the Environmental and Social Dimensions of the Bio-economy. The Chair is located in the Department of Environmental and Geographical Science, and provides an exciting opportunity to advance knowledge in this newly emerging arena by catalysing the advancement of research and understanding across and within disciplines, building a critical mass of intellectual capacity, enabling human capital development and in particular a new cohort of skilled postgraduate students, and informing policy and public debate in this rapidly evolving but underdeveloped field. Its strong focus on engagement with communities, indigenous knowledge holders, and policy-makers, embeds within it a practice of engaged scholarship and social responsiveness, with the objective of developing a pioneering, highly collaborative and globally relevant knowledge hub with international stature.

South Africa's mix of developed and developing economies, well-developed scientific and industrial infrastructure, unique biodiversity and rich indigenous knowledge systems provides an exceptional foundation for the research, which focuses on four central themes.

The first theme centres on access and benefit sharing, bio-discovery and the bio-economy, aiming to strengthen the conceptual underpinnings of access and benefit-sharing through enhanced understanding of implications for commercial sectors involved in the global and national bio-economy, and their responses to environmental and equity considerations. The research incorporates global reviews of the key sectors (e.g. pharmaceuticals, herbal medicine, nutraceuticals, industrial biotechnology, agriculture, personal care and cosmetics, food and beverage) involved in the commercial use of biodiversity, providing analyses of the scientific and technological developments that underpin bio-discovery, and the market, industry and societal trends that drive demand for access to genetic resources and shape benefit-sharing, economic development and environmental sustainability.

The second theme links closely to the first, but with a stronger focus on the broader use of biodiversity by rural communities, and links to livelihoods and poverty alleviation. The objective of this component of the research is to deepen knowledge and understanding of approaches to biodiversity use and trade that alleviate poverty, reduce inequality and improve environmental sustainability. Building on existing research, this objective also has a strong creative component, revealing the stories of indigenous plants, the communities that use them, and the paths they travel as indigenous knowledge, identities and resources are transformed into drugs, cosmetics, food and flowers for the global consumer market. This integrates a variety of disciplines in a holistic way – anthropology, environmental science, botany, photography and the assemblage of an important archive.

The third theme focuses on the elucidation of governance approaches in Southern Africa that strengthen the rights of custodians of biodiversity and traditional knowledge holders, facilitate implementation of the Convention on Biological Diversity and the Nagoya Protocol, and stimulate environmentally sustainable and socially just approaches in the bio-economy. A second stream of research within this objective investigates the so-called innovation chasm between research results, commercialisation and socio-economic outcomes, well recognised as a constraint towards achieving significant outcomes of the bio-economy.

The research agenda of the Chair is strongly interdisciplinary by nature, aiming to build UCT-wide collaborations in addition to those at national and international levels.

The fourth theme is an evolving one: to deepen understanding of the environmental and social impacts of emerging technologies within the bio-economy such as genetic engineering, industrial biotechnology and biofuel production.

The research agenda of the Chair, which has been filled by Associate Professor Rachel Wynberg of the Environmental Evaluation Unit (also see page 43) is strongly interdisciplinary by nature, aiming to build UCT-wide collaborations in addition to those at national and international levels.

Indeed, UCT is ideally placed to host the Chair since a wide range of departments are engaged in aspects of the bio-economy, located in almost every faculty across campus. Activities include scientific research and development to generate particular applications; ecological studies to assess sustainable use; legal scholarship to investigate intellectual property rights, traditional knowledge and biosafety regimes; social science analysis to address the myriad of questions raised by this field of enquiry; and initiatives in the fine arts, reflecting the increasing confluence of arts and sciences to find innovative solutions to societal problems. Obvious synergies exist with existing Research Chairs in Drug Discovery (Chemistry), Bioprocessing (Chemical Engineering), Customary Law, and Intellectual Property Rights and Biotechnology (Private Law), as well as the African Climate and Development Initiative. It is intended that activities between these spheres will have a synergistic effect, catalysing new areas of research inquiry and stimulating transdisciplinary analyses that are often difficult to undertake discretely.

DST/NRF SARChI Chair
associated with this theme

Environmental and Social Dimensions of the Bio-economy

Profiled on page 43

Research Groupings
associated with this theme

Environmental Economics Policy Research Unit

The Environmental Economics Policy Research Unit (EPRU) is the South African branch of the Environment for Development initiative. This is a capacity-building programme in environmental economics, which focuses on research, policy advice, and teaching in China, Central America, Ethiopia, Kenya, South Africa, and Tanzania. EPRU is a collaborative association of researchers specialising in environmental and natural resource issues.

The unit was established in 2007 to promote sustainable development and poverty reduction in Southern Africa. To achieve this, EPRU aims to enhance the effectiveness of environmental policy-making by adopting a threefold strategy of research, teaching and policy consultation.

Research has been concerned with farm workers' wages, land use and rural poverty, and inequality among subsistence fishermen.

During the last five years, EPRU's policy-relevant experience in research pertaining to ecosystems management, biodiversity conservation, air quality and water quality has grown extensively. The centre also has previous research capacity and experience relevant to the socio-economics of agriculture, fisheries and conservation. Specifically, this strain of research has been concerned with farm workers' wages, land use and rural poverty, and inequality among subsistence fishermen, as well as the role of community-based wildlife conservation in poverty mitigation. EPRU has successfully worked with a number of local and national stakeholders on medium-sized projects, such as the South African National Parks (wildlife sector), the Department of Water Affairs and Forestry (water sector), the Department of Environmental Affairs and Tourism (marine and coastal management), and the City of Cape Town (air-quality management and energy savings). In the next few years, EPRU plans to bid for larger research projects that will enhance collaboration among EPRU research fellows, with other researchers and, importantly, with key stakeholders.

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Energy Research Centre

The Energy Research Centre (ERC) conducts high-quality, targeted and relevant research, as well as offering postgraduate opportunities at master's and doctoral levels. The main research areas are energy efficiency; energy, environment and climate change; energy poverty and development; and energy systems analysis and planning. The staff of the ERC have qualifications in engineering, natural and environmental sciences, urban and regional planning, economics, law, politics, sociology, and anthropology.

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Centre for Occupational and Environmental Health Research

The Centre for Occupational and Environmental Health Research aims to be a principal centre of occupational and environmental health research, teaching and training, occupational medical clinical services, policy advice, technical consultancy services and advocacy, and a source of supportive outreach activities in South Africa, parts of Africa, and internationally. It conducts multidisciplinary research, teaching and service provision that integrate laboratory, clinical, epidemiological, and policy skills in relation to occupational health problems that have high priority in Southern Africa. This is in order to facilitate identification and improved characterisation of these and other problems, and to better understand the determinants of these problems and their solutions.

The centre explores and develops means of maintaining the health of individuals and the environment, especially the work environment, and of preventing the development of health problems in those exposed to injurious environments at work or more generally. Public policy research is conducted into issues ranging from toxic or injurious exposures through to health surveillance, and the functioning of relevant health services. Inter-institutional research, teaching and service (including outreach) collaboration and capacity development are priorities of the centre, along with fostering local and global networks for occupational and environmental health promotion through collaboration with the United Nations and other agencies, notably the World Health Organisation (WHO). The centre is currently a WHO Collaborating Centre for Occupational Health.

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Environment Evaluation Unit

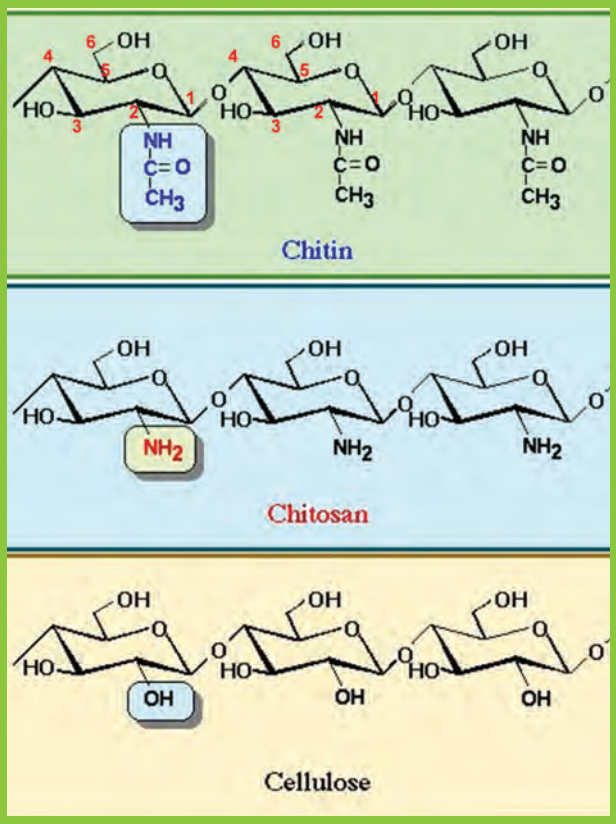
Please refer to page 110

The Chemical 'Chameleon', Versatile Chitosan makes for an Array of Potential Applications

Dr Anwar Jardine's research group in UCT's Department of Chemistry has been investigating chitosan, derived from chitin, a natural polysaccharide that is the second most abundant organic source on earth. Chitin is partly responsible for the robust hard shell or exoskeleton of insects and crustaceans, with a structure that is similar to cellulose.

Chitin and chitosan have an array of potential applications, and numerous products have already reached the market for the treatment of a variety of diseases, including arthritis, inflammatory bowel disease, and general inflammatory damage.

The growth of the chitin and the chitosan market worldwide is propelled by the new manufacturing technologies and expansion in the application domain – these new, high-end products are worth considerably more than the low-cost polymers that previously dominated the industry, spurring on innovation.



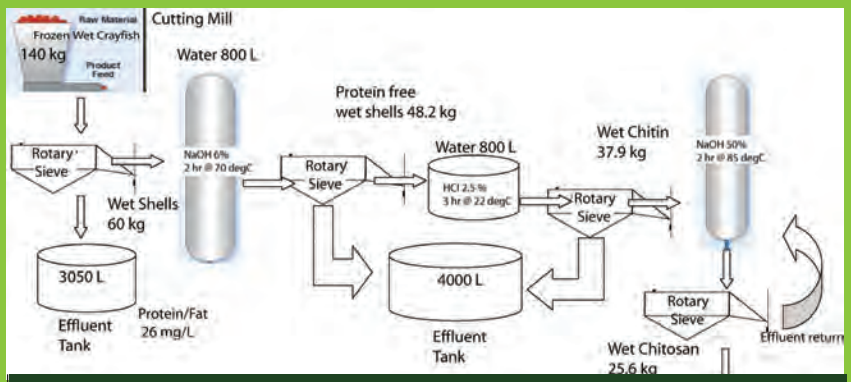
Dr Jardine and his team have modified chitosan by converting the 6-hydroxy group in the polymer to a 6-amino group, turning a sparingly soluble polymer into one that is now completely soluble in aqueous media. This forms the basis of a patent that has recently been granted in the USA, with other patent applications pending. Solubility in aqueous solutions has broadened the scope of application, particularly in "green" technologies that seek to replace or minimise the use of organic solvents in chemical processes.

The main source of the raw material is the shell of the Southern Spiny Lobster, *Palinarus gilchristi*, after removal of the tail for sale. It is estimated that in South Africa about 440 tons of this waste are available. This shell exoskeleton can be transformed into a backbone of another sort – a soluble, modified chitosan "backbone" molecule that can be used as a chemical catalyst support. The team added a platinum group metal catalyst to this novel chemical backbone, enabling efficient, heterogeneously catalysed synthesis of fine chemicals in "green" solvent systems, the subject of a further patent.

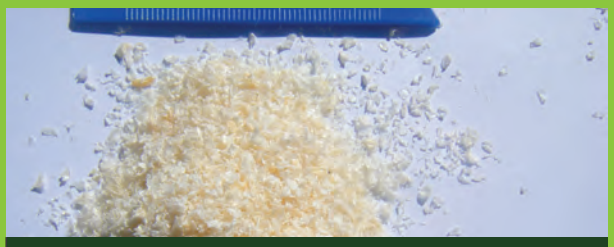
Currently, waste shells are either discarded while at sea, or landed and sold locally as flavouring agents at between R5 and R10 per kilogram. Although the yield of high-quality chitosan is only 3 to 5% based on wet-shell weight, the potential market value of up to R3000/kg chitosan is attractive and higher-value-added derivatives are even more enticing.

The modified backbone is currently being explored in a water purification application for the reduction of high

Dr Anwar Jardine (centre) and the chitosan research group in the Department of Chemistry.



Local chitosan manufacturing pilot process



Milled crayfish shells (above right) and chitosan (above)

salt load. A British Council Africa Knowledge Transfer Partnership sponsored project is seeking to improve the poor groundwater quality on the arid West Coast, at Garies in the Kamiesberg municipality (Northern Province). If successful, this will have a significant impact on the local community, whose development is severely hampered by the scarcity of local potable water, with water needing to be trucked in at certain times. The first 'laboratory phase' of the project is complete and the pilot in Garies will strive to translate the laboratory process into the field, ultimately improving the municipality's "green" and "blue drop" water quality and management rating.

Another successful application has seen the use of this modified chitosan as a solid support for the chromatographic separation of fish oil. The fish oil is a by-product of the pelagic fishing and has a low commercial value owing to competing vegetable oils. This silver-based "argentation chromatography" allows saturated fatty acids to be separated from unsaturated fatty acids. Unsaturated fatty acids have great nutritional value (e.g. omega-3 and -6 fatty acids). Saturated fatty acids, on the other hand, have cosmetic value or serve better as feedstock for biodiesel.

Engineering The Future

There is an urgent need for innovation in science and technology – globally, but especially in South Africa, as the economic powerhouse in Africa. But this will only be sustainable if the country can also bridge the "innovation chasm" and transform innovation and research into commercially viable products and services and create new industries to drive economic growth.

Research at UCT contributes to cutting-edge developments in various technologies and scientific discoveries, from information and communications technology and biotechnology to mining beneficiation, that are crucial to the advancement of the South African economy.

With a fast-developing economy pursuing sustainable growth, the South African national research and development strategy has come to emphasise innovation – in particular, commercially viable innovation of relevance to economic growth and wealth creation. This requires a substantial investment in the development of new technologies and capacity that will enable the country to convert its undisputed research expertise into social and economic advantages.

Bridging the innovation chasm is a national imperative and it demands a collaborative response from government, industry and universities.

As one of the country's leading universities, UCT is deeply committed to this national research and development strategy and to pursuing sustainable development.

The Faculty of Engineering & the Built Environment at UCT is very active in this regard and is rated as one of the finest on the continent. It has the highest number of NRF-rated engineering academics in South Africa and has strong links with industry and government agencies, which provide significant funding for a variety of research projects.

The faculty is recognised as a world leader in key engineering technologies such as synthesis gas technology, fuel cell technology and hydrogen.

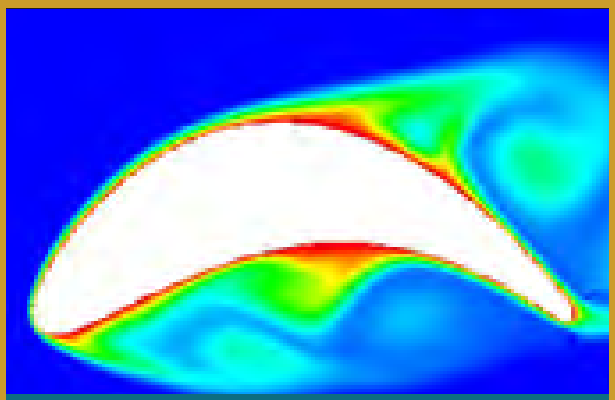
To strengthen this already strong research focus, UCT was awarded two new South African Research Chairs in Engineering in 2012, one in Reaction Engineering and the other in Industrial Computational Fluid Dynamics. These new Chairs, together with existing research programmes spanning UCT's strategic initiatives and research groupings, will actively support the broad South African process industries: the bioprocess, chemical, energy, food, petrochemical and mineral-processing industries, which represent a substantial component of the nation's gross domestic product. Whereas manufacturing is the largest contributor to national GDP, chemical manufacturing is the largest sub-sector and UCT is at the forefront of driving innovation in this area.

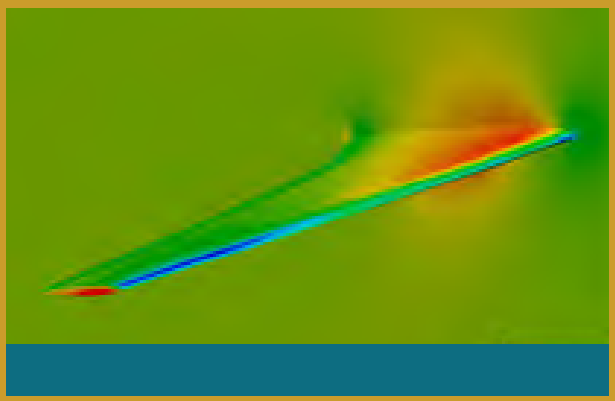
There is also a strong emphasis on sustainability research as well as on developing green technology, such as wind-turbine technology and solar energy, amongst others. Another interesting focus with a global component is on impacts and explosions. Two current major worldwide concerns are unexploded landmines and protection against terrorist activity. Highly publicised acts of terrorism such as 9/11 and, most recently, the Boston marathon bombing, have raised awareness of the increased need for protection, and UCT's Blast Impact and Survivability Research Unit is leading a number of projects which seek to study the effect of explosive devices.

Bridging the innovation chasm is a national imperative and it demands a collaborative response from government, industry and universities. Advances in engineering at UCT are made possible by significant investment from government via the DST/NRF SARChI Chairs, a Centre of Excellence as well as a national Centre of Competence, and the Department of Trade and Industry's Technology and Human Resources for Industry Programme (THRIP), which provides critical industry partnerships.

Working with such partners, UCT plans to continue to rise to the challenge of transforming innovation and research into commercially viable products and services and creating new industries to drive economic growth on the continent.

Pushing the Boundaries of Manufacturing and Design: It's Elemental, Dr Watson ...





Graphical representations of output from computational fluid dynamics analyses conducted using the Elemental software to investigate flows over wing profiles and stresses on an aircraft wing and fuselage.

Computational Fluid Dynamics (CFD) is an exciting new computer-based technology that provides insight into the dynamics of fluid flow, enabling the building of a model to represent a system or device, with accurate prediction of the detailed fluid dynamics offering unprecedented insight and allowing opportunities for virtual prototyping that would be otherwise too costly in the "real" world.

The global commercial CFD software market currently generates over R5.6 billion annually

UCT's Department of Mechanical Engineering is home to an "all South African" CFD code dubbed "*Elemental*". Pioneered by Professor Arnaud Malan in 1999, *Elemental* is already supporting next-generation aircraft design, and Airbus, one of the leading aircraft manufacturers, "found the *Elemental* code to be scientifically innovative while outperforming competing codes by a significant margin, particularly in terms of accuracy". *Elemental* also plays a pivotal role in the European Union FP7 project "Future Fast Aeroelastic Simulation Technologies".

The global commercial CFD software market currently generates over R5.6 billion annually and is one of the fastest-growing fields in engineering. It is becoming the de facto standard strategic design tool in sectors ranging from biomedical devices and power generation to aircraft design and the space industry.

The technology will spawn two UCT spin-out companies – Numerus Technologies (Pty) Ltd and Elemental IP Holdings (Pty) Ltd – during 2013, which will allow South Africa to enter lucrative software and modern technology markets, and which will be well positioned to ride Cape Town's International Design Capital 2014 wave.

Elemental software forms the basis for the DST/NRF SARChI Research Chair in Industrial CFD, which was awarded to UCT in 2012. This will not only contribute to the commercialisation drive, but will support the UCT initiative to further world-class CFD research and technology development.

The Pressing Matter of Mine-water Clean-up

The treatment and disposal of water in the mining sector is a ticking time bomb increasingly threatening South African cities and surrounding communities while garnering the focus of both media and legislative bodies. The success of the research project Refining the BIOX and ASTER processes for Gold, led by Professor Susan Harrison and Dr Rob van Hille of UCT's Centre for Bioprocess Engineering Research in the Department of Chemical Engineering, is therefore no small feat.

South African scientists and engineers – leading the development of bioprocesses for gold recovery from sulphidic ores – have in the past achieved the worldwide commercialisation of BIOX™, a hydrometallurgical process in which micro-organisms oxidise iron and sulphur within the gold mineral concentrate. The outcome is soluble ferric iron and acid that leach sulphidic minerals from the concentrate, leaving gold accessible for extraction with a cyanide solution.

This latest research at UCT focuses on refining this technology to improve performance and robustness, with a particular focus on process intensification through the use of modern molecular tools for tracking the microbial consortium present in the process.

Associated with this process is the more recently launched ASTER™ process for microbial remediation of residual cyanide and thiocyanate formed in the gold-recovery process.

Another key issue surrounding the mining industry is that of responsible mine closures following cessation of mining activities. The ASTER™ process is linked to both the BIOX™ process for remediation of its effluents and the maximisation of water recycle towards zero emissions, as well as associated precious metal extractions using other upstream technologies followed by extraction with cyanide

The research, funded through Goldfields, has been presented in China, Germany and the USA, with a range of journal papers in preparation, in addition to industrial application of its findings.

Getting the Mining – Cost – Environment Balance Right

South Africa's mineral resources are being depleted, making it necessary to find ways to extract metals from increasingly lower-grade resources. This requires technologies with low energy and processing inputs that provide a balance between resource beneficiation, cost efficiency and environmental impact.

Heap bioleaching technologies can do this, in addition to having the potential to process waste rock displaced in the mining operation. The technology uses available iron and sulphide as an energy source, and provides leaching agents for metal extraction from low-grade ore that is crushed and stacked in large heaps, which are irrigated and aerated so that micro-organisms grow on the rock surface.

South Africa has played an important role in the development of technology for "hot heaps" operating under thermophilic conditions – relatively high temperatures that cause certain bacteria to grow. This UCT project focuses on understanding the micro-environments established within the heap that can be manipulated to intensify the leaching process. Through use of custom-designed equipment, this project has presented the first rigorous characterisation of microbial growth rates on whole ore under temperatures ranging from ambient to 65˚.

The project, now completed, was funded by BHP-Billiton and led by Professor Susan Harrison, who holds the NRF/DST SARChI Research Chair in Bioprocess Engineering Research. A team of researchers from the Centre for Bioprocess Engineering Research in the Department of Chemical Engineering have contributed to this cross-disciplinary study, along with Dr Rob van Hille, Associate Professor Jochen Petersen, Emmanuel Ngoma, Nathan van Wyk, Lucinda Bromfield, Frances Pocock and Lukhanya Mekuto, Cambridge University's Dr Andy Sederman, UCT PhD graduate Marijke Fagan, and Imperial College London's Professors Jan Cilliers and Peter Lee.

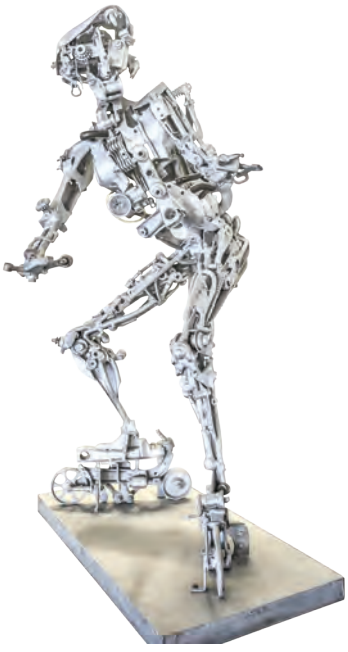
Five journal papers were published and a further six were prepared for publication in 2013.

Cooking up a storm:

Adding Value To South Africa's Process Industries

The Department of Chemical Engineering is recognised locally and internationally as the leading academic department of its kind in Africa. It has cemented a reputation for unique research programmes and projects that meet the challenges posed by a highly developed industrialised era.

UCT's Department of Chemical Engineering helps to keep South Africa at the forefront of emerging technologies in various important economic sectors such as mining, water management, bioenergy and renewable energy, greenhouse gas emission reductions and pharmaceutical developments regarding insulin and antiretroviral medication.



Research in the department has grown significantly over the last ten years, with postgraduate numbers doubling from 92 in 2002 to 185 in 2012. The department hosts four university-accredited research groupings: the Crystallization and Precipitation Research Unit and the Centres for Bioprocess Engineering Research, Catalysis Research and Minerals Processing Research. There are also two DST/NRF SARChI Chairs (Bioprocess Engineering and Minerals Beneficiation), the DST/NRF Centre of Excellence in Catalysis, and the DST Competence Centre in Hydrogen and Fuel Cells, as well as one of the university's Signature Research Themes in Minerals to Metals.

The goal is for South Africa to supply 25% of the future global fuel-cell market with novel, locally developed and fabricated platinum-group metal catalysts by 2020.

The DST/NRF Centre of Excellence in Catalysis (c*change) is a virtual research programme of national scope and significance, with multidisciplinary participants from ten higher-education institutions. Its core focus is the field of catalysis science – a critical industrial technology underpinning the South African economy. This includes the Fischer-Tropsch process, that converts coal and natural gas to liquid fuels, which currently provides 40% of South Africa's liquid-fuels requirements. In

April 2012, c*change hosted the country's first syngas convention, marking another important step in the path to cementing the country's pre-eminence in this area.

The work of c*change also feeds into the National Hydrogen and Fuel Cells Technologies Flagship project, branded as Hydrogen South Africa (HySA), that is seeking to establish South Africa as one of the few nations that export high-value products into the growing international hydrogen and fuel-cells markets. Recognising the importance of the potential role of hydrogen in the economy, the South African government has established three competency centres nationwide under the HySA banner. HySA/Catalysis, based at UCT and co-hosted by Mintek, has been mandated to develop the competency, skilled workforce, and ultimately the manufacturing industry to support a hydrogen economy in South Africa. Current research focuses on alternative energy sources that are locally produced.

Platinum-group metals are key catalytic materials in hydrogen fuel cells and South Africa is strategically situated, possessing 75% of the world's platinum reserves. The goal is for South Africa to supply 25% of the future global fuel-cell market with novel, locally developed and fabricated platinum-group metal catalysts by 2020, thereby diversifying the applications of the nation's platinum-group metal resources and promoting socio-economic benefits through value addition to its key natural resources.

Another major research focus in the department that is attracting international attention is in bioprocess engineering. UCT has a long track record of research in bioprocess engineering dating from the late 1960s. The bioprocess engineering research grouping was formalised as an accredited unit, BERU, in 2001 and its accreditation was upgraded to the Centre for Bioprocess Engineering Research (CeBER) in 2008. CeBER's vision is to be a cross-disciplinary research enterprise, developing the nation's bioprocess engineers, providing new insights into bioprocesses and bioproducts and becoming global leaders in selected relevant research niches.

One of the main research areas in CeBER is bioleaching, a process where microbes are used as biocatalysts to convert metal compounds into their soluble forms. This leaching process is an alternative economical method for the recovery of metals such as copper, zinc and gold from low-grade mineral ores, with low investment and operation costs.

CeBER also strives to address environmental issues primarily related to water. Current projects consider acid rock drainage prevention through enhanced management of waste materials and remediation as well as emerging

technologies for renewable energy generation and greenhouse gas emission reductions.

Also concerned with the elimination of waste is the Centre for Minerals Research, a multidisciplinary, inter-departmental research centre located within Chemical Engineering focusing on the processes of froth flotation, comminution and classification. Inefficiencies in these processes translate into both an enormous loss of revenue and an unnecessary waste of the world's valuable and steadily declining mineral reserves.

All these activities play a crucial role in ensuring that UCT contributes towards keeping South African science healthy and competitive. More importantly, the emphasis on sustainability and capacity development throughout is also playing to the national imperative to bridge the innovation chasm in the country. It is this that will be the real engine for innovation at UCT in the years to come.

Research Project

Keeping the Lights On

Rolling blackouts will continue to plague South Africa unless the country's brightest sparks establish research solutions to stabilise and control the nation's power systems.

UCT's Department of Electrical Engineering is investigating ways to transmit more power in a reliable and efficient way with the use of High Voltage Direct Current (HVDC) transmission lines, parallel to High Voltage Alternating Current (HVAC) transmission lines. Using HVDC offers economic and technological advantages compared to using HVAC alone. The hybrid system brings new challenges of its own and focus has been on the interactions between HVAC and HVDC, and the effect of line length on the stability of the system.

A research team led by UCT's Professor Komla Folly are now involved with the second phase of the project. Their research investigates a broader application of this concept to a new Smart Grid and deals with the potential outcomes of introducing more renewable energy sources and technologies to the grid, which would result in a more complex power system that would become increasingly difficult to control. Maintaining the security and stability of the system is critical to achieving a reliable power supply, along with sustainable development of the electric power industry and the nation's economic growth.

In addition, researchers are mindful that HVDC transmission systems and renewable energy technologies that are available in Africa, but underutilised at present, have the potential to be developed for commercialisation and to create the type of "green jobs" crucial for moving towards a green economy.

Project collaboration included researchers at UCT, the University of KwaZulu-Natal and Cape Peninsula University of Technology, as well as at universities elsewhere in Africa, and in Asia, the USA and Canada. Eskom and Zeta Power Consulting provided industry collaboration. The project was funded by the Department of Trade and Industry's Technology and Human Resources for Industry Programme. Over the course of the project, 15 MSc and two PhD students have graduated, of whom 98% are black and three are female. Several conference papers and journal articles have been published between 2010 and 2012.

Associate Professor Genevieve Langdon

Impacts are a part of daily life, ranging from minor bumps to devastating explosions. Associate Professor Genevieve Langdon, who leads the Blast Performance of Novel Lightweight Materials project in the Department of Mechanical Engineering, seeks to study the effect of explosive devices.

Her primary focus is on the response of lightweight materials and structures to blast loading. This includes materials such as fibre-reinforced polymeric composites, textile concrete, hybrid metal-composite structures, sandwich panels, and cellular materials such as honeycombs and foams.

Her primary focus is on the response of lightweight materials and structures to blast loading.

Unlike traditional steel structures, lightweight materials absorb energy through a wide range of different failure mechanisms and often recover much of their original shape once the pressure is removed. This makes understanding the changing behaviour of lightweight materials particularly important and challenging.

She was also involved in the setting up of an apprenticeship programme that seeks to boost skills in the engineering sector.

Associate Professor Langdon completed a fellowship, funded by the 1851 Royal Commission, at the Blast Impact and Survivability Research Unit at UCT and worked at the University of Liverpool Impact Research Centre from 1999 to 2004. As part of her role at UCT, she was also involved in the setting up of an apprenticeship programme – UCT's first – in the Department of Mechanical Engineering that seeks to boost skills in the engineering sector by offering internships to newly qualified interns in the industry. She is also a founding member of the new South African Young Academy of Science – a group that is designed to bridge the gap between the more senior and well-established Academy of Science of South Africa and the up-and-coming young scientists who may well be future leaders in their fields.

Researcher Profile

Associate Professor Hans Beushausen

Associate Professor Hans Beushausen of the Department of Civil Engineering received the UCT College of Fellows Young Researcher Award in 2012 for his research on concrete durability, performance assessment of concrete structures, and repair systems for concrete structures.

He is the founding member and unit leader of the Concrete Materials and Structural Integrity Research Unit at UCT, which focuses on concrete infrastructure performance and renewal. He has supervised or co-supervised more than 35 postgraduate students in the last five years, 21 of whom have graduated to date.

Within South Africa and other African countries, Associate Professor Beushausen is recognised as a leading researcher in his field. In addition, he has supervised or conducted about 200 consulting projects between 2010 and 2012. Among his clients were the South African National Roads Agency, Eskom, the Namibian Ports Authority, and the Namibian Water Authority.

In March 2012, he was awarded the Wason Medal for Materials Research, together with Professor Mark Alexander and Mike Otieno.

Research Groupings
associated with this theme

Sasol Advanced Fuels Laboratory

The Sasol Advanced Fuels Laboratory (SAFL) was established in 2002 to actualise Sasol's future-oriented fuels research relating to combustion and emissions from automotive and aviation engines. A parallel goal was the development of human-resource capacity to meet Sasol's and South Africa's future technology needs. SAFL activities for the past year are reflected in five master's degree graduations and seven conference/journal publications. In addition, the appointment of a senior chemistry research leader has expanded the discipline base at the SAFL from being predominantly mechanical engineering to include a chemistry/chemical engineering capability as well. Capital investment at the SAFL has been substantially augmented with the recent acquisition of a sophisticated single-cylinder test engine that is representative of next-generation automotive technology.

Directors: Professor RB Tait and Adjunct Professor A Yates
E-mail: robert.tait@uct.ac.za
Web: http://www.safl.uct.ac.za

Centre for Catalysis Research

The Centre for Catalysis Research concerns itself with both fundamental and applied research and development in the general field of heterogeneous catalysis – encompassing all of catalyst synthesis, physico-chemical characterisation and performance evaluation for industrially interesting chemical conversions. The principal fields of investigation include Fischer-Tropsch synthesis, zeolite/acid catalysis (especially as applied to hydrocracking and the transformation of phenols and derivatives) and catalysis by platinum-group metals and gold. In addition, the Centre for Catalysis Research is the host laboratory for the DST/NRF Centre of Excellence in Catalysis (c*change) and the DST Competence Centre in Hydrogen and Fuel Cell Catalysis.

Director: Professor JCQ Fletcher
E-mail: jack.fletcher@uct.ac.za
Web: http://www.chemeng.uct.ac.za/groups/cat/

Blast Impact and Survivability Research Unit

The Department of Mechanical Engineering has been involved in impact dynamics for over 25 years. The Blast Impact and Survivability Research Unit (BISRU) has developed experimental facilities which include a blast chamber, a selection of drop testers, material characterisation systems, and a sled tester for impact biomechanics. This collection of equipment is unique in that no other university laboratory worldwide has this full suite of facilities in one area. The research activities are aimed at promoting the study and understanding of impact dynamics through projects at senior undergraduate level and master's, doctoral and postdoctoral levels. The research objectives are to reduce the risk of injuries and to save lives through fundamental principles of science and engineering. BISRU currently has several international interactions through collaborative projects with universities in Australia, Argentina, Europe and the USA.

Director: Professor G Nurick
E-mail: gerald.nurick@uct.ac.za
Web: http://www.bisru.uct.ac.za/

Concrete Materials and Structural Integrity Research Unit

The Concrete Materials and Structural Integrity Research Unit at the University of Cape Town has been developing technologies and procedures for the design and assessment of concrete structures for more than 20 years. The unit has had a marked focus on infrastructure performance and renewal, largely in response to industry needs.

Directors: Professor M Alexander,
Associate Professor P Moyo and
Associate Professor H Beushausen
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pilate.moyo@uct.ac.za, hans.beushausen@uct.ac.za
Web: http://www.comsiru.uct.ac.za/

Centre for Materials Engineering

The Centre for Materials Engineering strives to educate and train students in techniques and fundamentals in the broad field of Materials Engineering. It also seeks to serve a wide range of engineering activities, giving advice concerning material processing, properties and performance, while maintaining an international profile for its research. The research activities of the centre are aimed at addressing national needs in terms of both the provision of technological solutions and the development of skilled graduates.

Director: Professor RD Knutsen
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Web: http://www.mateng.uct.ac.za

Centre for Minerals Research

The Centre for Minerals Research is a multidisciplinary, inter-departmental research centre based in the Department of Chemical Engineering. The focus of research is on the processes of comminution, classification, and froth flotation, arguably the most important unit operations in mineral beneficiation. The primary objective of the centre is to investigate the above research areas at both an industrial (applied) level and a laboratory (fundamental) level, so as to develop predictive models for describing the performance of industrial units and circuits. The centre enjoys excellent international collaborations with all the world's leading mining companies.

Director: Professor CT O'Connor
E-mail: cyril.oconnor@uct.ac.za
Web: http://www.cmr.uct.ac.za/

DST/NRF Centres of Excellence

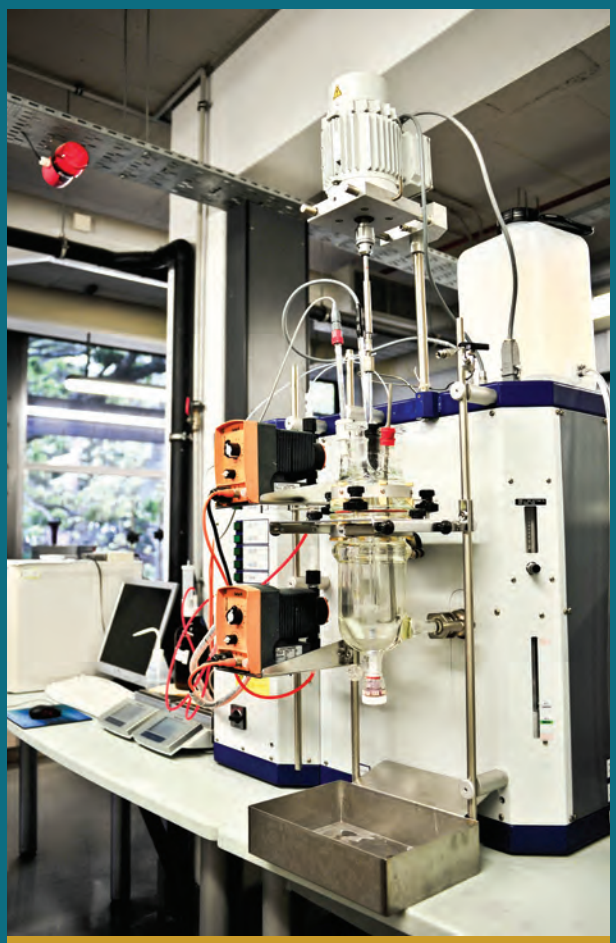
DST/NRF SARChI Chairs

associated with this theme

DST/NRF Centre of Excellence in Catalysis, c*change

The DST/NRF Centre of Excellence in Catalysis, c*change, is hosted by the Centre for Catalysis Research at the Department of Chemical Engineering. During 2012, the c*change team comprised 51 postgraduate students (82% of them South African students, of whom 45% and 76% were female and black, respectively), 12 postdoctoral researchers, and 25 academics from 16 research groupings in 10 participating South African higher-education institutions. A total of 21 projects were funded during the course of 2012, of which 13 were multi-institutional and/or inter-disciplinary ones. The centre was also awarded a DST/NRF SARChI Chair in catalysis

Subsequent to its 2011 participation as a co-organiser of the European Federation of Catalysis Societies Summer School in the Netherlands, c*change has organised a similar three-day Autumn School during 2012. The Autumn School was followed by the c*change Syngas Convention.



Professor Jean-Paul Franzidis

Minerals Beneficiation

Professor Jean-Paul Franzidis obtained his PhD from the Open University in the United Kingdom. He joined the Department of Chemical Engineering at UCT in 1983. His research career has been in various aspects of mineral (including coal) beneficiation, especially flotation. In 1996 he moved to the University of Queensland, Australia, to lead the world's largest collaborative mineral-processing research project, the AMIRA P9 project, which received numerous awards for both research and research methodology. His flotation research led to the development of a steady-state flotation circuit simulator, JKSimFloat, which has been applied to over 150 flotation operations worldwide. From 2003 to 2007 he was Chief Investigator of two large Australian Research Council Linkage grants. In 2007 he returned to UCT to direct the newly formed Minerals to Metals Signature Theme. He was awarded the SARChI Chair in Minerals Beneficiation in 2008.

Bioprocess Engineering

Professor Sue Harrison of the Department of Chemical Engineering holds the DST/NRF Research Chair in Bioprocess Engineering and is the director of the Centre for Bioprocess Engineering Research (CeBER). Her research interests include bioprocess engineering spanning bacterial, fungal, archael and algal bioprocesses with application in biohydrometallurgy, acid mine drainage prevention, maximising resource productivity, wastewater biorefineries, bioenergy products, biocommodities from wastes, fine chemicals, neutraceuticals and expression of niche peptides and proteins. Professor Harrison has a strong interest in minimising the environmental burden associated with processes. Components of research involving clean products and processes and bioremediation processes are currently being focused explicitly around sustainable process engineering to complement a teaching interest in sustainable development in process industries.

DST/NRF SARChI Chairs

associated with this theme

Professor Sue Harrison's presentation at TEDxCapeTown 2012 focused on the potential of integrated bioprocesses to be used to enhance resource productivity. By using resources efficiently, overall demand is reduced, as are wastes requiring assimilation.

Catalysis

The DST/NRF Centre of Excellence in Catalysis, c*change, has been awarded a SARChI Chair in Catalysis, which is expected to boost the scientific output of the centre. The Chair, which has not yet been filled, will focus on the field of preparation and characterisation of nano-materials and assist various activities throughout the centre, with the expectation that this will provide a mechanism of bringing the research of c*change to the level of world-class excellence.

Reaction Engineering

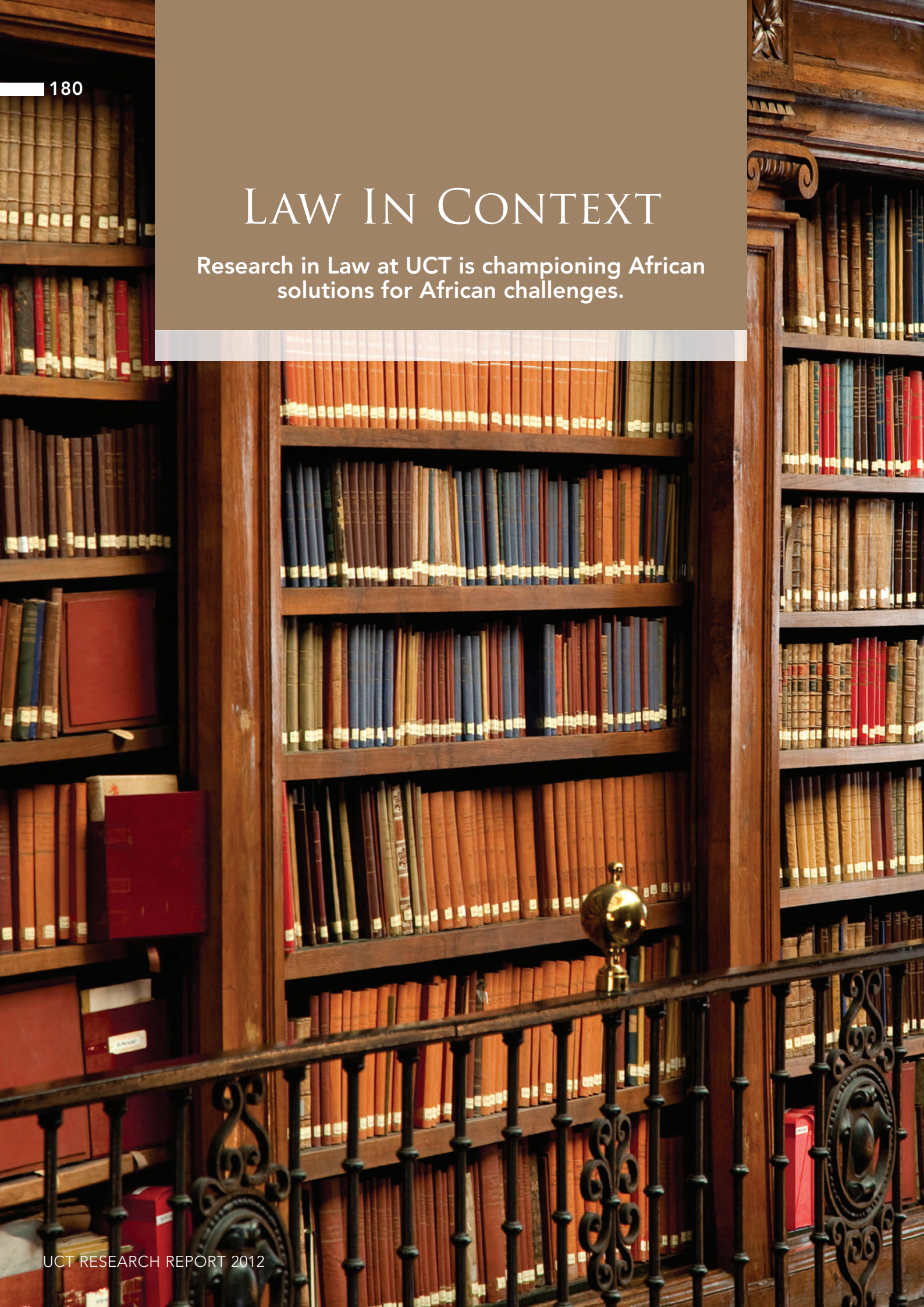
UCT was awarded a SARChI Chair in Reaction Engineering in 2012 and a recruitment process to fill this Chair is currently under way. Reaction engineering comprises all physico-chemical transformations, the design of equipment for their mediation and the integration of such units into complete industrial processes. This Chair is expected to establish competencies and human capacity development; and undertake novel research in South Africa.

Industrial Computational Fluid Dynamics

UCT was awarded a SARChI Chair in Industrial Computational Fluid Dynamics (CFD) in 2012. The recruitment of a candidate is under way and it is envisaged that the Chair will grow the CFD field to develop a CFD technology niche that will empower and serve engineers in industry to develop improved products. CFD is today a widely used strategic tool, with the current market size estimated at R5.6 billion annually. It is also one of the most scientifically rigorous and fastest-developing fields in engineering.

Law In Context

Research in Law at UCT is championing African solutions for African challenges.



Two of the most exciting loci of research in the Faculty of Law at the University of Cape Town are the Centre for Comparative Law in Africa and the Centre for Criminology. Each of them demonstrates that law, both substantively and in its application, is heavily influenced by the context in which it operates – and that the law and its application can be improved by closely investigating this context from different vantage points.

Comparative law at its best takes account of the cultural, sociological and political background of the systems that are being compared. When done in this way, comparative law has the power to provide new solutions to old problems. Too often comparative-law scholarship neglects these dimensions, and for too long has our specifically African setting been ignored in research aimed at the improvement of our law. The Centre for Comparative Law in Africa, led by Professor Salvatore Mancuso, states that its aim is to address "the need to devise contextually sound law and policy responses to pervasive developmental challenges facing our continent" and "to develop a discipline that lends itself to optimal application in the pluralistic legal frameworks within which life is lived in Africa". This ambitious programme has already been put into action in several important ways as outlined below. (To learn more about the activities of the Centre for Comparative Law in Africa, visit its website at http://www.comparativelaw.uct.ac.za/).

All law inevitably shapes the community in which it operates and all research in law is therefore, in one way or another, societally relevant

As in all spheres of law, the efficacy of the criminal justice system is inextricably bound to the conditions, and attitudes to crime and criminal law, in the society for which it was created. In the context of the high levels of crime and violence in our society, the research of the Centre of Criminology is vital. Led by Professor Clifford Shearing, holder of the DST/NRF SARChI Chair in Security and Justice, the centre records that "it has a long history of engaging contemporary issues within the twin domains of justice and security" and that "this engagement has enabled it, since its inception in 1977, to remain Africa-focused and globally engaged".

The centre's research covers a wide range of topics in policing and in penal systems, as well as in the exciting and novel area pertaining to the risks associated with lowered levels of environmental security. Some of this engaged research, which gives effect to the centre's slogan, "imagine, innovate, integrate", is outlined below (and to learn more about the work of the centre, visit its website, http://www.criminology.uct.ac.za/, and its two blogs [one on physical security and the other on environmental security]).

Highlighting the African focus and social relevance of these particular two endeavours in the Faculty of Law does not mean, of course, that the other research in the faculty is of a different kind. All law inevitably shapes the community in which it operates and all research in law is therefore, in one way or another, societally relevant. To give a flavour of the wide range of the important research in the faculty, this report profiles four of the faculty's top researchers and highlights the doctoral theses and books produced by members of the staff of the faculty in the course of 2012.

Centre for Comparative Law In Africa

The Centre for Comparative Law in Africa (CCLA) was established in 2011 to promote the study of comparative law and draw on the strengths of comparative methodology to research into the multifaceted field of law in Africa.

The centre presents an opportunity to develop a discipline that lends itself to optimal application in the pluralistic legal frameworks within which life is lived in Africa. In its mission to contribute to the development of comparative law in Africa, the strategy of the CCLA is to establish the field at UCT, build capacity in it across the continent through academic programmes, apply comparative law expertise in consultancies and disseminate new knowledge in comparative law in Africa through conferences, publications and professional networks.

Its location within the Department of Commercial Law recognises the centrality of comparative law to ongoing efforts at economic integration on the African continent. The CCLA offers an LLM in Comparative Law and conducts research on a variety of themes that apply the comparative methodology. Its innovative LLM course, Chinese Law and Investments in Africa, launching as a bloc course in September 2013, has attracted many students. Currently the centre is involved in a collaborative research project on mineral law and policy in three southern African countries (Namibia, Botswana and Zambia) under the UCT PERC Africa Knowledge Project and is also hosting a project on Eritrean land law.

Mineral Law in Africa

The aim of the mineral law for Africa project is to create a systematic, academic commentary on mining and mineral laws in Africa, starting with a selection of Southern African countries which present comparative case studies in relation to South Africa. The choice of the research subject is located within the key goals of PERC, namely, to develop a collaborative research-based team, establish research collaboration with academic colleagues in other African universities and generate research findings that are relevant to Africa and which reflect its situational realities.

The project is also aligned to the broader mandate of the Centre for Comparative Law in Africa in the sense that by creating a multi-jurisdictional research team, it expands the Law Faculty's research networks. Further, it seeks to be socially responsive by addressing a subject that affects the lives and livelihoods of much of the African working population. In addition, it builds academic capacity through its involvement of academic staff and postgraduate students in the collaborating institutions, namely UCT and the universities of Botswana, Namibia and Zambia.

Outputs from this research project will include articles presenting an overview of the research findings and a book on each jurisdiction studied, which will constitute Juta's Library of Mining Law in Africa. This project is led by Professor Hanri Mostert of the Department of Private Law with the Chair in Comparative Law in Africa providing expertise on comparative methodology. Another projected outcome is the launch of a website for the uploading of the data from the research project. It is expected that this project will be followed by studies of other African regions.

Eritrean Land Law

The aim of the Eritrean land-law project is to enrich the scarce bibliographic resources on Eritrean law with a comprehensive analysis of its legal framework on land law. Previous research done on this subject will be expanded to create a comprehensive and updated legal material which will represent the reference in a sector – that of land – which is extremely important for the Eritrean livelihood. The project aims to produce a book which will give comparative insights into land tenure in Eritrea (including customary), among other systems of land administration. The book will be published in Italian (Trieste University Press, 2013), and thereafter translated into English and published in South Africa under the "Comparative Law in Africa" book series (Juta Press).

The project is also aligned to the broader mandate of the CCLA in the sense that it is framed in the Afropolitan vision of UCT, and it will position the CCLA as a leading institution in the research on key themes of African law. Further, it seeks to be socially responsive by addressing a subject that affects the lives and livelihoods of almost all Eritrean citizens and giving them full information on the legal regime applicable to their land.

Future activities

The CCLA is in the process of peer-reviewing papers for the first edition of its journal, the *Journal of Comparative Law in Africa*. Furthermore, papers presented at its workshop on comparative law methodology in Africa held in October 2012 are being peer-reviewed for publication as the inaugural volume in the above-mentioned CCLA book series.

Professor Salvatore Mancuso

The CCLA has recently secured an endowment to support its academic visitors programme and has been nominated to host a fellow under the All Africa House fellowships from September to December 2013. The CCLA is home to the emerging African Association of Comparative Law and is connected to a number of other networks, including the African Legal Support Facility, the Organisation for the Harmonisation of Business Law in Africa, the Global Forum on Law Justice and Development, and the International Association of Legal Sciences.

In its effort to be one of the main actors of legal development in Africa and beyond, the CCLA has been already involved in some relevant activities in this respect: the Chair has been the facilitator of the last meeting held by the African Legal Support Facility (emanating from the African Development Bank) on capacity-building for lawyers in Africa. He has also been a member of the teams of experts advising the Egyptian government on the Draft Mediation Law and the Ghanaian government on the Legal Aid Bill. He is presently a member of the team of experts advising the government of Fiji on the Draft Mineral Law.

The CCLA is also currently working on the organisation of a group involving Somali scholars and jurists resident in South Africa and lawyers interested in Somali law to create a working group to advise the Somali government in the rebuilding of their legal system and to do systematic research on Somali law.

Centre of Criminology

The Centre of Criminology's research programme builds on established areas within criminology and established strengths within the Centre of Criminology, and is stretching the boundaries of criminology in ways that will enable it to recognise and respond to the changing international and local risk landscapes.

Research on policing at the Centre of Criminology is concerned both with public police and private policing developments in South Africa and in transitional contexts, particularly in Africa.

During the course of 2012, research under the direction of Professor Elrena van der Spuy explored policing in the context of peacekeeping. This entailed an exploration of the way in which the transnational space of peace missions places new demands on the national police as well as the role of policy transfer. It also involved an investigation into the politics and logistics of policing conflict through the examination of national and regional case studies. Professor van der Spuy also undertook research on the Social History of Criminal Justice Reform in South Africa post-1990, in relation to the police, the former Independent Complaints Directorate, the Judicial Inspectorate of Prisons and the National Prosecuting Authority.

AAThe Polycentric Governance Programme, directed by Julie Berg, explored changes in the character of policing by focusing attention on the authorities who direct, and the providers who undertake, policing. Research foci within this area include:

- City Improvement Districts and their security governance
- accountability of the private security industry
- developing a "whole of society" approach to security governance within the Western Cape
- developing innovative policy with The Safety Lab, a project of the Cape Town Partnership and the Provincial Government of the Western Cape and the Western Cape Department of Community Safety
- developing a networked, international research programme on transnational private security

Initial discussions were held with the Safety and Violence Initiative at UCT about establishing a multidisciplinary programme on manifestations and dynamics of non-state violence in Africa.

In the light of the sharp deterioration of the global environment, the Centre of Criminology has introduced environmental security governance within its research ambit.

The Centre's Penal Policy programme, led by Dr Gail Super, an NRF postdoctoral research fellow, explored the relationship between punishment and society and the role of punishment in state-making. Dr Super's book *Governing through Crime in South Africa: the Politics of Race and Class in Neoliberalizing Regimes* will be published by Ashgate Publishing in 2013.

In the light of the sharp deterioration of the global environment, and the local impact this is having on ecosystems and communities across Africa, the Centre of Criminology has introduced environmental security governance within its research ambit.

This research stream, led by Professor Clifford Shearing, explored how influential "fulcrum" institutions, with the capacity to lever societal change, are responding to the risks presented by an increasingly insecure environment. Partners within this programme include the World Wide Fund for Nature (WWF), several municipalities and private sector institutions.

Inspiring the Next Generation Of Scholars

Scholarship at the Centre for Law and Society is always orientated outward to what it sees as the key challenges facing South Africa today, while from within its teaching and supervision programme develops a new generation of engaged scholars and activists.

The Centre for Law and Society (CLS) has consolidated and expanded its flagship programmes – the Law, Race and Gender Research Unit (LRG), and the Rural Women's Action Research Project (RWAR) – led by Dr Aninka Claassens, director of RWAR; and Associate Professor Dee Smythe, director of the CLS.

For two decades LRG has carried out in-depth research, and has trained and mentored more than a thousand judicial decision-makers on a range of social issues, even as it has actively sought to support the transformation of the justice system.

The CLS has been closely involved with law reform, constitutional litigation and community organising, which has led to the establishment in 2012 of the Alliance for Rural Democracy.

Dr Aninka Claassens

RWAR, too, has adopted a distinctive methodology: combining regular rural, community-based consultations with empirical research, to establish the content of living customary law which is in contradistinction to the rule-bound versions of customary law entrenched by new, conservative laws.

The work of the Centre for Law and Society has resulted in high quality research outputs such as the Acta Juridica on Marriage, Land and Custom (forthcoming, 2013), edited by Claassens and Smythe. The CLS has also been closely involved with law reform, constitutional litigation and community organising, which has led to the establishment in 2012 of the Alliance for Rural Democracy.

Acting for Rural Women

Women make up 59 percent of the poorest areas in South Africa, and while research shows significant numbers of single women have managed to acquire independent land rights since 1994, these positive developments have been put at risk by recent traditional leadership laws that bolster the power of chiefs to unilaterally define the content of custom. These new laws have also exacerbated the tendency of chiefs to enter into unilateral mining and investment deals on communal land without consulting its occupants.

The apartheid tribal boundaries effectively re-imposed by these laws serve two purposes: they lock 16 million people into ascribed tribal identities, while simultaneously locking alternative institutions out. This pre-empts rural people's ability to organise themselves in any way other than as tribal subjects.

The Rural Women's Action Research Project highlights the danger of reactionary versions of customary law used to bolster autocratic chiefs and shut down processes of local transformative change. At the same time, there is enormous potential in recent Constitutional Court judgments that interpret customary law as 'living law' that develops as society changes.

So it becomes crucial to provide evidence of current practice and underlying values in challenging the distorted version of customary law entrenched by the new laws. This is necessary for litigation purposes in striking down the new laws, and to develop feasible alternatives to government's current approach.

RWAR's research shows that rural people are engaged in finding positive ways to reconcile citizenship rights and indigenous precedents. Rigorous empirical research is crucial, as is the involvement of rural people in the design and development of the research, and for the articulation of policy implications.

Documenting Traditional Courts

Researchers have documented on a daily basis for nine months – under the leadership of Dr Sindiso Mnisi Weeks – the vernacular dispute management practices of six headmen in the Msinga area.

Drawing on this data, and further interviews with members of the Mchunu and Mthembu traditional councils, traditional leaders and disputants, Dr Mnisi Weeks will complete a monograph on the subject. The research provides a foundation for opposing the autocratic Traditional Courts Bill in its current form and is the basis for developing a position on the future regulation of these courts.

Pathways to Justice: Msinga and Surrounding Areas

This project, led by Associate Professor Dee Smythe with Diane Jefthas, complements research concerning Traditional Courts in the same area of Msinga.

It documents intersections between traditional justice mechanisms and the formal criminal justice system. Analysis of 1066 police dockets have begun to reveal patterns of vigilantism, compensation payments, and the relationship between police and traditional leaders. Qualitative research with traditional leaders, police, prosecutors and magistrates is under way.

Changing Marital Status and Access to Land for Rural Women

Massive processes of change are under way in rural areas in relation to single women's access to land since 1994, according to survey data.

Using in-depth qualitative research, Dr Aninka Claassens and Nolundi Luwaya, have set out to better understand the dynamics of change processes and the factors that both support and inhibit positive change. Research findings will be used in policy briefs and articles that critique current

Professor Jaco Barnard-Naudé

Jaco Barnard-Naudé completed his law studies at the University of Pretoria and also holds a master's degree in creative writing from UCT. He is an NRF-rated researcher, an honorary Fellow at the Birkbeck Institute of Humanities, and a recipient of the UCT Fellows' Award, the Grotius Medal, the Santam Prize for Economics and the Gauteng Law Council Prize. He completed a doctorate in critical legal theory with specific focus on adjudication in the South African law of contract in transformation.

Professor Barnard-Naudé's research is primarily situated at the inter-disciplinary junctures of critical legal theory, political philosophy, literature and psychoanalysis. He has a particular interest in sexual minority freedom and, primarily in collaboration with Professor Pierre de Vos, has authored a number of influential journal articles and book chapters on this topic in the context of both post-apartheid South Africa and foreign jurisdictions.

In 2012, his published research reflected his interest in poststructuralist influences on literature, with two articles on the relationship between philosophy and literature in the context of the Afrikaans literary tradition. He also published an article in the *Stellenbosch Law Review* on the relationship between law and poetry against the background of protest poetry in the Afrikaans canon. Professor Barnard-Naudé brought his interest in a post-apartheid critical jurisprudence for South Africa specifically to bear on the four chapters he contributed in 2012 to a new textbook, *Introduction to law and legal skills*, published by Oxford University Press Southern Africa. In these contributions he stresses the importance of understanding the inextricable relationship between law and politics in the study of the South African transition to democracy.

2012 also saw Professors Barnard-Naudé and De Vos shifting their ongoing collaboration to contemporary politics in South Africa with the publication of an article on the politics of aesthetics in the context of the Jacob Zuma *Spear* debacle. In this contribution they draw on insights from postcolonial and aesthetic theory to plead for a nuanced understanding of Brett Murray's painting as a complex and problematic work, whilst at the same time arguing the importance of the constitutional right of freedom of expression for democracy. Professor Barnard-Naudé concluded his research outputs for 2012 with the publication in the *South African Law Journal* of a critical appreciation of Professor Jacques de Ville's *Jacques Derrida: Law as absolute hospitality* (2011). In this book review, he argues that current work on poststructuralist ethics all too often loses sight of the political raison d'être of the postcolonial context, namely that it is a context that calls for the building and maintenance of an ontologically post-apartheid, radically horizontal, public sphere, in which the (constitutional) ideal of equality plays a fundamental role.

Professor Hugh Corder

Hugh Corder, a graduate of the universities of Cape Town, Cambridge and Oxford, has been Professor of Public Law at UCT since 1987. His main teaching and research interests fall within the field of Constitutional and Administrative Law, particularly judicial appointment and accountability, and mechanisms to further administrative accountability. Professor Corder has been widely involved in community work since his student days, concentrating on popular legal education, race relations, human rights and the abolition of the death penalty. He served as a technical adviser in the drafting of the transitional Bill of Rights for South Africa. He has written three books, edited a further seven, and contributed many articles and chapters in books.

Professor Corder had a busy and productive 2012, of which two research projects representing different aspects of his areas of interest are highlighted here. For him, research in law tends to be a solitary activity. Although he has occasionally written with others, and although he has also been part of a research team, usually for short periods of intense activity (such as drafting a bill for Parliament), his preferred position is to read, reflect and write on his own. The works highlighted below represent the outcome of both sorts of research.

His work in the area of constitutional law, and his particular focus for the past 35 years, has been the judicial branch of government, as well as a specialised area of constitutional law called administrative law, which is any legal system's response to the rapid growth and intrusiveness of executive authority over the last century. It typically centres on the courts' attempts to regulate the exercise of that power to ensure a measure of procedural fairness.

The first piece is a substantial chapter for a book on the judiciary in South Africa. The editors asked Professor Corder to write on judicial accountability, a particularly vexed topic, for the following reasons. Judicial impartiality and independence are critical to any constitutional democracy, but judges exercise authority on behalf of the state in interpreting and enforcing laws, so there must be methods to ensure their accountability to the electorate. One of the ways in which this occurs is through the doctrine of the "separation of powers" in government, and through the role of the executive and Parliament in appointing judges. This chapter focuses on accountability mechanisms for serving judges, such as that they sit in open court, that their judgments are criticised by other lawyers, academics and in the media, that judgments may be appealed to higher courts, and that judges who are guilty of gross misconduct may be impeached. Most of the chapter examines the structures and procedures introduced recently into our law by Parliament, such as a binding Code of Conduct as well as tribunals established under the auspices of the Judicial Service Commission. One such notorious incident involves a judge who was found guilty of drunken driving, and whose case will soon be heard by a tribunal.

The second piece is a chapter in a book (edited by leading constitutional scholars from Australia, Switzerland and the USA) which seeks at an international level to explore themes common to constitutional law in a comparative manner. Professor Corder was twinned with a Swedish academic, and they were asked to write about access to information, a vital part of administrative justice in any modern system of constitutional governance. Sweden was the pioneer in this area, South Africa very much a latecomer, and the authors approach the issue from very different legal and cultural vantage points, so there was much of interest in the writing process. It is hoped that the outcome will be equally stimulating!

Professor Hanri Mostert

Professor Hanri Mostert's undergraduate studies in Humanities and Law at Stellenbosch University piqued her interest in the resource potential of land. Throughout her doctoral studies she pursued the question of how land as a scarce resource of great public importance could be appropriately regulated, whilst simultaneously private claims to it could be acknowledged. Having honed her research skills at the Max Planck Institute for Public and International Law in Germany, she completed her doctorate in 2000.

Since then, through her appointments at Stellenbosch University (2001 and 2008), and the University of Cape Town (since 2008), she has endeavoured to share her insights with new generations of property-law students. Her work has had impact both locally and internationally, through her appointment as a visiting Professor at the Rijksuniversiteit Groningen in the Netherlands, her involvement in the International Alliance for Land Tenure and Administration, and her work supporting the South African Law Commission, World Bank and international and national litigation.

Professor Mostert's original interests in property law have matured into specialisations in land law and mineral law. In these fields, she has contributed to the most authoritative sources on South African law, addressing issues of constitutional property protection, landlessness, tenure security, restitution, nationalisation, land governance and mineral-resource regulation. Her latest monograph, *Mineral Law – Principles and Policies in Perspective* (Juta, 2012), has already assisted the courts' understanding of mineral law.

Throughout her doctoral studies she pursued the question of how land as a scarce resource of great public importance could be appropriately regulated

Her work emphasises the state's duties to achieve better living standards and ensure responsible individual autonomy. She defends the notion of engaged citizenship in the enhancement of freedom and quality of life for individuals and the community and comments on the role of the judiciary in building a society subscribing to principles of accountability and trust in property law.

Professor Mostert has now embarked on a project to create a book series dealing with the mineral laws of Africa, and building a network of African mineral law specialists. With Juta Law Publishers she is also working on a series of opinion pieces on law, the first of its kind in South African legal publishing.

Professor Mostert holds a B rating from the National Research Foundation. She also held fellowships of the Commonwealth Programme, the Max Planck Foundation, the German Academic Exchange Service and the Alexander Von Humboldt Foundation.

Professor Chuma Himonga

Professor Chuma Himonga completed an LLB at the University of Zambia, an LLM at King's College London, and a PhD at the London School of Economics and Political Science. She is Professor of Law at the University of Cape Town and an NRF-rated researcher. She has served as a former deputy dean of undergraduate and postgraduate studies at UCT, an Akademische Rätin auf Zeit at the University of Bayreuth, Germany (1988–1994), and as a lecturer at the University of Zambia (1978–1988). She has collaborated in three major international and regional academic research projects in Europe and Africa, and is a former member of the South African Law Reform Commission Project Committee on Customary Law.

Professor Himonga convenes public and postgraduate seminars in All Africa House (where she serves as the warden), and manages a fellowship programme for academics from other African universities, funded by UCT. She has served on a number of boards of trustees, including the International Association of Law Schools Board from 2005 to 2010.

Professor Himonga's current preoccupation as holder of the South African Research Chair in Customary Law is refocusing research in customary law from theoretical studies to "grounded" empirically based investigations of the actual workings of customary law. This approach reflects the changed conceptualisation of customary law as living customary law in legal theoretical discourses. It is furthermore consistent with the normative frame of living customary law confirmed as the legitimate sources of law by the South African Constitution and Constitutional Court, and increasingly by other African legal systems.

A true and more realistic determination of the relationship between customary law and other components of Africa's legal pluralistic landscape depends on how well the former is researched and understood as a system of living law.

The ground-breaking nature of the direction of the South African Research Chair in Customary Law's research is to be viewed against the dearth of research on the African continent that takes the empirical investigation of customary law as a normative system seriously. While volumes of important literature have been published on customary law, little is based on the actual practices of the people who are subject to customary law, and therefore of little relevance to the lives of this legal system's adherents and its implementation by the state.

A true and more realistic determination of the relationship between customary law and other components of Africa's legal pluralistic landscape, including human rights and democratic governance, also depends on how well the former is researched and understood as a system of living law. These underscore the significance of Professor Himonga's scholarly undertakings and the direction of the research at her Chair.

Books Published in 2012

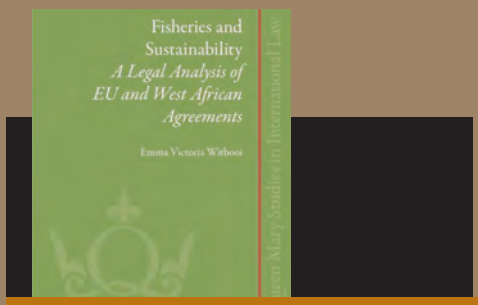
Reinventing Labour Law

Rochelle Le Roux and Alan Rycroft

The employment relationship has throughout the centuries been one of the most regulated of contracts. This regulation has extended to basic conditions, health and safety, unemployment insurance, dismissals, strike law, and much more. Most regulation reflects the priorities and policies of the government of the day. The Labour Relations Act 66 of 1995 (1995 LRA) was historically a fresh start in a democratic South Africa, an act harnessed to the Bill of Rights which, for the first time, guaranteed a range of labour-related rights.

This volume of *Acta Juridica* is partly devoted to a critical review of the first 15 years of the 1995 LRA. However, the intention was that the contributing authors should focus on more than the successes and failures of the act and that at least some of the contributions should have a strong prospective emphasis, exploring the possible future challenges to and solutions for regulating the labour market post-2011. In other words, the editors intended this volume to assist in tracking the future of labour-market regulation in South Africa.

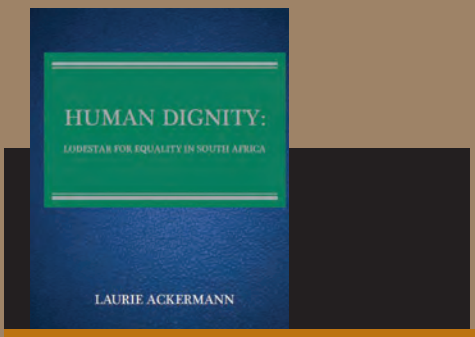
Fisheries and Sustainability. A Legal Analysis of EU and West African Agreements



Emma Witbooi

Marine-living resources are currently under severe threat from unsustainable use. International law urges a precautionary approach in the use of remaining fish stocks, necessitating rational domestic management of coastal fisheries and requiring foreign nations accessing these stocks to co-operate to this end. The manner in which bilateral fishing relations between the EU and various West African states have historically played out, however, has not followed this route. This book is a legal study of these relations from an inter-disciplinary and contextual perspective with particular reference to sustainability questions, using three broad conceptual lenses – common resource management, integration towards sustainable development, and the colonial legacy – to interrogate the extent to which these interactions operated as legal instruments of sustainability.

Human Dignity: Lodestar for Equality in South Africa



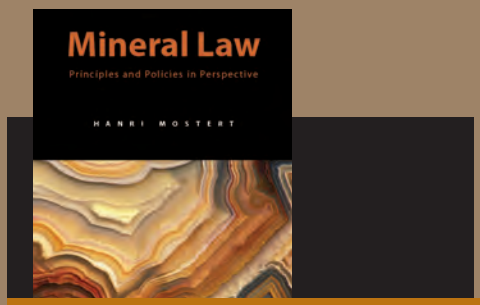
Laurie Ackermann

Human Dignity: Lodestar for Equality in South Africa provides an in-depth analysis of human dignity and its relationship to equality in South African law. The author argues that human dignity is the attributive key that unlocks the constitutional meaning of equality and unfair discrimination. Equality cannot be usefully debated without first asking the vital question "'Equality of what?" The answer, it is contended, must be "human dignity". The philosophical and Abrahamic religious roots of these constitutional concepts of dignity and equality are investigated, then further explored and illustrated in the comparative context of South African, German and Canadian constitutional jurisprudence.

Clashes and tensions between rights inevitably occur when the equality and non-discrimination rights of a Bill of Rights are applied horizontally, that is between subjects of the state themselves. The human dignity

of the contestants plays a vital role in resolving such tensions and conflicts. Human dignity moreover has a determining function when applying constitutionally mandated restitutionary (compensatory) equality and when determining what the legitimate extent and duration of such restitution is. These issues are also considered in a comparative constitutional context

Mineral Law: Principles and Policies in Perspective



Hanri Mostert

Mineral Law: Principles and Policies in Perspective provides a unique look at the context of current mineral law. It examines the system introduced by the Mineral and Petroleum Resources Act 28 of 2002 by juxtaposing it with preceding generations of mineral law. It deals with the regulatory and proprietary aspects of mineral law, the constitutionality of the transitional provisions introducing the new mineral law order, and its continuity with former generations of mineral law.

The New Environmental Governance

The New Environmental Governance (NEG) explores a bold and profoundly new way of governing global environmental problems. It seeks to help overcome the limitations associated with relying on an interventionist state, and its market-based approach to governance, and to offer more effective and legitimate solutions to today's most pressing environmental problems. As such, NEG emphasises a host of alternative characteristics of governance that integrate participation, collaboration, deliberation, learning and adaptation, and "new" forms of accountability.

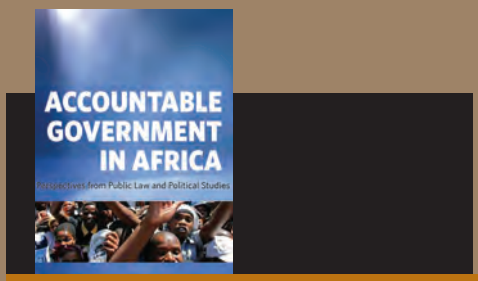
Cameron Holley, Neil Gunningham and Clifford Shearing

Yet, while these unique features have generated significant praise from legal and governance scholars, there have been few systematic evaluations of NEG in practice. Indeed it is still unclear whether NEG will in fact "work" and, if so, when and how. This book offers one of the most rigorous research investigations into cutting-edge trends in environmental governance to date. Focusing its inquiry on some of the most central, controversial and/or under-researched characteristics of NEG, the book offers fresh insights into the conditions under which we can best achieve successful NEG.

The book synthesises its findings to identify seven key pillars of "good" NEG, central to its success, that will provide useful guidance for policymakers and scholars seeking to apply new governance to a wide range of environmental and non-environmental policy contexts. The book also advances our understanding of state governance and is a valuable reference for scholars, researchers and students working in law and regulation studies, especially those in the field of environmental law.

Books Published in 2012

Accountable Government in Africa: Perspectives from Public Law and Political Studies



Danwood Chirwa and Lia Nijzink

The book brings together a number of leading experts in the fields of public law, political science and democratisation studies to discuss problems of accountability, identify ways of making African governments accountable and describe the extent to which these mechanisms work in practice. Thus it presents new knowledge about legal and political developments in a number of African countries that is relevant to the policy goal of developing and deepening democratic governance and accountable government on the continent. *Accountable Government in Africa* will be of interest to academics, students and practitioners in the fields of public law, public administration, political studies and African studies, as well as anyone who has an interest in developing and deepening democratic governance and accountable government on the African continent.

Tom Bennett, Eva Brems, Giselle Corradi, Lia Nijzink and Martien Schotsmans

African Perspectives on Tradition and Justice

This volume aims to produce a better understanding of the relationship between tradition and justice in Africa. It presents six contributions of African scholars related to current international discourses on access to justice and human rights and on the localisation of transitional justice.

The contributions suggest that access to justice and appropriate, context-specific transitional justice strategies need to consider diversity and legal pluralism. In this sense, they all stress that dialogical approaches are the way forward. Whether it is in the context of legal reforms, transitional processes in post-war societies or the promotion of human rights in general, all contributors accentuate that it is by means of co-operation, conversation and cross-fertilisation between different legal realities that positive achievements can be realised.

The contributions in this book illustrate the perspectives on this dialectical process from those operating on the ground, and more specifically from Sierra Leone, Mozambique, Malawi, South Africa, Uganda and Rwanda. Obviously, the contributions in this volume do not provide the final outcome of the debate. Rather, they are part of it.

Research Groupings
associated with this theme

Centre of Criminology

The Centre of Criminology (previously the Institute of Criminology), founded in 1977, aims to initiate, co-ordinate and develop research in the broad field of criminology, and to promote public interest in all aspects of criminology. The centre's research programme focuses primarily on state policing, plural policing, crime prevention, and environmental security. Teaching support to the criminology focus falls within the Department of Public Law and research support is provided by the centre's Multi-Media Electronic Resource Library.

Director: Professor C Shearing
E-mail: Clifford.Shearing@uct.ac.za
Web: http://www.criminology.uct.ac.za

Intellectual Property and Policy Research Unit

The Intellectual Property (IP) and Policy Research Unit assists in developing IP law and policy in Southern Africa and aims to contribute to the manner in which this topic is treated in the emerging and developing countries throughout the world. The unit is in a position to become an influential leader within Southern Africa for research and scholarship in intellectual property law and policy. It seeks to explore many issues facing the changing world of IP and relate these to the needs of society, IP holders and consumers. The unit is leading research projects in areas such as IP rights and innovation, development, copyright and creative commons, nanotechnology and new technologies.

Director: Professor J Kinderlerer
E-mail: Julian.Kinderlerer@uct.ac.za
Web: http://www.privatelaw.uct.ac.za/research/units/

Institute of Development and Labour Law

The Institute of Development and Labour Law was established in 1996 through the merger of the Labour Law Unit and the Institute of Development Law. The institute plays a leading role in development and labour law teaching and research. It is involved with training courses in South Africa and other countries in Southern Africa. It also regularly contributes to the training programmes of other organisations, and collaborates closely with other leading university centres and NGOs.

Director: Professor R Le Roux
E-mail: Rochelle.LeRoux@uct.ac.za
Web: http://www.labourlaw.uct.ac.za

DST/NRF SARChI Chair
associated with this theme

Professor Clifford Shearing

Security and Justice

Professor Clifford Shearing holds the South African Research Chair in Security and Justice at UCT and is also Chair of Criminology and director of the Centre of Criminology. Previously he held positions at the Australian National University (2001–2006) and the University of Toronto (1975–2001).

He obtained a PhD in sociology at the University of Toronto in 1977. He is an A1-rated NRF scholar. Professor Shearing's research and writing has focused on the governance of security and he has sought, through his policy work and practical engagements, to enhance the quality of security and justice. A particular focus of his work has been contributing to the development of institutions and processes that enhance the ability of poor communities to both direct and contribute to their safety. His current research focuses on developments in international private security and the emerging issue of environmental security.

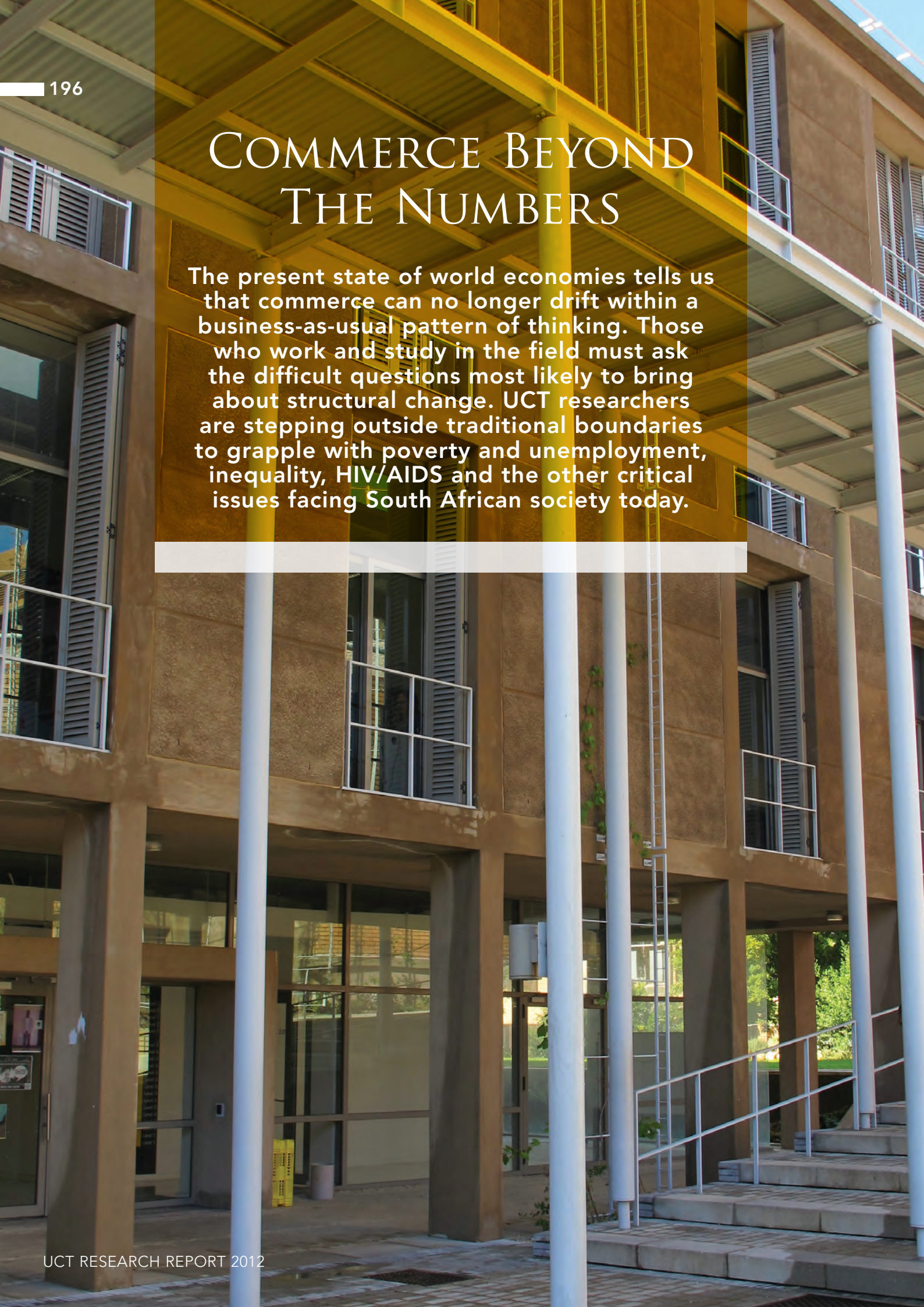
UCT's Dr Waheeda Amien (left), Professor Nazeem Goolam (Rhodes University) and Professor Chuma Himonga (UCT), pictured at the CCLA Methodology Workshop held in 2012.

Customary Law

Profiled on page 191

Commerce Beyond The Numbers

The present state of world economies tells us that commerce can no longer drift within a business-as-usual pattern of thinking. Those who work and study in the field must ask the difficult questions most likely to bring about structural change. UCT researchers are stepping outside traditional boundaries to grapple with poverty and unemployment, inequality, HIV/AIDS and the other critical issues facing South African society today.



The two greatest influences on the way UCT's Commerce Faculty has gone about its work in the past year are a quest for relevance, at both policy and grassroots level, and an increasing spirit of collaboration within the sciences. In addition, the faculty has continued to place emphasis on social innovation and entrepreneurship, along with leadership and a values-driven ethic that has seen it grow in both excellence and relevance, increase its research outputs, and seize the unique opportunities of the day.

The Commerce Faculty has enjoyed the highest rate of improvement in annual peer-reviewed, accredited journal outputs at UCT over the past three years.

During a period of significant budgetary pressure that forced steady increases in the faculty's ratio of undergraduate students to staff, and postgraduate students in need of supervision, two professors received the first A ratings ever awarded by the National Research Foundation to researchers in any commerce faculty in South Africa. The number of staff with an NRF B rating, which indicates considerable international recognition, doubled. These are objective signals of improvement not easily achieved.

The basic essential condition for this success under pressure is straightforward: the faculty's academic corps has an unusually low median age, so a high number of the staff are still growing in their research capacities, confidence and efficiency. Crucially, when confronted with shrinking resources, especially in that most precious asset, time, most staff have responded by working even harder and longer than they had already been. The faculty has supported and leveraged this superior collective work ethic through organisational change.

Across the sciences, research has for many decades become increasingly collaborative; this is due mainly to greater specialisation which requires projects to involve multiple authors. A second driver is the global tendency to extend larger grants to fewer but more ambitious projects, rather than making small grants to individuals. This is leading international research universities to organise around strong thematic research units guided by the best principles of entrepreneurship and enterprise management.

Organisation into research units is particularly important to the Commerce Faculty for an idiosyncratic set of reasons. As noted above, the faculty is comparatively young, and young researchers thrive best given close mentorship and leadership by established scholars who are better positioned to attract funding. Relatedly, a key to improving postgraduate recruitment and completion rates is providing incoming doctoral and research master's students with

strong support structures. Research students who work not merely with a single supervisor, but as members of a collaborative group engaged in multiple related projects at any given time, are much more likely to graduate more quickly, experience less stress and risk of alienation during their thesis work, be exposed to a wider view of research in their discipline, and be richly networked when they seek employment after completing their studies.

The Commerce Faculty has long contained within itself a model for this kind of organisation. Historically, the strongest part of the faculty concerned with research is the School of Economics (SoE) which has, for almost a decade, been structured around four research units: the AIDS and Society Research Unit (ASRU), DataFirst, the Development Policy Research Unit (DPRU), and the Southern Africa Labour and Development Research Unit (SALDRU).

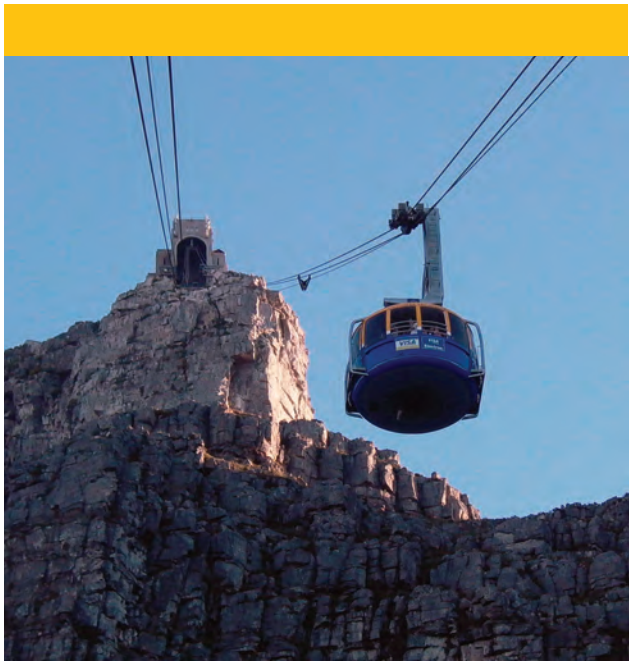
SALDRU – the longest established and mightiest of the units – has for 30 years highlighted poverty and inequality as its focal issues and produced a substantial body of groundbreaking work that has helped policymakers to systematically address poverty alleviation in South Africa.

The unit is entrusted with the design and administration of the National Income and Development Survey, funded by the Office of the President. Since 2010, it has housed the

Abdul Latif Jameel Poverty Action Lab for Africa (J-PAL Africa), with its Head Laboratory at MIT, and it works with African governments, NGOs and businesses to generate evidence needed for effective policies that improve the lives of poor people. SALDRU has provided the recruitment and project context for multiple doctoral and research master's students.

Outside the SoE, four Commerce research units already existed before 2010: the Centre for Actuarial Research (CARe), which focuses on technical demography and on modelling the demographic and epidemiological dynamics of HIV/AIDS; the Centre for Information Technology and National Development in Africa (CITANDA), which studies the management, development, use and impact of information and communication technology in areas related to business, economic and social development in Africa, with a special focus on new mobile communication technologies and applications customised to the needs of African enterprise; the Institute for Monitoring and Evaluation (IME), which promotes capacity-building in programme evaluation in Africa; and the University of Cape Town Unilever Institute of Strategic Marketing (UISM), which has built a national reputation as South Africa's foremost source of intelligence on South African consumer behaviour.

Since 2010, a strategic plan to extend existing research platforms into "wall-to-wall" research units across the faculty has been adopted. No academic is required to join a unit but, if coverage of units is sufficiently deep, all academics can find a natural home in at least one.



The first two new units to be accredited by the University Research Committee (URC) were the Research Unit in Behavioural Economics and Neuroeconomics (RUBEN), which uses experiments to study ways in which people and households in developing and least-developed economies assess risk and make decisions, and the unit for Policy Research in International Services and Manufacturing (PRISM), which seeks to improve South Africa's competitiveness through undertaking evidence-based research on firm and sector-level competitiveness, as well as contributing to policy frameworks that impact on African industrialisation paths. Both RUBEN and PRISM have collaboration agreements with strong international partner institutions, which the faculty views as a preferred feature of all research units. RUBEN is currently in negotiation with the Risk Management Institute at Georgia State University to design a joint doctoral programme.

This was followed by the African Collaboration for Quantitative Finance and Risk Research (ACQuFRR), which will be part of a larger, forthcoming structure – the research wing of the planned African Institute for Financial Markets and Risk Management (AIFMRM), funded by a coalition of banks and insurance firms.

The UCT Tourism Research Unit (TRU) studies South Africa's tourism industry with the aim of identifying unrealised opportunities and formulating innovative and sustainable methods of filling these gaps.

Two units operating within the faculty, not yet URC-accredited, are the Development Unit for New Enterprise (DUNE), which focuses on building entrepreneurial capability in South Africa by researching the dynamics of leadership and innovation in the fields of general entrepreneurship, technopreneurship and social entrepreneurship; and the unit for Practice and Research on Occupational Health Psychology in Africa (PROHPA), which is dedicated to applied research on issues relating to the well-being, safety and health of people at work, through focus on the work environment, the individual, and the work–family interface.

Most of these new units are in their founding stage of development and considerable growth is expected in their range and quantity of output in the years ahead. Crucially, all are tasked with diversifying their sources of research funding to enable more growth and scope in the faculty as a whole.

The optimistic expectation is that the recent acceleration of research in the faculty will continue through coming decades with dynamic outcomes, not only for the academic community, but for South Africa at large.

The business of GLOBAL CHANGE

UCT's Graduate School of Business (GSB) is different from others; it stands out from the crowd and speaks to a relevance badly needed in the world today. As a business school it is prepared to ask the uncomfortable questions and make the difficult choices to stand things on their heads, if necessary, to bring about practical change, from the shaping of national policy to innovation in local business models for improved service delivery.

The GSB sees one of its key roles as enabling new ways of thinking, behaving and striving to be proactive in response to Africa's challenges. In the wake of the financial crisis, and with social and environmental challenges multiplying across the planet, innovation from business schools is a necessity, not a luxury. And at the heart of all GSB initiatives is a commitment to research.

The GSB has identified five systemic research themes around which mainstream research is clustered: values-based leadership, social innovation and entrepreneurship, governance and sustainability, development finance, and infrastructure, reform and regulation.

But the organising principle of all research at the school is understanding emerging markets. Given that the school is situated, geographically, in a society and economy which is undergoing a rapid socio-political and economic transition from agrarian and feudal lifestyles to modern consumer lifestyles and careers, it is ideally situated to study such contexts. It provides researchers with a special opportunity to conduct emerging market research that is of interest to the leading international scholarly journals in all management disciplines, and contributes to the well-being of diverse stakeholders.

Research excellence is encouraged and incentivised at the school and 20% of GSB staff now have National Research Foundation ratings. Emphasis is on supporting and incentivising an increase in the quality, quantity and relevance of research that is transforming

Professor Walter Baets

SARChI Chairs
associated with this theme

Social Science Chair in Economic Growth, Poverty and Inequality
Profiled on page 91

Poverty and Inequality Research
Profiled on page 91

and transformative, selectively comprehensive, locally responsive and engaged, and globally competitive.

In a boost to research at the school, the first Old Mutual Research Fellows in Emerging Economies were recruited during 2012 with funding from Old Mutual. The research fellowship is aimed at understanding the complexity and uncertainty inherent in emerging markets, while simultaneously developing young, previously disadvantaged academics.

As a business school it is prepared to ask the uncomfortable questions and make the difficult choices to stand things on their heads.

The establishment of two new research centres is also furthering research output: the Bertha Centre for Social Innovation and Entrepreneurship and the Allan Gray Centre for Values-Based Leadership.

Partly as a result of these activities, the GSB remains one of the most recognised and celebrated business schools in Africa. In 2012 it was endorsed by the international community, receiving accreditation from both the Association of MBAs and the European Foundation for Management Development. The school's full-time MBA programme is also the only one in Africa to be ranked in the *Financial Times* Top 100 MBAs ranking and its Executive Education programmes were rated one of the best in Africa.

Such recognition helps to ensure that the school is putting UCT on the world map when it comes to business – specifically to changing the way business is thought about and practised in emerging markets.

Research Groupings
associated with this theme

Advancement of Business CompetitivenessUnit

The Advancement of Business Competitiveness Unit aims to be the primary source of knowledge and support for the advancement of competitiveness of organisations in South Africa and the rest of Africa in both the private and public sectors. Research focuses on undertaking surveys to map current business practices in the various sectors of the South African economy with the aim of benchmarking them against best practices. Using case studies, the unit also undertakes in-depth investigations of the business practices peculiar to the value chains of the various sectors. Both the surveys and the case studies will generate insights into the potential weaknesses of the value chains which hinder competitiveness in both the private and public sectors.

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Centre for Actuarial Research

The Centre for Actuarial Research is the only unit of its kind at an African university. It brings together multidisciplinary teams to build capacity, improve techniques and produce independent research in demography, healthcare financing, social security and HIV/AIDS modelling. The main focus of the centre is on training and research in demography and modelling the demographic impact of HIV/AIDS in Southern Africa.

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Research Unit In Behavioural And Neuroeconomics (RUBEN)

RUBEN is an inter-disciplinary group of researchers who use economic experiments, often together with functional Magnetic Resonance Imaging techniques, to examine the role that social, cognitive and emotional factors play in economic decision-making. In particular, the methodological approach in which the members of the team are experts allows the estimation of risk

attitudes and time preferences of individuals, households, and communities in the field. RUBEN is currently the only centre for experimental research in economics on the African continent, providing training, research leadership and technical resources for the benefit of researchers across the continent. A key aspect of RUBEN activity is training. RUBEN hosts annual training workshops for scholars from the rest of the continent, and raises funds to cover all workshop costs for these participants. In addition, the unit aims to provide scholarships for four to six postgraduate students annually.

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Policy Research in International Services and Manufacturing

Policy Research in International Services and Manufacturing (PRISM) is a research and policy unit within UCT's School of Economics. PRISM provides a lens to focus research and policy work broadly on issues of globalisation, trade and industrialisation. It is home to a number of related research activities, projects and programmes concerned with issues of globalisation, global value chains, industrialisation paths, foreign direct investment and multinational corporations, international trade, foreign investment, the defence industry, policy governance, infrastructure development, the role of knowledge-intensive services, innovation, and international competitiveness. PRISM has an applied focus, responding to economic policy questions issues in South Africa, the rest of Africa and beyond.

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UCT Tourism and Events Research Unit (UCT-TRU)

The UCT Tourism and Events Research Unit is an interdisciplinary specialist research and teaching unit within the School of Management Studies. The mission of the unit is to undertake high quality research and engage in research-led teaching in order to contribute to policy formation by business, governments and international organisations. Current research interests include the analysis and measurement of tourism's economic impact, consumer behaviour and the demand for tourism and travel, and the impact of social media on tourist decision-making.

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The African Collaboration for Quantitative Finance and Risk Research (ACQuFRR)

ACQuFRR is a research unit that spans the activities of the quantitative finance group in Actuarial Science and researchers in the Department of Finance and Tax who share an interest in risk research. It provides structure and support for the pursuit of quantitative financial (risk) research that is distinctive to Africa and emerging market economies. Many of its teams are multidisciplinary, in keeping with its mandate, and may include market practitioners. ACQuFRR's focus is on postgraduate training, research and professional workshops.

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Environmental-Economics Policy Research Unit

Profiled on page 164

Southern Africa Labour and Development Research Unit

Profiled on page 90

Centre for Information Technology and National Development in Africa

Profiled on page 211

Development Policy Research Unit

Profiled on page 90

Global Partnerships, Local ICT Solutions

Over the last decade, UCT's researchers have contributed to the rapid evolution of processors, high performance computing and information systems, which is pushing the boundaries of research paradigms.

High Performance Computing at UCT

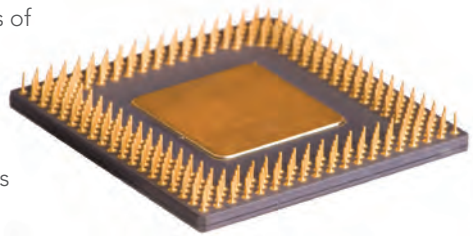
From supercomputers to mobile technology, the field of High Performace Computing has opened up a host of new possibilities for researchers, with some having played a key role in the development of industry-standard computing languages and software, and others contributing to emerging technologies in taking healthcare to the next level.

High Performance Computing (HPC) is an enabling technology that seeks to improve the performance of computing applications. The interdisciplinary nature of HPC research impacts on a wide range of applications; for example, a carbohydrate simulation might be reduced from years to months, or digital 3D content produced in real time rather than requiring minutes to generate. At UCT there are number of researchers working on HPC, and a major theme of their research is improving the speed of discipline-specific computational solutions.

The Centre for Research in Computational and Applied Mechanics (CERECAM) has been in existence in various forms since 1981. During this period, it has grown into a flagship research centre comprising 13 full-time academic staff members from six departments spanning three faculties, and with networks across the world. Consequently, inter-disciplinary thinking and activity have become firmly embedded in the objectives of the centre.

The principal objective of CERECAM is to provide a coherent focus and point of interaction at UCT for research and applications in the general area of non-linear mechanics by promoting and supporting fundamental research, applied research, and industrial interaction in the mechanics of structures, solids, and fluids. The application of research that is facilitated through CERECAM is both broad and varied: this ranges from the development and utilisation of HPC tools to study the biomechanics of myocardial infarction (heart attacks) and the production of biodegradable stents, to the computational aspects of flotation, leaching, precipitation and crystallisation, which are important to the chemical process industry, the mining industry and the environmental field.

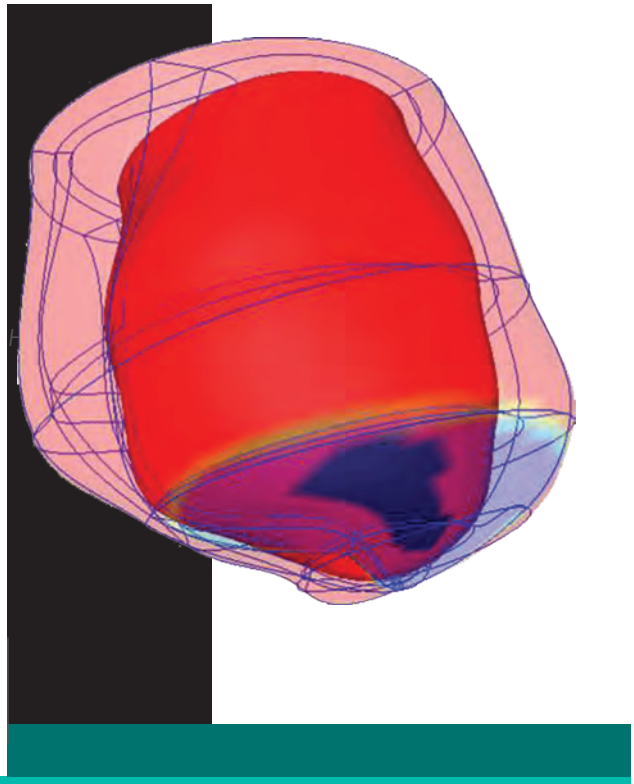
Research areas of interest thus span a wide range that includes theoretical, computational and experimental investigations in solid and fluid mechanics, with corresponding research activities organised into a number of research programmes which range from those of a fundamental nature to projects having a direct link to industry and other applications. Areas of activity in solid mechanics include plasticity, structural mechanics and fracture mechanics. In the domain of fluid mechanics, much activity is motivated by problems in aerodynamics and in the mining industries. Beyond these traditional areas of interest, biomechanics is a major area of activity, and particulate flow characterisation has become established as a major focus in its own right.



During 2012, twelve postgraduate CERECAM students graduated, two of whom were registered at the doctoral level. Thirty-three students continue their studies through the centre, approximately two-thirds of whom are PhD candidates.

Biomechanics of the Upper Airway

Sleep apnoea is a type of sleeping disorder characterised by pauses in breathing or instances of shallow or infrequent breathing during sleep. Each pause in breathing is called an apnoea, and can vary in duration from at least ten seconds to minutes. There are three types of sleep apnoea and, according to the World Health Organisation, more than 120 million people worldwide suffer from this chronic respiratory disease.



In another CERECAM project, Professor Daya Reddy and PhD student Jean-Paul Pelteret are concerned with the use of modelling and computational techniques to develop a better understanding of the mechanisms of obstructive sleep apnoea. The initial phase of this work involved the development of a model for the non-linear anisotropic behaviour of the tongue, which comprises a number of muscle groups, as well as of other relevant soft tissues. Further work has entailed the simulation of fluid-structure interaction involving the tongue and soft palate, and upper airway flow.

Myocardial Infarction and Heart Failure

Cardiovascular diseases (CVD) will become the leading cause of death by 2020, superseding infectious diseases such as HIV, TB, and malaria. The risk of CVD has been reported to increase with the improvement of economic wealth and social environment, in particular in Africa.

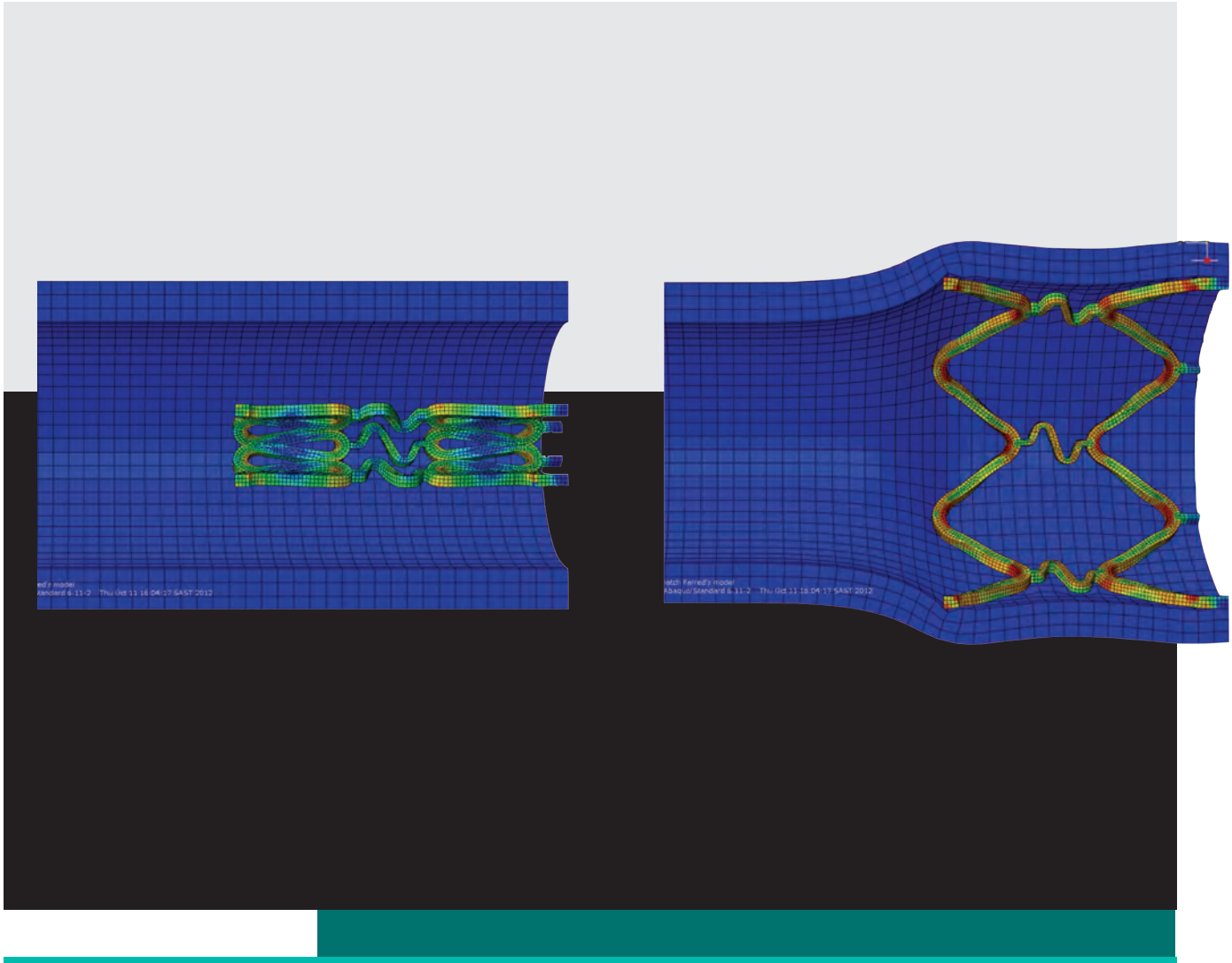
A higher risk for acute myocardial infarction, the leading causes of congestive heart failure, has been reported in the black African group in sub-Saharan Africa due to an increased level of hypertension. Similarly, the American Heart Association expects in the near future a dramatic increase in CVD incidences in Africa, in particular in the younger population, in conjunction with the emergence of a new epidemic of obesity, diabetes and uncontrolled hypertension. Up to one-third of infarct patients develop heart failure, making myocardial infarction the most common cause of heart failure. The fact that 30 to 40% of patients die from heart failure within the first year after diagnosis, even with optimal modern treatment, indicates the urgent need for alternative therapies.

The aim of this collaborative research project, which is sponsored by the national Centre for High Performance Computing, is the development and utilisation of HPC tools to study the biomechanics of myocardial infarction (MI) and emerging MI therapies based on biomaterial injection into the infarct. The presented problem is highly complex, including the representation of the architecture of cardiac soft tissue with dispersed biomaterial at micro- if not nano-scale, the highly non-linear elastic myocardial mechanics, and the electro-sensitivity of the myocardial muscle. Comprehensive treatment exceeds conventional computing resources in terms of problem size and complexity of the developed codes to capture the physical phenomena with sufficient accuracy. HPC will form an imperative platform for this research towards the advancement of MI therapies and prevention of heart failure.

The project is led by Associate Professor Thomas Franz and Professor Daya Reddy, in close collaboration with UCT's Dr Sebastian Skatulla, Dr Dieter Legner, Associate Professor Neil Davies, Dr Jeroen Kortsmit and Laura Dubuis, and Dr Carlo Sansour of the University of Nottingham, and provides an excellent framework within which seven postgraduate students are being trained and mentored.

Designing Biodegradable Stents

In modern society, advances in biotechnology have made it possible for the quality and length of human life to be vastly improved. One such advancement has been the development of the stent, a tiny mesh 'tube' which, when inserted into a natural passage in the body, serves to prevent or counteract a disease-induced constriction in the flow of blood or other bodily fluids.



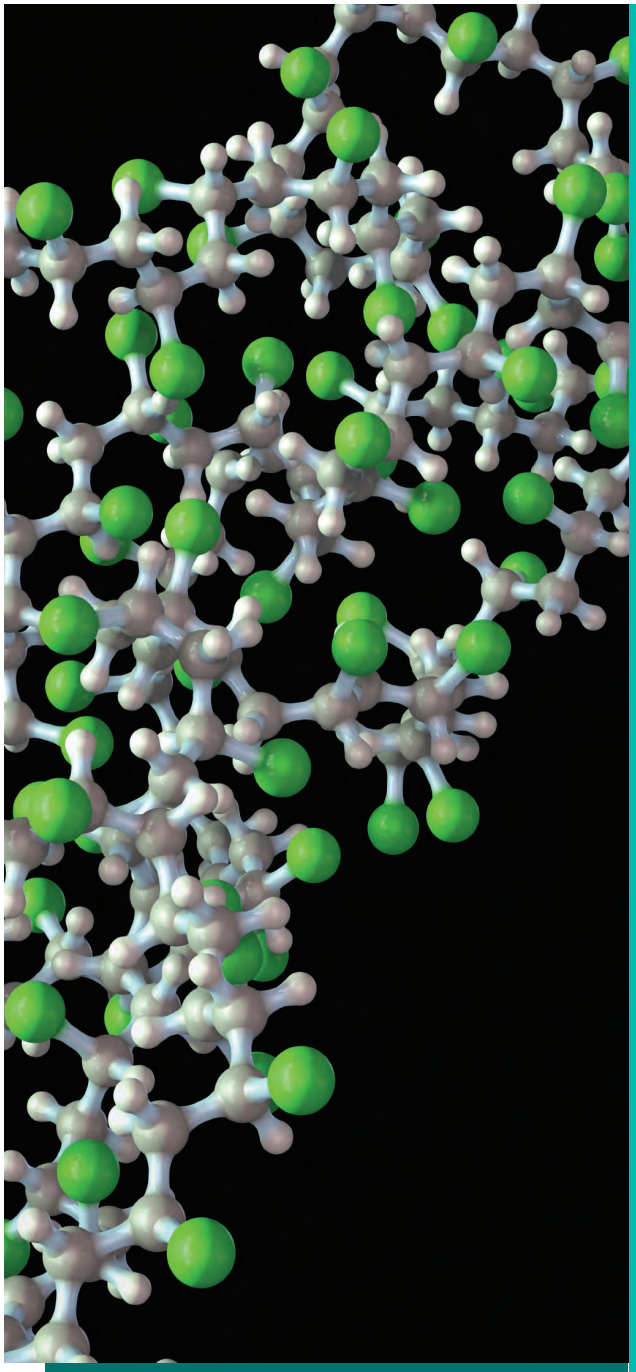
Permanent metal drug-eluting stents, i.e. stents which slowly release a drug, are the best-performing stents in clinical use today. There are, however, drawbacks to using permanent stents: they induce a chronic foreign-body stimulus in the host artery, obstruct future cardiac interventions and also prevent normal artery mechanical behaviour, to name but a few. If the stent can maintain its strength long enough to assist in the healing of the artery, and gradually transfer load onto the native vessel as it degrades, a fully healed artery may be restored. Thus there is much interest in the design of biodegradable stents.

Current research is concerned with a preliminary investigation into the properties of materials suitable for use in stent manufacture, the design of associated stent geometries, and computational simulations. This project is supported by Disa Vascular, and led by Professor Daya Reddy, with one master's student Richard Pauck.

Research Project

Computational Electromagnetics: Electro-Mechanical Coupling of Electro-active Polymers

Functional or active materials are those materials whose physical and chemical properties are sensitive to change in the environment, such as temperature, pressure, or the presence of an electric field. These materials are used to develop smart structures which are capable of sensing and adapting to changes in their environment, and smart systems, which comprise smart material, a smart structure, and intelligent processing. As such, they have a broad range of applicability and play an essential and important role in everyday life.



In recent years, functional or active materials have played an increasingly important role in the design of advanced and smart structures as well as intelligent and micro-electromechanical systems. Amongst these kinds of smart materials are the smart hydrogels used in the development of therapeutic devices and drug delivery, piezoelectric polymers which produce an electric current upon being subjected to mechanical strain (and have industry and manufacturing as their largest application market, followed by the automotive industry), and conducting polymers which are collectively known as electroactive polymers (EAP). EAP have a wide range of applications, with one of the most common being in the development of artificial muscles.

These materials are used to develop smart structures which are capable of sensing and adapting to changes in their environment.

A research project being led by Dr Sebastian Skatulla of the Department of Civil Engineering intensively studies the properties of EAP in experiments, and has developed a number of mathematical models. In contrast to existing theories, Dr Skatulla's work seeks to address nonlinear electro-mechanical coupling in a very fundamental manner, that is, to formulate a continuum mechanical approach which directly links electric stimulus and resulting deformation of the polymer material. As the theory is kept very general, it is applicable to a high diversity of electro-mechanical coupling problems.

Dr Skatulla's collaborators include Dr Carlo Sansour (University of Nottingham) and Associate Professor Arunachalakasi Arockiarajan (Indian Institute of Technology Madras).

Strain Gradient Plasticity

In physics and materials science, plasticity describes the change in the shape or size of a material undergoing non-reversible changes in response to an applied force or change in temperature. Perfect plasticity is a property of materials to undergo irreversible deformation without any increase in stresses or loads. Plastic materials with hardening require increasingly higher stresses in order for further plastic deformation to occur. Generally plastic deformation is also dependent on the speed of the deformation; such materials are said to deform visco-plastically.

Because the constitutive relations of classical plasticity do not possess a natural length scale, they are therefore unable to account for size effects. Gradient theories represent a popular and well-established extension which allows for physically relevant length scales to be introduced.

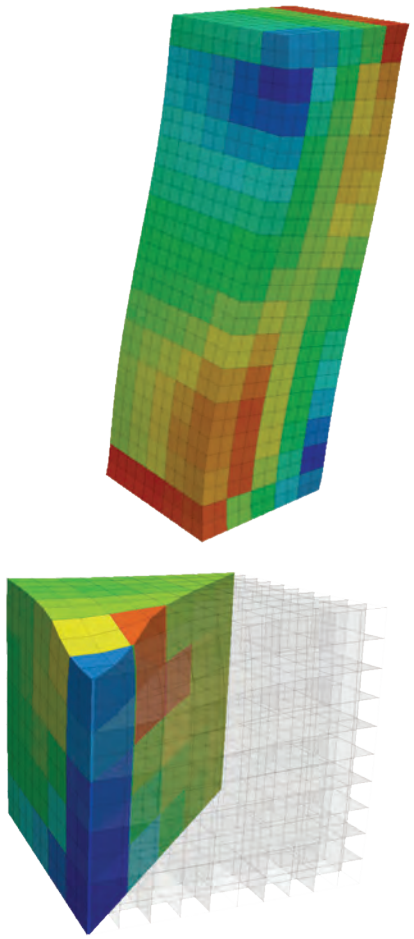
Current research in this area is devoted to problems of single- and polycrystal plasticity. A crystal has atoms in a near-perfect arrangement where a 'pattern' is repeated in regular intervals, whereas a polycrystal is composed of many microscopic crystals. However, the arrangement of atoms or molecules in most crystalline materials is not perfect. The regular patterns are interrupted by crystallographic defects. One focus has been on the development of variational formulations, where the role of particular choices of defect energy and of dissipation functions has been investigated. Also of interest are new hardening relations.

Perfect plasticity is a property of materials to undergo irreversible deformation without any increase in stresses or loads.

Another area of research is on modelling the influence of the grain boundary on the overall response of the continuum. A grain boundary is the interface between two crystallites in a polycrystalline material. Grain boundaries are defects in the crystal structure, and tend to decrease the electrical and thermal conductivity of the material.

Computational work has been concerned with the development and implementation of finite element approximations for visco-plastic crystal problems involving large deformations, and in which both energetic and dissipative microstresses are present. Both single crystals and ensembles of crystal grains are considered.

This large, multi-institution project, led by Professor Daya Reddy, spans a network of five institutions across the globe, and has already produced one master's student. Two doctoral students and a second master's student are currently engaged in research in this area, while Professor Reddy's collaborators include Dr Francois Ebobisse and Dr Andrew McBride from UCT, Professor Swantje Bargmann (Technische Universität Hamburg-Harburg), Emeritus Professor Morton Gurtin (Carnegie-Mellon University), Dr Britta Hirschberger (Leibniz Universität Hannover), Professor Paul Steinmann (Friedrich-Alexander-Universität Erlangen-Nürnberg) and Professor Ali Javili (Friedrich-Alexander-Universität Erlangen-Nürnberg).



Information technology solutions for

The Developing World

ICT4D is a multidisciplinary field which investigates the design and creation of computer systems for the developing world. These systems could cover any sub-discipline in ICT, for example, virtual environments, computer security, interaction design, artificial intelligence, and information retrieval. However, such systems need to be designed and configured according to the needs of the developing world within which power is limited, networks are scarce, and users can be illiterate. ICT4D thus focuses on the creation of ICT solutions that address defined developmental and social challenges such as education, medical care, identity and human dignity.

The work of the UCT Centre in ICT for Development (ICT4D) is about bringing digital technology to bear on the challenges facing society. The centre creates new forms of technology to directly address the developmental problems within society, problems that do not exist in developed economies where most of the world's technology is created.

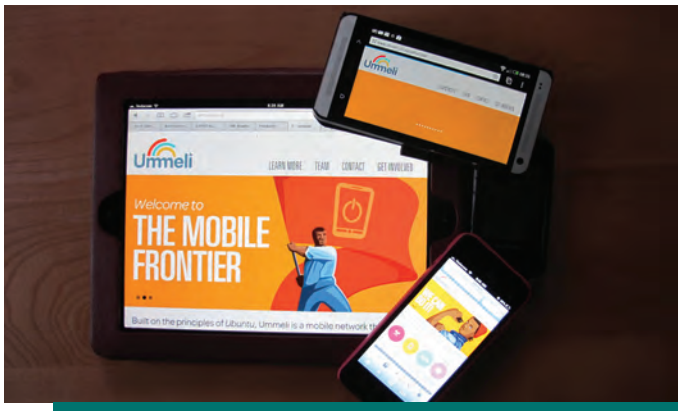
In order to ensure the efficacy, relevance and sustainability of the centre's work, it has partnered with a variety of departments throughout the university – the spectrum ranges from recent projects with the Department of Civil Engineering to others with the Centre for Film and Media Studies in the Faculty of Humanities. The centre also engages with NGOs and civil society through developing digital technology to enhance and improve the work that they are doing.

As educators and researchers, staff affiliated with the centre also take a long-term approach to the problem of creating technology relevant to Africa. The best and most sustainable way to reach that goal is to impart those skills to students and educators throughout Africa. To this end, the Hasso Plattner Institute in Germany sponsors nine PhD bursaries in the centre, specifically for African postgraduate students to visit UCT and conduct research in ICT4D.

The centre is also helping define this field of research internationally by co-hosting the ICTD conference in 2013. This is the first time it will be held in Africa, and it is expected to attract some 500 delegates from across the world, drawn from commercial organisations, government, NGOs and a wide variety of academic disciplines. The work of the centre is further supported by technology companies, the most recent of which is Nokia, which will open a research lab within the centre in 2013.

Ummeli

Ummeli is a system aimed at finding jobs and training opportunities for the unemployed. The idea for this project came from an NGO based in Khayelitsha called Learn to Earn, which trains people in a variety of skills.



When trainees leave, however, they often battle to find jobs. One of ICT4D's HPI bursary students, Shikoh Gitau, spent several months visiting the Learn to Earn site, observing and interacting with the trainees to see if she could discover how better to find them jobs. Over time, she realised that employers were posting jobs on websites; however, the trainees did not look at these websites – their Internet access was mediated through basic-feature mobile phones. In instances where they did find a relevant job advert, they did not have access to computing facilities to create a CV, and were therefore unable to e-mail these to the potential employers.

Thus, obtaining design input from the Learn to Earn community, Gitau set about building a mobile service for mobile handsets which took job advertisements from popular websites and modified them so that they could be accessed on smart phones. Furthermore, the system would ask users a series of questions, the answers to which it used to generate a CV from a template, which could be sent to potential employers. Although the system started with twenty users, it soon went viral. When the number of users reached into the thousands, another technology-based NGO, the Praekelt Foundation, offered to invest in the system and launch it as a free service on the Vodacom network. This became the Ummeli system, which currently has more than 100 000 users. Gitau has gone on to work for Google in Kenya, designing systems that should improve the lives of people throughout Africa.

The Transformation of Information Systems at UCT

A decade ago, the information-systems research agenda at UCT seemed clear: statistically driven empirical research in how information systems functioned (or, sometimes, not) inside corporate organisations. Since then, three key trends have emerged in the way in which research is conducted and students are trained.

Firstly, the democratisation of Information and Communication Technologies (ICTs) has ensured that computerised information systems are no longer the domain of large corporates, but rather extending to small and medium-sized organisations. Even more dramatically, information systems are changing the way governments work and many students now investigate e-government systems. These environments have proved to be different from those of a large corporate, with much of the current information-systems research being undertaken in these settings.

Secondly, Web 2.0 tools such as wikis, blogging and social networking have wrested the control of Internet content generation from big business and yielded it much more democratically to ordinary individuals. At UCT, researchers were thrust into the social sciences by having to investigate how individuals and communities were reacting to information technologies. With this came a change in mindset about the nature of data to collect, the underlying paradigms, and the theories to use to frame an analysis.

Finally, mobile phones hold the promise to give every African his or her own computing device, and with it, access to previously unimaginable amounts of information and computer power.

The transformation of the discipline does not stop there. New information technologies such as cloud computing, 3-D printing and biometrics, virtualisation, augmented reality, and big data emerge at an ever-faster rate, forcing us to relook the way we work and train students. Applying a transdisciplinary approach puts researchers in the prime position to explore topics such as technology innovation and entrepreneurship, security, and governance approaches.

DST/NRF SARChI Chairs
associated with this theme

Professor Kevin J. Naidoo

Scientific Computing

Professor Kevin J. Naidoo has held the Scientific Computing SARChI Chair since 2007 and is director of the Scientific Computing Research Unit at UCT. His research has two interlinked objectives. Firstly, he develops state-of-the-art high performance computing software to provide a modelling and informatics platform creating a life-science virtual laboratory. This includes the development of accelerated software for high-speed chemical and chemical biology computations. A second research objective is to use the life-science virtual laboratory to identify enzyme targets and investigate their detailed molecular action. Professor Naidoo's current focus is the implementation of his gene-to-molecule rational approach to answering key questions that will lead to solutions in microbial and neoplastic (cancer) diseases.

Computational Mechanics

Professor Daya Reddy, who holds the SARChI Chair in Computational Mechanics, is a member of the Department of Mathematics and Applied Mathematics, and Director of the Centre for Research in Computational and Applied Mechanics (CERECAM). He is a graduate of UCT and Cambridge University, and served as dean of the Science Faculty between 1999 and 2005. There are three major, inter-related foci of the research chair: the mathematical modelling of complex material behaviour; analysis of the resulting models to determine their well-posedness; and the development and implementation of algorithms for computational solution. Examples of recent and current work include the behaviour of metals at the micro structural level, non-Newtonian fluids such as polymers, and a variety of applications in cardiovascular biomechanics. The research is highly multidisciplinary and includes collaborators in the mathematical sciences, biomedical sciences, and various branches of engineering.

A major project has been concerned with the development of models and associated simulations for the behaviour of single crystals, in the micron range. There is substantial practical interest in such problems, given their relevance to the manufacture of MEMS (micro-electromechanical systems). The mathematical models are considerably more complex at such scales as they need to take account of size-dependent behaviour. Work during 2012 built on the results of a research programme that has been in progress for the last seven years, with collaborators based in the USA and Germany. A further achievement during 2012 has been the completion and publication of work on modelling of the upper airway. The anatomically accurate mathematical model takes account of neural stimuli to muscles in the tongue and adjacent tissues, and the resulting simulations have allowed for new insights into the mechanisms that induce sleep apnea.

Professor Daya Reddy

Scientific Computing Research Unit

The Scientific Computing Research Unit (SCRU) was established in 2009 and has as its core mission the development and application of computer code for scientific problems, specifically in chemistry, biophysics, physics, and engineering.

The unit has made major technical advances in biophysical computational modelling, with the development of a generalised free energy code called FEARCF. In 2009, the unit was awarded a long-term development grant from the Nvidia Corporation to advance the SCRU program to port quantum code to graphical processing unit-based computer clusters. The research group has strong links with international groups, particularly via its Scientific Computing International Lecture Series programme.

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Information and Communications Technology Centre for Development

The Information and Communications Technology Centre for Development (ICT4D) was established in 2008 to capitalise on UCT's unique position in the ICT domain, namely, producing world-class ICT research, but being based in a developing economy. Incorporating researchers from across the university, the centre looks to create ICT solutions that can be applied in a developing-world context.

ICT4D was established to capitalise on UCT's unique position in the ICT domain.

Being the only such centre in a developing country, we have been able to attract researchers and students from across the globe. The Hasso Plattner Institute Research School in ICT4D, which provides bursaries for African students working in this field, was launched in 2009 and will be based within the wider structure of the centre.

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Centre for Information Technology and National Development in Africa (CITANDA)

CITANDA is located within the Department of Information Systems. It brings together researchers, projects, funders, and programmes focused on the use of information and communication technology (ICT) in the service of national development. CITANDA researchers study, using a diversity of research approaches, the management, development, adoption, and impact of ICT in areas related to business, economic, and social development in Africa.

The centre specifically explores and investigates information systems (IS) phenomena that arise at the nexus of interaction between information technology and Africa's business, cultural, social, and economic context, in order to advance knowledge concerning IS in organisations and society in Africa. Through CITANDA, the Department of Information Systems attracts a large cohort of PhD and master's degree students from across Africa and beyond.

Director: Professor J-P van Belle
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FACULTY REPORTS

Faculty of Humanities

Faculty of Health Sciences

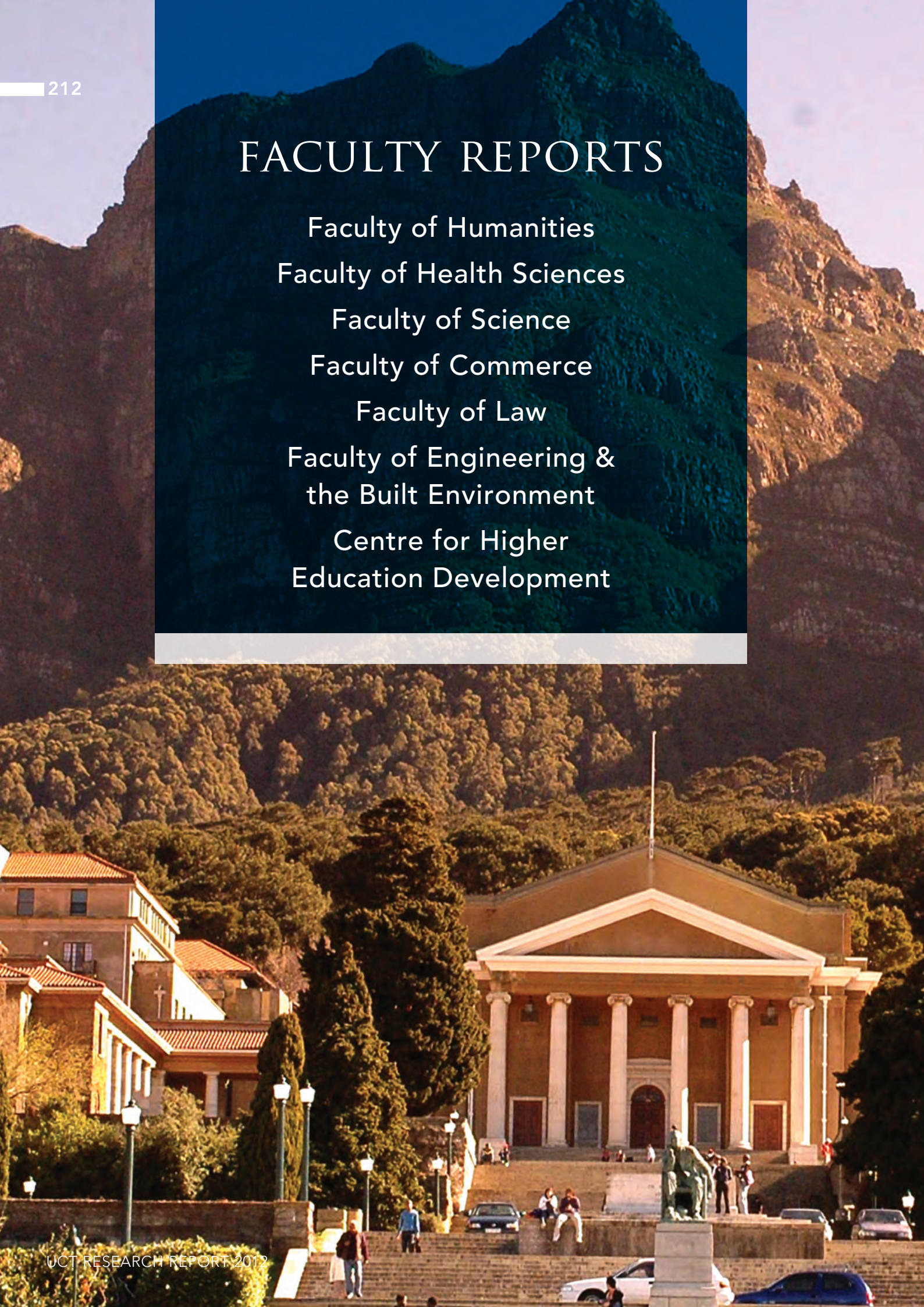
Faculty of Science

Faculty of Commerce

Faculty of Law

Faculty of Engineering &
the Built Environment

Centre for Higher
Education Development



Faculty of HUMANITIES

Members of the faculty continue to contribute to outstanding scholarship in the arts, social sciences, and creative and performing arts, and this research report provides rich evidence of the wide spectrum of research and creative activity produced in the faculty, in the form of journal articles, books and book chapters, conference papers, compositions, exhibitions, and performances.

Dean's Report

PROFESSOR
PAULA ENSOR
Dean of Humanities

New books published include ***Criminal Justice Social Work: A South African Practice Framework*** **(Leon Holtzhausen (ed.)),** ***Plague, Pox and Pandemics: A Jacana Pocket History of Epidemics in South Africa*** **(Howard Phillips),** ***Against the Current: A Biography of Harold Cressy 1889–1916*** **(Mohamed Adhikari),** ***South African Cinema 1896–2010*** **(Martin Botha),** ***Static: Race Representation in Post-apartheid Music*** **(Adam Haupt),** ***Geistliche Vokalpolyphonie und Frühhmanismus in England: Kulturtransfer im 15. Jahrhundert am Beispiel des Komponisten John Dunstable*** **(Rebekka Sandmeier),** ***Wild Religion: Tracking the Sacred in South Africa*** **(David Chidester),** ***Sufi Narratives of Intimacy: Ibn 'Arabi, Gender, and Sexuality*** **(Sa'diyya Shaik),** ***Post-Apartheid Dance*** **(Sharon Friedman (ed.),** ***Transformations: Essays*** **(Imraan Coovadia),** ***Oral History, Community and Displacement*** **(Sean Field),** ***The Second Sexism: Discrimination Against Men and Boys*** **(David Benatar),** ***The Idea of the ANC*** **(Anthony Butler),** ***Up in Arms: Pursuing Accountability for the Arms Deal in Parliament*** **(Raenette Taljaard),** ***Biko: A Biography*** **(Xolela Mangcu),** ***Realising the Dream: Unlearning the Logic of Race in the South African School*** **(Crain Soudien),** ***Haai Karoo*** **(Etienne van Heerden), and** ***The Iliad of Homer: A Southern African Translation*** **(Richard Whitaker).**

Solo exhibitions by colleagues in the Michaelis School of Fine Art and the Centre for Film and Media Studies include *Surveys (From the Cape of Good Hope)* by Jane Alexander, *R-A-T: an associative ordering* by Fritha Langerman, *Division of the World* by Pippa Skotnes, *This is a True Story* by Penny Siopis, *Community Punching Bags* by Johann van der Schijff, *Remnants & Ancestors: Anarchives of Krotoa and Anne Barnard* by Carine Zaayman, and *The Kings Map: Francois Le Vaillant in Southern Africa 1781–1784* by Ian Glenn.

The department in the faculty that produced the greatest number of peer-reviewed, accredited journal articles in 2012 is the newly formed School of African and Gender Studies, Anthropology, and Linguistics (AXL) within which are located two of the faculty's four DST/NRF SARChI Chairs, and, more recently, two Mellon research chairs. Last year was the first in the existence of AXL and the very high level of publication and postgraduate supervision, as well as the concentration of research chairs in this new school, is evidence of a high-quality critical mass of very productive scholars. AXL is followed by the School of Languages and Literatures, Sociology, Psychology, Education, and the Department of English Language and Literature. The faculty now has 69 NRF-rated researchers (up by 10 since 2011), of whom 25 are B-rated and five are A-rated: professors David Chidester (Religious Studies), Rajend Mesthrie (Linguistics), and Mark Solms (Psychology), Distinguished Professor Philippe-Joseph Salazar (Rhetoric Studies) and Emeritus Professor John de Gruchy (Religious Studies).

The development of new postgraduate programmes is nourished by research activity, which simultaneously contributes substantially towards the augmentation and support of research. A substantial grant from the AW Mellon Foundation has enabled the faculty to mount a new honours programme in Curatorship, driven by the Centre for Curating the Archive and the Michaelis School of Fine Art. The Department of Political Studies is contributing to UCT's new Graduate School for Development Policy and Practice (both the MPhil and the Executive course programmes) and other new postgraduate programmes on offer include master's degrees in Documentary Arts, in African Cinema, and in Screenwriting, and a new Honours programme in Romance Languages and Literature. The faculty committed substantial resources during 2012 to renovating space for postgraduate students, in order to promote a vibrant postgraduate research culture on campus.

During 2012, we confirmed the appointment of Professor Lungisile Ntsebeza as the AC Jordan Chair in African Studies. The faculty also raised a substantial grant from the AW Mellon Foundation to appoint two research chairs in the Humanities, which will be filled in early 2013.

We are proud of colleagues and students who won prizes in 2012. Professor Kelwyn Sole won the 2012 Thomas Pringle Award for Poetry, awarded by the English Academy of Southern Africa for the best poem, *Cape Town* (TM), published in a South African journal in the last three years. Professor Sole also launched a new 76-page book of poetry, *Absent Tongues*. The 2012 UCT Creative Works Award was won jointly by professor Gavin Younge and professor Michael Godby.

A new research centre was launched at the end of 2012, the Centre for African Language Diversity (linked to the African Language Archive), under the leadership of Dr Matthias Brenzinger. The centre has been set up to document endangered languages, especially in Southern Africa, and to become a node for scholarship and research in African languages.

The large research clusters or 'hubs' in the faculty – the Centre for Social Science Research (with its constituent units, the Democracy in Africa Unit, the AIDS and Society Research Unit, and the Sustainable Societies Research Unit), the Institute for Humanities in Africa, and the Gordon Institute for Performing and Creative Arts – as well as the four DST/NRF SARChI Chairs, continue, in their different ways, to promote scholarship through publications, performances and exhibitions, postgraduate supervision, and the organising of seminars and colloquia.

Departments and units within the faculty have been greatly enriched by the contributions of a large number of international visitors during 2012. These visitors contribute to seminars and colloquia, participate in research collaborations, and form networks with colleagues working in the global north and south.

The faculty continues to benefit handsomely from the Emerging Researcher Programme, the Vice-Chancellor's Strategic Fund, and the University Research Committee block grant and travel funding and we are grateful for the ongoing support from UCT's Office of Research and Innovation.

Departments

School of African and Gender Studies, Anthropology and Linguistics

School of Dance

Department of Drama

School of Education

Department of English Language and Literature

Centre for Film and Media Studies

Michaelis School of Fine Art

Department of Historical Studies

School of Languages and Literatures

College of Music

Department of Philosophy

Department of Political Studies

Department of Psychology

Department of Religious Studies

Department of Social Development

Department of Sociology

Affiliated Units

UCT Libraries, incorporating the Library and Information Studies Centre

DOCTORAL GRADUATIONS

S. ALKEMA (MUSIC)
Conductors of the Cape Town Municipal Orchestra, 1914–1965: a historical perspective
Supervised by Professor J. May

A.M. BANGENI (EDUCATION)
Negotiating writing: a case study of the transition of English second-language Social Science graduates to postgraduate professional disciplines
Supervised by Associate Professor R. Kapp

K. BARKER (FILM AND MEDIA STUDIES)
Sex, soap and social change: an examination of the elements underlying the successful application of entertainment-education
Supervised by Dr T. Bosch

A.-J. BETHKE (MUSIC)
Contemporary musical expression in Anglican churches of the Diocese of Cape Town: Developments since the liturgical, theological and social revolutions of the twentieth century
Supervised by Dr M. Bezuidenhout

J.M. BOREL-SALADIN (SOCIOLOGY)
Testing the social polarization hypothesis in Johannesburg, South Africa
Supervised by Professor O. Crankshaw

E.K. BOTHA (EDUCATION)
Discourses of language acquisition and identity in the life histories of four white South African men fluent in IsiXhosa
Supervised by Dr C. McKinney

A.A. CROWE (EDUCATION)
Standards of South African Senior Certificate biology examinations: 1994–2006
Supervised by Associate Professor R. Laugksch and Professor T. Dunne

J.F. DE SOUSA JUNIOR (SOCIOLOGY)
Networks, [mis]trust, and Pentecostal conversion: Narratives of divergent pathways among small black entrepreneurs in Tshwane
Supervised by Professor J.G.B. Maree

S.F. DEWING (PSYCHOLOGY)
Evaluating the implementation of options for health in the Western Cape: an intervention aimed at increasing ARV adherence and reducing sexual risk among people on ARVs in Cape Town, South Africa
Supervised by Professor J. Louw and Dr C. Mathews (Public Health and Family: Medical Research Council)

M.J. EVANS (FILM AND MEDIA)
Transmitting the transition: media events and post-apartheid South African national identity
Supervised by Associate Professor I.E. Glenn

M.J. FLEISHMAN (DRAMA)
Remembering in the Postcolony: refiguring the past with theatre
Supervised by Professor N. Worden

T.-L. GRANT (EDUCATION)
Scenario pedagogy: a negotiated, multimodal approach to developing professional communication practices in Higher Education
Supervised by Dr A. Archer

P. GRASSOW (RELIGIOUS STUDIES)
"Settlers, Missionaries and Converts": a theological case study of the missionary activity of William Shaw in the Eastern Cape
Supervised by Emeritus Professor J. Cochrane

E.T. GXUBANE (SOCIAL DEVELOPMENT)
Exploration of residential diversion within a restorative justice framework in the management of young sex offenders in South Africa
Supervised by Associate Professor D. Cooper and Dr R. Graser (retired)

A. HUNMA (EDUCATION)
The exploration of a performative space to nurture EAL international students' writer identities at a South African university
Supervised by Dr L. Thesen

M.V. MACABELA (LANGUAGES AND LITERATURES)
Country and city: a study of autobiographical tropes in Ncumisa Vapi's novel Litshona Liphume
Supervised by Adjunct Professor T. Dowling

R. MACDONALD (ENGLISH LANGUAGE AND LITERATURE)
Reading restitution in District Six: law, discourse and 'governmentality'
Supervised by Professor J. Higgins

L.M.D. MAGALHÃES (MUSIC)
An annotated catalogue of works for piano duet: a supplement to Cameron McGraw's Piano Duet Repertoire
Supervised by Professor H. Hofmeyr

A. MARNEWECK (DRAMA)
Plot 99: towards a feminine semiotic: spiritual and sexual emergence(y) in women's puppetry and visual performance
Supervised by Associate Professor J. Pather and Associate Professor J. Bennett

W.F.T. MINNAAR (LANGUAGES AND LITERATURES)
'n Herwaardering van Olga Kirsch se oeuvre: identiteit, moederskap en ballingskap aan die hand van die psigoanalitiese teorieë van onder andere Sigmund Freud, Jacques Lacan en Julia Kristeva
Supervised by Professor J. Hambidge

N.N. MKHIZE (SOCIOLOGY)
Private game farms and the tenure security of farm workers and dwellers in Cradock – implications for tenure reform in South Africa
Supervised by Professor L. Ntsebeza

M.L. MOLEFE (EDUCATION)
A study of life sciences projects in science talent quest competitions in the Western Cape, South Africa, with special reference to scientific skills and knowledge
Supervised by Associate Professor R. Laugksch

K.L. MORREIRA (ENGLISH LANGUAGE AND LITERATURE)
Social change, class formation and English: a study of young black South Africans with "Model C" school backgrounds
Supervised by Professor R. Mesthrie

G. NCUBE (HISTORICAL STUDIES)
The making of rural health care in colonial Zimbabwe: a history of the Ndanga Medical Unit, Fort Victoria, 1930–1960s
Supervised by Professor H. Phillips

S. NGALE (RELIGIOUS STUDIES)
From Tsonga to Moçambicanidade: civil religious dynamics in Mozambican nationalism
Supervised by Professor D. Chidester

A.M. NKWAKE (SOCIAL DEVELOPMENT)
An examination of childcare practices and perceptions amongst employed Ugandan males and their working spouses in the Kampala and Mpigi districts
Supervised by Dr C. O'Brien and Mrs S. Sturgeon

D.T. NOGUEIRA-GODSEY (RELIGIOUS STUDIES)
Spirit and economy: Pentecostalism and the Afterlives of Max Weber
Supervised by Professor D. Chidester

S. O'CONNELL (AFRICAN STUDIES)
Tonal landscapes: re-membering the interiority of lives of apartheid through the family album of the oppressed
Supervised by Associate Professor N. Shepherd and Professor A. Bogues (African Studies, Brown University)

A.E. OKECH (AFRICAN GENDER INSTITUTE)
Building nations: discourses on widow inheritance amongst the Luo in Kenya
Supervised by Associate Professor J. Bennett

A.A. PLATTS (RELIGIOUS STUDIES)
Jacques Derrida, the Sacred Other and Seventh-day Adventism: stumbling on the creative play of différance in Genesis
Supervised by Emeritus Professor J. Cochrane

S. RAVENGAI (DRAMA)
Subalternity and the negotiation of a theatre identity: performing the Postcolony in alternative Zimbabwean theatre
Supervised by Associate Professor G. Morris

P. SILBERT (EDUCATION)
The imagined learner in neoliberal times: constructions of the South African learning subject in education policy discourse and school practice
Supervised by Dr H. Jacklin

N. XULU (SOCIOLOGY)
Changing migrant spaces and livelihoods: hostels as community residential units, Kwa-Mashu. KwaZulu-Natal. South Africa
Supervised by Professor A. Sitas

RESEARCH CONTRACTS
64

VALUE OF RESEARCH CONTRACTS
R7.27 million

NRF-RATED RESEARCHERS
69

SARCHI RESEARCH CHAIRS
4

ACCREDITED RESEARCH GROUPINGS
9

DOCTORAL GRADUATIONS
33

DHET-ACCREDITED JOURNALS
130.02 units

PEER-REVIEWED PUBLICATIONS
843

POSTGRADUATE STUDENTS
1425

POSTGRADUATE FUNDING
R27.4 million

POSTDOCTORAL RESEARCH FELLOWS
26

POSTDOCTORAL RESEARCH FUNDING
R3.7 million

School of African and Gender Studies, Anthropology & Linguistics

Research Report 2012

DIRECTOR: PROFESSOR JANE BENNETT

African Studies Section

(Including the Centre for African Studies)

DIRECTOR OF CENTRE: PROFESSOR LUNGISILE NTSEBEZA, AC JORDAN CHAIR IN AFRICAN STUDIES

HEAD OF SECTION: ASSOCIATE PROFESSOR NICK SHEPHERD

Profile

The goals of the African Studies Unit and the Centre for African Studies are to encourage and co-ordinate teaching and research in the various fields concerned with people in Africa, as well as developing African Studies graduate courses and programmes. We also provide service courses for non-Humanities students, such as Engineers and Architects, at both undergraduate and postgraduate levels. At the core of our teaching and research is our intellectual project of examining the ways in which knowledge of Africa has been constructed in a range of discourses that cut across a number of disciplines. Within this forum, our courses cover themes such as the representation of Africa across a number of media in both popular culture and in academic disciplines. In this regard, we provide a critical understanding of how knowledge in and about Africa has been filtered through the colonial library. In addition, the Centre's activities include producing our journal, *Social Dynamics*, holding regular seminars, workshops and forums for debate and providing a venue for performances, art exhibitions and film.

Statistics

Permanent and long-term contract staff

Emeritus Professor	1
Honorary Professor	1
Professors	2
Associate Professors	2
Lecturers	2
Senior Secretary	1
Permanent Administrative Staff	2
Total	11

Students

Diploma	2
Honours	9
Master's	11
Doctoral	8
Undergraduate	270
Total	300

Research Fields and Staff

PERMANENT AND LONG-TERM CONTRACT STAFF
Associate Professor Harry Garuba
Associate Professor Nick Shepherd
Professor Lungisile Ntsebeza
Professor Crain Soudien
Dr Horman Chitonge
Mr Nkululeko Mabandla

EMERITUS PROFESSORS
Professor Brenda Cooper (MA Birmingham) (PhD Sussex)

HONORARY PROFESSOR
Professor Anthony Bogues (Brown University, USA)

HONORARY RESEARCH ASSOCIATES
Louise Green (University of Stellenbosch)
Kylie Thomas (Rhodes University)

VISITING RESEARCH ASSOCIATES
Cheryl-Ann Michael (University of Western Cape)
Steven Robins (University of Stellenbosch)
Fiona Ngarachu (University of Southampton, UK)
Ghirma Negash (Ohio University, USA)
Isaac Ndlovu (University of Venda)

POSTDOCTORAL FELLOWS
Jeremiah Arowosegbe

Contact Details

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Anthropology Section

HEAD OF SECTION: PROFESSOR FRANCIS NYAMNJOH

Section Profile

The Department's research has a wide theoretical range with a particular, but not exclusive, focus on southern Africa. Study areas include child labour, citizenship, domestic dynamics, ethnicity, gender and sexuality, marginality, memory, migration, narrative, urban processes, violence, Truth and Reconciliation. Other topics include comparative pedagogies, identity construction, medical anthropology, anthropology of knowledge, anthropology of the environment.

Departmental Statistics

Permanent and long-term contract staff

Professors	2
Associate Professors	2
Senior Lecturers	2
Lecturers	2
Technical and Clerical Staff	1
Total	9

Honorary staff

Honorary Professors	4
Honorary Research Associates	20
Total	24

Students

Post-Doctoral	1
Doctoral	24
Master's	27
Honours	15
Undergraduate	843
Total	910

Research Fields and Staff

DR DIVINE FUH

Joined the University of Cape Town in March 2012 from the University of Basel in Switzerland where he was senior researcher at the Chair for Research and Methodology in the Institute for Sociology. His research mainly focused on questions relating to youth, agency and transitions in West and Southern African cities with particular thematic focus on consumption, popular culture, sports, masculinities, elites, space and transnational citizenship. He is currently researching on how young people contribute towards transforming urban communities in Johannesburg and Cape Town, and how they make youth an end rather than stagnated transitional stage?

DR LESLEY GREEN

Anthropology of knowledge; anthropology of the environment; lowland South America; cultural astronomy; public archaeology; ethnographic research methodologies.

PROFESSOR CAROLYN HAMILTON

Carolyn Hamilton is the National Research Foundation (NRF) Professor in Archive and Public Culture at the University of Cape Town and a member of the Public Life of Ideas Research Network. Formerly director of the Constitution of Public Intellectual Life Research Project and the Graduate School for the Humanities at the University of the Witwatersrand, she has published widely on history and theory of archive; ethnography of memory work; the production of history; the history of pre-industrial southern Africa; the public life of ideas; public culture.

DR SUSAN LEVINE

Child labour; children's health; visual anthropology; political economy; medical anthropology; gender and sexuality; HIV/AIDS; community development.

DR HELEN MACDONALD

Violence, narrative, scepticism and the everyday, pluralistic health, and magico-religious knowledge, witchcraft in India, transformation in Higher Education

PROFESSOR FRANCIS NYAMNJOH

Joined the University of Cape Town in August 2009 from the Council for the Development of Social Science Research in Africa (CODESRIA), where he served as Head of Publications from July 2003 to July 2009. Dr Nyamnjoh is a 2010 B2 NRF rated researcher, and a fellow of the Cameroon Academy of Science since August 2011. He is currently researching "ICTs, Mobility and Marginality", and has published widely on globalisation, citizenship, media and the politics of identity in Africa. He has also published ethnographic novels.

ASSOCIATE PROFESSOR FIONA ROSS

Ethnographies of/and the Marginal. Domestic worlds; violence, loss and the recuperation of social worlds; gender, testimony and voice; truth and reconciliation.

ASSOCIATE PROFESSOR ANDREW SPIEGEL

Housing and migration patterns and family relationships; urban water and sanitation management - South Africa; comparative pedagogies; racism; history of South African anthropology.

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Gender Studies Section
(Including the African Gender Institute)

DIRECTOR OF INSTITUTE: ASSOCIATE PROFESSOR JANE BENNETT

HEAD OF SECTION: DR HELEN SCANLON

Profile

Gender Studies offers an undergraduate major in Gender Studies, a postgraduate Honours programme in Gender and Transformation, and Master's and PhD level programmes in Gender Studies. Faculty research interests cover questions of African feminist theory, militarism and transitional justice law and policy, women's peace-building activism, the psychology of violence, sexual and reproductive rights, histories of movement building, and queer politics.

The Gender Studies undergraduate programme offers a broad-based introduction to fundamental theoretical research in the field, with a special interest in African contexts. The Honours programme is geared towards providing participants with excellent grounding in the kinds of research training needed to work in fields which draw heavily on gender analysis and theory (such as development, conflict studies, sociology and social anthropology).

The section regularly hosts academics and visitors; last year, Gender Studies hosted (with the AGI) visits from Professor Sylvia Tamale, from Makerere University, and Yaba Badoe, an international film-maker.

The AGI's mission is to contribute to the attainment of gender justice in Africa by participating, through research, networking, and capacity-building in the transformation of inequitable institutions and social practices. The AGI's work is directed through four themes: sexual and reproductive health and rights; feminist processes in e-technologies; transitional justice, peace activism and gender; and gender, entreneurship and livelihoods. Each theme's work is driven by four interlocking principles: the importance of driving strong research, the integration of capacity-building work in all our projects, the value of working in partnerships within and beyond the university, and the need to support robust public intellectual debate. The AGI also published *Feminist Africa,* a DHET-accredited academic journal.

Departmental Statistics

Permanent and long-term contract staff

Head of Section	1
Lecturers	3
Honorary Research Associates	2
Programme Officers	2
Administrative staff	3
Total	11

Students

Doctoral	4
Master's	11
Honours	88
Undergraduate	831
Total	934

Research Fields and Staff

DR HELEN SCANLON
Head of Section: Gender and history, transitional justice and peace building, women's human rights

ASSOCIATE PROFESSOR JANE BENNETT
Gender-based violence and conflict; African feminist theory; representation; sexuality and queer studies

MS YALIWE CLARKE
Gender conflict and peace-building; gender analysis and development; African feminisms.

DR ADELENE AFRICA
Women perpetrators of violence, gendered representations of violence, feminist methodologies.

MS MARION STEVENS
Honorary Research Associate, women's health, sexual and reproductive health and rights, most at risk and marginalized populations and health systems.

DR TIM MURITHI
Honorary Research Associate, Gender, peace and security in Africa; African Union Solemn Declaration on Gender Equality; Gender-based violence, transitional justice and the International Criminal Court; Feminist critical theory.

Contact Details

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http://www.feminstafrica.org
http://www.gwsafrica.org
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Linguistics section

HEAD OF SECTION: ASSOCIATE PROFESSOR ANA DEUMERT

Profile

Staff in Linguistics contribute to a wide range of research areas within the discipline, ranging from language philosophy and linguistic theory to extensive data-driven work in sociolinguistics, including multilingualism and African languages, digital writing and new media, as well as cutting-edge work in sociophonetics.

Section Statistics

Permanent and long-term contract staff

Professors Emeriti	2
Honorary Research Associate	1
Professors	1
Associate Professors	2
Senior Lecturers	1
Lecturers	1
Administrative and Clerical Staff	2
Total	10

Students

Doctoral	7
Master's	8
Honours	8
Undergraduate	488
Total	511

Research Fields and Staff

Contact Details

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UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Research output

Authored books

Herwitz, D. 2012. Heritage, Culture, and Politics in the Postcolony. New York: Columbia University Press/New York. 202pp. ISBN 9780231160186.

Mtenje, A. 2012. Aspects of the Phonology of Sukwa: An Optimally Theoretic Analysis. Cape Town: Centre for Advanced Studies of African Society (CASAS). 92pp. ISBN 9781920287221.

Powell, C. 2012. Me and My Cell Phone and Other Essays on Technology in Everyday Life. Cameroon: Langaa Research & Publishing Common Initiative Group. 169pp. ISBN 9956-727-14-8.

Edited books

Brenzinger, M. and Fehn, A. (eds) 2012. Proceedings of the 6th World Congress of African Linguistics, Cologne, 17-21 August 2009: ix, xi-xiv. Germany: Rudiger Koppe Verlag. ISBN 9783896451996.

T. Nhlapo and Garuba, H.O. (ed.) 2012. African Studies in the Post-Colonial University. 87pp. Cape Town: University of Cape Town. ISBN 978-0-7992-2484-9.

Nyamnjoh, F., Gam Nkwi, W. and Konings, P. (eds) 2012. University Crisis and Student Protests in Africa: The 2005-2006 University Students' Strike in Cameroon. 335pp. Cameroon: Langaa Research & Publishing Common Initiative Group. ISBN 9956-727-07-5.

Chapters in books

Chitonge, H. 2012. Land resources ownership and use in 'Africa of the Labour Reserves' (the Southern African Development Community). In B. Chigara (ed.), Southern African Development Community Land Issues, pp. 57-88. New York: Routledge, Taylor and Francis Group. ISBN 978 0 415 58704 4.

Comaroff, J. and Comaroff, J.L. 2012. Neo-Protestant ethics and the spirit of capitalism: perspectives from the social sciences. In E.K. Bongmba (eds), The Wiley-Blackwell Companion to African Religions, pp. 62-78. UK: Wiley-Blackwell Publishing, Inc. ISBN 9781405196901.

Cowling, L. and Hamilton, C. 2012. The public life of reason: orchestrating debate in postapartheid South Africa. In N. Creary (ed.), African Intellectuals and Decolonization, pp. 83-101. Ohio: Ohio University Press. ISBN 9780896802834.

Deumert, A. and Mesthrie, R. 2012. Contact in the African area: a southern African perspective. In T. Nevainen and E.C. Traugott (eds), The Oxford Handbook of the History of English, pp. 549-559. United Kingdom: Oxford University Press. ISBN 9780199922765.

Deumert, A. 2012. Giving voice: the archive in Afrikaans historical linguistics. In T. van der Wouden (ed.), Roots of Afrikaans, pp. 377-388. Amsterdam: John Benjamins Publishing Company. ISBN 9789027252678.

Deumert, A. 2012. TXTPL@Y. Creativity in South African digital writing. In D. Allington and B. Meyer (eds), Communicating in English, pp. 216-223. United Kingdom: Routledge. ISBN 9780415674232.

Garuba, H.O. 2012. African studies, area studies, and the logic of the disciplines. In T. Nhlapo and H. Garuba (eds), African Studies in the Post-Colonial University, pp. 39-52. Cape Town: University of Cape Town. ISBN 978-0-7992-2484-9.

Garuba, H.O. and Himmelman, N. 2012. The cited and the uncited: toward an emancipatory reading of representations of Africa. In M. Higgins (ed.), Hollywood's Africa after 1994, pp. 15-34. Ohio: Ohio University Press. ISBN 9780821420157.

Jua, N.B. and Nyamnjoh, F. 2012. Scholarship production in Cameroon: interrogating a recession. In F.B. Nyamnjoh, W. Gam Nkwi and P. Konings (eds), University Crisis and Student Protests in Africa: The 2005-2006 University Students' Strike in Cameroon, pp. 23-47. Cameroon: Langaa Research & Publishing Common Initiative Group. ISBN 9956-727-07-5.

Levine, S. 2012. Medicine and the politics of knowledge: beyond the microscope. In S. Levine (ed.), Medicine and the Politics of Knowledge, pp. 1-12. Cape Town: HSRC. ISBN 978-07969-2392-9.

Levine, S. 2012. Testing knowledge: legitimacy, healing and medicine in South Africa. In S. Levine (ed.), Medicine and the Politics of Knowledge, pp. 55-76. Cape Town: HSRC. ISBN 978-07969-2392-9.

MacDonald, H.M. 2012. Believing sceptically: rethinking health-seeking behaviours in central India. In S. Levine (ed.), Medicine and the Politics of Knowledge, pp. 101-117. Cape Town: HSRC. ISBN 978-07969-2392-9.

Mesthrie, R. 2012. Deletions, antideletions and complexity theory, with special reference to black South African and Singaporean Englishes. In B. Kortmann and B. Szmrecsanyi (eds), Linguistic Complexity, pp. 90-100. Berlin: De Gruyter. ISBN 978 3 1102 2921 9.

Mesthrie, R. 2012. Native speaker, vernacular universals and new Englishisms. In R.K. Agnihorti and R. Singh (eds), Indian English: Towards a New Paradigm, pp. 140-155. New Dehli: Orient BlackSwan. ISBN 978-81-250-4371-3.

Mesthrie, R. 2012. Race, ethnicity, religion, and castes. In J.M. Hernandez-Campoy and J.C. Conde-Silvestre (eds), The Handbook of Historical Sociolinguistics, pp. 353-365. United Kingdom: Wiley-Blackwell. ISBN 9781405190688.

Mesthrie, R. 2012. Second-language varieties: English in Africa – a diachronic typology. In A. Bergs and L. Brinton (eds), English Historical Linguistics. An International Handbook, Volume 2, 2092-2106, pp. 2092-2106. Berlin: Mouton De Gruyter. ISBN 9783110251609.

Ntsebeza, L. 2012. African Studies at UCT: An Overview. In T. Nhlapo and H. Garuba (eds), African Studies in the Post-colonial University, pp. 1-20. Cape Town: University of Cape Town. ISBN 978-0-7992-2484-9.

Nyamnjoh, F. and Mususa, P. 2012. Migration and xenophobia. In C. Saunders, G. Dzinesa and D. Nagar (eds), Region-Building in Southern Africa: Progress, Problems and Prospects, pp. 215-229. London: Zed books. ISBN 978 1 7803 2178 3.

Nyamnjoh, F. 2012. Taking Africaness and African law seriously in South African law schools: some conceptual challenges. In J. Abbink (ed.), Fractures and Reconnections: Civic Action and the Redefinition of African Political and Economic Spaces, pp. 113-132. Germany: Deutsche Nationalbibliothek. ISBN 9783643902566.

Shepherd, N. 2012. Showing, telling, looking: intimate encounters in the making of South African archaeology. In B.L. Voss and E. Conlin Casella (eds), The Archaeology of Colonialism – Intimate Encounters and Sexual Effects, pp. 290-302. United States of America: Cambridge University Press. ISBN 978-1-107-40126-6.

Articles in Peer-reviewed Journals

Bangstad, S., Eriksen, T.H., Comaroff, J.L. and Comaroff, J. 2012. 'Anthropologists Are Talking': about anthropology and post-apartheid South Africa. Ethnos, 77(1): 115-136.

Bennett, J. and Chigudu, C. 2012. Editorial: Researching sexuality with young women: Southern Africa. Feminist Africa, 17: 1-7.

Bennett, J. 2012. Travels in fashionable sexuality research: thoughts from home. Feminist Africa, 17: 8-27.

Capps, G. 2012. A bourgeois reform with social justice? The contradictions of the Minerals Development Bill and black economic empowerment in the South African platinum mining industry. Review of African Political Economy, 39(132): 315-333.

Capps, G. 2012. Victim of its own success? The platinum mining industry and the apartheid mineral property system in South Africa's political transition. Review of African Political Economy, 39(131): 63-84.

Chitonge, H. 2012. Social protection challenges in sub-Saharan Africa: 'rethinking regimes and commitments'. African Studies, 71(3): 323-345.

Chitonge, H. 2012. Education and development: an integrated approach. Charles Lwanga College Journal, 1(3): 41-70.

Comaroff, J. and Comaroff, J.L. 2012. Theory from the south: or, how euro-America is evolving toward Africa. Anthropological Forum, 22(2): 113-131.

Cooper, B.L. 2012. Women dancing on water: a diasporic feminist fantastic? Contemporary Women's Writing, 6(2): 140-158.

Crush, J., Chikanda, A. and Pendleton, W. 2012. The disengagement of the South African medical diaspora in Canada. Journal of Southern African Studies, 38(4): 927-949.

Dickson, J. 2012. Revisiting 'township tourism': multiple mobilities and the re-territorialisation of township spaces in Cape Town, South Africa. Anthropology Southern Africa, 35(1&2): 31-39.

Dodd, A. 2012. The ethics of dissident desire in Southern African writing. Journal of Postcolonial Writing, 48(5): 578-579.

Ferguson, J. 2011. Toward a left art of government: from Foucauldian critique to Foucauldian politics. History of the Human Sciences, 24(4): 61-68.

Fuh, D. 2012. The prestige economy: veteran clubs and youngmen's competition in Bamenda, Cameroon. Urban Forum, 23: 501-526.

Garuba, H.O. 2012. Closing reflections on revisiting apartheids race categories. Transformation, 79(2012): 173-177.

Garuba, H.O. 2012. Race classifications, indicators and praxis: a response to Ruggunan and Mar, Lefko-Everett, and Erwin. Transformation, 79(2012): 114-118.

Green, L.J. 2012. Beyond South Africa's 'indigenous knowledge - science' wars. South African Journal of Science, 108(7/8).

Hall, S. 2012. Identity and Political Centralisation in the Western Regions of Highveld, c.1770-c.1830: An Archaeological Perspective. Journal of Southern African Studies, 38(2): 301-318.

Hamilton, C. 2012. Political centralisation and the making of social categories east of the Drakensberg in the late eighteenth and early nineteenth centuries. Journal of Southern African Studies, 38(2): 291-300.

Hamilton, C. and Hall, S.L. 2012. Reading across the divides: commentary on the political co-presence of disparate identities in two regions of South Africa in the late eighteenth and early nineteenth centuries. Journal of Southern African Studies, 38(2): 281-290.

Harmansah, O. and Shepherd, N. 2012. The location of theory: a discussion with Homi Bhabha. Archaeologies – Journal of the World Archaeological Congress, 8(1): 52-54.

Jobson, G. and Theron, L. 2012. Transgender in Africa: Invisible, inaccessible, or ignored? Sahara J-Journal of Social Aspects of HIV-AIDS, 9(3): 160-163.

Kuo, C.S. 2012. Beijing's understanding of African security: context and limitations. African Security, 5: 24-43.

MacDonald, H.M. 2010. Crystallising commitment to transformation in a South African higher education institute. Journal of higher education in Africa, 8(2): 73-93.

Mesthrie, R. 2012. Ethnicity, substrate and place: the dynamics of coloured and Indian English in five South African cities in relation to the variable (t). Language Variation and Change, 24(3): 371-395.

Mesthrie, R. 2012. Public lecture series on 150 years of Indian history in South Africa. Social Dynamics, 37(3): 436-438.

Mususa, P. 2012. Mining, welfare and urbanisation: the wavering urban character of Zambia's Copperbelt. Journal of Contemporary African Studies, 30(4): 571-587.

Mususa, P. 2012. Topping up: life amidst hardship and death on the Copperbelt. African Studies, 71(2): 304-322.

Ndebele, N.S. 2012. The English language and social change in South Africa. English Academy Review, 29: 49-64.

Ndlovu, I. 2012. Prison and solitary confinement: conditions and limits of the autobiographical self. English Studies in Africa, 55(1): 16-34.

Nyamnjoh, F. 2012. Blinded by sight: divining the future of anthropology in Africa. Africa Spectrum, 2-3: 63-92.

Nyamnjoh, F. 2012. Intimate strangers: connecting fiction and ethnography. Alternation: International Journal for the Study of Southern African Literature and Languages, 19(1): 65-92.

Nyamnjoh, F. 2012. 'Potted plants in greenhouses': a critical reflection on the resilience of colonial education in Africa. Journal of Asian and African Studies, 47(2): 129-154.

Orman, J. 2012. Language and 'new' African migration to South Africa: an overview and some reflections on theoretical implications for policy and planning. Language Policy, 11: 301-322.

Orman, J. 2012. Not so super: the ontology of 'supervernaculars'. Language & Communication, 32: 349-357.

Romano, N. 2012. Strategies of play: reimagining early childhood experience through art-making. Art South Africa, 11 (02): 40-41.

Shepherd, N. 2012. The uncreated man. A story of archaeology and imagination. Archaeological Dialogues, 19(2): 171-194.

Stevens, M. 2012. Maternal Mortality – HIV and unsafe abortion – a silent epidemic. Agenda, 92(26.2): 44-50.

Young, S.M. 2012. Hospitality in a postapartheid archive: reflections on There Was this Goat and the Challenge of Alterity. Research in African Literatures, 43(2): 115-137.

Peer-reviewed published conference proceedings

Brenzinger, M. 2012. Ideologies of language diversity. In B. Moretti, E.M. Pandolfi and M. Casoni (eds), Proceedings of Vitality of a Minority Language: Aspects and Methodological Issues, 15-16 October 2010, Bellinzona. Bellinzona: Osservatorio Linguistico Della Svizzera Italiana. ISBN 978-88-904330-3-0.

Fisher-Jeffes, L., Carden, K., Armitage, N.P., Spiegel, A.D., Winter, K.J. and Ashley, R. 2012. Challenges facing implementation of water sensitive urban design in South Africa. Proceedings of the 7th International Conference on Water Sensitive Urban Design: Building the Water Sensitive Community (WSUD Conference 2012), 21-23 February 2012. Melbourne: Engineers Australia. ISBN 978-0-85825-895-2.

Doctoral dissertations

Okech, A. 2012. Building Nations: Discourses on Widow Inheritance amongst the Lou of Kenya. 282pp. Supervised by Professor J. Bennett.

Master's degrees (by research)

Thipe, T. 2012. "We are all products of history, but each of us can choose whether or not to become its victims" an exploration of the discourses employed in the formation of the Women's National Coalition. MSOCSC in Gender Studies. 200pp. Supervised by Professor J. Bennett.

Martin, H. 2012. Recollections and Representations: The negotiation of gendered identities and 'safe spaces' in the lives of LGBTI refugees in Cape Town, South Africa. MSocSc. 137pp. Supervised by Professor J. Bennett.

Ng, D. 2012. Seeking Solidarities: A feminist Analysis of the Discourses On Solidarity Between Activists Interested in Transforming Masculinities. MSocSc in Gender Studies. 107pp. Supervised by Professor J. Bennett.

Department of Drama

Research Report 2012

(Including the Little Theatre)

HEAD OF DEPARTMENT: PROFESSOR MARK FLEISHMAN

Departmental Profile

Research in the Drama Department is conducted through the creation of new theatre works, directing, performance practice, and applied theatre. Research enquiries develop out of and feed into the teaching and directing processes for Acting for the Camera, Television drama, Theatre Making, Community Theatre, Acting, Dance Theatre, Applied theatre, Site Specific performance and the development of mixed media theatre and performance works. Research projects are sometimes created in conjunction with other arts practitioners, e.g. visual artists and/or musicians. Many projects are located in the profession through staff links with contemporary South African theatre, performance and dance companies. Partnerships or links with theatre, drama

and dance projects in local communities have further enriched the research possibilities within the department. Globally, the research work of the department has been performed across all five continents.

Postgraduate enrolments continue to increase, offering increased research opportunities, and the department seeks to strengthen both the studio work and documentation of research through seminar papers, debate, submissions for publication and the development of new theatre works and practices at postgraduate level. The Department, with the support of the NRF, is actively exploring ways of presenting and assessing practice as research in conjunction with departments in other South African universities, and in conversation with international universities.

Departmental Statistics

Permanent and long- term contract staff

Professor	1
Associate Professors	4
Senior Lecturers	2
Lecturers	8
Administrative and Clerical Staff	2.5
Total	17.5

Students

PhD	8
Master's	15
Honours	11
Undergraduates	429
Total	463

Research Fields and Staff

Permanent staff

PROFESSOR MARK FLEISHMAN
Head of Department; interactive dramaturgy; Staging History/Performing the Archive; migration

ASSOCIATE PROFESSOR GEOFFREY HYLAND
New processes for acting; directing (theatre, dance, opera)

MS MWENYA KABWE
Theatrical exploration of Afropolitan subject positions; site specific, devising

ASSOCIATE PROFESSOR GAY MORRIS
Township theatre and Applied Theatre for education, community and social Development

ASSOCIATE PROFESSOR JAY PATHER
Choreography: mixed and new media / site-specific / urban landscape and architecture; African, indigenous and intercultural knowledges

MR SABATA SESIU
Black/African theatre; Theatre for community Development; Theatre/Drama in education; Creative writing; Theatre making

MS JACQUI SINGER
Emerging female playwrights; image-based theatre

ASSOCIATE PROFESSOR CHRISTOPHER WEARE
Director of the Little Theatre; interrogating systems of dependence versus creative freedom

MS SARA MATCHETT
Psychophysical approaches to theatre making and performance

MS SANDRA TEMMINGH
Contemporary Afrikaans theatre

MS LIZ VAN BREDA
Educational Drama and Theatre

Distinguished visitors
PROFESSOR HAZEL BARNES, MELLON VISITING SCHOLAR
DR RUSTOM BHARUCHA.
MS KIRTI JAIN, NATIONAL SCHOOL OF DRAMA, INDIA
DR ANURADHA KAPUR, NATIONAL SCHOOL OF DRAMA, INDIA

Contact Details

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E-mail: drama@uct.ac.za
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The Little Theatre

Research report 2012

DIRECTOR: ASSOCIATE PROFESSOR
CHRISTOPHER WEARE
PRODUCTION MANAGER: MR LUKE ELLENBOGEN
ADMINISTRATIVE ASSISTANT: NABEELAH KHAN
HEAD OF WARDROBE: MS LEIGH BISHOP

Unit Profile

The Little Theatre is an interfaculty unit run in association with the Drama Department. It provides theatre spaces and facilities for theatre research for departments within the University as well as opportunities for production for theatre, film, television companies and community groups. It has at its disposal the 250 seat proscenium arch Little Theatre, the flexible staging 70 seat Arena Theatre, the 60 seat Intimate Theatre, the Hiddingh Hall (flexible space), the 40 seat Playroom which is an experimental space and numerous outside spaces on the Hiddingh Campus as well as a scenery workshop, costume wardrobe, furniture and properties store. In addition to staging productions, the Little Theatre serves as an informal resource for past students and members of the public needing theatre information. Assistance is provided whenever possible.

Contact Details

Postal Address: Little Theatre, University of Cape Town, Little Theatre Workshop Building, Hiddingh Campus, Orange Street, Cape Town, 8001
Telephone: +27 21 480 7129
Fax: +27 21 480 7106
E-mail: littletheatre@uct.ac.za

Research Output

Articles in Peer-reviewed Journals

Fleishman, M.J. 2012. The difference of performance as research. Theatre Research International, 37(1): 28-37.

Creative works

Productions

Weare, C. 2012, *"An Absolute Turkey"*, Directing, Theatre, Student Actors, Little Theatre, (07/03/2012 - 17/03/2012).

Hyland, G. 2012 *"All's Well That Ends Well"* by William Shakespeare, Direction, Set Design, Student Actors, The Central School of Speech and Drama/ University of London, (01/04/2012 - 30/04/2012).

Hyland, G. 2012, *"Between"* by Oskar Brown, Direction, Set and Costume Design, Theatre, Professional Actors, International Dublin Gay Theatre Festival, Ireland and English Theatre, Berlin, Germany (01/05/2012 - 31/05/2012)

Tshazibane, M, 2012, *"Bhengu Sonyangaza"*, Directing, Theatre, Student Actors, Arena Theatre, Cape Town, (18/09/2012 – 21/09/2012).

Tshazibane, M, 2012 *"uNonyada noMademfu"*, Directing, Theatre, Student Actors, Arena Theatre, Cape Town, (10/03/2012 – 17/03/2012).

Temmingh, S, 2012 *"Leonce en Lena"* Directing, Theatre, Student Actors, Little Theatre, Cape Town, (27/03/2012 – 31/03/2012).

Ellenbogen, L, 2012, *"A Streetcar Named Desire"*, Directing, Theatre, Student Actors, Arena Theatre, Cape Town, (11/05/2012 – 19/05/2012).

Sesiu, S, 2012 *"Friday Blues"*, Written and Directing, Theatre, Student Actors, Arena Theatre, Cape Town, (23/05/2012 – 26/05/2012).

Singer, J, 2012 *"Dreams of Clytemnestra"*, Directing, Theatre, Student Actors, Little Theatre, Cape Town, (11/05/2012 – 14/05/2012).

Temmingh, S, 2012 *"Cassamba Labamba"*, Directing, Theatre, Student Actors, Movement Room, Cape Town, (18/09/2012 – 21/09/2012).

Stopford, C, 2012, *"The Crucible"*, Directing, Theatre, Student Actors, Rehearsal Studio, Cape Town, (18/09/2012 – 21/09/2012).

Hyland, G. 2012, *"Sacred Elephant"*, Direction, Theatre, Professional Actors, Intimate Theatre, Cape Town, (02/02/2012 – 18/02/2012).

Singer, J, 2012 *"Remembered"*, Directing, Theatre, Student Actors, UNESCO World Festival of Theatre Schools; Romania, Romania, (02/09/2012 – 12/09/2012).

Temmingh, S, 2012, *"Skop"* Directing, Theatre, Professional Actors, Woordwest Festival, Stellenbosch, (25/01/2012 – 18/02/2012).

Hyland, G. 2012, *"Wounds to the Face"*, Direction, Theatre, Student Actors, York University Dept of Theatre, Toronto, Canada, (01/10/2012 – 30/10/2012).

Hyland, G. 2012, *"Our Country's Good" by Timberlake Wertenbaker,* Direction, Theatre, Student Actors, York University Dept of Theatre, Toronto, Canada, (01/10/2012 – 30/10/2012).

Weare, C. 2012, *"King Lear" by William Shakespeare,* Directing, Theatre, Professional Actors, Intimate Theatre, Cape Town, (11/04/2012 – 05/05/2012).

Weare, C. 2012, *"An Audience with Emily Hobhouse"* by Tony Jackman, Directing and Design, Theatre, Professional Actors, Olive Schriener Writers' Festival, Cradock, (10/08/2012 – 11/08/2012).

Weare, C. 2012, *"No Seriously! It'sJust Comedy"* by Alan Committie, Directing, Theatre, Professional Actors, Theatre on The Bay, Cape Town, (04/12/2012 – 05/01/2013).

Weare, C. 2012, *"Tonight Neither Hamlet"* by Rainer Lewandowski, Directing, Theatre, Professional Actors, Princess Alice Hall Grahamstown Fringe Festival, (29/06/2012 – 11/07/2012).

Master's degrees (by research)

Bye, L. 2012. "Eurydice". MA Theatre and Performance. Supervised by M. Fleishman.

Jephta, A. 2012. "Free falling bird". MA Theatre and Performance. Supervised by J. Singer and C. Weare.

Seabe, L. 2012. "There was this sound". MA Theatre and Performance. Supervised by J. Pather.

Unwin, C. 2012. "Orange Book Hall Edition". MA Theatre and Performance. Supervised by J. Pather.

School of Education

Research Report 2012

(Including the Schools Development Unit (SDU) and the Centre for Applied Language and Literacy Studies and Services in Africa)

HEAD OF SCHOOL: ASSOCIATE PROFESSOR RÜDIGER LAUGKSCH

School Profile

The School of Education is a largely post-graduate interdisciplinary department with research activity across a number of important fields. These include studies in knowledge development and transfer (curriculum development, learning and acquisition, scientific literacy, mathematics, science and technology education, primary education, history education), policy and evaluation (research into school reform evaluation studies), student learning in higher education, and studies in race, culture, identity and language. A number of members of staff lead and participate in large collaborative research projects. Significant numbers of staff act as consultants to local and national government, to national commissions as well as to important education NGOs. A number of staff members are involved in materials development for a range of school learning areas.

School Statistics

Permanent and long-term Contract Staff

Professors	2
Associate Professors	5
Senior Lecturers	9
Lecturers	1
Administrative & Clerical Staff	2
Technical Support Staff	1
Total	20

Honorary Research Associates: 2

Students

Doctoral	25
Master's	88
Postgraduate Diploma in Education	74
B.Ed. Honours	56
Postgraduate Certificate in Education	137
Advance Certificate in Education	417
Total	797

Research Fields and Staff

Permanent Staff

MR NIGEL BAKKER
Senior lecturer; English education; teaching; creativity; curriculum studies; humanities in the curriculum

PROFESSOR PAM CHRISTIE
Sociology of education; education policy; school organisation and change; ethics and social justice in education.

DR ZAIN DAVIS
Senior lecturer; language and mathematics; textual analysis; the functioning of pleasure in the structuring of pedagogic discourse; continuing professional development of mathematics teachers

PROFESSOR PAULA ENSOR
Mathematics education; sociology of education, especially with respect to curriculum and pedagogy; teacher education; higher education studies; qualitative research methodology

MR DAVID GILMOUR
Senior lecturer; economics of education; education and the labour market; educational planning; educational evaluation; social theory and education

DR JOANNE HARDMAN
Senior lecturer; learning; cognition; computer mediated learning; neuroscience

ASSOCIATE PROFESSOR ANNEMARIE HATTINGH
Physical science teacher education, with a special focus on curriculum design for authentic learning in problem-based learning environments; teacher effectiveness in constraining contexts; doctoral learning communities of practice

DR URSULA HOADLEY
Senior lecturer; curriculum, teachers work and the sociological study of pedagogy

DR HEATHER JACKLIN
Senior lecturer; sociology of education; education policy; education and space/locality; education and gender; learner progress and achievement

MS SHAHEEDA JAFFER
Lecturer; mathematics education, sociology of curriculum and pedagogy, teacher education

ASSOCIATE PROFESSOR RÜDIGER LAUGKSCH
Scientific literacy or public understanding of science; professional development of science teachers; policy issues related to the provision of teaching and learning in the natural sciences; teaching and learning in biology

DR CAROLYN MCKINNEY
Senior lecturer; language and literacy in education, multilingualism in education,
Identity/subjectivity and learning

PROFESSOR JOHAN MULLER
Curriculum studies; epistemology; sociology of knowledge; school reform; higher education policy

ASSOCIATE PROFESSOR KARIN MURRIS
Programme Leader PGCE Foundation Phase. Philosophy of Education, Philosophy with Children, Child and Childhood Studies, Children's Literature, School Ethics, Ethical Decision-making, Censorship, Corporal Punishment, Early literacy.

DR AZWIHANGWISI MUTHIVHI
Senior lecturer; developmental psychology; cognitive development;
primary schooling, culture and classroom teaching and learning

ASSOCIATE PROFESSOR MASTIN PRINSLOO
Socio-cultural studies in literacy and language, including early childhood, schooling, adult education and electronic media

ASSOCIATE PROFESSOR ROB SIEBÖRGER
History education; curriculum studies; assessment; materials development; teacher education

PROFESSOR CRAIN SOUDIEN
Sociology of education; race, class and gender; policy shifts in education

DR CLARE VERBEEK
Senior lecturer; Literacy; teaching reading and writing in the early years; family literacy; foundation phase teaching; adult and community education; models for teacher development.

Research Associates

DR MIGNONNE BREIER
Higher education; academic work; professions and professional education; recognition of prior learning; research capacity development; missionary education

DR JEANNE GAMBLE
Vocational education, sociology of work

EMERITUS PROFESSOR PETER KALLAWAY
Education and development, education policy, history of education

DR ROBERT MORRELL
Masculinities, gender and education, fatherhood and parenting, violence

Distinguished Visitors

PAUL DOWLING
Institute of Education, London

LORRAINE LING
La Trobe University, Australia

ANNA STETSENKO
City University of New York, USA

MARK WICKENS
Brock University, Niagara, Ontario, Canada

MICHAEL YOUNG
Institute of Education, London

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Research output

Authored books

Soudien, C.A. 2012. Realising the Dream: Unlearning the Logic of Race in the South African School. Cape Town, South Africa: HSRC Press. 259pp. ISBN 978-0-7969-2380-6.

Edited books

Hardman, J.C. (ed.) 2012. Child and Adolescent Development: A South African Socio-Cultural Perspective. 388pp. Cape Town, RSA: Oxford University Press Southern Africa. ISBN 978-0-19-599979-2.

Morrell, R.G., Bhana, D. and Shefer, T. (eds) 2012. Books and Babies. Pregnancy and Young Parents in School. 236pp. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Chapters in books

Bhana, D., Shefer, T. and Morrell, R.G. 2012. Conclusion. Policy implications and issues for the future. In R. Morrell, D. Bhana and T. Shefer (eds), Books and Babies. Pregnancy and Young Parents in School, pp. 169-175. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Devey, R. and Morrell, R.G. 2012. Gender and parenting: challenging traditional roles? In R. Morrell, D. Bhana and T. Shefer (eds), Books and Babies. Pregnancy and Young Parents in School, pp. 103-117. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Devey, R. and Morrell, R.G. 2012. Learner attitudes to pregnancy, parents and gender equality: a quantitative analysis. In R. Morrell, D. Bhana and T. Shefer (eds), Books and Babies. Pregnancy and Young Parents in School (eds), pp. 63-73. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Devey, R. and Morrell, R.G. 2012. Mothers: yes, babies: no. Peer attitudes towards young learner parents. In R. Morrell, D. Bhana and T. Shefer (eds), Books and Babies. Pregnancy and Young Parents in School, pp. 87-101. 1st. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Hoadley, U.K. 2012. Vermittlungsstrategien und soziale reproduktion: ein analysemodell. In U. Gellert and M. Sertl (eds), Zur Soziologie des Unterrichts: Arbeiten mit Basil Bernsteins Theorie des Padagogischen Diskurses, pp. 241-264. Germany: Beltz Druckpartner GmbH & Co. ISBN 978-3-7799-1588-1.

Morrell, R.G., Bhana, D. and Hamlall, V. 2012. "I'm not scared of the teacher – I can hold him – I can hold him with my bare hands": schoolboys, male teachers and physical violence at a Durban secondary school in South Africa. In S. Saltmarsh, K. Robinson and C. Davies (eds), Rethinking School Violence. Theory, Gender, Context, pp. 111-128. London/New York: Palgrave Macmillan. ISBN 9780230576698.

Morrell, R.G. and Devey, R. 2012. Mothers, fathers and carers. Learner involvement in care work. In R. Morrell, D. Bhana and T. Shefer (eds), Books and Babies. Pregnancy and Young Parents in School, pp. 75-86. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Morrell, R.G., Bhana, D. and Shefer, T. 2012. Pregnancy and parenthood in South African schools. In R. Morrell, D. Bhana and T. Shefer (eds), Books and Babies. Pregnancy and Young Parents in School, pp. 1-34. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Prinsloo, M.H. 2012. What counts as English? In C. Leung and B.V. Street (eds), English: A Changing Medium for Education, pp. 22-40. UK: Multilingual Matters. ISBN 978184769707.

Shefer, T., Bhana, D., Morrell, R.G., Manzini, N. and Masuku, N. 2012. 'It isn't easy': young parents talk of their school experiences. In R. Morrell, D. Bhana and T. Shefer (eds), Books and Babies. Pregnancy and Young Parents in School, pp. 127-147. Cape Town: HSRC Press. ISBN 978 0 7969 2365 3.

Sieborger, R. 2012. Dealing with a reign of virtue: the post-apartheid South African school history curriculum. In T. Taylor and R. Guyver (eds), History Wars and the Classroom, pp. 143-158. USA: Information Age Publishing. ISBN 978-1-61735-527-1.

Soudien, C.A. 2012. Qualitys horizons. The politics of monitoring educational quality. In S.J. Klees, J. Samoff and N.P. Stromquist (eds), The World Bank and Education, pp. 95-107. 14the edition. Rotterdam: Sense Publishers. ISBN 978 94 6091 901 5.

Soudien, C.A. 2012. Robben Island University revisited. In A. Lissoni, J. Saske, N. Erlank, N. Nieftagodien and O. Badsha (eds), One Hundred Years of the ANC Debating Liberation Histories Today, pp. 211-231. Johannesburg, RSA: WITS University Press. ISBN 978-1-86814-573-7.

Soudien, C.A. 2012. The challenge of thinking: the unarticulated transformational imperative? In R. Venter and F. Tolmie (eds), Transforming Theological

Knowledge, pp. 21-30. Bloemfontein: Sun Press. ISBN 978-1-920382-25-4.

Soudien, C.A. 2012. The peripherys progeny. The South African school and its relationship to youth identity in contemporary South Africa. In C. Sleeter, S.B. Upadhyay, A.K. Mishra and S. Kumar (eds), School Education, Pluralism and Marginality: Comparative Perspectives, pp. 249-264. New Delhi, India: Orient BlackSwan. ISBN 978 81 250 4531 1.

Soudien, C.A. 2012. The promise of the university: what it's become and where it could go. In B. Leibowitz (ed.), Higher Education for the Public Good: Views from the South, pp. 31-43. Stoke on Trent, USA: Trentham Books. ISBN 978-1-920338-88-6.

Articles in Peer-reviewed Journals

Breier, M. and Holness, L.J. 2012. Towards a theorisation of a cross-disciplinary research development programme at the University of Cape Town. Acta Academica, 2011(2): 149-168.

Carton, B. and Morrell, R.G. 2012. Zulu masculinities, warrior culture and stick fighting: reassessing male violence and virtue in South Africa. Journal of Southern African Studies, 38(1): 31-53.

Epstein, D. and Morrell, R.G. 2012. Approaching Southern theory: explorations of gender in South African education. Gender and Education, 24(5): 469-482.

Hamlall, V. and Morrell, R.G. 2012. Conflict, provocation and fights among boys in a South African high school. Gender and Education, 24(5): 483-498.

Hattingh, A. 2012. The African-Norwegian case of supporting women towards knowledge production through doctoral studies. South African Journal of Higher Education, 26(6): 1139-1151.

Hearn, J. and Morrell, R.G. 2012. Reviewing hegemonic masculinities and men in Sweden and South Africa. Men and Masculinities, 15(1): 3-10.

Hoadley, U.K. 2012. What do we know about teaching and learning in South African primary schools? Education as Change, 16(2): 187-202.

Jewkes, R., Morrell, R.G., Sikweyiya, Y., Dunkle, K. and Penn-Kekana, L. 2012. Men, prostitution and the provider role: understanding the intersections of economic exchange, sex, crime and violence in South Africa. PLoS One, 7(7): 1-10.

Jewkes, R. and Morrell, R.G. 2012. Sexuality and the limits of agency among South African teenage women: theorising femininities and their connections to HIV risk practises. Social Science and Medicine, 74: 1729-1737.

Jewkes, R., Morrell, R.G., Sikweyiya, Y., Dunkle, K. and Penn-Kekana, L. 2012. Transactional relationships and sex with a woman in prostitution: prevalence and patterns in a representative sample of South African men. BMC Public Health, 12(325). [online]. http://www.biomedcentral.com/1471-2458/12/325.

Kallaway, P. 2012. Bibliography of materials relevant to the study of education in the Colony of Natal, the Province of Natal and KwaZulu-Natal, 1839-1994: Selected with special attention to "Native Education". Journal of Natal and Zulu History, 30: 107-138.

Kallaway, P. 2012. History in senior secondary school CAPS 2012 and beyond: a comment. Yesterday & Today, 7(1): 23-62.

Kallaway, P. 2012. Preface: A view from the South. History of Education, 41(1): 1-3.

Kallaway, P. 2012. Science and policy: anthropology and education in British colonial Africa during the inter-war years. Paedagogica Historica, 48(3): 411-430.

Kallaway, P. 2012. The forgotten history of South African education. Southern African Review of Education, 18(1): 7-23.

Morrell, R.G., Epstein, D. and Moletsane, R. 2012. Doubts, dilemmas and decisions: towards ethical research on gender and schooling in South Africa. Qualitative Research, 12(6): 613-629.

Morrell, R.G., Jewkes, R. and Lindegger, G. 2012. Hegemonic masculinity/masculinities in South Africa: culture, power, and gender politics. Men and Masculinities, 15(1): 11-30.

Muthivhi, A. 2012. Schooling and the development of verbal thinking: TshiVenda-speaking children's reasoning and classification skills. South African Journal of Psychology, 42(1): 82-92.

Prinsloo, M.H. and Rowsell, J. 2012. Introduction Digital literacies as placed resources in the globalised periphery. Language and Education, 26(4): 271-277.

Prinsloo, M.H., Rowsell, J. and Zhang, Z. 2012. Socialising the digital: taking emic perspectives on digital domains. Language and Literature, 1: 5.

Sienaert, M. 2012. A framework for engagement with the international ranking systems: perspectives from a university in the global South. Acta Academica, 2011(2): 64-78.

Soudien, C.A. 2011. The arrhythmic pulse of transformation in South African higher education. Alternation: International Journal for the Study of Southern African Literature and Languages, 18(2): 15-34.

Soudien, C.A. 2012. Expanding our view of quality in education: recovering the purpose of education. Comparative Education Review, 34(3): 6.

Soudien, C.A. 2012. The modern seduction of race: whither social constructionism? Transformation, 79(2012): 18-38.

Soudien, C.A., Motala, S. and Fataar, A. 2012. Introducing the challenge of converting access to quality in education. Southern African Review of Education, 18(2): 3-7.

Peer-reviewed published conference proceedings

Alexander, N.E. 2012. African languages for Africa's development. In M. Brenzinger and A.-M. Fehn (eds), Proceedings of the 6th World Congress of African Linguistics, 17-21 August 2009, Cologne, Germany. Cologne: Rudiger Koppe Verlag. ISBN 978-3-89645-199-6.

Davis, Z. 2012. A discussion of references to cancellation in the mathematical work of a grade 10 student. In S. Nieuwoudt, D. Laubscher and H. Dreyer (eds), Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA 2012), 24-28 June 2012, North-West University, Potchefstroom Campus. Johannesburg: Association of Mathematics Education of South Africa (AMESA). ISBN 978-0-620-53741-4.

Davis, Z. and Gripper, D. 2012. A few remarks on the teaching of inequalities to grade ten students. In S. Nieuwoudt, D. Laubscher and H. Dreyer (eds), Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA 2012), 24-28 June 2012, North-West University, Potchefstroom Campus. Johannesburg: Association of Mathematics Education of South Africa (AMESA). ISBN 978-0-620-53741-4.

Davis, Z. and Gripper, D. 2012. An investigation of the use of the notion of equality in the mathematical activity of two groups of grade ten students. In D. Nampota and M. Kazima (eds), Proceedings of the Twentieth Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE 2012), 16-19 January 2012, Lilongwe, Malawi. SAARMSTE. ISBN 978-0-9869800-4-6.

Davis, Z. 2012. Homomorphisms, counting and the constitution of addition in a grade 1 lesson. In S. Nieuwoudt, D. Laubscher and H. Dreyer (eds), Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA 2012), 24-28 June 2012, North-West University, Potchefstroom Campus. Johannesburg: Association of Mathematics Education of South Africa (AMESA). ISBN 978-0-620-53741-4.

Jaffer, S. and Davis, Z. 2012. Investigating the relation between top-performing grade 10 students' elaborations of school mathematics and their social class membership. In D. Nampota and M. Kazima (eds), Proceedings of the Twentieth Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE 2012), 16-19 January 2012, Lilongwe, Malawi. SAARMSTE. ISBN 978-0-9869800-4-6.

Jaffer, S. 2012. The notion of Topic in school mathematics and the problem of isotopic coherence. In S. Nieuwoudt, D. Laubscher and H. Dreyer (eds), Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA 2012), 24-28 June 2012, North-West University, Potchefstroom Campus. Johannesburg: Association of Mathematics Education of South Africa (AMESA). ISBN 978-0-620-53741-4.

MacKay, R.D. 2012. A further exploration of differences in the performance of grade 12 pupils on two types of Geometry problem. In S. Nieuwoudt, D. Laubscher and H. Dreyer (eds), Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA 2012), 24-28 June 2012, North-West University, Potchefstroom Campus. Johannesburg: Association of Mathematics Education of South Africa (AMESA). ISBN 978-0-620-53741-4.

Matobako, S. 2012. Forms of social solidarity and teachers evaluations of students acquisition of criteria for the reproduction of school mathematics. In D. Nampota and M. Kazima (eds), Proceedings of the Twentieth Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE 2012), 16-19 January 2012, Lilongwe, Malawi. SAARMSTE. ISBN 978-0-9869800-4-6.

Department of English Language and Literature

Research report 2012

(Including the Centre for Creative Writing)

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR CARROL CLARKSON

Departmental Profile

Members of the department are engaged in research over a wide area, ranging from the literature of the European Renaissance to that of contemporary South Africa. Genres covered include drama, poetry and prose, travel writing, and autobiography. Some of the finest writers in the country teach creative writing at undergraduate and graduate level.

Departmental Statistics

Permanent and long-term contract staff

Professors Emeriti	5
Honorary Professor	1
Professors	2
Associate Professors	4.5
Senior Lecturers	2
Lecturers	5
Administrative and Clerical Staff	3
Total	22.50

Students

Doctoral	17
Master's	15
Honours	101
Undergraduate	2110
Total	2303

Research Fields and Staff

DR PETER ANDERSON
Poetry, romanticism to modernism, history and literature, 19th-century Cape literature, culture and society, especially the eastern frontier.

DR MARY BOCK (HONORARY RESEARCH ASSOCIATE)
Analysis of verbal and non-verbal aspects of discourse, critical discourse analysis, narrative analysis with particular reference to the language and structure of testimonies from the Truth and Reconciliation Commission.

DR MBONGISENI BUTHELEZI
Teaching and research interests: Oral poetry, oral storytelling, imperialism and colonialism, historical fiction, Africa and the diaspora.

ASSOCIATE PROFESSOR CARROL CLARKSON (HEAD OF DEPARTMENT)
Post-apartheid South African fiction, literary theory, especially deconstruction and language philosophy as it relates to jurisprudence and contemporary South African fine art.

EMERITUS PROFESSOR J.M. COETZEE
A novelist, essayist, linguist, translator

DR VICTORIA COLLIS-BUTHELEZI
African and African Diasporic Literature with particular interest in African-American Literature, Anglophone, Hispanophone and Francophone literatures of the Caribbean, and the nineteenth-century.

ASSOCIATE PROFESSOR IMRAAN COOVADIA (DIRECTOR: CENTRE FOR CREATIVE WRITING)
Eighteenth- and nineteenth century English and American literature, and contemporary fiction.

EMERITUS PROFESSOR DOROTHY DRIVER (HONORARY RESEARCH ASSOCIATE)
Topics/authors in South African literature and colonial literature; the construction/deconstruction of the 'feminine' subject in language and literature.

ASSOCIATE PROFESSOR RODNEY S. EDGECOMBE
Shakespeare; Herbert; Marvell; Pope; the age of sensibility; Keats; Dickens; selected contemporary novelists and poets.

EMERITUS PROFESSOR GAIL FINCHAM
Modernism, particularly Joseph Conrad; postmodern fiction; narrative theory; postcolonial fiction and theory.

EMERITUS PROFESSOR GEOFFREY HARESNAPE (HONORARY RESEARCH ASSOCIATE)
Shakespearean poetry and drama; topics/authors in South African literature in English; topics/authors in early 20th-century English poetry; certain other topics/authors by consultation.

DR DERRICK HIGGINBOTHAM
Late Medieval and Early Modern English Theater, Literary History, Genres, and Cultural Change, Shakespeare and his contemporaries, Queer Theory/LGBT Studies
Feminist Theory, Marxism, Materialism, and the New Economic Criticism

PROFESSOR JOHN HIGGINS
Literature and society in the 18th century; literature and society in the 20th century; theories of representation; psychoanalysis and cinema; Raymond Williams.

EMERITUS PROFESSOR GEOFFREY HUGHES (HONORARY RESEARCH ASSOCIATE)
The history of English; historical semantics; sociolinguistics; the language of Shakespeare and Chaucer.

MR BRIAN S. LEE (HONORARY RESEARCH ASSOCIATE)
Medieval English and Latin literature; British literature to the end of the Victorian period.

DR CHRISTOPHER OUMA
New diasporic African fiction and focused on childhood as a set of ideas for engaging with contemporary African identity formation. In looking at the recurrent figures, images and memories of childhood the study engages with a range of ideas around memories, archives, chronotopes, heritages, legacies, traditions and genealogies of identity and identity-making.

DR PETER KNOX-SHAW (HONORARY RESEARCH ASSOCIATE)
The literature of cross-cultural encounter with particular reference to the Romantic and post-Romantic periods; Jane Austen and the Enlightenment; 18th-century studies.

PROFESSOR DAVID SCHALKWYK
Shakespeare; literature and society between 1580 and 1660 including non-Shakespearean drama and poetry; literary theory: especially Marxism, Derrida, Saussure, Bakhtin/Voloshinov and feminism; philosophy and literature (especially Wittgenstein); pastoral and politics from 1580-1750; South African prison writing.

PROFESSOR KELWYN SOLE
South African literature (especially black literature); African oral literature; history, narrative and fictionalisation; science fiction; Milton; stylistic and ideological changes in 17th-century poetry.

DR ERIC STRAND
20th-century American literature, but also involves American Studies due to an interest in central symbols such as the "frontier," understood as a free space where one can reinvent oneself outside the norms of conventional society.

DR HEDLEY TWIDLE
South African literatures in an African context, the colonial and postcolonial and Natural history writing.

DR SANDY YOUNG
Early-modern literature and thought; Trans-atlantic colonial literature and theory; the compilation as a form; Travel writing; South African women's prison writing and feminist theory; Narrative and testimony.

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UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Research output

Chapters in books

Buthelezi, M.P. 2012. Praise, politics, performance: from Zulu izibongo to the Zionists. In D. Attwell and D. Attridge (eds), The Cambridge History of South African Literature, pp. 77-94. USA: Cambridge University Press. ISBN 978-1-107-68187-3.

Clarkson, C.P. 2012. 'The obliging etymology of "nomos"': Peter Fitzpatrick and the aesthetics of law. In R. Buchanan, S. Motha and S. Pahuja (eds), Reading Modern Law, pp. 165-177. New York: Routledge. ISBN 978-0-415-56854-8.

Driver, D.J. 2012. The fabulous fifties: short fiction in English. In D. Attwell and D. Attridge (eds), The Cambridge History of South African Literature, pp. 387-409. USA: Cambridge University Press. ISBN 978-1-107-68187-3.

Favish, J., Ross, D.A., Inggs, S.C., Kathard, H., Clarkson, C.P., Case, J.M., Collier-Reed, B.I. and Reid, S. 2012. Reflections on developing distinctive University of Cape Town graduate attributes. In M. Coetzee et al (eds), Developing Student Graduateness and Employability, pp. 207-225. Randburg: Knowres Publishing. ISBN 978-1-86922-189-8.

Hughes, G. 2012. Changing attitudes and political correctness. In T. Nevainen and E.C. Traugott (eds), The Oxford Handbook of the History of English, pp. 402-411. United Kingdom: Oxford University Press. ISBN 9780199922765.

Twidle, H.L. 2012. From 'The Origin of Language' to a language of origin: a prologue to the Grey Collection. In A. van der Vlies (ed.), Print, Text and Book Cultures in South Africa, pp. 252-283. Johannesburg: WITS University Press. ISBN 978 1 86814 566 9.

Twidle, H.L. 2012. The Bushmen's Letters':/Xam narritives of the Bleek and Lloyd Collection and their afterlives. In D. Attwell and D. Attridge (eds), The Cambridge History of South African Literature, pp. 19-41. USA: Cambridge University Press. ISBN 978-1-107-68187-3.

Articles in Peer-reviewed Journals

Anderson, P. 2012. Never luff to meddle mit politics, sir: Errant Satire and Historical Gainsaying in A.G. Bain's Kaatje Kekkelbek, or, Life among the Hottentots. Journal of Southern African Studies, 38(1): 217-232.

Anderson, P. 2012. This Late Place: Stephen Watson (1954-2011), Poet, Essayist, Critic and Scholar. English in Africa, 39(1): 9-20.

Coovadia, I. 2012. Coetzee in and out of Cape Town. Kritika Kultura, 18: 103-115.

Coovadia, I. 2012. The Azaan clock. Social Dynamics, 38(2): 290-294.

Edgecombe, R.S. 2012. A source for H.G. Wells's Time Machine. Notes and Queries, 59(3): 410-11.

Edgecombe, R.S. 2012. Displaced religious images in Annie Proulx's 'Brokeback Mountain. Studies in Short Fiction, 37(1): 113-22.

Edgecombe, R.S. 2012. Gentleman Saints and Self-Tormentors: Leigh Hunt, Dickens and Nineteenth-Century Asceticism. Nineteenth-Century Contexts, 34(2): 135-158.

Edgecombe, R.S. 2012. Günter Grass's Blechtrommel and Samuel Beckett's Play. Germanic Notes and Reviews, 43(2): 56-58.

Edgecombe, R.S. 2012. In defence of ropes and scar: All's Well That Ends Well 4.2.38. Ben Jonson Journal, 19(1): 137-41.

Edgecombe, R.S. 2012. John Francis Barnett's Ancient Mariner: From Ballad to Cantata. Wordsworth Circle, 43(1): 36-44.

Edgecombe, R.S. 2012. Popolaresco, peasants and primitivism. Musical Times, 153(1919): 41-58.

Edgecombe, R.S. 2012. Posthumus' Theodicy in Cymbeline V.i. The Shakespeare Newsletter, 61(3): 89.

Edgecombe, R.S. 2012. The pricking in Shakespeare's Sonnet 20. Cahiers Elisabethains, 81(Spring): 37-38.

Edgecombe, R.S. 2012. The tables' content in Shakespeare's Sonnet 122. Ben Jonson Journal, 19(1): 127-29.

Edgecombe, R.S. 2012. Three Notes on Shakespeare: The Tables' Content in Shakespeare's Sonnet 122; Apologia Pro Vita Sua: A Confessional Reading of Shakespeare's Sonnets 123-25 and 146; In Defense of Ropes and Scar: All's Well That Ends Well 4.2.38. Ben Jonson Journal, 19(1): 127-141.

Haresnape, G.L. 2012. Cross Currents in the Brain of Dr SeverancePackage (Poetry). English Academy Review, 29(2): 148-151.

Higgins, J.A. 2012. Rereading the Long Revolution: Permanent Education versus the Exclusionary Consensus. Keywords, 10: 11-27.

Higgins, J.A. 2012. Resisting the restoration: response to Premesh Lalu. Social Dynamics, 38(1): 26-35.

Pollard, N. 2012. The fate of stupidity. Essays in Criticism, 62(2): 125-138.

Samuelson, M.A. 2012. Abdulrazak Gurnah's fictions of the Swahili coast: littoral locations and amphibian aesthetics. Social Dynamics, 38(3): 499-515.

Smuts, M.E. 2012. J.M. Coetzee and the Politics of Selfhood. English in Africa, 39(1): 21-36.

Twidle, H.L. 2012. "All Like and Yet Unlike the Old Country:" Kipling in Cape Town, 1891-1908 - A Reappraisal. English in Africa, 39(2): 85-109.

Twidle, H.L. 2012. "In a Country where You couldn't Make this Shit up"?: Literary Non-Fiction in South Africa. Safundi: Journal of South African and American studies, 13(1-2): 5-28,

Twidle, H.L. 2012. First lives, first words: Cames, magical realism and the limits of invention. Scrutiny2, 17(1): 28-48,

Young, S.M. 2012. Hospitality in a postapartheid archive: reflections on There Was this Goat and the Challenge of Alterity. Research in African Literatures, 43(2): 115-137.

Creative writing

Novels

Coovadia, I. 2012. The Institute for Taxi Poetry. Cape Town: Umuzi, Random House. 146pp.

Coovadia, I. 2012. Transformations: Essays. Cape Town: Umuzi, Random House. 208pp.

Centre for Film and Media Studies

Research Report 2012

(Including the Centre for Rhetoric Studies)

DIRECTOR: ASSOCIATE PROFESSOR LESLEY MARX

Centre Profile

The Centre for Film and Media Studies, based in the Faculty of Humanities, was established in March 2003.

The aims of the Centre are:

- to enable students at undergraduate and postgraduate levels to pursue research in film and television studies and media studies more broadly and
- to offer students training as creative practitioners in a choice of screen production, radio journalism, screenwriting, print journalism and digital media;
- to extend, intensify and enrich students' intellectual, creative and practical training and equip them to make key contributions both to scholarship and to the film and media industries;
- to foster cutting-edge research in film, television and media that has especial relevance to Africa, and to South Africa's place both continentally and globally;
- to strengthen ties with similar institutions, scholars and practitioners locally and abroad.

The Centre offers majors in i) Media & Writing and in ii) Film & Television Studies. In addition, we offer, on competitive entry during the second year, five options for a programme in Film and Media Production, with choices between screen production, radio, screenwriting, print journalism and interactive media.

We offer Honours, MA and PhD level degrees in film and television studies, media theory and practice and in rhetoric. We also offer interdisciplinary Honours and MA level degree programmes in political communication.

The staff of the Centre engage in a wide variety of exciting formal and creative research in, for example, African and South African cinema, radio in South Africa, audience analysis, political communication, rhetoric studies, youth culture, new approaches to film history, film and identity, adaptation theory and practice, screenwriting and video gaming.

Centre Statistics

Permanent Staff

Distinguished Professor	1
Professor	1
Associate Professors	3
Senior Lecturers	6
Lecturers	4
Technical staff	1
Administrative staff	3
Total	19

Students

Doctoral	19
Master's	100
Honours	277
Undergraduate	2543
Total	2939

Research Fields and Staff

DR TANJA BOSCH
Community radio, citizen media and communication for development; health communication, critical theory and cultural studies; qualitative research methods; radio studies and new media.

ASSOCIATE PROFESSOR MARTIN BOTHA
South African cinema, cinema and marginality, the representation of gays/lesbians in cinema,Queer Theory.

DR WALLACE CHUMA
Contemporary journalism and the public sphere, critical political economy of media, media policy and regulation, and media and political transition in Southern Africa.

DR MARTHA EVANS
Media events and the coming of television to South Africa, media and national identity, the TRC as a South African media event.

PROFESSOR IAN GLENN
Media in the new South Africa, liberal Afropessimism, political communication, media technologies and the literature of exploration, François Le Vaillant.

ASSOCIATE PROFESSOR ADAM HAUPT
Youth and media, theories of empire and film, intellectual property, racial identity politics, gender and representation, counter-culture.

ASSOCIATE PROFESSOR LESLEY MARX
African Cinema, British cinema, American Studies, the interface between American and South African history and culture, topics in film theory, genre and adaptation.

DR MUSAWENKOSI NDLOVU
Political communication and political marketing, youth and news media studies.

DR IAN RIJSDIJK
Film and history, Terrence Malick, environment and film.

DISTINGUISHED PROFESSOR PHILIPPE-JOSEPH SALAZAR
Multi-disciplinary research in public rhetoric, deliberative democracy and argumentative culture.

DR IBRAHIM SALEH
Political communication and political marketing, youth and news media studies

DR ALEXIA SMIT
Affect and visceral displays of the body on contemporary British and American television. Television aesthetics across a range of television genres and formats.

DR MARION WALTON
Literacy and access to technology in South Africa, and on developing semiotic models that can explain user experience of computer games and the Web.

Contact Details

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Web: http://www.cfms.uct.ac.za
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Centre for Rhetoric Studies

DIRECTOR: PHILIPPE-JOSEPH SALAZAR, DISTINGUISHED PROFESSOR OF RHETORIC

URC POSTDOCTORAL RESEARCH FELLOW: DR SERGIO ALLOGGIO

Centre Profile

The Centre was founded in 1995, as an academic response to the establishment of democracy in South Africa, and in the wake of a large international conference on "Persuasion and Power" held in July 1994. The Centre is unique on the Continent and concerns itself with multi-disciplinary research in public rhetoric, deliberative democracy and argumentative culture. Its pioneering role is recognized by the *International Encyclopedia of Communication* (Blackwell, 2008).

The Centre was awarded a 5-year endowment from the A W Mellon Foundation to support its graduate recruitment (Mellon-UCT Scholarships in Rhetoric Studies).

A detailed description of the Centre's research activities and publications (including the *African Yearbook of Rhetoric*) can be found on its dedicated Website: www.rhetoricafrica.org.

Research Output

Authored books

Botha, M. 2012. South African Cinema 1896 – 2010. UK and USA: Intellect Books. 297pp. ISBN 978-1-84150-458-2.

Haupt, A. 2012. Static: Race Representation in Post-Apartheid Music. Cape Town, South Africa: HSRC Press. 232pp. ISBN 978-0-7969-2386-8.

Salazar, Ph.-J. 2012. De l'art de seduire l'eletuer indecis. Paris, France: Francois Bourin Editeur. 107pp. ISBN 978-2-84941-299-2.

Chapters in books

Alloggio, S. and Thomas, K. 2012. Forgetting responsibility: Hannah Arendt and the work of (undoing) psychic resistance post-apartheid. In C. Hilb and Ph.-J. Salazar (eds), New beginnings: Argentina and South Africa, pp. 119-130. Melkbosstrand, Cape Town: AfricaRhetoric Publishing. ISBN 9780987033406.

Bosch, T. 2012. African youth, identity formation and social media. The eLearning Africa 2012 Report, pp. 33-34. Germany: ICWE. ISBN 978-3-941055-15-5.

Bosch, T. 2011. Talk radio, democracy and the public sphere: 567MW in Cape Town. In L. Gunner, D. Ligaga and D. Moyo (eds), Radio in Africa, pp. 197-207. Johannesburg, South Africa: WITS University Press. ISBN 9781868145508.

Glenn, I.E. 2012. Eighteenth-century natural history, travel writing and South African literary historiography. In D. Attwell and D. Attridge (eds), The Cambridge History of South African Literature, pp. 158-179. USA: Cambridge University Press. ISBN 978-1-107-68187-3.

Marx, L.G. 2012. Rituals of memory and desire. In J. Mistry and J.A. Ellapen (eds), We Remember Differently: Race, Memory, Imagination, pp. 141-149. Pretoria: UNISA Press. ISBN 9781868886937.

Mattes, R.B. and Glenn, I.E. 2012. Political communication in post-apartheid South Africa. In H.A. Semetko and M. Scammell (eds), The SAGE Handbook of Political

Communication, pp. 494-508. London: SAGE Publications. ISBN 978-1-84787-439-9.

Salazar, Ph.-J. 2012. "Diplology", or diplomatic rhetoric: a case study regarding Iraq. In Ph.-J. Salazar (ed.), African Yearbook of Rhetoric: Diplomatic Rhetoric in the South, pp. 29-36. Cape Town: AfricaRhetoric Publishing. ISBN 9780987033420.

Salazar, Ph.-J. 2012. "Mierda", or concerning "evil" in politics. A rhetorical analysis. In C. Hilb and Ph.-J. Salazar (eds), New Beginnings: Argentina and South Africa, pp. 77-94. Melbosstrand, Cape Town: AfricaRhetoric Publishing. ISBN 9780987033406.

Salazar, Ph.-J. 2012. Figuration – a common ground of rhetoric and anthropology. In Rhetoric Culture. New York, USA: Berghahn Books Inc ISBN 978-0-85745-666-3.

Salazar, Ph.-J. 2012. Thoughts on comparative rhetorics. In R.-D. Chen (ed.), International Rhetoric Studies. Beijing, China: Higher Education Press. ISBN 978-7-04-035336-5.

Saleh, I. 2012. Islamic televangelism: the Salafi window to their paradise. In P.N. Thomas and P. Lee (eds), Global and Local Televangelism, pp. 64-83. UK: Palgrave Macmillan. ISBN 9780230348103.

Saleh, I. 2012. Ups and downs from Cape to Cairo: the journalistic practice of climate change in Africa. In E. Eide and R. Kunelius (eds), Media Meets Climate. The Global Challenge for Journalism, pp. 49-65. Sweden: Nordicom. ISBN 978-91-86523-510.

Articles in Peer-reviewed Journals

Bosch, T. 2012. Blogging and tweeting climate change in South Africa. Ecquid Novi - African Journalism Studies, 33(1): 44-53.

Bosch, T. 2012. Radio, race and identity in South Africa: the case of Metro FM. Journal of Radio & Audio Media, 19(1): 110-122.

Bosch, T. and Holland-Muter, S. 2012. Women crossing the line: exploring the politics of gender and sexuality at the University of Cape Town. Feminist Africa, 17: 82-90.

Chuma, W. 2012. Framing the Cape Town World Cup stadium in the media: the politics of identity and sports in South Africa. Journal of African Media Studies, 4(3): 315-329.

Haupt, A. 2012. Part IV: Is *Die Antwoord* Blackface? Safundi: Journal of South African and American studies, 13(3-4): 417-423.

Salazar, Ph.-J. 2012. Confessions of a Sometime Opium Eater. Philosophy and Rhetoric, 45(3): 335-342.

Salazar, Ph.-J. 2012. Rituals of complicity, the 'humanities' rhetoric, and the closing of the South African mind. Social Dynamics, 38(1): 48-54.

Saleh, I. 2012. Media and information literacy in South Africa: goals and tools. Comunicar, 39(XX): 35-43.

Saleh, I. 2012. Street republic in Egypt: from bullets to ballots. African Yearbook of Rhetoric, 3(3): 1-3.

Walton, M.N. and Pallitt, N. 2012. 'Grand Theft South Africa': games, literacy and inequality in consumer childhoods. Language and Education, 26(4): 347-361.

Peer-reviewed published conference proceedings

Pallitt, N. 2012. 'What's happening?': Students' use of twitter in a social media seminar. Proceedings of 2012 e/merge. Online Proceedings (e/merge 2012) - Open to Change, 9-July 2012, Cape Town: Centre for Educational Technology, University of Cape Town. ISBN 978-0-620-55422-0.

Walton, M.N., Hassreiter, S., Marsden, G. and Allen, S. 2012. Degrees of sharing: proximate media sharing and messaging by young people in Khayelitsha. In P. Baudisch et al (eds), Proceedings of MobileHCI'12. Proceedings of the 14th International Conference on Human Computer Interaction with Mobile Devices and Services, 21-24 September 2012, New York. New York, USA: The Association for Computing Machinery (ACM). ISBN 978-1-4503-1105-2.

Creative works

Exhibitions

Glenn, I.E. 2012. The Kings Map: François Le Vaillant in Southern Africa 1781-1784. New exhibition room, Iziko South African Museum, Cape Town. 30/11/2012 to 26/05/2013. Commissioned by IFAS (French Institute of South Africa), Iziko South African Museums, and DAC as part of the France-South Africa Seasons 2012/2013.

Michaelis School of Fine Art

Research Report 2012

(Including the Centre for Curating the Archive)

DIRECTOR AND HEAD OF SCHOOL: ASSOCIATE PROFESSOR STEPHEN INGGS

School Profile

The Michaelis School of Fine Art is primarily involved in research in the field of fine art and the history and discourses of art. The School has a strong research and exhibition profile with all staff participating in both local and international exhibitions. These include exhibitions curated along various themes, major international biennales, as well as individual one-person shows. There is an emphasis on the scholarly and creative interpretation and intellectualisation of artwork. This is reflected in catalogue publications, artists' books and journal articles including *Artworks in Progress*, a journal published by the School. Staff are regularly invited to comment on issues relating to fine arts practice and write review essays in exhibition catalogues.

The School houses the Centre for Curating the Archive, a multidisciplinary research centre focussed on digital archives their exhibition and publication, directed by Pippa Skotnes. The CCA incorporates LLAREC (Lucy Lloyd Archive, Resource and Exhibition Centre) and the Katrine Harries Print Cabinet which publishes artists' books and curates the University's print collection. LLAREC also initiated an inter-departmental social responsibility project which runs from the UCT field station in Clanwilliam each year.

The major postgraduate degrees offered at the School include the PhD, Master of Fine Art, Master of Arts in Fine Art, Master of Arts in Art Historical Studies and Honours in Art Historical Studies. Students undertake advanced study in an aspect of art history, contemporary art discourse, studiowork disciplines or specialist interdisciplinary research.

School Statistics

Permanent and Long-term Contract Staff

Emeritus Professors	3
Honorary Professors	1
Professors	4
Associate Professors	2
Adjunct Associate Professor	1
Senior Lecturers	7
Lecturers	3
Contract staff	2
Administrative staff	3
Senior Technical Officers	2
Technical Officers	2
Technical Assistant	1
Workshop Assistant	1
Total	32

Students

Undergraduates	1124
Postgraduate Diploma in Art	10
Honours in VAH	2
MFA	24
MA	6
PhD	7
Total	1173

Research Fields and Staff

PROFESSOR JANE ALEXANDER
Sculpture; photography; photomontage; video

EMERITUS PROFESSOR BRUCE ARNOTT
Fine art; sculpture

MS JEAN BRUNDRIT
Photography; lesbian sexuality; identity

MR KURT CAMPBELL
Graphic Design; Design History; 2d Animation, Postcolonial theory, Subaltern studies, philosophy of technology

MS ANNEMIE CONRADIE
Visual studies; commodification of culture; tourism, heritage and local economic development; relationships between theory and practice; body modification and performance.

EMERITUS PROFESSOR MICHAEL GODBY
19th century colonial artists; contemporary South African artists; documentary photography

ASSOCIATE PROFESSOR STEPHEN INGGS
Printmaking, photography, artists' books and portfolios, particularly the influence of technology on practice; representation of objects and landscape

MS SVEA JOSEPHY
Photography; southern African Photography; contemporary art

MR ANDREW LAMPRECHT
Theory/Discourse in Art; curatorship

ASSOCIATE PROFESSOR FRITHA LANGERMAN
Printmaking; curatorship and display; art and science

MS VIRGINIA MACKENNY
Painting, video; visual theory; contemporary art

DR SIONA O'CONNELL
Visual studies; archives and memory

EMERITUS PROFESSOR MALCOLM PAYNE
Video art; digital printmaking

PROFESSOR COLIN RICHARDS
Contemporary (South African) art practice; theory; history in global perspective

DR RAÉL JERO SALLEY
Painting; Modern and Contemporary Art History; Visual Theory and Discourse; African American Art; Theories of Black and African Diaspora

MR FABIAN SAPTOUW
Process Art; Materiality; Printmaking; History of bookmaking; Text/Image relationships

HONORARY PROFESSOR PENELOPE SIOPIS
Critical practices in contemporary painting; shame and sexuality in visual art; psychoanalysis and art; archival film and narrative in video art

PROFESSOR PIPPA SKOTNES
Visual history and representation; curatorship and the archive; and bookarts

MS ANNA TIETZE
History of art collecting and museum policy; 19th century French art and society; the history of the print; history and theory of art training institutions.

MR JOHANN VAN DER SCHIJFF
Sculpture; interactive art installations; computer aided design and manufacturing

PROFESSOR GAVIN YOUNGE
Issues of 'Re-wilding' and 'Hyperwilderness' in international contexts; negotiating transnational trauma in sculpture and film

MS CARINE ZAAYMAN
New media; film theory; psychoanalysis and notions of subjectivity in art

Research output

Edited books

De Prada-Samper, J.S. (ed.) 2012. Cuentos populares de África. 288 pp. Madrid: Siruela. ISBN 978-84-9841-650-3.

Lamprecht, A. and Powell, I. (eds) 2012. Jeanette Unite: TERRA. 191 pp. Cape Town: SoSo Press. ISBN 978-1-920022-01-3.

Chapters in books

Conradie, A. 2012. Remaking culture for sale: the strategic commodification, construction and performance of 'traditional' cultural identity in South African cultural villages. In D. Boswell, R. O'Shea and E. Tzadik (eds), Interculturalism, Meaning and Identity, pp. 65-76. Freeland, United Kingdom: Interdisciplinary Press. ISBN 978-1-84888-159-4.

Godby, M. 2012. Confronting horror: Emily Hobhouse and the concentration camp photographs of the South African War, 1899-1902. In M.-P. di Bella and J. Elkins (eds), Representations of Pain in Art and Visual Culture, pp. 157-169. New York: Routledge. ISBN 978-0-415-53037-8.

Langerman, F. 2012. Trees, webs and explosions: the analogical imperative in the politics of knowledge. In S. Levine (ed.), Medicine and the Politics of Knowledge, pp. 173-186. Cape Town: HSRC. ISBN 9780796923929.

Lamprecht, A. 2012. Mining the landscape in contemporary art. In A. Lamprecht and I. Powell (eds), Jeanette Unite: TERRA, pp. 32-40. Cape Town: SoSo Press. ISBN 978-1-920022-01-3.

Lamprecht, A. 2012. Hot earth crust: molten glass artworks. In A. Lamprecht and I. Powell (eds), Jeanette Unite: TERRA, pp. 32-40. Cape Town: SoSo Press. ISBN 978-1-920022-01-3.

Richards, C. 2012. Vaguely disreputable...the printmaking of Robert Hodgins. In A. Buys (ed.), A Lasting Impression: Robert Hodgins Print Archive, pp 69-101. Johannesburg: Wits Art Museum. ISBN 978-873672-00-9.

Siopis, P. 2012. The Hooks of History: Three Films. In M.-H. Gutberlet and C. Snyman (eds), Shoe Shop. Johannesburg: Jacana. ISBN 9781920196431

Articles in Peer-reviewed Journals

De Prada-Samper, J.S. 2012. The forgotten killing fields: "San" genocide and Louis Anthing's mission to Bushmanland, 1862-1863. Historia, 57(1): 172-187.

Romano, N. 2012. Strategies of play: reimagining early childhood experience through art-making. Art South Africa, 11 (02): 40-41.

Salley, R. 2012. The face I love: on Zanele Muhole's practice. African Arts Journal, 45(4): 58-69.

Wienand, A. 2012. Portraits, publics and politics: Gisle Wulfsohn's photographs of HIV/AIDS, 1987-2007. Kronos: Southern African Histories, 38: 177-203.

Peer-reviewed published conference proceedings

De Prada-Samper, J.S. 2012. Landscape as memorial: building on the legacy of Louis Anthing. In S. Swanepoel (ed.), Resistance in the Northern Cape in the Nineteenth Century: History and Commemoration. Proceedings of a Mini-Conference held at the McGregor Museum, Kimberley 14-16 September 2011. pp. 89-101. Kimberley: McGregor Museum. ISBN: 978-0-620-53833-6.

Creative works

Exhibition catalogues, catalogue essays and works of a popular nature

Campbell, K.D. 2012. Mandindi's Mirror: books, reading and textuality. In H. Grunebaum and E. Maurice (eds), Uncontained: Opening the Community Arts Project Archive, pp. 86-87. Cape Town: Centre for Humanities Research, University of the Western Cape. ISBN 978-1-86808-729-7.

Lamprecht, A. 2012. Daredevil. In J. van der Schijff (ed.) 2012. Community Punching Bags or CPBs – An Artwork by Johann van der Schijff in Collaboration with Art Teachers and Learners from Cape Town, pp. 13-14. Cape Town: University of Cape Town. ISBN: 978-0-620-53521-2.

Salley, R. 2012. Abstraction. In H. Grunebaum and E. Maurice (eds), Uncontained: Opening the Community Arts Project Archive, pp. 86-87. Cape Town: Centre for Humanities Research, University of the Western Cape. ISBN 978-1-86808-729-7.

Salley, R. 2012. The New Danger of the Pure Idea. In K.J. Marshall. Vienna: Secession Gallery 2012. ISBN 9783868952216.

Siopis, P. 2012. Subject as Matter in the New Church. In The New Church: No 1, Cape Town; The New Church.

Van der Schijff, J. (ed.) 2012. Community Punching Bags or CPBs – An Artwork by Johann van der Schijff in Collaboration with Art Teachers and Learners from Cape Town (Exhibition Catalogue), pp. 1-85. Cape Town: University of Cape Town. ISBN: 978-0-620-53521-2.

Younge, J.G.F. 2012. The Alice Diaries, Wilma Cruise. Cape Town: Art+Text. 8. ISBN 978-0-620-53905-0.

Younge, J.G.F. 2012. Gavin Younge. In J. Kopping and A.-M Tully (eds), Pointure, pp. 46-47. Johannesburg: University of Johannesburg. ISBN 978-0-620-53776-6.

Artistic works

Brundrit, J. 2012. Commissioned public artwork. At Sea. Radar, Loughborough University Arts, Loughborough, UK. 12-25/11/2012.

Skotnes, P. 2012. Division of the World. Permanent installation in the Department of Archaeology, University of Cape Town.

Exhibitions

Solo Exhibitions

Alexander, J. 2012. Surveys (From the Cape of Good Hope). Curated by Pep Subirós. Savannah College of Art and Design Museum 02/12-05/12; Contemporary Art Museum Houston. 11/08/12-04/11/12.

Langerman, F. 2012. R-A-T: an associative ordering. South African Museum, Cape Town. 08/12/12 - 01/12/13.

Mackenny, V. 2012. Waymarker David Krut Projects, Montebello Design Centre, Cape Town. 03/11/12-01/12/12.

Van der Schijff, J. 2012. Community Punching Bags or CPBs project – an artwork by Johann van der Schijff in collaboration with art educators and high school learners from and around Cape Town. Iziko South African National Gallery Annexe, Cape Town. 23/05/2012 – 23/06/2012; KZNSA Gallery, Durban. 10/07/2012 – 29/07/2012.

Zaayman, C. 2012. Remnants & Ancestors: Anarchives of Krotoa and Anne Barnard. Castle of Good Hope, Cape Town. 17/11/12-15/12/12.

Curated Exhibitions

O'Connell, S. 2012. Spring Queen: The staging of the glittering proletariat. Bertram House Annex Gallery: 07/2012; Centre for African Studies Gallery: 08-09/2012; Capturing the Gains Global Summit: V&A Waterfront 12/2012.

Salley, R. 2012. The Exuberance Project . Mandela Rhodes Gallery, Cape Town. 12/05/12 – 20/05/12.

Saptouw, F. 2012. Context. Michaelis Galleries.16/02/12 – 07/03/12.

Siopis, P. 2012. Subject as Matter, The New Church gallery, Cape Town. Summer 2012-13.

Group exhibitions (Curated)

Alexander, J. 2012. Rise and Fall of Apartheid: Photography and the Bureaucracy of Everyday Life. Curated by Okwui Enwezor. International Center of Photography, New York. 14/09/12-06/01/13.

Alexander, J. 2012. The Rainbow Nation: Contemporary Sculpture from South Africa. Curated by Annelies Brans-Van der Straeten. Museum Beelden aan Zee, Den Haag. 10/05/12-30/09/12.

Brundrit, J. 2012. *Home/Land*: women, citizenship and photographies. Process work from the Home/Land residency'. Design Centre, Loughborough University. 05/07/12 to 07/07/12.

Inggs, S.C. 2012. Cross-Currents. Curated by Alastair Whitton. David Krut Projects, Cape Town 31/07/12 to 25/08/12.

Inggs, S.C. 2012. Landscape Re-orientation. Curated by Alastair Whitton. David Krut Projects, Cape Town 28/04/2012 to 30/06/2012.

Josephy, S. 2012. A Natural Selection: 1991-2011. Curated by Clare Butcher. AVA Gallery, Cape Town 21/11/11 to 12/01/12.

Josephy, S. 2012. Home /Land. To coincide with conference Home / Land: women Photographies, Citizenship. Curated by Marsha Meskimon and Marion Arnold. Loughbough School of the Arts, Loughborough, UK 04/07/12 to 01/07/12.

Josephy, S. 2012. Home: Roots en Route (as part of the Cape Town Month of Photography 2012). Curated by Jenny Altschuler. South African Jewish Museum, Cape Town 20/09/12 to 26/10/12.

Langerman, F. 2012. Context. Curated by Fabian Saptouw. Michaelis Gallery, Cape Town 16/02/12 to 07/03/12.

Langerman, F. 2012. The A-R-T Show. Curated by Carol Brown and David Gere. Museum Africa, Johannesburg; NSA GAllery, Durban; Michaelis Gallery, Cape Town 12/05/12 to 08/06/12.

Langerman, F. 2012. Re-sample. Curated by Stephan Erasmus. Absa Gallery, Johannesburg 07/11/12 to 24/01/13.

MacKenny, V. 2012. Winter exhibition. Everard Read, Cape Town. 26/07/12-10/08/12.

Richards, C. 2012. Detour project. Lettera27 foundation, Milan, Italy. Fall 2012.

Richards, C. 2012. Context. Curated by Fabian Saptouw. Michaelis Galleries, Cape Town. 16/02/12 – 07/03/12.

Richards, C. 2012. Not my War. Curated by David Brits. Michaelis Galleries, Cape Town. 29/06/12 to 25/07/12.

Richards, C. 2012. If a Tree... Curated by Claire Butcher. Stevenson Gallery, Johannesburg. 05/07/12-03/08/12.

Richards, C. 2012. Johannesburg Art Fair.Gallery AoP. Curated by Alet Viljoen. Sandton Convention Centre, Johannesburg. 07/09/12-09/09/12.

Searle, B.C. 2012. Cinema Remixed & Reloaded 2.0. Black Women and the moving image since 1970. 11th Havana Biennale. Curated by Andrea Barnwell Brownlee and Valerie Cassel Oliver. Galeria Collage Habana, Havana, Cuba 11/05/12 -11/06/12.

Searle, B.C. 2012. DakArt 2012, Dakar Biennale. Curated by Christine Eyene, Nadira Laggoune and Riason Naidoo. National Gallery, Dakar, Senegal. 11/05/12-20/06/12.

Searle, B.C. 2012. The Human Condition. Curated by Les Christensen. Bradbury Gallery, State University, Arkansas, USA. 23/08/12 to 28/09/12.

Siopis, P. 2012. Trade Routes Over Time. Curated by Joost Bosland. Stevenson Gallery, Cape Town. 04/04/12 to 12/05/12.
Siopis, P. 2012. Not My War. Curated by David Brits. Michaelis Galleries, Cape Town. 29/06/12 to 25/07/12.

Siopis, P. 2012. Fiction as Fiction (Or, A Ninth Johannesburg Biennale). Curated by Joost Bosland, Stevenson Gallery, Cape Town. 29/11/12 to 12/01/13.

Siopis, P. 2012. This is a True Story, Frieze Art Fair and Prince Charles cinema, London. 11/10/12.

Skotnes, P. 2012. Context. Curated by Fabian Saptouw. Michaelis Galleries, Cape Town. 16/02/12 – 07/03/12.

Younge, J.G.F.2012. Not My War. Curated by David Brits. Michaelis Galleries, Cape Town. 29/06/12 to 25/07/12.

Younge, J.G.F. 2012. Pointure. Curated by Ann-Marie Tully and Jennifer Kopping. University of Johannesburg Art Gallery, Gauteng. 08/08/12 to 29/08/12.

Master's degrees (by research)

Butcher, C. 2012. The Principles of Packing: a case study of two travelling exhibitions 1947-9. MFA. 1-167. Supervised by P. Skotnes and C. Hamilton.

Deane, N. 2012. A Heritage of Secrets: Confessional Mode/ On How to No. 1- 144. MFA. Supervised by V. Mackenny and C. Richards.

Grobler, I. 2012. The Cannibal's Banquet. MFA. 1-95. Supervised by F. Langerman and J. Alexander.

Muller, C. 2012. Release Me. Stitched implosions: sexuality, femininity, conflict and desire. MFA. 1-69. Supervised by J. Alexander.

Prinsloo, M. 2012. Falling into gentle ruin. MFA. 1-58. Supervised by C. Zaayman.

Purvis, B. 2012. Between Echoes: an experiment in creative collaboration. MFA. 1-302. Supervised by G. Younge and J. van der Schijff.

Mahashe, G. 2012. Dithugula tša Malefokana; Paying Libation in the Photographic Archive made by Anthropologists E.J. & J.D. Krige in 1930s Bolobedu, under Queen Modjadji III. 1-110. MAFA. Supervised by P. Skotnes and C. Hamilton.

Viljoen. S. 2012. Avant lounge exotica: an investigation into the print magazine and interior living space as a meeting place of consumerist culture and personal subjectivities. MFA. 1-59. Supervised by S. Inggs.

Zimmer, N. 2012. Jazz contacts. MAFA. 1-180. Supervised by C. Zaayman.

Department of Historical Studies

Research Report 2012

HEAD OF DEPARTMENT: PROFESSOR NIGEL WORDEN

Department Profile

Research and research-linked scholarly work in the Department of Historical Studies concentrates mainly upon modern and contemporary history reflected through written, oral and visual sources, and is both lively and varied in focus. Fields of southern African investigation include environmental history, economic and social history, urban history, medical history, gendered history, the history of war and warfare, film and history, and the history of slavery. There is also a growing research focus on the Indian Ocean world and Africa's role within it and on comparative histories of the early Cape and Australian colonies. The rich research culture of Historical Studies at UCT is fertilised by close links with the Kaplan Centre for Jewish Studies and constantly expanding scholarly links nationally and into the African continent and beyond, and by an active complement of distinguished Honorary Research Associates.

The Centre for Popular Memory focuses on African oral history, research and advocacy while also developing audio -visual archival material for digital dissemination.

Its research respects the value of multi-lingual approaches in collecting, preserving and creating access to data, along with technologically relevant outputs through academic journals, exhibitions, film and other portable media platforms. The Centre's African Oral history archive contains over 3000 recordings in 12 languages, many with full transcripts and translations.

Departmental Statistics

Permanent and long-term contract staff

Professors	6
Associate Professors	4
Senior Lecturers	1
Lecturers	3
Technical and Clerical Staff	2
Total	16

Honorary staff

Honorary Professors	1
Honorary Research Associates	4
Emeritus Professors	2
Total	7

Students

Post Doctoral	1
Doctoral	7
Master's	10
Honours	15
Undergraduate	1958
Total	1991

Centre for Popular Memory

Director	1
Deputy Director	1
Digitisation Manager	1
Sound Archivist	1
Archival Assistant	1
Project Co-ordinator	1
Total	6

Research Fields and Staff

ASSOCIATE PROFESSOR MOHAMED ADHIKARI

Genocide in settler societies; Coloured identity and politics in the 19th and 20th centuries.

PROFESSOR VIVIAN BICKFORD-SMITH
Urban history, Cape Town history, film and history; race and ethnic identity in South Africa.

DR SEAN FIELD
Popular memory, oral history, visual history and the archival location and dissemination of stories.

ASSOCIATE PROFESSOR SHAMIL JEPPIE
19th century Middle East and North Africa; District Six and Cape Flats history.

BODHISATTVA KAR
Cultural and intellectual histories (particularly histories of body and senses, objects and materiality, practices and customs, sentiments and emotions, and texts and concepts); transnational and comparative histories of colonialism

PROFESSOR ANNE MAGER
Twentieth century gendered history, gender and development, liquor in South Africa in the twentieth century.

ASSOCIATE PROFESSOR RICHARD MENDELSOHN
South African Jewish history; Film and history; Jewry in the South African War.

DR ASHLEY MILLAR
Early modern European views of and encounters with China; Enlightenment intellectual history

DR MAANDA MULAUDZI
Rural South African history focusing on land dispossession, agrarian change, identity and chieftainship with particular emphasis on Venda in the Northern Province.

PROFESSOR NIGEL PENN
The Cape north-western frontier in the 18th century; Khoisan history; Dutch colonial history; comparative Cape and Australian frontier history.

PROFESSOR HOWARD PHILLIPS
Medicine, health and disease in South Africa; history of higher education in South Africa.

PROFESSOR MILTON SHAIN
Comparative studies in South African and American Jewry; antisemitism; history of South African Jewry.

ASSOCIATE PROFESSOR LANCE VAN SITTERT
Environmental history.

PROFESSOR NIGEL WORDEN
Slavery and post-emancipation labour in the Western Cape; 18th century Cape Town; comparative social and cultural history of the Cape and Australia, c.1750-1850.

Contact Details

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E-mail: Brenda.Beneke@uct.ac.za
Web: https://historicalstudiesuct.wordpress.com

Research output

Authored books

Adhikari, M. 2012. Against the Current. Cape Town: Juta and Company Ltd. 54pp. ISBN 9781919895857.

Field, S.P. 2012. Oral History, Community and Displacement. New York: Palgrave Macmillan. 221pp. ISBN 978-0-230-10890-5.

Phillips, H. 2012. Plague, pox and pandemics. Johannesburg: Jacana Media (Pty) Ltd. 165pp. ISBN 978-1-4314-0385-1.

Edited books

Saunders, C.C., Dzinesa, G.A. and Nagar, D. (eds) 2012. Region-Building in Southern Africa: Progress, Problems and Prospects. 350pp. London: Zed books. ISBN 978 1 7803 2178 3.

Worden, N.A. (eds) 2012. Cape Town between East and West: Social Identities in a Dutch Colonial Town. 252pp. South Africa: Jacana Media (Pty) Ltd. ISBN 978-1-4314-0292-2.

Chapters in books

Baartman, T. 2012. Protest and Dutch burgher identity. In N. Worden (ed.), Cape Town between East and West: Social Identities in a Dutch Colonial Town, pp. 65-83. South Africa: Jacana Media (Pty) Ltd. ISBN 978-1-4314-0292-2.

Dzinesa, G.A., Nagar, D. and Saunders, C.C. 2012. Introduction: region-building in southern Africa: progress, problems and prospects. In C. Saunders, G. Dzinesa and D. Nagar (eds), Region-Building in Southern Africa: Progress, Problems and Prospects, pp. 1-21. London: Zed books. ISBN 978 1 7803 2178 3.

Field, S.P. 2012. "Others killed in my eyes": Rwandan refugee testimonies from Cape Town. In L. Shopes and B.M. Stave (eds), Oral History, Community and Displacement, pp. 133-145. New York: Palgrave Macmillan. ISBN 978-0-230-10890-5.

Field, S.P. 2012. "There your memory runs like a camera back": moving places and audiovisual oral histories from

Klipfontein Road. In L. Shopes and B.M. Stave (eds), Oral History, Community and Displacement, pp. 117-132. New York: Palgrave Macmillan. ISBN 978-0-230-10890-5.

Field, S.P. 2012. Disappointed imaginings: narcissm and empathy in post-apartheid South Africa. In L. Shopes and B.M. Stave (eds), Oral History, Community and Displacement, pp. 165-177. New York: Palgrave Macmillan. ISBN 978-0-230-10890-5.

Nagar, D., Saunders, C.C. and Dzinesa, G.A. 2012. Conclusion: region-building in southern Africa: progress, problems and prospects. In C. Saunders, G. Dzinesa and D. Nagar (eds), Region-Building in Southern Africa: Progress, Problems and Prospects, pp. 297-305. London: Zed books. ISBN 978 1 7803 2178 3.

Penn, N.G. 2012. Soldiers and Cape Town society. In N. Worden (ed.), Cape Town between East and West: Social Identities in a Dutch Colonial Town, pp. 176-193. South Africa: Jacana Media (Pty) Ltd. ISBN 978-1-4314-0292-2.

Saunders, C.C. 2012. Peacekeeping: from the United Nations to the SADC stand-by force. In C. Saunders, D. Dzinesa and D. Nagar (eds), Region-Building in Southern Africa: Progress, Problems and Prospects, pp. 92-106. London: Zed books. ISBN 978 1 7803 2178 3.

Saunders, C.C. 2012. Pixley Seme and "Abantu-Batho". In P. Limb (ed.), The People's Paper: A Centenary History and Anthology of "Abantu-Batho", pp. 117-127. Johannesburg: WITS University Press. ISBN 9781868145713.

Saunders, C.C. 2012. The history of international mediation in southern Africa: some reflections. In U. Engel, F. Hadler and M. Middell (eds), New Mediation Practices in African Conflicts, pp. 43-53. Leipzig, Germany: Leipziger Universitatsverlag GmbH. ISBN 9783865837035.

Shain, M. and Bastos, M. 2012. Muslim antisemitism and anti-Zionism in postwar South Africa. In R.S. Wistrich (ed.), Holocaust Denial. The Politics of Perfidy, pp. 137-155. Germany: Walter De Gruyter & Co. ISBN 9783110288223.

Van Sittert, L. 2012. Nation building knowledge: Dutch indigenous knowledge and the invention of white South Africanism, 1890-1909. In D.M. Gordon and S. Krech III (eds), Indigenous Knowledge and the Environment in Africa and North America, pp. 94-109. United States of America: Ohio University Press. ISBN 978-0-8214-1996-0.

Worden, N.A. 2012. Introduction: Cape Town between East and West. In N. Worden (ed.), Cape Town between East and West: Social Identities in a Dutch Colonial Town, pp. ix-xxii. South Africa: Jacana Media (Pty) Ltd. ISBN 978-1-4314-0292-2.

Worden, N.A. 2012. Public brawling, masculinity and honour. In In N. Worden (ed.), Cape Town between East and West: Social Identities in a Dutch Colonial Town, pp. 194-211. South Africa: Jacana Media (Pty) Ltd. ISBN 978-1-4314-0292-2.

Articles in Peer-reviewed Journals

Bickford-Smith, V. 2012. Introduction: the case for studying cities and nationalisms. Journal of Urban History, 38(5): 855-861.

Bickford-Smith, V. 2012. Providing local color?: "Cape Coloreds," "Cockneys," and Cape Town's identity from the late nineteenth century to the 1970s. Journal of Urban History, 38(1): 133-151.

Field, S.P. 2011. Reading and representing African refugees in New York. Kronos: Southern African Histories, 37(November): 120-128.

Ncube, G. 2012. 'The problem of the health of the native': colonial rule and the rural African healthcare question in Zimbabwe, 1890s-1930. South African Historical Journal, 64(4): 807-826.

Penn, N.G. 2012. Laura J. Mitchell, Belongings: property, family and identity in Colonial South Africa (An exploration of Frontiers, 1725-c. 1830). Kronos: Southern African Histories, 37(Nov): 4.

Saunders, C.C. 2012. Pan-Africanism: the Cape Town case. Journal of Asian and African Studies, 47(3): 291-300.

Saunders, C.C. 2012. The ANC's 100 years: some recent work on its history in historiographical content. Historia: Journal of the Historical Association of South Africa, 57(2): 428-447.

Saunders, C.C. 2011. The South Africa-Angola talks, 1976-1984: a little-known Cold War thread. Kronos: Southern African Histories, 37(Nov): 104-119.

Simpson, J. 2012. Boipatong: The politics of a massacre and the South African transition. Journal of Southern African Studies, 38(3): 623-647.

School of Languages and Literatures

Research Report 2012

HEAD OF SCHOOL: ASSOCIATE PROFESSOR CLIVE CHANDLER

School Profile

The School of Languages and Literatures was formed in 2002 through the amalgamation of the Department of Southern African Languages and the Department of Modern and Classical Languages and Literatures. The School brings into one organisational unit the teaching of languages and literatures (excluding English Language and Literature) at the University of Cape Town.

We recognize the complexity of our position at the southern end of Africa, in a University which strives to be fully part of Africa and the wider world. The range of languages taught in the School and the research done by staff and students of the School reflect this.

The teaching and research area of the School is wide, covering language, literatures and cultural studies in Afrikaans, Arabic, Dutch, French, Business French, German, Classical Greek, Hebrew, Italian, Latin, Portuguese, Sotho, Spanish, and Xhosa, and Special Purposes teaching in Afrikaans and Xhosa. There is also a strong emphasis on the role that these languages and literatures and the cultures they embody, have played and continue to play in Africa. Research in the School also encompasses Literary Semantics, Literary Theory, Afrikaans Media Studies, Creative Writing in Afrikaans and Xhosa, Xhosa Lexicography, Historiography, Multimedia, Literature and the Internet, War Literature, Ancient Literature, Philosophy and Rhetoric, French literature from 17th century to the present, French Linguistics and Sociolinguistics, Teaching French as a Foreign Language, German Colonialism and Postcolonial Literature and Theory, Contemporary German Literature, Literary Theory and Women's Studies, Italian and German post-war Cinema, Italian Literature of the 19th and 20th centuries, Asian Cinema, Italian Renaissance Literature, Modern and Ancient Hebrew Literature, Classical Arabic Literature and Islamic Studies, Modern Arabic Literature and Political discourse, and Hispanic Literature.

The School's awareness of its location in Africa is reflected in many of its research projects. Among these are studies of language learning in the African context, Xhosa linguistics, African oral traditions and orature, Literature and Cinema in Francophone West Africa, the Translation of Southern African Literature into French, Sephardi Women Writers from the Maghreb, German Colonial Discourse in Africa and German Missionary Writings, Comparative Perspectives on German/Afrikaans Literature.

The School has a number of formal and informal links with universities elsewhere in Africa (e.g. National University of the Ivory Coast at Abidjan, University of St Denis in Réunion, University of Zimbabwe), and further afield (e.g. ENS Cachan – Grenoble 3 Stendhal, University of Bologna). The School is also a founder member of L'Ecole doctorale regionale (Afrique australe – Océan indien).

School Statistics

Permanent and long-term contract staff

Professors	4
Associate Professors	4
Senior Lecturers	5
Full-time Lecturers	9
Part-time Lecturers	10
Administrative Staff	3
Total	35

Students

Doctoral	13
Master's	60
Honours	55
Undergraduate	3725
Total	3853

Honorary staff

Honorary Research Associates	3

Research Fields and Staff

Permanent staff

ASSOCIATE PROFESSOR CLIVE CHANDLER
Director of School; ancient philosophy and rhetoric; Philodemus; Homer commentaries; madness in antiquity.

PROFESSOR JEAN-LOUIS CORNILLE
Section Head (French); 19th - 20th century French literature.

DR JAY CORWIN
Section Head (Spanish); Senior Lecturer; Latin American literature.

DR RUTH DE OLIVEIRA
Lecturer; didactics of French as a foreign and second language; French Linguistics.

MS SOMIKAZI DEYI
Lecturer; multilingualism in higher education with a particular focus on the teaching of mathematics and science in the home language.

DR TESSA DOWLING
Senior Lecturer; Second language teaching and learning; sociolinguistics.

ASSOCIATE PROFESSOR YASIN DUTTON
Section Head (Arabic); early Islamic law; early Koranic manuscripts; Islamic law in the modern world.

DR VANESSA EVERSON
Senior Lecturer; Women writers from the Maghreb (1990 onwards); translation; modern language methodology.

PROFESSOR JOAN HAMBIDGE
Section Head (Afrikaans); poetry; theory of literature and criticism; gender studies; creative writing.

MRS SONJA LOOTS
Lecturer; Afrikaans literature; Dutch literature; Afrikaans archive; commemorating the past; Afrikaans writers writing about apartheid; memory and history in Afrikaans prose; museum practices in recent Afrikaans novels; social anthropological approaches in Afrikaans prose.

DR PASQUALE MACALUSO
Lecturer; Modern Arabic literature; 20th century Syrian discourse; Arab nationalism.

MS ANNABELLE MARIE
Lecturer; didactics of foreign language and analysis of French literature, especially from the Caribbean and French-speaking Africa.

ASSOCIATE PROFESSOR ABNER NYAMENDE
African Literature; Oral Literature; Xhosa Clan Names.

MS RETHABILE POSSA
Lecturer; Sesotho Literature; Folklore, riddles and onomastics.

DR AZILA REISENBERGER
Section Head (Hebrew); Modern and Ancient Hebrew literature.

DR ROMAN ROTH
Section Head (Classics); Classical Archaeology and material culture of the Mediterranean world.

MS BRIGITTE SELZER
Section Head (German); Lecturer; German language and literature; woman/gender studies; satire; language skepticism 19th/20th century; turn-of-the-century literature; German Romanticism.

MR WILHELM SNYMAN
Lecturer; German and Italian 20th century literature and post-war cinema; Asian cinema; colonial literature and history of Asia and Africa; paedogogics of German & Italian.

DR MANTOA ROSE SMOUSE
Section Head (African Languages); Child language acquisition, Second language teaching.

MRS GAIL SOLOMONS
Senior Lecturer; paedagogics of Latin; language acquisition for second language speakers; the teaching of etymology.

ASSOCIATE PROFESSOR GIONA TUCCINI
Section Head (Italian); Medieval and Renaissance lyric poetry and prose; mysticism and religious writings; 20th century literature, cinema and drama.

PROFESSOR ETIENNE VAN HEERDEN
Historiography and fiction; Caribbean Dutch literature in the former Dutch colonies; theory of literature; creative writing; the Internet as educational medium.

DR IAN VAN ROOYEN
Lecturer; second language acquisition and teaching; special purposes language teaching; contemporary theory of metaphor.

PROFESSOR DAVID WARDLE
Roman history and historiography; Roman exemplary literature; Roman religion and ruler cult.

Distinguished visitors

Dr D Culpin, St Andrews, Scotland.
Professor Susana Chavez-Silverman, Pomona College, USA
Patrick Chamoiseau, Martinique
Professor Mei Zeng, Shandong Jiaotong University, China

Honorary Research Associates

Dr L. Gochin Raffaelli. Italian Literature.
Dr A Seba-Collett. French Literature
Associate Professor A. Wynchank. French Literature.

Research output

Authored books

Van Heerden, E.R. 2012. Haai Karoo. Tafelberg Publishers. 160pp. ISBN 978-0-624-05616-4.

Whitaker, R.A. 2012. The Iliad of Homer: A Southern African Translation. Cape Town: New Voices. 528pp. ISBN 978-1-920411-97-8.

Edited books

Ester, J., Van Der Merwe, C.N. and Mulder, E. (eds) 2012. Woordeloos tot Verhaal. 382pp. Stellenbosch: Sun Press. ISBN 978-920338-74-9.

Tuccini, G. (eds) 2012. Enrico Pea. Bibliografia completa (1910-2010) e nuovi saggi critici. 295pp. Italy: Bibliografi a e Informazione. ISBN 978-88-907-2500-5.

Chapters in books

Cornille, J.-L. 2012. La babil des petites classes (Flaubert, Rouaud, Chamoiseau). In S. Lafont (ed.), Rcits et dispositifs d'enfance, pp. 27-56. Montpellier: Presses Universitaires de la Mditerrane. ISBN 978-2-84269-950-5.

Dutton, Y.S. 2012. The importance of Malik & the Maliki Madhhab today. In A. Clarke (ed.), The Four Madhhabs of Islam, pp. 51-65. United Kingdom: Diwan Press. ISBN 978-1-908892-02-7.

Reisenberger, A. 2012. David's Laments as a vehicle of vindication. In M.M. Caspi and J.T. Greene (eds), Portraits of a King Favored by God, pp. 81-108. United States of America: Gorgias Press. ISBN 978-1-61143-405-7.

Reyneke, C. 2012. 'Horrelpoort' (Eben Venter) en 'Equatoria' (Tom Dreyer): Op soek na die hart van "donker Afrika". In H. Ester, C. van der Merwe and E. Mulder (eds), Woordeloos tot Verhaal, pp. 281-295. Stellenbosch: Sun Press. ISBN 978-920338-74-9.

Roth, R. 2012. Regionalism: towards a new perspective of cultural change in Central Italy, c. 350-100 BC. In S.T. Roselaar (ed.), Processes of Integration and Identity Formation in the Roman Republic, pp. 17-34. Netherlands: Koninklijke Brill NV. ISBN 9789004229112.

Smouse, M.R., Gxilishe, S., de Villiers, J.G. and de Villiers, P.A. 2012. Children's acquisition of subject markers in isiXhosa. In H. van Riemsdijk, H. van der Hulst and J. Koster (eds), Pronouns and Clitics in Early Language, pp. 209-236. Germany: Mouton de Gruyter. ISBN 978-3-11-023880-8.

Snyman, J.W.O. 2012. Henri Fauconnier, Hugh Clifford: Malaya as a medium of self-exploration. In M.R. Pakri and A. Graf (eds), Fiction and Faction in the Malaya World, pp. 107-125. United Kingdom: Cambridge Scholars Publishing. ISBN 978-1-4438-4119-1.

Van Der Merwe, C.N. 2012. Liminale resie in Etienne van Heerden se '30 nagte in Amsterdam'. In H. Ester, C. van der Merwe and E. Mulder (eds), Woordeloos tot Verhaal, pp. 315-333. Stellenbosch: Sun Press. ISBN 978-920338-74-9.

Van Zyl, M. 2012. Oorkoepelende narratief: Die verhouding tussen vader en seun in Etienne van Heerden se oeuvre. In H. Ester, C. van der Merwe and E. Mulder (eds), Woordeloos tot Verhaal, pp. 297-314. Stellenbosch: Sun Press. ISBN 978-920338-74-9.

Encyclopaedia entries

Chandler, C.E. 2012. Cicero. In H.J. Klauk (ed.), Encyclopedia of the Bible and its Reception Vol 4, pp. 317-319. New York: De Gruyter. ISBN 978-3-110-18373-2.

Wardle, D. 2012. Caligula. In H.J. Klauk (ed.), Encyclopedia of the Bible and its Reception Vol 4, pp. 810-811. New York: De Gruyter. ISBN 978-3-110-18372-2.

Wardle, D. 2012. Claudius. In H.J. Klauk (ed.), Encyclopedia of the Bible and its Reception Vol 4, pp. 399-400. New York: De Gruyter. ISBN 978-3-110-18373-2.

Articles in Peer-reviewed Journals

Cornille, J.-L. 2012. De << Chamoiseau >> aux << oiseaux de Cham >>: l'auteur retourne. Intercultural Francophonies, 22: 171-181.

Cornille, J.-L. 2012. L'Homologue: Bataille et la recriture de soi. Nottingham French Studies, 51(2): 163-174.

Dowling, T. 2011. 'Stressed and sexy': lexical borrowing in Cape Town Xhosa. International Journal of Multilingualism, 8(4): 345-366.

Dowling, T. 2012. Translated for the dogs: language use in Cape Town signage. Language Matters, 43(2): 240-262.

Dutton, Y.S. 2011. The politics of usury or the politics of zakt? Reflections on the future of Islam in Britain. Journal of Islamic Law and Culture, 13(2-3): 226-241.

Dutton, Y.S. 2012. Orality, literacy and the "Seven Ahruf" Hadth. Journal of Islamic Studies, 23(1): 1-49.

Everson, V. 2012. Continuous assessment for tertiary-level language teaching: an aid for learners to monitor their progress? Journal for Language Teaching, 46(1): 117-135.

Everson, V. and le Roux, S. 2012. Formationde professeur de franais langue trangre l'Univerit du Cap: valuation et amliorations. Monde Synergies, 9: 67-87.

Hambidge, J.H. 2012. "Where the wind wills: Geoffrey Haresnape" (Review). New Contrast, 40(2): 87-92.

Hambidge, J.H. 2012. 'n Literr-teoretiese speurtog: 'n analise van Kerneels Breytenbach se Piekniek by Hangklip (2011). Stilet: Tydskrif vir die Afrikaanse Letterkundevereniging, 24(2): 1-15.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: a story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Marie, A.C. 2012. << Donner sa langue au chien>>. Traques critiques de la figure du molosse dans L'Esclave vieil homme et le Molosse de P. Chamoiseau. Intercultural Francophonies, 22: 183-197.

Marie, A.C. and Cornille, J.-L. 2012. Tant de chiens. Petit colloque au sujet d'une uvre de nganang eclairee a la lueur blafarde de Baudelaire et de Cervantes. Estudios Romnicos, 21: 105-116.

Murray, J. 2012. Classical dialogue: allusion and intertextuality in Charl-Pierre Naud's 'Against the Light'. Tydskrif vir letterkunde, 49(2): 25-33.

Nasson, L. 2012. Alla Base Di Ogni Espansione, Il Desiderio Sessuale. Negotiating exoticism and colonial conquest in Ennio Flaiano's 'Tempo Di Uccidere'. Italian Studies in Southern Africa, 25(1): 40-58.

Pascoe, M. and Smouse, M.R. 2012. Clinical practice: Masithethe and language development and difficulties in isiXhosa. SAMJ South African Medical Journal, 102(6): 469-471.

Possa, R.M. 2012. Adaptability of Sesotho proverbs: a sociolinguistic approach. Southern African Journal for Folklore Studies, 22(1): 125-135.

Tuccini, G. 2012. "Modernisti" in Rovolta. Anarchia ed eresia di Giovanni Bione. Italian Studies in Southern Africa, 25(2): 1-25.
Tuccini, G. 2012. Renoppia, belli virago. Studi E Problemi Di Critica Testuale, 85(2): 141-171.

Van Der Merwe, C.N. 2012. Om te skryf oor die onbeskryflike: verlies en mistieke verlange in 'Die sneeuslaper' van Marlene van Niekerk. Literator, 33(2): 1-9.

Wardle, D. 2012. Suetonius on Augustus as God and man. Classical Quarterly, 62(1): 307-326.

Wardle, D. 2012. Suetonius on Vespasianus Religiosus in AD 69-70: signs and times. Hermes-Zeitschrift fur Klassische Philologie, 140(2): 184-201.

Whitaker, R.A. 2012. A further note on the first classical association of South Africa 1908-1910. Acta Classica, 55: 165-167.

Wynchank, A. 2012. 'Le Denier de l'empire' de Sembene Ousmane, entre roman et scnario de film. French Studies in Southern Africa, 42: 149-165.

Peer-reviewed published conference proceedings

Claassen, J.A. 2012. Measuring success: the effectiveness of long-term career-orientated Afrikaans additional language communication courses to fourth-year medical students, by the conclusion of a hospital pilot course. In L. Gomez Chova, A. Lopez Martinez and I. Candel Torres (eds), Conference Proceedings - 5th International Conference of Education, Research and Innovation (ICERI2012), 19-21 November 2012, Madrid, Spain. Madrid, Spain: International Association of Technology, Education and Development (IATED). ISBN 978-84-616-0763-1.

Tuccini, G. 2012. Il diavolo senza corna. Simbolo e codice del fantastico papiniano. In P. Farinelli (ed.), Proceedings of Cose dell'altro mondo. Metamorfosi del fantastico nella letteratura italiana del XX secolo. Atti della Giornata internazionale de Studi., 29 October 2009, Llubljana. Italy: Edizioni Ets, Piazza Carrara. ISBN 978-884673329-0.

Van Rooyen, I.W. 2012. The language of the symptom: The architecture of an assessment tool for oral language competency within a clinical context. In L. Gomez Chova, A. Lopez Martinez and I. Candel Torres (eds), Conference Proceedings - 5th International Conference of Education, Research and Innovation (ICERI2012), 19-21 November 2012, Madrid, Spain. Madrid, Spain: International Association of Technology, Education and Development (IATED). ISBN 978-84-616-0763-1.

Creative writing

Anthology of poems

Hambidge, J.H. 2012. Lot se vrou. Cape Town: Human & Rousseau. 96pp.

South African College of Music

Research Report 2012

DIRECTOR: DR MORNÉ BEZUIDENHOUT

College Profile

The South African College of Music pursues a wide range of musical activities. Besides musicology and composition, there is a strong instrumental and vocal tradition in the classical field, as well as a very active jazz department and a flourishing opera school. Ethnomusicology and practical African music studies are an important part of the department's programme.

College Statistics

Permanent staff

Professors	3
Associate Professors	11
Senior Lecturers	8
Lecturers	5
Technical Support	2
Departmental Assistants	2
Administrative Staff	5
Total	35

Honorary staff

Emeritus Professor	3

Students

Doctoral	10
Master's	14
Honours	8
Undergraduate	347
PG Diploma	21
Total	400

Research Fields and Staff

PROFESSOR HENDRIK HOFMEYR
Composition; orchestration; music theory and analysis

PROFESSOR MICHAEL ROSSI
Jazz: performance (woodwinds); composition; improvisation, history

PROFESSOR KAMAL KHAN
Opera

ASSOCIATE PROFESSOR FARIDA BACHAROVA
Violin performance; chamber music; orchestral studies; professional orchestral musician

ASSOCIATE PROFESSOR MIKE CAMPBELL
Composition and arrangement for jazz ensemble, stage band & symphony orchestra; big band jazz performance; electric bass

ASSOCIATE PROFESSOR VIRGINIA DAVIDS
Vocal performance (specialised in Verdi)

ASSOCIATE PROFESSOR FRANCOIS DU TOIT
Piano performance; chamber music; accompanying; recording

ASSOCIATE PROFESSOR SIDWIL HARTMAN
Vocal performance in oratorio opera, especially Puccini, Verdi and contemporary composers.

ASSOCIATE PROFESSOR ANRI HERBST
Music education; intercultural musicology; neuromusicology

ASSOCIATE PROFESSOR FRANKLIN LAREY
Piano performance; accompanying; chamber music

ASSOCIATE PROFESSOR BRAD LIEBL
Vocal performance (opera and Lieder), especially contemporary and rarely performed repertoire and composers.

ASSOCIATE PROFESSOR REBEKKA SANDMEIER
Opera and oratorio; music of the 15th, 19th and 20th century; historically informed performance

ASSOCIATE PROFESSOR ANDREW LILLEY
Jazz: theory; performance; ensemble; improvisation; contemporary music practice

ASSOCIATE PROFESSOR ALBIE VAN SCHALKWYK
Piano performance; chamber music; art song accompaniment and interpretation

DR MORNÉ BEZUIDENHOUT
Plainchant and liturgy

DR MARTIN WATT
Composition; orchestration; music theory and analysis

DR SYLVIA BRUINDERS
Ethnomusicological theory and methodology; African and African diasporic music;
Musical practices and social history of the Western Cape

MR THEO HERBST
Theoretical research: Music Technology; Signal processing methods applied in musical analysis; Applied research: Musical Composition; Technology-based solutions for creative challenges

MR DARRYL ANDREWS
Jazz Guitar Performance, Composition/Arrangement, Ensemble and Theory. Jazz: theory arrangement;

MR WILLIAM HAUBRICH
Brass studies

MR MICHAEL NIXON
Ethnomusicology theory; music in popular culture; music of sub-Saharan Africa; music and society in South Asia; music and society in southern Africa

MR JASON REOLON
Jazz piano; performance; composition; recording

MS BECKY STELTZNER
Woodwinds, and particularly clarinets, in South African history and South African collections; copyright vs. public domain in sheet music and developing syllabi for disadvantaged communities; repertoire development in the woodwind and chamber music fields

MR DIZU PLAATJIES
African music performance (specialised in the performance of indigenous music of the Eastern and Western Cape)

MR PATRICK TIKOLO
Vocal studies

MS AMANDA TIFFIN
Jazz Vocals, Performance, Composition, Arrangement, especially contemporary and jazz vocal arranging

MR JAMES GRACE
Classical guitar performance; chamber music

Research output

Authored books

Sandmeier, R. 2012. Geistliche Vokalpolyphonie und Frühhmanismus in England: Kulturtransfer im 15. Jahrhundert am Beispiel des Komponisten John Dunstable. Germany: V&R Unipress. 311pp. ISBN 9783899719468.

Articles in Peer-reviewed Journals

Herbst, A.C. 2012. Editorial: Audio data compression and its implications for musicology. Journal of the musical arts in Africa, 9(1): viii – xii.

Peer-reviewed published conference proceedings

Sandmeier, R. 2012. Instrumentale cantus firmus-Kompositionen und die Kirchenmusik in England. In A. Ammendola, D. Glowotz and J. Heidrich (eds), Proceedings of Polyphone Messen im 15. und 16. Jahrhundert: Funktion, Kontext, Symbol, 11-14 October 2010, Munster, Germany. Göttingen: V & R Unipress. ISBN 978-3- 89971-822-5.

Creative works

Arrangements

Campbell, M.I. 2012. God Bless the Child [Hertzog]. Commissioned by: Africa Centre for HIV/AIDS Research. Symphony Orchestra, soloist & chorus. 3.5 min.

Campbell, M.I. 2012. Ngingedwa [Zamajobe]. Commissioned by: TM Productions. Soloist, rhythm & strings. 3 min.

Campbell, M.I. 2012. Walk on By [Bacharach]. Commissioned by: My Design Inc. Jazz Big Band & Soloist. 3 min.

Hofmeyr, H.P. 2012. Bont konsertina laans die watervoor. Requested by Menlopark High School Choir. Mixed choir, piano. 2 min.

Hofmeyr, H.P. 2012. Concerto for Flute, Harp and Strings [Version with string quintet]. Requested by Liesl Stoltz and Jacqueline Kerrod. Flute, harp, 2 violins, viola, cello, double bass. 17 min.

Hofmeyr, H.P. 2012. Of Darkness and the Heart. Soprano, orchestra. 13min.

Hofmeyr, H.P. 2012. Variazioni sopra una ninnananna africana. Requested by Heleen du Plessis. Cello, marimba. 5 min.

Hofmeyr, H.P. 2012. Wynverse [Wine Songs]. Requested by Serafini Brillanti. High voice, trumpet, piano. 5 min.

Tiffin, A. 2012. Afri-Dite. Commissioned by Lindie Lila. 5-part vocal ensemble; programmed backing; cello. 3.44.

Tiffin, A. 2012. Baby its Cold Outside (Loesser). Commissioned by: Faculty of Health Sciences Centenary. Vocal duet, jazz rhythm section, saxophone. 5 min.

Tiffin, A. 2012. Birdsong (Hendricks, M). Commissioned by: Faculty Of Health Sciences Centenary. Vocal solo, flute, piano. 5 min.

Tiffin, A. 2012. Blessings. Commissioned by Lindie Lila. 6-part vocal ensemble, a cappella. 3.15.

Tiffin, A. 2012. Gayatri Mantra (Trad.). Commissioned by Lindie Lila. Part vocal ensemble; programmed backing; percussi. 4.48 min.

Tiffin, A. 2012. Gershwin medley (G & I Gershwin). Commissioned by: Faculty Of Health Sciences Centenary. Vocal solo, jazz rhythm section, saxophone. 3 min.

Tiffin, A. 2012. Goddess Fertility. Commissioned by Lindie Lila. 5 part vocal ensemble; acoustic guitar, cello. 3.14 min.

Tiffin, A. 2012. I Sing the Body Electric (Gore, M). Commissioned by: Faculty of Health Sciences Centenary. 12-piece vocal ensemble, strings, 2 flutes, saxoph. 8 min.

Tiffin, A. 2012. In My Life. Commissioned by: Faculty of Health Sciences Centenary. 12-piece vocal ensemble, Violin, Rhythm Section. 5 min.

Tiffin, A. 2012. Lady Water. Commissioned by Lindie Lila. 5-part vocal ensemble; programmed backing, cello. 9.04 min.

Tiffin, A. 2012. Make You Feel My Love (Dylan). Commissioned: Faculty of Health Sciences Centenary. 12 piece- vocal ensemble, violin, rhythm section. 4 min.

Tiffin, A. 2012. May the Circle Be Open (Trad.). 7-part Vocal Ensemble, a cappella. 3.04 min.

Tiffin, A. 2012. Shes on Fire. Commissioned by Lindie Lila. piano, voice, cello, violin, double bass, percussi. 3 min.

Tiffin, A. 2012. Sisters of the Moon. 5-part vocal ensemble; programmed backing. 5.12min.

Tiffin, A. 2012. Starlights Keep. Commissioned by Lindie Lila. 5-part vocal ensemble; programmed backing, guitar. 5.49 min.

Tiffin, A. 2012. Tears On My Pillow (Bradford & Lewis). Commissioned by: Faculty of Health Sciences Centenary. 5-part vocal ensemble, rhythm section. 5 min.

Tiffin, A. 2012. The Heart of Life (Mayer, J.). 5-part Jazz Vocal Ensemble, a cappella. 3 min.

Tiffin, A. 2012. Thins Aint What They Used to Be (Ellington). 5-Part Jazz Vocal Ensemble, Jazz rhythm section. 4 min.

Van Schalkwyk, A.A. and Andrag, I. 2012. Preltjies vir die vaak, 20 original lullabies (Ilse Andrag). Requested by Ilse Andrag. Voice and piano. 30 min.

Van Schalkwyk, A.A. 2012. Rapsodie espagnole (Maurice Ravel). Requested by Piano Extravaganza concert on 6 March 2012. Three pianos. 15 min.

Compositions

Campbell, M.I. and Nation Youth Jazz Band, 2012. Bra Ben (thanks, Fletch). South African Music Rights Organisation. Jazz Big Band. 5 min.

Campbell, M.I. 2012. Green and Gold. Commissioned by: Mathambo Music Inc. Jazz Big Band. 3.5 min.

Campbell, M.I. 2012. Home to Mama. Commissioned by: Mathambo Music Inc. Jazz Big Band. 3.5 min.

Campbell, M.I. 2012. Midtown Monday. Commissioned by: Mathambo Music Inc. Jazz Big Band. 3.5 min.

Campbell, M.I. 2012. Soul March. Commissioned by: Mathambo Music Inc. Jazz Big Band. 3.5 min.

Campbell, M.I. 2012. Twenty Plus. Commissioned by: Mathambo Music Inc. Jazz Big Band. 3.5 min.

Hofmeyr, H.P. 2012. A Song for St. Cecilias Day (John Dryden). Commissioned by Christo Burger for Akustika Chamber Singers. 8-part mixed choir. 5 min.

Hofmeyr, H.P. 2012. Concerto for Clarinet and Orchestra. Commissioned by Hugo Lambrechts music Centre for Danielle Rossouw. Clarinet, orchestra. 23 min.

Hofmeyr, H.P. 2012. Concerto for Flute, Harp and Strings. Commissioned by the SAMRO Foundation for Liesl Stoltz and Jacqueline Kerrod. Flute, harp, strings. 17 min.

Hofmeyr, H.P. 2012. Diableri. Commissioned by Louise Smit for Garreth Lubbe. Viola, guitar. 5 min.

Hofmeyr, H.P. 2012. Diablerie. Commissioned by Louise Smit for Garreth Lubbe. Viola, guitar. 5 min.

Hofmeyr, H.P. 2012. Die Lied van die Skepping. Commissioned by Menlopark High School Choir. Mixed choir, piano. 5 min.

Hofmeyr, H.P. 2012. Magnificat. Commissioned by Michael Barrett for The Chamber Singers. Mixed choir. 5 min.

Hofmeyr, H.P. 2012. Recorder Concerto. Requested by Louis Fouch for Stefan Temmingh. Recorder, harpsichord, strings. 12 min.

Hofmeyr, H.P. 2012. Sonata for Clarinet and Piano. Clarinet, piano. 17 min.

Rossi, M.J. 2012. Arrivo in Abruzzo. Commissioned by Advance Music, Tbingen, Germany. Ensemble mix. 8min.

Rossi, M.J. 2012. Buon Giorno Le Marche. Commissioned by Advance Music, Tbingen, Germany. Ensemble mix. 8min.

Rossi, M.J. 2012. To & Fro. Dedicated to Cathy & Darius Brubeck. Jazz Quartet. 10min.

Watt, M. 2012. New Year Show for mixed Chorus a Cappella (revised). The ATKV (Afrikaans Language and Cultural Societies). Soprano, Alto, Tenor, Bass. 5 mins.

Watt, M., Bacharova, F.A. and Visser-Downie, T. 2012. Sonata no. II for Violin and Piano. Dedicated to: Farida Bacharova and Tertia Visser-Downie. Violin, Piano. 14 mins.

Watt, M. and Members of the Free State Symphony Orchestra and Narrator, 2012. Van Hunks and the Devil for Septet and Narrator. The Free State Symphony Orchestra. Clarinet, Trumpet, Trombone, Bassoon, Violin, Doubl. 20 mins.

Watt, M., Van Schalkwyk, A.A. and Minnaar, M. 2012. Vier Liedere op gedigte van Marlene van Niekerk for Soprano and Piano. Dedicated to Albie van Schalkwyk and Magdalene Minnaar. Soprano, Piano. 16 mins.

Performances

Bacharova, F.A. 2012. Cape Town Philharmonic Orchestra Celebrity Gala Concert, Four Last Songs (Richard Strauss), Overtures (Wagner). Cape Town Philharmonic Orchestra, Bernhard Gueller (Conductor, Germany), Elza van der Heever (Soprano, E.) Artscape Opera House, Cape Town, 8 July. Leader/Concertmaster. 120 min.

Bacharova, F.A. 2012. Cape Town Philharmonic Orchestra Symphony Concert, Appalachian Spring (Copland), Rhapsody in Blue (Gershwin),Ma Vlast (Smetana). Cape Town Philharmonic Orchestra, Theodore Kuchar (Conductor,USA), Charl du Plessis (Piano, RSA). City Hall, Cape Town, 23 August. Leader/Concertmaster. 120 min.

Bacharova, F.A. 2012. Cape Town Philharmonic Orchestra Symphony Concert, Piano Concerto no.3 (Beethoven), Symphony no.9Choral (Beethoven). Cape Town Philharmonic Orchestra, Nicolas Cleobury (Conductor, England), K.Scherbakov (Piano, Switze). City Hall, Cape Town, 8 November. Leader/ Concertmaster. 120 min.

Bacharova, F.A. 2012. Cape Town Philharmonic Orchestra Symphony Concert, Rienzi Overture (Wagner), Violin Concerto no.4 in D (Mozart), Symphony no.1 (Schostakovich). Cape Town Philharmonic Orchestra, Victor Yampolsky (Conductor, USA), Oliver (Violin, France). City Hall, Cape Town, 17 May. Leader/Concertmaster. 120 min.

Bacharova, F.A. 2012. Cape Town Philharmonic Orchestra Symphony Concert, Symphony no.3 Eroica (Beethoven), Violin Concerto (Brahms). Cape Town Philharmonic Orchestra, Theodore Kuchar (Conductor.USA), Joshua Bell (Violin, USA). Artscape Concert Hall, Cape Town, 2 September. Leader/Concertmaster. 120 min.

Bacharova, F.A. and Du Toit, G.F. 2012. Cape Town Philharmonic Orchestra Symphony Concert, The Bartered Bride Overture (Smetana), Piano Concert (Scharwenka), Symphony no.4 (Brahms). Cape Town Philharmonic Orchestra, VictorYampolsky (Conductor, USA), Francois Du Toit (Piano, RSA City Hall, Cape Town 24 May. Leader/ Concertmaster. 120 min.

Bacharova, F.A. 2012. Fidelio Opera (Beethoven). Cape Town Philharmonic Orchestra. Cape Town Castle 7,9,10 March. Leader/Concertmaster. 180 min. each

Bacharova, F.A., Du Toit, G.F. and Chernev, K. 2012. Gipsy Trio (Haydn), Trio no.1 Op.1 (Beethoven),Trio no.2(Mendelssohn). Bouchard Finlayson, Hermanus, 27 July. Leader/Soloist. 90 min.

Bacharova, F.A. 2012. Huberte Rupert Memorial Concert,Violin Concerto(Raina), Berlioz. Cape Town Philharmonic Orchestra, Avigail Bushakevitz (Violin,RSA), M.Breedt (Mezzo-Soprano, Europe/R. Endler Hall, Stellenbosch, 7 December. Leader/ Concertmaster. 120 min.

Bacharova, F.A., Du Toit, G.F., Gabriel, P. and Chernev, K. 2012. Piano concerto in F (Mozart), Piano Quintet (Schumann), Piano Quintet (Dvorak). Cape Town Summer International Festival. Artscape Concert Hall, Cape Town, 4 February. Soloist. 120 min

Bacharova, F.A., Van Schalkwyk, A.A. and Stoltz, L. 2012. SACM Staff Concert, 5 Pieces for Violin, Flute and Piano (Cesar Cui). Baxter Concert Hall, Cape Town, 14 February. Soloist. 15 min.

Bacharova, F.A., Van Schalkwyk, A.A. and Stoltz, L. 2012. Sonata in C major for flute, violin and piano (JSF. Bach), Madrigal Sonata (Bohuslav Martinu), Three pieces (Mel Bonis), Deux interludes (J. Ibert), Five pieces, Opus 56(C. Cui, Trio (Nino Rota). Endler Hall, Stellenbosch, 15 September. Soloist. 90 min.

Bacharova, F.A. 2012. Standard Bank Jazz Festival. Grahamstown National Art Festival. Rhodes University, Grahamstown, 1, 2, 3 July. Soloist. 120 min. per performance

Bacharova, F.A., Stoltz, L., Chernev, K. and Gabriel, P. 2012. The Bacharova Quartet and Friends Concert, Symphony no 104(Haydn-Solomon), The AmericanQuartet in F (Dvorak), Adagio (Barber), Affirmation Dance (Noel Stokton), SONATA for VIOLIN and PIANO (Martin Watt)-World Premiere. Baxter Concert Hall, 18 September. Soloist. 90 min

Bacharova, F.A., Gabriel, P., Chernev, K. and Goodwin, P. 2012. The Bacharova Quartet, Cape Town Philharmonic Orchestra Fundraising Concert. Old Mutual House, Cape Town 15 April. Soloist. 120 min.

Bacharova, F.A. 2012. The Odeon String Quartet Concert , String Quartet no.2(Borodin),Symphony no.104London arrangement for string quartet and flute(Haydn-Solomon),Affirmation Dance(Noel Stokton)-Word Premiere. Odeon Concert Hall, Bloemfontein, 16 August. Leader/Soloist. 120 min.

Bacharova, F.A., Stoltz, L. and Van Schalkwyk, A.A. 2012. Three pieces (Mel Bonis), Deux interludes (J. Ibert), Five pieces, Opus 56(C. Cui, Trio (Nino Rota). Hermanus Music Society. City Hall, Hermanus, 22 July. Leader/Soloist. 90 min

Campbell, M.I. 2012. Act 2, Mandela Trilogy. Cape Town Opera. Wales Millenium Centre, Cardiff Wales Millenium Centre, Cardiff 20, 21 June. Composer, arranger. 35 min

Campbell, M.I. 2012. Mandela Trilogy (concert performance). Cape Town Opera. Performing Arts Centre Centre, Melbourne, Australia, 10 September. Composer, arranger. 25 min

Du Toit, G.F., Larey, F. and Van Schalkwyk, A.A. 2012. 3 Piano Concert. Works included by composers such as Chabrier, Ravel and Bach. Baxter Concert Hall, Cape Town, 6 March. Pianist. 60 min.

Du Toit, G.F. 2012. Concert Tour of Europe of South African Flute Compositions. Works by Hofmeyr, Klatzow, Du Plessis, Temmingh and Johnson. Liesl Stolz. Paris, Vienna, Cardiff University, 30 September, 4 October & 8 October. Duo Partner. 70 min.

Du Toit, G.F. 2012. Concert Tour of South African Flute Compositions. Works by Hofmeyr, Klatzow, Du Plessis, Temmingh and Johnson. Liesl Stolz. University of the North West, Rhodes University Grahamstown, 31 July, 16 September & 25 September. Duo Partner. 70 min.

Du Toit, G.F. 2012. Concert Tour of Taiwan. Programme included works by Mendelssohn, Chopin, Scarlatti and Brahms. Cultural Centre Taichung. Keelung Concert Hall Keelung. Taipei University Taipei Cultural Centre Taichung, 13, 16 & 19 June. Soloist. 60 min

Du Toit, G.F. 2012. Concert with Baritone. Programme included various arias and lieder as well as popular songs from musicals. Federico Freschi. Town House, Cape Town, 1 December. Pianist. 60 min.

Du Toit, G.F. 2012. CPO Symphonic Concert. Piano Concerto No. 4 in F minor, Op. 82 (Scharwenka) (South African Premiere). Cape Philharmonic Orchestra, Victor Yampolsky. City Hall, Cape Town, 24 May. Soloist. 40 min

Du Toit, G.F. 2012. Duo Concert. Lieder by Hahn, Berlioz, Debussy, Granados and Arias by Gounod, Luna, Gimenez and Piazzola. Zanne Stapelberg. Nederburg – Paarl, 28 October. Duo Partner. 70 min.

Du Toit, G.F. 2012. Piano Concerto No. 2 in G minor (Saint-Saens) KZNPO Winter Symphony Season. KZNPO. City Hall Durban Durban. Settlers Monument – Grahamstown, 21 & 28 June. Soloist. 30 min.

Du Toit, G.F. and Bacharova, F.A. 2012. Piano Quintet Concert for the CPO Festival. Piano Quintets by Dvorak and Schumann. Kristjan Chernev, Rynette Swart, Patrick Goodwin. Artscape Theatre, Cape Town 4 February. Pianist. 70 min.

Du Toit, G.F., Larey, F. and Van Schalkwyk, A.A. 2012. Raise The Roof Concert. Concert for four people at two pianos. Programme included works by Bach, Rachmaninoff, Poulenc and Prokofiev. Tertia Visser-Downey. St. Georges Cathedral, Cape Town, 7 November. Pianist. 60 min.

Du Toit, G.F. 2012. Solo Concert Casa Labia. Programme included Partita No. 1 (Bach), Sonata Op. 27 No. 1 (Beethoven), Nocturnes Op. 9 No. 1 & 2 (Chopin), Prelude Op. 23 No. 5 (Rachmaninoff), 3 Preludes (Gershwin). Casa Labia – Muizenberg, 22 August. Soloist. 70 min.

Du Toit, G.F. 2012. Solo Concert. Sonatas Op. 27 No. 1 & 2 (Beethoven) Scherzo Op. 20 No. 1, Barcarolle Op. 60, Fantasie Op. 49 (Chopin). Fish Hoek Music Society, Fish Hoek Civic Centre, 3 February. Soloist. 80 min

Du Toit, G.F. and Larey, F. 2012. Two Piano Concert. Works included Sonata (Poulenc) and 1st Suite (Rachmaninoff). UNISA Concert Hall – Pretoria, 27 October. Duo Partner. 70 min.

Grace, J. 2012. A Guitarists Holiday, solo recital. Soloist. Nederburg Concert Series. Nederburg Estate, Paarl, 26 August. Soloist. 90 min

Grace, J. 2012. A Spanish Celebration, solo recital. Plaisir de Merle Estate, Stellenbosch, 16 September. Soloist. 90 min.

Grace, J. 2012. Amigos Para Siempre, a three concert series with a uniquely Latin Flavour. Chisholm Recital Room (C7), SACM, UCT, 24 October. organizer and guitar duo partner. 70 min.

Grace, J. 2012. Amigos Para Siempre, a three concert series with a uniquely Latin flavour with flautist Bridget Rennie Salonen, soprano Vasti Knoesen and Mezzo

Soprano Marie-Claire de Villiers. Chisholm Recital Room (C7), SACM, UCT. 31 October. organizer and guitar duo partner. 80 min.

Grace, J. 2012. Amigos Para Siempre, a three concert series with a uniquely Latin Flavour with Saudiq Khan. Chisholm Recital Room (C7), SACM, UCT, 17 October. organizer and guitar duo partner. 70 min.

Grace, J. 2012. Bach and Friends with Swiss recorder virtuoso Maurice Steger. Johannesburg International Mozart Festival. Villa Arcadia, Johannesburg. Soloist, accompanist. 60 min

Grace, J. 2012. Dreams featuring Chris Chameleon with the Drakensberg Boys Choir. Sanlam Auditorium, Potchefstroom Sanlam Auditorium, Potchefstroom, 3 October. Accompanist. 90 min.

Grace, J. 2012. Dreams featuring Chris Chameleon with the Drakensberg Boys Choir. Drakensberg Boys Choir School, Drakensberg, 7 December. Accompanist. 90 min

Grace, J. 2012. Dreams featuring Chris Chameleon with the Drakensberg Boys Choir, Inniebos Festival. Sudwala Caves, Nelspruit, 27 30 June. Accompanist. 90 min.

Grace, J. 2012. Fine Music, Fine Food ,Fine Wine, solo recital at FMR Soiree. Cellars Hohenhort, Constantia, 15 August. Soloist. 120 min.

Grace, J. 2012. Guitar Favourites, solo recital. Die Bordienghuis, Wellington, 4 September. Solist. 90 min

Grace, J. 2012. Guitar Favourites, solo recital. Brooklyn Theatre, Pretoria, 1 & 4 July. Soloist. 90 min

Grace, J. 2012. Guitar Favourites, solo recital. La Motte Estate, Franschhoek, 3 November. Soloist. 90 min

Grace, J. 2012. I love a Guitar, solo recital. Soloist. Witness Hilton Arts Festival. The Chapel, Hilton College, 23 - 23 Sept. Soloist. 60 min.

Grace, J. 2012. JS Bach and Friends with Swiss recorder virtuoso Maurice Steger. Darling Music Experience. NG Kerk, Darling, 12 February. Soloist, accompanist. 60 min

Grace, J. 2012. Landskap directed by Andre Odendaal. Oude Libertas Amphitheatre, Stellenbosch, 11 February. Soloist, accompanist. 90 min.

Grace, J. 2012. Magnum Opus, a Three Concert International Guitar Series at UCT. Chisholm Recital Room (C7), SACM, UCT, 25 April. Organizer and soloist. 80 min

Grace, J. 2012. Magnum Opus, a Three Concert International Guitar Series at UCT with Goran Krivokapic. Chisholm Recital Room (C7), SACM, UCT, 18 April. Organizer and guitar duo partner. 80 min.

Grace, J. 2012. Magnum Opus, a Three Concert International Guitar Series with Giuseppe Maria Ficara. Chisholm Recital Room (C7), SACM, UCT, 4 April. rganizer and guitar duo partner. 80 min.

Grace, J. 2012. Man, One Guitar, One Stage, One Night Only! with Tony Cox, Dan Patlansky and Richard Onraet. Stellenbosch University Wordfees. Neethlingshof Estate, Stellenbosch, 5 March. Soloist. 120 min

Grace, J. 2012. Morning Melodies, solo recital. Baxter Theatre, UCT, UCT 18 July. Soloist. 60 min

Grace, J. 2012. MTN Classic FM Soiree with Steinway Artist Christopher Duigan. Sandton Sun, Johannesburg, 9 December. Soloist, accompanist. 120 min.

Grace, J. 2012. Music of the Americas Bloemfontein Chamber Festival. Odeon Theatre, UFFS, Bloemfontein, 30 September. Soloist. 90 min.

Grace, J. 2012. Opera y Flamenco in collaboration with the UCT School of Dance. Baxter Theatre, 10 October. Soloist. 80 min.

Grace, J. 2012. Sultry Nights, solo fund raising recital for White River Hospice. Olivers Country Estate and Spa, White River, Mpumalanga, 25 - 26 Oct. Soloist. 60 min.

Grace, J. 2012. Summer Magic Sunset Soiree fundraising event for BOY (Build our Youth) with Steinway Artist Christopher Duigan and Baritone Federico Fresch. Restaurant, Ambassador Hotel, Cape Town, 17 December. Soloist, accompanist. 60 min.

Grace, J. 2012. Symphony in the City with the KZNPO. Concierto de Aranjuez, Adagio. City Hall, Pietermaritzburg, 8 November. Soloist. 10 min.

Haubrich, W. 2012. Blues Brothers. Kirstenbosch Gardens, 4 March. trombone. 120 min

Haubrich, W. and Andrews, D.I. 2012. Dixie Swingers. Winchester Mansions, 5 February, 30 November. trombonist. 240 min.

Haubrich, W., Thompson, D. and Blake, M. 2012. Easter Service Brass. St. Michaels, Observatory, 8 April 2 December. trombone. 60 min

Haubrich, W., Campbell, M.I., Lilley, A.C.P. and Andrews, D.I. 2012. Mike Campbell Big Band. Trinity, Kirstenbosch,

6 February, 18, 21 April, 7 June, 22 December. trombonist. 240 minutes

Haubrich, W. and Rossi, M.J. 2012. Mike Rossi Band. Mahogany Room, 6, 7 April. trombone. 120 min.

Haubrich, W. and Reid, M. 2012. Playing with Fire Klezmer Band. Albo Center, Sea Point Synagogue, 16, 17 January, 5 August, 4 November. trumpet, flgelhorn, trombone. 240 min.

Haubrich, W. 2012. SACM Recruitment Workshops. Alexander Road High, Port Elizabeth, 19, 20 April. trumpet, flugelhorn, trombone. 2 days

Haubrich, W. 2012. SACM Staff Concert. Baxter Theatre, 14 February. Euphonium/sax duo. 5 min

Haubrich, W. 2012. Skippys Function Band. Kirstenbosch and Mount Nelson Hotel, 16 February, 21 March, 9 May. trombone. 240 min.

Haubrich, W., Blake, M., Amon, P., Thompson, D. and Green, N. 2012. Solid Brass Quintet. Waterfront, Strandkombuis Yzerfontein, 12, February, 3 March, 14 Dec. trombone. 180 min

Haubrich, W., Rossi, M.J. and Blake, M. 2012. Songfest German Band. German Club, Durban & Joburg Beerfest, 1, 29 January, 18 February, 15 April, 11-14, 27 Oc. trombonist. 240 min.

Haubrich, W. and Anguelov, S. 2012. Tango Club. Suikerbossie Restaurant, 19 February. trombone, trumpet. 240 min.

Hofmeyr, H.P., Stellenbosch University Choir, and van der Merwe, A. 2012. A sexta autem hora for 8-part choir. (a) World Choir Games, Cincinatti, USA, (b) Endler Hall, Stellenbosch; (a) 4-14 July; (b) 19 October. Composer. 4 min.

Hofmeyr, H.P., Menlopark High School Choir, and van Papendorp, J. 2012. Bont konsertina laans die watervoor Version for mixed choir and piano. Finals of ATKV Applous Competition, Endler Hall, Stellenbosch, 28 July. Composer. 2 min.

Hofmeyr, H.P., Schumann, N. and du Toit, M. 2012. Canto notturno for clarinet and piano. Cape Town Concert Series, Baxter Concert Hall, 4 August. Composer. 4 min.

Hofmeyr, H.P., van Eeden, B. and Bronkhorst, J. 2012. Geluk for high voice and piano. Fismer Hall, Stellenbosch, 7 December. Composer. 3 min

Hofmeyr, H.P., Stoltz, L., Van Schalkwyk, A.A., Minnaar, M. and Martens, P. 2012. Il giardino delle Esperidi for flute septet; Dover Beach for high voice, flute, cello and piano. Music in the City, Hiddingh Hall, Cape Town, 19 September. Composer. 8 + 8 min

Hofmeyr, H.P., Kerrod, J. and Stoltz, L. 2012. Il poeta e lusignolo Version for flute and harp; Elegia for flute and harp. 3 performances for the Darling Voorkamerfest; several other performances, 31 August-2 September. Composer. 8 + 5 min.

Hofmeyr, H.P. and Pauw, M. 2012. Incantesimo for flute. (a) Casa Labia Morning Concert Series, Cape Town; (b) Mosselbay Arts Society, St. Peters Church, (a) 14 June; (b) 28 June. Composer. 4 min.

Hofmeyr, H.P., Thorne Burgess, J. and the UCT Singers, 2012. Jesu for choir, Die Spokewals for 8-part choir. Baxter Concert Hall, Cape Town, 22 September. Composer. 3 + 5 min.

Hofmeyr, H.P. and Krivokapi, G. 2012. Lachrymae for guitar. 20th Koblenz International Guitar Festival & Academy, Kurfrstliches Schloss, Koblenz, Germany, 23 May. Composer. 14 min.

Hofmeyr, H.P., Nuss Tinnin, R., Tinnin, R. and Bennet, E. 2012. Of Innocence and Experience for high voice, trumpet and piano. New Works Concert, International Trumpet Guild Conference, Columbia State University, Georgia, USA, 25 May. Composer. 6 min.

Hofmeyr, H.P. 2012. Preludio and Umsindo from Partita africana for piano. Rustenberg Piano Festival, Cape Town, 19 April. Composer, pianist. 7 min.

Hofmeyr, H.P., Akustika Chamber Singers, and Burger, C. 2012. Saulus in Damascum for 8-part choir. Spittal an der Drau Competition, Austria & various other performances, June 2012. Composer. 5 min.

Hofmeyr, H.P., Du Toit, G.F. and Stoltz, L. 2012. Sonata for Flute and Piano, Maball for flute and piano. School of Music, North West University; (b) Rhodes University; (a) 31 July; (b) 25 September; (c) 30 September. Composer. 14 + 7 + 4 + 4 min.

Hofmeyr, H.P. and Krawitz, J. 2012. Sonata for Piano. a) Infecting the City, Cape Town Station Concourse; (b) ? (c) Music in the City, Hiddingh Hall, Cape Town; (a) 8 March (1st performance), 9 March; (b) 17 Oct. Composer. 17 min.

Hofmeyr, H.P., Pauw, M., Bam, A., van Eeden, B., Btonz, K., Levy, S. and Timofejevsky, P. 2012. Trio II for flute, clarinet and piano. St. Andrews Church Concert Series, Cape Town, 16

March, 10 Aug, 31 Aug-2 Sept, 30 Sept, 19 Oct. Composer. 15 min

Hofmeyr, H.P., Stapelberg, Z. and Dias, J. 2012. Wynverse for voice and piano. Commemorative concert for Hubert du Plessis, Endler Hall, Stellenbosch, 10 March. Composer. 5 min.

Larey, F. 2012. Adamant Music School (USA), Faculty Recital. Waterside Hall, Adamant, Vermont, USA, 18 July. Soloist. 15 min.

Larey, F. and Du Toit, G.F. 2012. Duo Piano Recital. Enoch Sontonga Hall, Pretoria, 27 October. Collaborator. 75 min

Larey, F., Du Toit, G.F., Van Schalkwyk, A.A. and Downie, T. 2012. Riase-the-Roof Concert. Georges Cathedral, Cape Town, 7 November. Collaborator. 60 min

Larey, F. 2012. Solo Recital. Baxter Concert Hall, 11 September. Soloist. 75 min

Larey, F. 2012. Solo Recital. Beethoven Room, Rhodes University, Grahamstown, 18 September. Soloist. 75 min

Larey, F., Van Schalkwyk, A.A. and Du Toit, G. 2012. Three-Piano Extravaganza. Baxter Concert Hall, 6 March. Collaborator. 75 min

Liebl, L.B. 2012. Vocal Recital. Teale Music Salon, Barrydale, 22 January. Baritone soloist. 75 min.

Liebl, L.B. 2012. Vocal Recital. Red Roan Ranch, Swellendam, 20 July. Baritone Soloist. 75 min

Liebl, L.B. 2012. Vocal Recital. Barry Walter Auditorium (St Norbert College-De Pere, Wisconsin, USA, 26 September. Baritone Soloist. 30 min

Liebl, L.B. 2012. Vocal Recital, Christmas Fantasia on a theme of Claude Debussy. Teale Music Salon, Barrydale, 09 December. Baritone Soloist. 75 min

Lilley, A.C.P. 2012. Brother Gone, Andrew Lilley Sextet. Martin Sjostedt, Frederik Noren, Amanda Sedgwick, Federik Lindborg Karl-MartinAlmqvist. Sweden and Stockholm, 29 September, 3 October, 5 October, 7 Oct. Pianist. 60 mins

Rossi, M.J. 2012. Arcevia Jazz Festival. IIstituto Comprensivo Anselmi, Arcevia, Italy, 28 July-3 August. soloist, ensemble player, lecturer. 5min

Rossi, M.J. 2012. Arrivo in Abruzzo, Buon Giorno Le Marche, Forty Club. Mahogany Room, Cape Town, 23 & 24 March. composer. 20min.

Rossi, M.J. 2012. Arrivo in Abruzzo, Buon Giorno Le Marche, Yearning. Fermo, Offida, Jesi, Arcevia, Italy, 4-8 August. composer, arranger. 15min. x 4

Rossi, M.J. 2012. Arrivo in Abruzzo, Buon Giorno Le Marche, Yearning. Mahogany Room, Cape Town, 15-16 August. composer, arranger. 15min.

Rossi, M.J. 2012. Arrivo in Abruzzo, Simba Samba, Should I? Forty Club, Buon Giorno Le Marche, Yearning, Night Fright!. Mahogany Room, Cape Town, 6-7 April. composer, arranger. 45min.

Rossi, M.J., Thelon, A., Bell, I., Ridegway, D., Backhouse, E. and Ledbetter, D. 2012. Ball of Hope, Soundscape Orchestra. Cape Town International Convention Centre, 5 May. soloist, ensemble player. 180min.

Rossi, M.J., Rustin, W., Momple, J. and Blasse, D. 2012. Cape Dutch Connection. La Petite Ferme, Franschhoek, 30 November, 21 December. soloist, ensemble player. 180min.

Rossi, M.J., Rustin, W., Momple, J. and Blasse, D. 2012. Cape Dutch Connection. La Petite Ferme, Franschoek, 23 February. soloist & ensemble player. 180min.

Rossi, M.J. 2012. Cape Ghoema Orchestra. SABC Studios, Sea Point, 8 September. ensemble player, soloist. 90min.

Rossi, M.J., Campbell, M.I. and Shout, D. 2012. Cape Town Alumni Big Band, Cape Town Big Band Jazz Festival. Baxter Concert Hall, UCT, Rondebosch, 5 June. soloist & ensemble player. 45min.

Rossi, M.J. 2012. Contrast of Cape Town. Garrufo, Italy, 25 August. composer, arranger. 10min.

Rossi, M.J. 2012. Contrasts of Cape Town. Ancona Mediteranean Festival, Ancona, Italy, 27 August. composer, arranger. 10min.

Rossi, M.J. 2012. Contrasts of Cape Town. London, 10-21 July. composer, arranger. 10 min. x 7

Rossi, M.J., Brubeck, D., Ridley, M. and Gibbons, W. 2012. Darius Brubeck Quartet U.K. Tour. London, 10-21 July. soloist & ensemble player. 150 min. x 7

Rossi, M.J., Bass, D., Duby, M. and Thwaites, A. 2012. Feedback featuring Mike Rossi. Nassau Centre, Groote High School, Newlands, 13 May. soloist, ensemble player. 45min.

Rossi, M.J. and Di Clemete, G. 2012. Gionni Di Clemente & Mike Rossi. Teatro Torre di Passeri, Italy, Italy 24 November. soloist. 30min.

Rossi, M.J., Di Clemente, G. and Savoretti, F. 2012. Impronte Mediterranee. Garrufo, Italy, 25 August. soloist, ensemble player. 120min.

Rossi, M.J., Di Clemente, G. and Savoretti, F. 2012. Impronte Mediterranee. Ancona Mediterranean Festival, Ancona, Italy, 27 August. soloist, ensemble player. 120min.

Rossi, M.J., Naidoo, K. and Rustin, W. 2012. International Jazz Day presents The Mike Rossi Trio. Maseru Convention Centre, Lesotho, 30 April. soloist, ensemble player, organizer. 90min.

Rossi, M.J., Tiffin, A., Goosen, H. and Ridgeway, D. 2012. Italia in Compangna featuring the Mike Rossi Quartet. Bottega Estate, Stellenbosch. 25-26 February. 180min.

Rossi, M.J. 2012. Jazz as a Metaphor for Change, Collaboration and Innovation, SAJE International Conference. University of Cape Town, 25 & 27 March. Co-organizer, soloist, ensemble player, clinician. 3 days

Rossi, M.J. and Lauk, T. 2012. Jazz Improvisation Workshop. Tallin University, Tallin, Estonia, 10 April. lecturer, performer. 90min.

Rossi, M.J. and Campbell, M.I. 2012. Mike Campbell Big Band. Trinity, Cape Town, 6 February. soloist & ensemble player. 90min.

Rossi, M.J. and Andrews, A. 2012. Mike Rossi & Alistair Andrews. Ibuyambo, Cape Town, 19 February. soloist & ensemble player. 120min.

Rossi, M.J. 2012. Mike Rossi Jazz Basics & Improvisation Workshop. Heathfield High School, Cape Town, 9 March. lecturer, performer. 90 min

Rossi, M.J. 2012. Mike Rossi Jazz Improvisation Workshop. St. Josephs School, Rondebosch, 17 February. Lecturer, performer. 90min.

Rossi, M.J., Naidoo, K., Ford, A. and Rustin, W. 2012. Mike Rossi Quartet. Mahogany Room, Cape Town, 3 February. Soloist and Ensemble player. 150min

Rossi, M.J., Di Angelis, A. and Pignoti, W. 2012. Overjazz School of Jazz Official Launch, 5 September. soloist. 90min

Rossi, M.J., Naidoo, K., Ridgeway, D., Zechini, R., Di Angelis, A., Guilherme, R. and Lauk, T. 2012. SAJE International Band. Mahogany Room, Cape Town, 23 & 24 March. Soloist, ensemble player, organiser. 180min

Rossi, M.J., Reolon, J., Ridgeway, D., Naidoo, K., Traselli, R. and Biancolli, F. 2012. SAJE International Band South Africa-Italy Exchange. Mahogany Room, Cape Town, 15-16 August. soloist, ensemble player, organizer, leader. 180min.

Rossi, M.J., Di Angelis, A., Zechini, R., Pesaresi, G., Desiderio, R. and Riberio, G. 2012. SAJE International Project. San Benedetto del Trono, Italy, 1 August. ensemble player, leader. 90min.

Rossi, M.J. 2012. SAJE International Project. Fermo, Offida, Jesi, Arcevia, Italy, 4-8 August. soloist, ensemble player, leader. 90min. x 4

Rossi, M.J. 2012. Scungilli, Should I?, Night Fright!, Yearning. UNISA, Pretoria, 30 Septmeber-6 October. composer, arranger. 30min.

Rossi, M.J. 2012. Simba Samba, Boun Giorno Le Marche, Arrivo in Abruzzo, Forty Club. Mahogany Room, Cape Town, 3 February. composer. 30min.

Rossi, M.J., Brubeck, C., Brubeck, D. and Brubeck, D. 2012. The Brubeck Brothers featuring Mike Rossi. Cape Town International Jazz Festival, Cape Town International Convention Centre, 30 March. soloist & ensemble player. 90min.

Rossi, M.J., Brubeck, C., Brubeck, D. and Brubeck, D. 2012. The Brubeck Brothers featuring Mike Rossi. Jazz at the Nassau Centre, Groote Schuur High School, Newlands, 1 April. soloist & ensemble player. 120min.

Rossi, M.J., Naidoo, K., Rustin, W., Ford, A., Gelderbloem, L. and Haubrich, W. 2012. The Mike Rossi Sextet. Mahogany Room, Cape Town, 6-7 April. soloist , ensemble player. 150min.

Rossi, M.J., Tiffin, A., Coolseat, A. and Brauteseth, R. 2012. UCT Jazz Voices featuring Mike Rossi. Jazz at the Nassau, Groote High School, Newlands, 21 October. soloist & ensemble player. 45min.

Rossi, M.J., Tiffin, A., Coolseat, A. and Brauteseth, R. 2012. UCT Jazz Voices featuring Mike Rossi. Gordon Institute for the Performing Arts, UCT, 24 October. soloist, ensemble player. 75min.

Rossi, M.J. 2012. UCT-Arcevia, Italy Student Exchange Launch. Hiddingh Campus, UCT, Cape Town, 28 March. Role organizer, soloist, ensemble player. 120min.

Rossi, M.J. and Tiffin, A. 2012. UCT-Arcevia, Italy Student Exchange Launch. Vuyo Sotashe, Siya Charles, Dave Ridgeway, Heinrich Goosen. of the Italian Ambassador, Bishops Court, Cape Town, 16 February. ensemble player, leader. 120min.

Rossi, M.J. and Campbell, M.I. 2012. UNISA International Jazz School. UNISA, Pretoria, 30 September & 6 October. soloist, conductor, ensemble player, lecturer. 6 days

Rossi, M.J. 2012. Yearning, Night Fright. Maseru Convention Centre, Lesotho, 30 April. composer, arranger. 15min.

Tiffin, A. 2012. a.s.k Trio Japan Tour 2012. Matsunaga, S (Japan); Kaptein, S. (Holland) Bottazzo, F (Italy). Jiyu-Gakuen Concert Hall, Tokyo; Miyako Island,Alivila, Okinawa, 5 & 15 July. Vocalist, Pianist, Composer, Arranger. 60 90 min

Tiffin, A., Campbell, M.I., Ledbetter, D., Shout, D. and Sweetman, J. 2012. Amanda Tiffin & Dave Ledbetter in Concert. Chisolm Recital Room, Cape Town, 13 October. Vocal Soloist. 30 min.

Tiffin, A. 2012. Amanda Tiffin in Concert. J Sweetman, D Ledbetter, M Fox, S Johannes. Baxter Concert Hall, Cape Town, 28 February. Soloist, vocals and piano; Arranger; Composer. 120 min

Tiffin, A. 2012. Amanda Tiffins Jazz in the Park. Maynardville Open Air Amphitheatre, Cape Town, 25 March. Producer, Soloist (piano and voice), Composer, Arr. 180 min

Tiffin, A., Rossi, M.J., Lilley, A.C.P. and Andrews, D.I. 2012. Cape Town Big Band Festival, Alumni Big Band. Baxter Concert Hall, 29 May. Pianist. 30 min

Tiffin, A. and Ledbetter, D. 2012. Facing South in Concert. Monkey Valley, Cape Town, 16 November. Vocal soloist, composer. 90 min

Tiffin, A., Samuel, G. and Hendricks, M. 2012. Faculty of Health Sciences Centenary Concert. Baxter Concert Hall, Cape Town, 16 May 2012. Musical Director, piano, vocals. 120 min.

Tiffin, A. and Ledbetter, D. 2012. Four Seasons in One Day. Velvet-Upon-Tweed Boutique Theatre, Cape Town, 16,18 & 20 December. Vocal Soloist, composer. 75 min

Tiffin, A. and Rossi, M.J. 2012. Mike Rossi Quintet. H Goosen, D Ridgway, V Sotashe, S Charles. Italian Consulate, Bishopscourt, 16 February. Pianist, vocalist. 120 min

Tiffin, A., Rossi, M.J., Brauteseth, R. and Coolsaet, A. 2012. Music in the City: UCT Jazz Voices with Mike Rossi. Hiddingh Hall, Cape Town, 24 October. Musical director, arranger, piano. 60 min

Tiffin, A. 2012. Noordhoek Baroque Ensemble Concert. W. Robson. Darling Music Festival, 10 February. Harpsichord player. 60 min

Tiffin, A., Hseih, C., Giuliani, R., Chang, K., Ruocco, J., Smith, D., Ferber, A., Schoenecker, J., De Nolf, B. and Verderame, M. 2012. Taipei International Jazz Masters Rendezvous. Da Aan Open Air Amphithatre, Taipei, Taiwan, 21 & 22 July. Vocal soloist. 90 min

Tiffin, A., Scholtz, M., Gelderbloem, L., Brauteseth, R., Nel, A., Helfjord, G., Basse, B. and Afrika, M. 2012. The Eve: A Celebration of the Curve of Humanity. Artscape Theatre, Cape Town, 11 August. Vocal soloist. 90 min

Tiffin, A. and Campbell, M.I. 2012. UCT Jazz Singers & Big Band In Concert. St Geroges Cathedral, Cape Town, 26 September. Musical Director, piano. 60 min

Tiffin, A., Rossi, M.J., Brauteseth, R. and Coolsaet, A. 2012. UCT Jazz Voices in Concert. Nassau Concert Hall, Newlands, Cape Town, 21 October. Musical director, arranger, piano. 60 min.

Tiffin, A.J. and Hendricks, M. 2012. UHambo. Staff Education Centre, Red Cross Childrens Hospital, Cape Town, 27 October. Musical Director, Arranger, Piano, Vocals. 40 min.

Van Schalkwyk, A.A. 2012. Art song recital for The Songmakers Guild: selected songs (Robert Schumann), selected songs (Clara Schumann), selected songs (Fanny Mendelssohn, selected songs (Felix Mendelssohn), Walzergesnge, Op. 6 (Alexander von Zemlinsky), Three Sonnets (Peter Klatzow). Megan Kahts (soprano). Nassau Centre, Newlands, Cape Town, 26 February. Pianist (vocal accompanist) and presenter. 70 min.

Van Schalkwyk, A.A. 2012. Art songs for The Songmakers Guild series: New Voices at the Guild: Selected songs by Szymanowsky, Rachmaninoff, Milhaud, Mahler, Richard Strauss and Manuel de Falla. Maude Montierre (soprano) and Vanessa Tait-Jones (soprano). Nassau Centre, Newlands, 15 April. Pianist (vocal accompanist) and presenter. 70 min.

Van Schalkwyk, A.A. 2012. Art songs for The Songmakers Guild: Ravel exotique. Histoires naturelles, Chansons madcasses, Cinq chansons populaires grecques, 2 Hebrac songs, Shhrazade (Ravel). Zanne Stapelberg (soprano), Minette du Toit-Pearce (mezzo), Bridget Rennie-Salonen (flute), Marian L. Nassau Centre, Newlands, Cape Town, 3 June. Pianist (vocal accompanist) and presenter. 70 min.

Van Schalkwyk, A.A. 2012. Art songs for The Songmakers Guild: Music to commemorate Massenet, Montsalvatge, Ireland, Walton, Debussy. Hanneli Rupert (mezzo soprano) & Louise Howlett (soprano). Nassau Centre, Newlands, Cape Town, 28 October. Pianist (vocal accompanist) and presenter. 70 min.

Van Schalkwyk, A.A. 2012. Bolling Suites 1 and 2 for Flute and Piano. Liesl Stoltz (flute), Frank Mallows (drum kit). Baxter Concert Hall, 16 April. Pianist (with jazz ensemble). 80 min

Van Schalkwyk, A.A. 2012. Chamber music at St Andrews: Kegelstatt Trio for clarinet, viola and piano (Mozart), Overture on Hebrew themes (Prokofieff). Matthew Reid (clarinet), Karin Gaertner (viola), Suzanne Martens and Quentin Crida (violins), Peter. St Martins Church, Cape Town, 21 October. Pianist (chamber music). 25 min.

Van Schalkwyk, A.A. and Bacharova, F.A. 2012. Chamber music for flute, violin and piano for Hermanus Music Society. Liesl Stoltz (flute). Hermanus Community Centre Theatre, Hermanus, 22 July. Pianist (chamber music). 80 min.

Van Schalkwyk, A.A., Larey, F. and Du Toit, G.F. 2012. Piano Extravaganza, music for 2 and 3 pianos: Variations on a theme by Beethoven (Saint-Sans), Scaramouche (Milhaud), Rapsodie espagnole (Ravel arranged Albie van Schalkwyk for 3 pianos). Baxter Concert Hall, Rondebosch, 6 March. Pianist (and arranger). 75 min

Van Schalkwyk, A.A. 2012. SA Art songs for The Songmakers Guild: Stasie (Roelof Temmingh), Die Malle (Henk Temmingh, *first Cape Town performance), I am an African (Klatzow), Five songs on poems by Eugne Marais (Martin Watt), Vijf Liedekens (Hubert du Plessis), Two Slampamper Songs (Hubert du Plessis. Magdalene Minnaar (soprano), Andr Howard (baritone), Patrick Goodwin (violin). Nassau Centre, Newlands, Cape Town, 25 November. Pianist (vocal accompanist). 70 min.

Van Schalkwyk, A.A. 2012. SA Flute Music for GIPCA Music in the City. Soul Bird for flute, cello and piano (Stefans Grov), Dover Beach (Hendrik Hofmeyr). Magdalene Minnaar (soprano), Liesl Stoltz (flute), Peter Martens (cello). Hall, UCT Orange Street Campus, Cape Town, 19 September. Pianist (chamber music). 25 min.

Van Schalkwyk, A.A. 2012. The Songmakers Guild: Fnf Gedichte von Mathilde Wesendonck (Wagner), La canzone dei ricordi (Martucci), 3 songs (Sibelius). Elizabeth Frandsen (mezzo soprano), Erica Eloff (soprano). Nassau Centre, Newlands, 16 September. Pianist (vocal accompanist) and presented. 70 min.

Van Schalkwyk, A.A. 2012. Vocal recital (art songs by Elgar, Vaughan Williams, Quilter, Finzi, British folk songs arrangements, arias by Puccini and Verdi. John Treleaven (British tenor). Labia Museum, Muizenberg, 22 February. Pianist (vocal accompanist). 70 min.

Van Schalkwyk, A.A. 2012. Wattsmore is there? Song cycles by SA composers: 5 Liedere op gedigte van Eugne Marais (first Cape Town performance), 4 Liefdesliedere op gedigte van Marlene van Niekerk (Martin Watt) (world premire). Magdalene Minnaar (soprano). Baxter Concert Hall, 31 July. Pianist (vocal accompanist). 35 min. 4 Liefdesliedere op tekste van Marlene van Niekerk (Martin Watt), World premire: 15 min.

Watt, M. and Horskool Menlopark, 2012. New Year Show. Philip de Vos. Bloemhof Girls High School, Stellenbosch, 3 August. Composer. 5 mins.

Watt, M., Bacharova, F.A. and Visser-Downie, T. 2012. Sonata no. II for Violin and Piano. Baxter Concert Hall, Cape Town, 17 September. Composer. 14 mins.

Watt, M. 2012. Van Hunks and the Devil. Philip de Vos. Odeion, University of the Free State, Bloemfontein, 11 May. Composer. 20 min

Watt, M., Van Schalkwyk, A.A. and Minnaar, M. 2012. Vier Liedere op gedigte van Marlene van Niekerk. Marlene van Niekerk. Baxter Concert Hall, Cape Town, 31 July. Composer. 16 mins

Watt, M., Van Schalkwyk, A.A. and Minnaar, M. 2012. Vyf Liedere op gedigte van Eugne Marais. Baxter Concert Hall, Cape Town, 31 July. Composer. 20 min

Watt, M., Van Schalkwyk, A.A. and Minnaar, M. 2012. Vyf Liedere op gedigte van Eugne Marais. Nassau Centre, Cape Town, 25 November. Composer. 16 mins.

Recordings

Campbell, M.I. 2012. African Big Band. Released in 2012. AFR029. Composer, arranger, conductor. 40 min.

Grace, J. 2012. Mark Nixon - Brahms, Liszt, Debussy. Released in 2012. SA-078-12-00082. Producer. 58 min.

Rossi, M.J., Fazzini, M., Mule, S. and Di Clemente, G. 2012. Canto un Momdo Libero: Posie-canzone per la libertia, a curia di Marco Fazzini, Edizioni ETS. Released in 2012. ISBN 978-884673456-3. soloist. 55:01.

School of Dance

Research report 2012

DIRECTOR: G. M. SAMUEL

School Profile

Academic enquiry (analysis, documentation and publication) and creative scholarship (choreography, direction and performance) inform and constitute a significant and balanced part of the diverse outputs of our School. The participation of staff and students in a variety of dance projects at under- and postgraduate levels acknowledges the coordinate functions of opportunity and responsibility that motivate all UCT endeavour in Africa and universally. Art practice is our business, as referenced in a democratic, multicultural, [South] African society.

Particular awareness of the role of arts and culture in the collective, multicultural, national psyche - eg socio-political matters around integration – still drives many of our community-focused collaborations.

Highlights of the year include an award for the best international guest presentation at the International Theatre Schools Festival in Amsterdam, the Netherlands, and the editing and contribution of several essays by staff and alumni in the first and acclaimed South African post-apartheid publication of its nature. Other highlights include performances, installations, lecture demonstrations, publications, symposia and seminars as well as a range of collaborative engagements (productions and work exchanges) with the following national and international organizations:

Aardklop Kunstefees; Africa Tikkun; African Dance Theatre; African Theatre Association; Artscape; Battswood Arts Centre; Baxter Theatre; The Benesh Institute; Bishops Diocesan College; Bovim Ballet; Cambridge Scholars Publications; Cape Academy of the Performing Arts; Cape Celtic Dance Academy/Company; Cape Dance Company; Cape Junior Ballet Company; Cape Town City Ballet Company; Cape 300 Foundation; Cape Town International Ballet Competition; Cape Town Jewish Seniors; Caribbean Examination Council (Jamaica); Caribbean Journal of Education. (University of the West Indies, Jamaica); Cecchetti Society of Southern Africa; Cedar House School; Council on Higher Education (South Africa); Dance Factory; Dance For All; Dance Umbrella Festival (Johannesburg); Eastern Cape Dance Education Department; Edna Manley College of the Visual & Performing Arts (Jamaica); Elizabeth Ballet Academy (Penang, Malaysia); Elizabeth Sneddon Theatre (Durban); Embo Nangoku Arts Movement; Federal Academy of Ballet (Kuala Lumpur); Flatfoot Dance Company; Gordon Institute for Performing and Creative Arts; Greenapple Academy (Penang, Malaysia); Highlands House; Historic Schools Restoration Project; International Theatre Schools Festival Amsterdam; Irish Dance South Africa; Ikapa Dance Theatre; International Spanish Dance Society; Jazzart Dance Theatre; Irma Stern Museum, UCT; Jikeleza Dance Project; Klein Karoo Nasionale Kunstefees; KykNet, MNet; La Rosa Estudio de Baile Español; LeftfeetFIRST Dance Theatre; NasPers: Media 24. (Die Burger, Die Beeld); National Arts Council; National Creative Arts Youth Festival; National Society of Dance Teachers Association; Oude Libertas Amphitheatre; Rhodes University Drama Department; Royal Academy of Dance; SA College of Music; SA Dance Journal; SA Spanish Dance Society; Spier Hotel; Swiss Tennis Club, Cape Town; Temple University, Philadelphia, USA; Terpsichore Ballet Academy (Penang, Malaysia); Theatre Arts Admin Collective; Theatre Dance Association; Tshwane Education Department; Tshwane University of Technology; UCT Drama Department; UCT Faculty of Health Sciences; UCT Graduate School of Business; Underground Dance Theatre; Union of Jewish Women (Cape Town); University of KwaZulu-Natal; University of North Carolina at Greensboro, USA; University of Stellenbosch Drama Department; University of Surrey Dance, Film & Theatre Department; University of the Witwatersrand; Vadhini Indian Arts Academy; Western Cape Celtic Dance Association; Western Cape Education Department; Western Province Dance Teachers Association; Wilvan School of Dance; Zebra Publishers; Zimbabwe National Trust.

Departmental Statistics

Permanent and Long-term Contract Staff

Associate Professors	1
Senior Lecturers	3
Lecturers	4
Administrative and Support Staff	2
Total	10

Students

Doctoral	1
Master's	2
Honours	2
Undergraduate	91
International Exchange Program	60
Interdisciplinary	5
Total	164

Research Fields and Staff

Full-time Staff

ASSOCIATE PROFESSOR R. BAUM
Performance ethnography; race/gender studies; dance/movement therapy

MS D. CHEESMAN
Classical ballet; dance education; Western dance history

MR D. FOURIE
Western dance musicology; performance

DR E. GREYLING
Dance notation; dance ethnology; dance criticism; classical ballet; dance photography; dance videography; dance archives

MS L. RAIZENBERG
Choreography; classical ballet; national dance; theatre technology; Western dance history
Mr M. Rani
African dance; choreography; African dance history

MR G. M. SAMUEL
Choreography; classical ballet; direction; dance education; performativity

MS L. WILSON
Contemporary dance; African diaspora dance; dance education; Western dance history

Part-time Staff

DAME M. BECKER
Spanish dance: performance, choreography, tuition

MS J. BOOYSEN
Contemporary dance: performance, choreography, tuition

MS C. BOTHA
Contemporary dance: performance, choreography, tuition

MS S. BOTHA
Dance education

MS I. FREGE
Choreography; dance education

MS K. JOHNSTONE
Contemporary dance; choreography; dance theory

MR S. KOYANA
African dance: performance, choreography, tuition

MS R. LEVY
Dance education

MR T. PONDO
African music: performance

EMERITUS ASSOCIATE PROFESSOR E. TRIEGAARDT
Classical ballet; direction/production

MR MERVYN WILLIAMS
Ballet: performance, tuition

Contact Details

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http://www.dance.uct.ac.za/

Research output

Chapters in books

Johnstone, K. 2012. Community in concert: Transformation, development, and community dance. In Sharon Friedman (eds), Post-Apartheid Dance: 147-167. Newcastle upon Tyne: Cambridge Scholars Publishing. ISBN 978-1-4438-4036-1.

Rani, M.X. 2012. Lost meaning – new traditions: Shaping identity in the "new" South Africa: An overview of social traditional African dance in South African townships. In Sharon Friedman (eds), Post-Apartheid Dance: 73-88. Newcastle upon Tyne: Cambridge Scholars Publishing. ISBN 978-1-4438-4036-1.

Samuel, G. 2012. Left feet first: Dancing disability. In Sharon Friedman (eds), Post-Apartheid Dance: 127-145. Newcastle upon Tyne: Cambridge Scholars Publishing. ISBN 978-1-4438-4036-1.

Triegaardt, E.E. 2012. Cape Town City Ballet: Conserving the voice of classical ballet. In Sharon Friedman(eds), Post-Apartheid Dance: 17-30. Newcastle upon Tyne: Cambridge Scholars Publishing. ISBN 978-1-4438-4036-1.

Creative Work

Opera y Flamenco: Produced, directed and choreographed by M. Becker for UCT School of Dance. Baxter Concert Hall. Rosebank, Cape Town. 10 October 2012.

Sevillanas y Tangos: Arranged and staged by M. Becker for Dance UCT 2012 – [Un]known Spaces. Baxter Concert Hall. Rosebank, Cape Town. 8 - 10 November 2012.

Giselle Act 2: Co-ordinated by D. Cheesman for a UCT School of Dance lecture-demonstration. Baxter Concert Hall. Rosebank, Cape Town. 25 April 2012.

Three Solo Pieces: Choreographed by D. Cheesman for the Cape Town Eisteddfod. Sea Point Civic Centre. Sea Point, Cape Town. 1 - 13 May 2012.

Five Solo Pieces: Choreographed by D. Cheesman for competitors of the RAD Bursary Awards competition. Artscape Theatre. Cape Town. 12 August 2012.

Dance in the City 2: Co-ordinated and directed by D. Cheesman for a fundraising for the Zimbabwe National Trust Building. Artscape Opera House. Cape Town. 18 August 2012.

Danz Expressions Co-ordinated and directed by D. Cheesman for the Cape Junior Ballet Company. Bellville Civic Centre. Bellville. 7 September 2012.

Valse Classique Choreographed by D. Cheesman for Dance UCT 2012 - [Un]known Spaces. Baxter Concert Hall, Rosebank, Cape Town. 8 - 10 November 2012.

Opera y Flamenco: Co-organised and co-performed by D. Fourie for a collaborative production by the UCT SA College of Music and UCT School of Dance. Baxter Concert Hall. Rosebank, Cape Town. 10 October 2012.

Dancers Do It Musically: Produced and co-performed by D. Fourie for the UCT School of Dance. Rosebank, Cape Town. 26 October 2012.

Alter: Choreographed by I. Frege for Underground Dance Theatre. 2012 AFTA International Conference. UCT Drama Department, Hiddingh Campus, Cape Town. for the production Keepsake minus 3. Theatre Arts Admin Collective. Observatory, Cape Town. (12 - 15 July) 2012.

Dancers Do It Musically: Co-performed by E. Greyling for the UCT School of Dance. Rosebank, Cape Town. 26 October 2012.

You were meant for me: Co-choreographed and co-performed by K. Johnstone and C. Katzke for Underground Dance Theatre as a part of the production Keepsake Minus 3. Theatre Arts Admin Collective Theatre Centre. Observatory, Cape Town. (12 – 15 July); National Arts Festival. Glennie Hall. Grahamstown. (28 June – 8 July); Baxter Dance Festival 2012. Baxter Theatre. Rosebank, Cape Town. (12 October) 2012.

Canvas: Co-performed by C. Katzke for Darkroom Contemporary at the Dance Umbrella Festival. The Dance Factory. Johannesburg. 24 - 25 February 2012.

Surface: Choreographed and co-performed on location by C. Katzke with Roné Herbst and Teagan de Marigny for the GIPCA Dance for Film Workshop. UCT Hiddingh Hall Campus. Cape Town. (18 – 22 July); Screened at the Baxter Dance Film Festival. (11 August); Baxter Theatre. Rosebank, Cape Town. (12 October) 2012.

African Gumbo 2: Co-choreographed and co-performed by S. Koyana for a performance by senior students of the UCT School of Dance and SACM and accompanied by T. Pondo. UCT School of Dance. Rosebank Cape Town [23 March]; Baxter Concert Hall. Rosebank, Cape Town. [26 September] 2012.

Emakhaya: Choreographed by S. Koyana for Embo Nangoku Arts Movement. African Dance Theatre. Cape Town. 2 December 2012.

African Dance Journey: Co-choreographed and co-performed by S. Koyana for African Dance Theatre. African Dance Theatre. Cape Town. 2 September – 31 December 2012.

The Great Gatsby: Choreographed and co-performed by S. Koyana for Spier Hotel. Lynedoch, Cape Town. 19 November - 31 December 2012.

An Evening of Irish Dance: Compiled, directed and presented by L. Raizenberg for the Cape Celtic Dance Company as part of a series of collaborative dance presentations with UCT School of Dance. Baxter Concert Hall. Rosebank, Cape Town. 29 February 2012.

Pata Pata: Choreographed by L. Raizenberg for the Cape Town International Ballet Competition. Artscape Opera House. Cape Town. 27 February - 12 March 2012.

An Insight into Competitive Irish Dance: Lecture demonstration presented by L. Raizenberg with members of the Cape Celtic Dance Academy for the Cape Town City Ballet Open Day. UCT School of Dance. Rosebank, Cape Town. 31 March 2012.

Vivaldi Variations: Choreographed by L. Raizenberg for Pas Classique, for Cape Junior Ballet in collaboration with UCT School of Dance. Baxter Concert Hall. Rosebank, Cape Town. [25 April]; for Dance in the City, Artscape Opera House. Cape Town. [8 August]; Bellville Civic Centre. Bellville, Cape Town. 7 September 2012.

Whelan Way: Choreographed by L. Raizenberg for Bovim Ballet's Queen at the Ballet fundraiser. Bergvliet High School. Bergvliet, Cape Town. 1 June 2012.

Dance by Nature: Produced and directed by L. Raizenberg with original choreographies by second year UCT dance students. Baxter Concert Hall, Rosebank, Cape Town. 6 June 2012.

UCT Dance – A Journey from Past to Present: Directed, co-ordinated and co-choreographed by L. Raizenberg for a UCT School of Dance tour. Frascati 1 Theatre, International Theatre Schools Festival, Amsterdam, Netherlands. 23 - 29 June 2012.

A Brief Encounter and Tan Bi: Choreographed by L. Raizenberg for UCT School of Dance programme A Journey from Past to Present tour to Amsterdam, Netherlands. 23 – 29 June 2012.

Through individual lenses we move: Produced and directed by L. Raizenberg with original choreographies by third and fourth year UCT dance students, Baxter Concert Hall. Rosebank, Cape Town. 22 August, 2012.

A Brief Encounter: Choreographed by L. Raizenberg for the Dance For All Stargaze 21st Anniversary Gala – Tribute to Dudley Tomlinson. Artscape Theatre. Cape Town. 26 August 2012.

Let's Dance 2012: Co-choreographed by L. Raizenberg for the Western Cape Celtic Dance Association. Bergvliet High School, Bergvliet, Cape Town. 27 October 2012.

Dance UCT 2012, Unknown Spaces: Co-choreograped by L. Raizenberg for UCT School of Dance annual production, Baxter Concert Hall, Rosebank, Cape Town. 8 - 10 November 2012.

Coal Train: Choreographed by M. Rani for a UCT School of Dance tour. Frascati 1 Theatre, International Theatre Schools Festival, Amsterdam, Netherlands. 23 - 29 June 2012.

Remounting Pantsula: Choreographed by M. Rani for the Dance For All Stargaze 21st Anniversary Gala – Tribute to Dudley Tomlinson. Artscape Theatre. Cape Town. 26 August 2012.

African Gumbo 2: Co-choreographed and directed by M. Rani for a performance by senior students of the UCT School of Dance and SACM and accompanied by T. Pondo. UCT School of Dance. Rosebank Cape Town [23 March]; Baxter Concert Hall. Rosebank, Cape Town. [26 September] 2012.

Dancers Do It Musically: Co-performed by M. Rani for the UCT School of Dance. Rosebank, Cape Town. 26 October 2012.

Amajuba: Choreographed by M. Rani and performed by senior students of African dance for the UCT School of Dance annual production Dance UCT 2012, Unknown Spaces. Dance UCT 2012, Unknown Spaces.for Baxter Concert Hall, Rosebank, Cape Town. 8 - 10 November 2012.

Dance Across the Floor: Directed by G. M. Samuel for the UCT School of Dance. Baxter Concert Hall. Rosebank, Cape Town. 21 March 2012.

Sing the Body Electric: Directed and co-choreographed by G. M. Samuel for the UCT Faculty of Health Sciences collaborative centenary production co-presented by the UCT Faculty of Health Sciences, the South African College of Music and the UCT School of Dance. Baxter Concert Hall. Rosebank, Cape Town. 14 May 2012.

Dance UCT 2012, Unknown Spaces: Directed by G. M. Samuel for the UCT School of Dance. Baxter Concert Hall, Rosebank, Cape Town. 8 - 10 November 2012.

Raymonda Revelry: Produced by E. Triegaardt for the annual UCT School of Dance production Dance UCT 2012: [Un]known Spaces. Dance UCT 2012. Baxter Concert Hall, Rosebank, Cape Town. 8 - 10 November 2012.

Coppélia: The roles of Dr Coppélius and the Burgomaster performed by M. Williams for the CTCB. Artscape Opera House. Cape Town. Durban Playhouse 2012.

Quando, Quando, Quando: Choreographed by M. Williams for CTCB's Italian Affair. January 2012.

The Nutcracker: The roles of Drosselmeyer and Mr. Stahlbaum performed by M. Williams for the CTCB. Artscape Opera House. Cape Town. 2012.

The Body Electric (Ensemble Finale): Choreographed by L. Wilson for the UCT Faculty of Health Sciences collaborative centenary production Sing the Body Electric co-presented by the UCT Faculty of Health Sciences, the South African College of Music and the UCT School of Dance. Baxter Concert Hall. Rosebank, Cape Town. 14 May 2012.

Jetlagged: a dance film produced by L. Wilson, co-directed by R. Antrobus and V. Lupuwana, choreographed by K. Johnstone, and co-performed by L. Wilson, for the GIPCA Dance and Film workshop. Filmed on location at UCT Hiddingh Campus. Cape Town. Screened at the Baxter Dance Film Festival. Baxter Theatre. Cape Town. 11 August 2012.

Ancestral Whisperings: A multi-disciplinary contemporary dance work choreographed by L. Wilson and performed by L.Wilson and W. Constable (3rd year dance student). Jomba! 14th Contemporary Dance Experience. Elizabeth Sneddon Theatre. Durban. 29 August - 9 September 2012.

Ancestral Whisperings: Choreographed by L. Wilson and presented at Jomba! 14th Contemporary Dance Experience. Elizabeth Sneddon Theatre. Durban. 29 August - 9 September 2012.

Roots Infinity: Choreographed by L. Wilson for the annual UCT School of Dance production Dance UCT 2012: Unknown Spaces. Baxter Concert Hall. Rosebank, Cape Town. 8 - 10 November 2012.

Blood, Sweat & Tears: A collaborative contemporary dance work co-choreographed by L. Wilson and K. Johnstone for the annual UCT School of Dance production Dance UCT 2012: Unknown Spaces. Baxter Concert Hall. Rosebank, Cape Town. 8 - 10 November 2012.

Movement Choirs: Site-specific movement compositions co-directed by L. Wilson and M. Nyamza and performed by first year students of the UCT School of Dance for Dance UCT 2012: [Un]known Spaces. Baxter Theatre Foyer. Rosebank, Cape Town. 8 - 10 November 2012.

Department of Philosophy
Research Report 2012

HEAD OF DEPARTMENT: PROFESSOR DAVID BENATAR

Departmental Profile

The Department of Philosophy is established in the Faculty of Humanities. The Department focuses on analytical philosophy, offering courses in the Philosophy of Mind, Moral and Political Philosophy, Philosophy of Language, Epistemology, Logic, Aesthetics, Applied Ethics, Philosophy of Science and Critical Thinking.

Departmental Statistics

Permanent and long-term contract staff

Professors	2
Senior lecturers	3
Lecturers	1
Administrative staff	2
Visiting lecturers	2
Total	10

Students

Doctoral	6
Master's	11
Honours (course enrolments)	26
Undergraduate	2552
Total	2595

Research Fields and Staff

Permanent staff

PROFESSOR DAVID BENATAR
Moral philosophy; applied ethics; social philosophy

DR GREG FRIED
Aesthetics; philosophy of mathematics

DR ELISA GALGUT
Aesthetics; philosophy of literature; philosophy of psychology; philosophy of psychoanalysis

DR JACK RITCHIE
Philosophy of science, naturalism, analytic metaphysics

DR JEREMY WANDERER (LEAVE OF ABSENCE FROM JULY 2012)
Epistemology; philosophy of mind; philosophy of language

PROFESSOR BERNHARD WEISS
Realism and anti-realism; philosophies of language, logic and mathematics; early analytical philosophy

Visiting Lecturers

DR LAURENCE BLOOM
Ancient Philosophy, Kant, History of Metaphysics, and Ethical and Political Philosophy

Contact Details

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Web: http://www.philosophy.uct.ac.za

Research output

Authored books

Benatar, D. 2012. The Second Sexism. Malden US: Wiley-Blackwell Publishing, Inc. 304pp. ISBN 9780470674512.

Articles in Peer-reviewed Journals

Benatar, D. 2012. Every conceivable harm: a further defence of anti-natalism. South African Journal of Philosophy, 31(1): 128-164.

Benatar, D. 2012. How does anybody live in this strange place? A reply to Samantha Vice. South African Journal of Philosophy, 31(4): 619-631.

Benatar, D. 2012. Second Sexism. The Philosopher's Magazine, 3rd quarter: 19-20.

Benatar, S.R. and Benatar, D. 2012. From medical manners to moral reasoning: an historical overview of bioethics in the University of Cape Town's Faculty of Health Sciences. SAMJ South African Medical Journal, 102(6): 406-408.

Lerm, J. 2012. Second-personal reasons: why we need something like them, but why there are actually no such things. South African Journal of Philosophy, 31(2): 328-339.

Ostrowick, J. 2012. Is theism a simple, and hence probable, explanation for the Universe? South African Journal of Philosophy, 31(2): 354-368.

Ritchie, J.M. 2012. Styles for philosophers of science. Studies in History and Philosophy of Science, 43: 649-656.

Ritchie, J.M. 2012. Styles of thinking: the special issue. Studies in History and Philosophy of Science, 43: 595-598.

Wanderer, J.R. 2012. Addressing testimonial injustice: being ignored and being rejected. Philosophical Quarterly, 62(246): 148-169.

Wanderer, J.R. 2012. 'The happy thought of a single man': On the legendary beginnings of a style of reasoning. Studies in History and Philosophy of Science, 43: 640-648.

Weiss, B. 2012. Perspectives and the world. Topoi-An International Review of Philosophy, 31: 27-35.

Department of Political Studies

Research Report 2012

HEAD OF DEPARTMENT: PROFESSOR ANNETTE SEEGERS

Departmental Profile

The Department of Political Studies is home to internationally recognised scholars in comparative politics, international relations, political theory, political behaviour, intellectual history, public policy, and public administration. Our staff members have made major intellectual contributions in their respective fields and some have published widely in renowned international journals. Our staff members have also made practical contributions to the policies and politics of our new democracy.

Our department is home to one of the bigger postgraduate programmes and boasts a lively and cosmopolitan postgraduate student community. Our postgraduate programmes provide students with a firm academic foundation in political theory; comparative politics; international relations; South African politics; public administration; and public policy, amongst others. Students are encouraged to pursue more specialised study under the close supervision and guidance of faculty.

Our undergraduate courses remain a popular choice and the department is one of the largest departments in the Faculty of Humanities at UCT.

Staff and students both comprise a vibrant and intellectually engaged community and you are most welcome to join us.

Departmental Statistics

Permanent and long-term contract staff

Professors	4
Associate Professors	1
Senior Lecturers	6
Lecturers	2
Administrative and Clerical Staff	3
Total	16

Honorary staff

Emeritus Professors	2

Students

Doctoral	4
Master's	147
Honours	30
Undergraduates	2953
Total	3134

Research Fields and Staff

Permanent staff

DR JOHN AKOKPARI
Senior Lecturer: African politics; international relations; political economy; comparative politics.

PROFESSOR ANTHONY BUTLER
Politics & public policy in South Africa, including political funding, theories of the state, policy uncertainty, party systems, the politics of HIV/AIDS policy, and black economic empowerment in SA.

PROFESSOR ROBERT CAMERON
Senior Lecturer: Comparative local government politics & administration; public sector reform; public administration thought

MR ZWELETHU JOLOBE
Lecturer: Comparative politics; international relations; African politics; political violence; revolutions; contemporary South African politics; democratisation

PROFESSOR ROBERT MATTES
Senior lecturer: Democratisation; political behaviour; public opinion; survey research; research methodology; comparative politics

DR VINOTHAN NAIDOO
Senior Lecturer: Public administration, with a special interest in comparative public administration and development management.

ASSOCIATE PROFESSOR ANDREW NASH
Senior Lecturer: South African political thought; the history of political thought in the West; the making of a global political vocabulary

MS LAUREN PAREMOER
HIV/AIDS Treatment Politics; Social citizenship; Welfare regimes in the Global South; Theories of Rights and Justice; Discourse Analysis.

DR THIVEN REDDY
Senior Lecturer: Comparative politics; South African politics; regime transition and democratisation; political party systems and political parties; post-colonial theory and identity politics

DR KAREN SMITH
Senior Lecturer: International Relations theory; the developing world (Africa in particular) as an object of IR study and an agent of IR knowledge; South Africa and India as regional powers in the global South

MS RAENETTE TALJAARD
Senior Lecturer: Public Policy

PROFESSOR ANNETTE SEEGERS
Head of Department: Conflict; security; civil military relations in Southern Africa; security among Southern African states; the role of armed forces in democratization.

DR HARRY STEPHAN
Senior Lecturer: International relations; international political economy; comparative governance; international law and organisation.

Emeritus Professors

Emeritus Professor Robert Schrire
International political economy; globalisation; South African politics

Emeritus Professor André du Toit
Intellectual history of South African political thought & traditions; political ethics, ideologies & discourse; philosophical reflections on the Truth and Reconciliation Commission; narrative interpretation of political violence in South Africa

Guest Lecturers

Ms Laura Freeman
Lecturer: International relations; conflict; humanitarian aid; international political economy; political philosophy

Mr Markus Korhonen
Lecturer: Developmental states; democracy and democratisation; politics and development in Botswana.

Contact Details

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Web: http://www.uct.ac.za/depts/politics

Research output

Authored books

Butler, A.M. 2012. The Idea of the ANC. Auckland Park, South Africa: Jacana Media. 134pp. ISBN 978-1-4314-0578-7.

Taljaard, R. 2012. Up in Arms: Pursuing Accountability for the arms deal in parliament. Auckland Park, South Africa: Jacana Media (Pty) Ltd. 289pp. ISBN 978-1-4314-0269-4.

Edited books

Stephan, H.J. and Power, M. (eds) 2012. The Scramble for Africa in the 21st Century: From the Old World to the New. 456pp. Cape Town, Renaissance Press. ISBN 978-0-9584766-3-8.

Chapters in books

Akokpari, J. 2012. Limited capabalities, great expectations: the African Union and regional conflict management. In S. Wolf and C. Yakinthou (eds), Conflict Management in Divided Societies, pp. 151-166. Great Britian: Taylor & Francis Ltd. ISBN 978-0-415-56373-4.

Cameron, R.G. 2012. Civil service challenge and reform in South Africa. In C. Grace (ed.), Civil Service Reform: Experiences of the United Kingdom, India, South Africa and Nepal, pp. 37-52. Canada: Forum of Federations: The Global Network of Federalism and Multi Level Governance. ISBN 978-0-9877517-2-0.

Jolobe, Z.B. 2012. A party for all the people? The DA and the 2011 local elections. In S. Booysen (ed.), Local Elections in South Africa: Parties, People, Politics, pp. 133-150. Bloemfontein, South Africa: Sun Press. ISBN 978-0-9870096-5-4.

Mattes, R.B. 2012. Opinion polls and the media in South Africa. In C. Holtz-Bacha and J. Stromback (eds), Opinion Polls and the Media. Reflecting and Shaping Public Opinion, pp. 175-197. New York, USA: Palgrave Macmillan. ISBN 978-0-230-27889-9.

Mattes, R.B. and Glenn, I.E. 2012. Political communication in post-apartheid South Africa. In H.A. Semetko and M. Scammell (eds), The SAGE Handbook of Political Communication, pp. 494-508. London: SAGE Publications. ISBN 978-1-84787-439-9.

Nash, A.J. 2012. Post-apartheid accountability: the transformation of a political idea. In D.M. Chirwa and L. Nijzink (eds), Accountable Government in Africa, pp. 13-25. Cape Town, South Africa: UCT Press. ISBN 978-1-91989-537-6.

Schreiner, W. and Mattes, R.B. 2012. The possibilities of election campaigns as sites for political advocacy: South Africa in comparative perspective. In H.A. Tuynsma (ed.), Public Opinion and Interest Group Politics – South Africa's Missing Link? pp.154-172. Pretoria, South Africa: Africa Institute of South Africa. ISBN 978-0-7983-0292-0.

Smith, K. 2012. Africa as an agent of international relations knowledge. In S. Cornelissen, F. Cheru and T.M. Shaw (eds), Africa and International Relations in the 21st Century, pp. 21-35 London/New York: Palgrave Macmillan. ISBN 978-0-230-23528-1.

Smith, K. 2012. Contrived boundaries, kinship and ubuntu. A (South) African view of "the international". In A.B. Tickner and D.L Blaney (eds), Thinking International Relations Differently, pp. 301-321. London, United Kingdom: Routledge, Taylor and Francis Group. ISBN 978-0-415-78130-5.

Smith, K. 2012. Soft power: the essence of South Africa's foreign policy. In C. Landsberg and J.A. van Wyk (eds), South African Foreign Policy Review, pp. 68-83. Pretoria, South Africa: Africa Institute of South Africa. ISBN 978-0-7983-0291-3.

Encyclopaedia entries

Butler, A. 2012. Cyril Ramaphosa. In H.L. Gates and E.K. Akyeampong (eds), Dictionary of African Biography. Oxford: Oxford University Press. ISBN 13-9780195382075.

Mattes, R.B. 2012. Democratic Politics since 1994. In K. Johnson and S. Jacobs (eds), Encyclopedia of South Africa, pp. 111-118. Colorado: Lynn Riemer Publishers Inc. ISBN 978-1-58826-749-8.

Reddy, T. 2012. Elections: 1994 – 2009. In K. Johnson and S. Jacobs (eds), In Encyclopedia of South Africa, pp. 82-87. Colorado: Lynn Riemer Publishers Inc. ISBN 978-1-58826-749-8.

Articles in Peer-reviewed Journals

Akokpari, J. 2012. The political economy of Chinese capital in sub-Saharan Africa: implications for governance. Global Development Studies, 6(3-4): 49-75.

Logan, C. and Mattes, R.B. 2012. Democratising the measurement of democratic quality: public attitude data and the evaluation of African political regimes. European Political Science, 11(4): 469-491.

Mattes, R.B. 2012. The 'born frees': the prospects for generational change in post-apartheid South Africa. Australian Journal of Political Science, 47(1): 133-153.

Mattes, R.B. and Leuscher-Mamashela, T.M. 2012. The roles of higher education in the democratization of politics in Africa: survey reports from HERANA. Journal of Higher Education in Africa, 10(1): 139-170.

Naidoo, V. 2012. Expenditure volatility and provincial government reform in South Africa. Politeia, 31(2): 49-69.

Reddy, T. 2012. Going after business. New Agenda: South African Journal of Economic and Social Policy, 45(1): 74-75.

Reddy, T. 2012. The 'Cabbage and the Goat': xenophobic violence in South Africa. African Historical Review, 44(1): 3-28.

Smith, K. 2012. India's identity and its global aspirations. Global Society, 26(3): 369-385.

Walker, R. and Seegers, A. 2012. Securitisation: the case of post-9/11 United States Africa policy. Scientia Militaria: South African Journal of Military Studies, 40(2): 22-45.

Department of Psychology

Research Report 2012

HEAD OF DEPARTMENT: PROFESSOR MARK SOLMS

Departmental Profile

The Department of Psychology has strengths and interests in various research areas, including social and cultural issues pertinent to social change in the Southern African context, basic and applied topics in the brain and cognitive sciences, and a variety of topics in clinical psychology theory and practice. Additional strengths include - but are not limited to - health psychology, gender, intergroup relations, child development, policy development in mental health, programme evaluation, and trauma studies.

Departmental Statistics

Permanent and long term contract staff

Professors	5
Associate Professors	1
Senior Lecturers	7
Lecturers	8
Junior Research Fellow	1
Administrative and Clerical Staff	6
Total	28

Research Associate	1
Total	1

Students

Doctoral	42
Master's	56
Honours	32
Undergraduate	3207
Total	3337

Research Fields and Staff

Permanent Staff

DR FLORETTA BOONZAIER

My research interests are in critical social psychology (raced, classed, gendered and sexual subjectivities) and in the social psychology of gender. My continuing work involves the examination of gender-based violence through a critical feminist psychological lens, especially constructions of masculinity and femininity, social responses to intimate partner violence in the South African context, sex work/ prostitution in South Africa and broader representations of gender and sexuality in childhood and young adulthood.

PROFESSOR DON FOSTER

Most areas of social and critical psychology: South Africa identities (gender / racial/ class); violence and perpetrators of violence; intergroup relations, history of SA psychology.

DR DEBRA KAMINER

The psychological effects of trauma, in particular the impact of continuous and multiple trauma exposure; and interventions to enhance youth resilience, civic participation and empowerment in contexts of adversity and violence.

DR SHOSE KESSI

My research interests are in social and critical psychology. I am interested in issues of identity, representations, consciousness, community empowerment and social change. My focus is on qualitative research in general and participatory action research in particular through the use of multimedia methods such as Photovoice.

DR DESPINA LEARMONTH

My research areas are based in the area of clinical and community health psychology, particularly the synthesis of social and community knowledge with western medical knowledge to increase health behaviour adherence. I am also involved in empowerment projects and work with street-based sex workers and their clients.

WAHBIE LONG

The history of South African psychology particularly insofar as it relates to present-day imperatives around transformation.

PROFESSOR JOHANN LOUW

Two major research areas: firstly, in the history of psychology focusing on: historiography; historical developments in psychological interventions and practices; the history of South African psychology; professionalisation. A second major area of interest is in programme evaluation: programmes in drug and alcohol prevention; violence prevention in schools and information technology in education.

DR SUSAN MALCOLM-SMITH

Main research interest centers on how evolutionarily conserved emotion systems impact on adaptive social function and social cognition. Ongoing projects focus on neuroscientific and neuropsychological investigations of empathy, attachment, and social function in healthy normal populations as well as in psychiatric conditions and developmental disorders.

MS ANASTASIA MAW

Psychological trauma and application of trauma theory in southern African context; working with gender based violence; training and consultation models in psychology.

DR PROGRESS NJOMBORO
Interested in investigating cognitive deficits in neuropsychiatric samples and their relationship to apathy symptoms and related disorders of goal-directed behaviour. Keen on using lesion studies and brain imaging techniques to map out the underlying functional and neural substrates of these negative symptoms.

DR NOKUTHULA SHABALALA
The role of psychology in health care especially in service delivery within primary health care settings, the management of HIV/AIDS and other sexually transmitted infections at various levels, gender issues and race and identity in contemporary South Africa.

PROFESSOR MARK SOLMS
Neuropsychology – research and clinical; brain mechanisms of dreaming, emotion, motivation; psychological mechanisms of confabulation and anosognosia syndromes.

MS LEIGH SCHRIEFF
Current research involves the implementation and evaluation of an intervention aimed at the remediation of attention deficits following traumatic brain injury (TBI) in children; interest in the broader topic of paediatric TBI in a South African context; paediatric neuropsychology research and rehabilitation; Social Psychology; contact theory and intergroup relations.

ASSOCIATE PROFESSOR SALLY SWARTZ
Discourse studies including psychotic speech, language & gender, language and power, language & psychotherapy, conversation analysis; history of psychiatry, including history of South African lunatic asylums; treatment of the insane in South Africa before 1940; social history of insanity in colonial settings.

DR KEVIN THOMAS
Cognitive/Clinical Neuropsychology: neural substrates and assessment of spatial cognition; memory function in temporal lobe epilepsy; effects of stress, anxiety, and trauma on memory. Cognitive aging: effects of age and age-related diseases on memory and spatial cognition; Meta-analysis: quantitative reviews within neuropsychology.

PROFESSOR COLIN TREDOUX
Social psychology (contact theory, social influence); psychology and law (all aspects, but especially eyewitness research, child witness research, legal decision making, false memory syndrome); cognitive psychology (face recognition); methodology and statistics. Philosophy of psychology.

DR CATHERINE WARD
Violence prevention from the perspective of children's development, and particularly in public health approaches to this – in developing evidence-based approaches to violence prevention that have a wide reach and are effective in improving children's development and reducing their likelihood of becoming aggressive.

DR LAUREN WILD
Processes of risk and resilience in school-age children and adolescents, including (1) family stress (e.g., family conflict and parental HIV/AIDS), caregiving and child adjustment, and (2) identifying factors associated with risk behaviours in adolescents.

DR PEDRO WOLF
Evolutionary psychology (life history theory, assortative mating); methodology and statistics; program evaluation; cross cultural research.

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Research output

Authored books

Dawes, A.R.L., Biersteker, l. and Hendricks, L. 2012. Towards Integrated Early Childhood Development: An Evaluation of the Sobambisana Initiative. Claremont, Cape Town: Llifa Labantwana. 91pp. ISBN 9780620539999.

Edited books

Ellis, G.F.R., Stein, D.J., Thomas, K. and Meintjes, E.M. (eds) 2012. Substance Use and Abuse in South Africa. 394pp. Cape Town: UCT Press. ISBN 978-1-91989-529-1.

Ward, C.L., van der Merwe, A. and Dawes, A.R.L. (eds) 2012. Youth Violence: Sources and Solutions in South Africa. 432pp. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Chapters in books

Davids, A., Ncitakalo, N., Pezi, S. and Zungu, N. 2012. Sexual violence and HIV. In A. van Niekerk, S. Suffla and M. Seedat (eds), Crime, Violence and Injury in South Africa: 21st Century Solutions for Child Safety, pp. 97-118.

Houghton: Psychological Society of South Africa. ISBN 978-1-920014-86-5.

Foster, D.H. 2012. Gender, class, 'race' and violence. In C.L. Ward, A. van der Merwe and A.R.L. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 23-51. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Kaminer, D.B. and Eagle, G. 2012. Psycho-social effects of trauma and violence: implications for intervention. In A. van Niekerk, S. Suffla and M. Seedat (eds), Crime, Violence and Injury in South Africa: 21st Century Solutions for Child Safety, pp. 229-245. Houghton: Psychological Society of South Africa. ISBN 978-1-920014-86-5.

Malcolm-Smith, S.M., Uhlmann, A., Hodge, A. and Ipser, J. 2012. Affective neuroscience of methamphetamine users. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 143-155. Cape Town: UCT Press. ISBN 978-1-91989-529-1.

Solms, M. and Zellner, M.R. 2012. Freudian affect theory today. In A. Fotopoulou, D. Pfaff and M. Conway (eds), From the Couch to the Lab, pp. 133-144. United States: Oxford University Press. ISBN 978-0-19-960052-6.

Solms, M. and Zellner, M.R. 2012. Freudian drive theory today. In A. Fotopoulou, D. Pfaff and M.Conway (eds), From the Couch to the Lab, pp. 49-63. United States: Oxford University Press. ISBN 978-0-19-960052-6.

Solms, M., Pantelis, E. and Panksepp, J. 2012. Neuropsychoanalytic notes on addiction. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 175-184. Cape Town: UCT press. ISBN 978-1-91989-529-1.

Solms, M. 2012. Sigmund Freud: theorist of the unconscious and the founder of psychoanalysis (1856-1939). In A. Robinson (ed.), The Scientists – An Epic of Discovery, pp. 264-269. United Kingdom: Thames and Hudson Ltd. ISBN 9780500251911.

Solms, M. and Zellner, M.R. 2012. The Freudian unconscious today. In A. Fotopoulou, D. Pfaff and M.Conway (eds), From the Couch to the Lab, pp. 209-218. United States: Oxford University Press. ISBN 978-0-19-960052-6.

Stein, D.J., Ellis, G.F.R., Thomas, K. and Meintjes, E.M. 2012. Introduction: substance use and abuse in South Africa. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 1-9. Cape Town: UCT Press. ISBN 978-1-91989-529-1.

Thomas, K. and Ferrett, H. 2012. Neurocognitve effects of alcohol abuse and dependence. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 157-173. Cape Town: UCT press. ISBN 978-1-91989-529-1.

Tomlinson, M., Dawes, A.R.L. and Flisher, A.J. 2012. Preventing the development of youth violence in the early years: implications for South African practice. In C.L. Ward, A. van der Merwe and A.R.L. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 141-174. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Van der Merwe, A. and Dawes, A.R.L. 2012. Interventions for young offenders: what we know about what 'works' in diversion programmes. In C.L. Ward, A. van der Merwe and A.R.L. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 347-371. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Van der Merwe, A., Dawes, A.R.L. and Ward, C.L. 2012. The development of youth violence: an ecological understanding. In C.L. Ward, A. van der Merwe and A.R.L. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 53-91. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Van der Merwe, A., Dawes, A.R.L. and Ward, C.L. 2012. The South African context: future directions in research and practice. In C.L. Ward, A. van der Merwe and A.R.L. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 401-424. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Ward, C.L. and Cooper, A. 2012. Gangs and child safety. In A. van Niekerk, S. Suffla and M. Seedat (eds), Crime, Violence and Injury in South Africa: 21st Century Solutions for Child Safety, pp. 148-161. Houghton: Psychological Society of South Africa. ISBN 978-1-920014-86-5.

Ward, C.L. 2012. Interpersonal violence in South Africa and substance misuse: connections and approaches to prevention. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 281-298. Cape Town: UCT Press. ISBN 978-1-91989-529-1.

Ward, C.L. and Cooper, A. 2012. Intervening with youths in gangs. In C.L. Ward, A. van der Merwe and A.R.L. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 241-273. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Ward, C.L., Dawes, A.R.L. and Matzopoulos, R. 2012. Youth violence in South Africa: setting the scene. In C.L. Ward, A. van der Merwe and A.R.L. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 1-20. Cape Town: UCT Press. ISBN 978 1 9198 9587 1.

Wild, L.G. and Swartz, S. 2012. Adolescence. In J. Hardman (ed.), Child and Adolescent Development: A South African Socio-Cultural Perspective. Cape Town, RSA: Oxford University Press Southern Africa. ISBN 9780195999792.

Wild, L. 2012. Infancy. In J. Hardman (ed.), Child and Adolescent Development: A South African Socio-Cultural Perspective, pp. 91-132. Cape Town, RSA: Oxford University Press. ISBN 9780195999792

Wild, L. 2012. Middle childhood. In J. Hardman (Ed.), Child and Adolescent Development: A South African Socio-Cultural Perspective, pp. 163-202. Cape Town, South Africa: Oxford University Press. ISSBN: 9780195999792.

Zuma, H. and Durrheim, K. 2012. Race and intergroup relationships. In M. Visser and A. Moleko (eds), Community Psychology in South Africa, pp. 321-332. 2nd edition. Pretoria: Van Schaik Publishers. ISBN 9780627029523.

Encyclopaedia entries

Louw, J. 2012. South Africa. In D.B. Baker (ed.), The Handbook of the History of Psychology, p. 16. New York: Oxford University Press. ISBN 9780195366556.

Solms, M. 2012. Freud, Sigmund. In D. Barrett and P. McNamara (eds), Encyclopedia of Sleep and Dreams: The Evolution, Function, Nature, and Mysteries of Slumber, vol. 1. pp. 290-291. Santa Barbara CA: Greenwood.

Solms, M. 2012. Neuropsychology of Lost Dream Recall'. In D. Barrett and P. McNamara (eds), Encyclopedia of Sleep and Dreams: The Evolution, Function, Nature, and Mysteries of Slumber, vol. 2. pp. 457-460. Santa Barbara CA: Greenwood.

Articles in Peer-reviewed Journals

Aboud, F.E., Tredoux, C.G., Tropp, L., Brown, C., Niens, U. and Noor, N.M. 2012. Interventions to reduce prejudice and enhance inclusion and respect for ethnic differences in early childhood: A systematic review. Developmental Review, 32: 307-336.

Buys, J. and Louw, J. 2012. A process evaluation of a supervisory development programme. SA Journal of Human Resource Management, 10(3).

Casale, M. and Wild, L.G. 2012. The relationship between social support and the health of HIV-positive caregivers of children: A review of the empirical literature. Vulnerable children and youth studies, 7(3): 260-282.

Coetzer, A. and Louw, J. 2012. An evaluation of the contractor development model of working for water. Water SA, 38(5): 793-801.

Crabb, R., Cavanagh, K., Proudfoot, J., Learmonth, D., Rafie, S. and Weingardt, K. 2012. Is computerized cognitive-behavioural therapy a treatment option for depression in late-life? A systematic review. British Journal of Clinical Psychology, 51: 459-464.

Crawford-Browne, S.H. and Kaminer, D.B. 2012. The use of concept mapping in engaging women to identify the factors that influence violence. Journal of Psychology in Africa, 22(4): 529-538.

Dageid, D., Govender, k. and Gordon, S. 2012. Masculinity and HIV disclosure among heterosexual South African men: implications for HIV/AIDS intervention. Culture Health & Sexuality, 14(8): 925-940.

Dewing, S., Mathews, C., Schaay, N., Cloete, A., Louw, J. and Simbayi, L.C. 2012. Behaviour change counselling for ARV adherence support within primary health care facilities in the Western Cape, South Africa. AIDS and Behavior, 16: 1286-1294.

Field, C.G. and Louw, J. 2012. A theory-driven evaluation of a wellness initiative. SA Journal of Human Resource Management, 10(3).

Flisher, A.J., Dawes, A.R.L., Kafaar, Z., Lund, C., Sorsdahl, K., Myers, B.J., Thom, R. and Seedat, S. 2012. Child and adolescent mental health in South Africa. Journal of Child and Adolescent Mental Health, 24(2): 149-161.

Fourie, M.M., Kilchenmann, N., Malcolm-Smith, S.M. and Thomas, K. 2012. Real time elicitation of moral emotions using a prejudice paradigm. Frontiers in Psychology, 3: 275.

Gobodo-Madikizela, P. 2012. Transitional justice and truth commissions: exploring narratives of repair and healing in the post-Holocaust era. Psychology, Crime & Law, 18(3): 275-297.

Hoare, J., Fouche, J., Spottiswoode, B., Donald, K.A., Phillips, N., Bezuidenhout, H., Mulligan, C., Webster, V., Oduro, C., Schrieff, L.E., Paul, R., Zar, H.J., Thomas, K. and Stein, D.J. 2012. A diffusion tensor imaging and neurocognitive study of HIV-positive children who are HAART-naive "slow progressors". Journal of Neurovirology, 18: 205-212.

Hoare, J., Westgarth-Taylor, J., Fouche, J., Spottiswoode, B., Paul, R., Thomas, K., Stein, D.J. and Joska, J. 2012. A diffusion tensor imaging and neuropsychological study of prospective memory impairment in South African HIV positive individuals. Metabolic Brain Disease, 27: 289-297.

Howarth, C., Wagner, W., Kessi, S. and Sen, R. 2012. The politics of moving beyond prejudice. Behavioral and Brain Sciences, 35(6): 27-28.

Joska, J., Westgarth-Taylor, J., Hoare, J., Thomas, K., Paul, R., Myer, L. and Stein, D.J. 2012. Neuropsychological outcomes in adults commencing highly active anti-retroviral treatment in South Africa: a prospective study. BMC Infectious Diseases, 12(39): (1-8).

Kelly, J. and Ward, C.L. 2012. Narratives of resilience after a period of substance abuse and crime. African Journal of Drug and Alcohol Studies, 11(1): 45-53.

Kempen, K. and Tredoux, C.G. 2012. 'Seeing is believing': the effect of viewing and constructing a composite on identification performance. South African Journal of Psychology, 42(3): 434-444.

Louw, J. 2012. Programme evaluation: Can it improve human resource management practice? SA Journal of Human Resource Management, 10(3).

Malcolm-Smith, S.M., Koopowitz, S., Pantelis, E. and Solms, M. 2012. Approach/avoidance in dreams. Consciousness and Cognition, 21: 408-412.

Minyaliwe, C., Bandawe, C.R. and Mwale, R. 2012. How much do Blantyre dispensers in hospital and community pharmacies know about the new Malaria treatment guidelines? Malawi Medical Journal, 24(1).

Nglazi, M., Kranzer, K., Holele, P., Kaplan, R., Mark, D., Jaspan, H.B., Lawn, S.D., Wood, R. and Bekker, L. 2012. Treatment outcomes in HIV-infected adolescents attending a community-based antiretroviral therapy clinic in South Africa. BMC Infectious Diseases, 12:21.

Njomboro, P. 2012. The neurocognitive phenotype of apathy following acquires brain damage. South African Journal of Psychology, 42(3): 369-380.

Njomboro, P., Deb, S. and Humphreys, G.W. 2012. Apathy symptoms modulate motivational decision making on the Iowa gambling task. Behavioral and Brain Functions, 8(1): 63.

Njomboro, P. and Shoumitro, D. 2012. Poor dissociation of patient-evaluated apathy and depression symptoms. Journal of Gerontology, 2012: 846075(1).

Njomboro, P., Deb, S. and Humphreys, G.W. 2012. Apathy and executive functions: insights from brain damage involving the anterior cingulate cortex. BMJ Case reports, 10: 1-4.

Nortje, A. and Tredoux, C.G. 2012. Red, green, blue, red, argh! A missing shift in processing: the Stroop task does not affect facial recognition. South African Journal of Psychology, 42(3): 423-433.

Panksepp, J. and Solms, M. 2012. What is neuropsychoanalysis? Clinically relevant studies of the minded brain. Trends in Cognitive Sciences, 16(1): 6-8.

Roland, M., Myer, L., Martin, L.J., Maw, A., Batra, P., Arend, E., Coates, T. and Denny, L.A. 2012. Preventing human immunodeficiency virus infection among sexual assault survivors in Cape Town, South Africa: an observational study. AIDS and Behavior, 16: 990-998.

Sher, D. and Long, W. 2012. Historicising the relevance debate: South African and American psychology in context. South African Journal of Psychology, 42(4): 564-575.

Solms, M. 2012. Foreword. Festschrift in honour of Eric Kandel, Psychoanalytic Review, 99(4): 461-469.

Solms, M. 2012. Are Freud's "erogenous zones" sources or objects of libidinal drive? Neuropsychoanalysis, 14(1): 53-56.

Solms, M. 2012. Depression: a neuropsychoanalytic perspective. International Forum of Psychoanalysis, 21: 207-213.

Solms, M. and Panksepp, J. 2012. The "Id" knows more than the "Ego" admits: neuropsychoanalytic and primal consciousness perspectives on the interface between affective and cognitive neuroscience. Brain Sciences, 2: 147-175.

Stewart, J., Swartz, l. and Ward, C.L. 2012. The personal politics of disaster: narratives of survivors of a South African shanty town fire. Journal of Community Psychology, 40(4): 422-437.

Suffia, S., Kaminer, D.B. and Bawa, U. 2012. Photovoice as community engaged research: the interplay between knowledge creation and agency in a South African study on safety promotion. Journal of Psychology in Africa, 22(4): 517-528.

Swanepoel, T. and Thomas, K. 2012. Malicious MXit? South African adolescents' use of mobile-based communication applications. Journal of Child and Adolescent Mental Health, 24(2): 117-132.

Swartz, S.G. 2012. The broken mirror: difference and shame in South African psychotherapy. The International Journal of Pyschoanalytic Self Psychology, 7: 196-212.

Vredevelt, A., Baddeley, A.D. and Hitch, G.J. 2012. The effects of eye-closure and "ear-closure" on recall of visualand auditoryaspects of a criminal event. Europe's Journal of Psychology, 8(2): 284-299.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Department of Religious Studies

Research Report 2012

(Including the Institute for Comparative Religion in Southern Africa, the Research Institute on Christianity and Society in Africa, and the Centre for Contemporary Islam)

HEAD OF DEPARTMENT: PROFESSOR ABDULKADER TAYOB

Departmental Profile

The Department of Religious Studies maintains a strong research profile through its staff and its three research institutes. The Department houses the Institute for Comparative Religion in Southern Africa (ICRSA), directed by Professor David Chidester, which is engaged in research on religion, religions and religious diversity; the Research Institute on Christianity and Society in Africa (RICSA), directed by Emeritus Professor James Cochrane, which is involved in research on the social impact of Christianity in South Africa and the African continent; and the Centre for Contemporary Islam (CCI), directed by Dr Andrea Brigaglia, which has undertaken interdisciplinary projects, including international research on Islamic law in Africa, Islamic publics in Africa, and the presidential legacy project on the manuscript archives of Timbuktu. Still under the co-direction of Emeritus Professor Cochrane, the International Religious Health Assets Programme (IRHAP, previously ARHAP) now with its UCT Hub office in the School of Public Health and Family Medicine in the Faculty of Health Sciences, researches various issues on the interface between religion and public health in Africa and beyond. These research initiatives of the Department have proved to be particularly important for the research development of the many postgraduate students employed by them and have also served to attract national and international researchers to the Department. The Department features two NRF A-rated researchers, Professor David Chidester and Emeritus Professor John de Gruchy, the latter of whom is retired but remains an active researcher associated with the Department. In addition the Department publishes the *Journal for the Study of Religion* and the *Journal for Islamic Studies,* which is accredited by the Department of Education, and the *Annual Review of Islam in South Africa.*

Departmental Statistics

Professors	2
Associate Professors	2
Senior Lecturers	2
Lecturers	1
Postdoctoral Fellows	3
Honorary Research Associates	2
Research Staff	1
Administrative and Clerical Staff	2
Total	15

Honorary staff

Emeritus Professors	2
Adjunct Associate Professors	1

Students

Doctoral	20
Master's	12
Honours	14
Undergraduate	932
Total	937

Research Fields and Staff

DR LOUIS BLOND
Continental Philosophy, Contemporary Jewish Philosophy, Jewish Religious Discourse and Critical Theory

DR ANDREA BRIGAGLIA
Islam in Africa; Sufism, religious literature and scholarly networks in 20th century's Nigeria, Qur'anic exegesis in West African languages

PROFESSOR DAVID CHIDESTER
History of religions; religion in North America; religion in South Africa

EMERITUS PROFESSOR JAMES COCHRANE
Religion; globalisation; public health; society; Africa; migration

EMERITUS PROFESSOR JOHN DE GRUCHY (SENIOR SCHOLAR)
Christian theology, Bonhoeffer; South African Church; theological aesthetics; reconciliation; public theology; missionary history

DR ANNIE LEATT
Buddhist studies, theories and practices of post-colonial secularism, Asian theories of body, personhood and self-cultivation, political philosophy, critical theory

DR ASONZEH UKAH
Religion and Globalisation; Transnational Religion; Media and Material Culture of African Pentecostalism; Popular Culture of Pentecostalism; Pentecostal Advertising; Faith and Films; Urbanism and Sacred Space

ASSOCIATE PROFESSOR SA'DIYYA SHAIKH
Islamic intellectual history; Qur'anic studies; hermeneutics; Sufism; Islam and gender; women in religion; feminist theory; religion; sexuality and reproductive health

PROFESSOR ABDULKADER TAYOB
Religion Education; Islam and public life; intellectual trends in modern Islam

ASSOCIATE PROFESSOR CHARLES WANAMAKER
Socio-rhetorical Interpretation; Socio-rhetorical Commentary on 1 Corinthians; Cognitive Science and the Study of Early Christianity

ADJUNCT ASSOCIATE PROFESSOR MUNEER FAREED
Islamic law, economics, Islam and development

RESEARCH ASSOCIATE
Dr Lyn Holness
Rethinking faith and its imagery in the light of contemporary developments, notably in science and inter-faith issues; a holistic understanding of researcher development

Highlights from 2012

Book launches:

In December 2012, the Department of Religious Studies hosted a launch of the research report *South African Muslim Women: Sexuality, Marriage and Reproductive Choices.* The outline outlines the major findings of a quantitative study on South African Muslim women's views of Islam and lived experiences pertaining to these matters. All participants, local community organizations, NGO's working in the Muslim community as well as local media (newspapers and radio) were invited to attend the launch. Approximately 100 individuals attended. At the launch, the research team presented the major findings of the research, followed by a panel discussion on the significance of our research findings. The following panellists gave a short presentation related to particular research findings: Dr Rashied Omar (Chairperson Western Cape Religious Leaders Forum), Mwalima Mansura Africa (Islamic Unity Convention), Fatima Noordien (Muslim Youth Movement), and Shamsunnisa Sablay (The Islamic Network). Research booklets were made available to all attendees and additional copies were given to local organizations and NGO's.

Wild Religion is a wild ride through recent South African history from the advent of democracy in 1994 to the euphoria of the football World Cup in 2010. In the context of South Africa's political journey and religious diversity, David Chidester explores African indigenous religious heritage with a difference. As the spiritual dimension of an African Renaissance, indigenous religion has been recovered in South Africa as a national resource. *Wild Religion* analyzes indigenous rituals of purification on Robben Island, rituals of healing and reconciliation at the new national shrine, Freedom Park, and rituals of animal sacrifice at the World Cup. Not always in the national interest, indigenous religion also appears in the wild religious creativity of prison gangs, the global spirituality of neo-shamans, the ceremonial display of Zulu virgins, the ancient Egyptian theosophy in South Africa's Parliament, and the new traditionalism of South Africa's President Jacob Zuma. Arguing that the sacred is produced through the religious work of intensive interpretation, formal ritualization, and intense contestation, Chidester develops innovative insights for understanding the meaning and power of religion in a changing society. For anyone interested in religion, *Wild Religion* uncovers surprising dynamics of sacred space, violence, fundamentalism, heritage, media, sex, sovereignty, and the political economy of the sacred.

A special issue of the *Journal for Islamic Studies* was published on Islamic Reform and Public Life in 2012. The peer-reviewed articles were based on some of the papers presented at the International Conference on Islamic Reform and Public Life in Africa in 2012. These essays suggest some interesting comparisons between Islamic reform movements in various political contexts. From the colonial state to the modern Moroccan Kingdom, these movements are shaped in local politics. Secondly, the articles suggest that reform is not a static concept, but open to creative and malleable interpretation. Finally, reform is not limited to Muslim debate and discourse. It is widely debated in global publics, as the meaning and role of religion in public life becomes critical in a global, and increasingly interactive world.

Conferences hosted:

The Department of Religious Studies hosted an international conference in December 2011, on *Theorizing Experience, Subjectivity and Narrative in Studies of Gender and Islam.* This conference brought together renowned international and local feminist scholars of gender and feminist scholars of Islam in South Africa. The intellectual project of this conference was to explore critically the connections between Muslim women's experiences and feminist theory and methodology in order to enable the

expansion and development of Islamic feminist theory and methodology. Papers from the conference will be published in a special journal issue.

The Department of Religious Studies hosted an international conference in October, 2012, on *Biographies of Religious Engagement: Islamic Activism in Psychological Perspective*. Given the widespread significance and interest in Islamic activism in public life, this conference put the focus on activists and their biographical trajectories over two or three decades. Papers from this conference will be published in a special journal issue.

Visits by scholars from elsewhere:

Professor Gordon Mitchell of Hamburg University joined us as A. W. Mellon Visiting Fellow in the second half of 2012. He presented a series of undergraduate lectures and post-graduate seminars on inter-cultural education through art. He also addressed Western Cape teachers on teaching religion at a workshop on 15th September, 2012.

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Facebook: ReligiousStudiesUCT
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Research Output

Authored books

Chidester, D.S. 2012. Wild Religion: Tracking the Sacred in South Africa. Berkeley and Los Angeles: University of California Press. 246pp. ISBN 9780520273078.

Cochrane, J.R. and Gunderson, G. 2012. Mobilizing Religious Health Assets for Transformation. Barefoot Guide. Cape Town, South Africa: The Barefoot Guide Collective. 119pp. ISBN 9780620551823.

Gunderson, G. and Cochrane, J.R. 2012. Religion and the Health of the Public. New York: Palgrave Macmillan. 195pp. ISBN 9780230341272.

Shaikh, S. 2012. Sufi Narratives of Intimacy: Ibn 'Arabi, Gender, and Sexuality. Chapel Hill: University of North Carolina Press. 228pp. ISBN 9780807835333.

Edited books

Cochrane, J.R., Phiri, I., Bongmba, E. and Van der Water, D. (eds) 2012. Living on the Edge: Essays in Honour of Steve de Gruchy, Activist Theologian, Pietermaritzburg: Cluster Publications. ISBN 9781875053971.

Melis, D.R. and Nobili, M. (eds) 2012. Futh al-buldhn: Sources for the Study of Islamic Societies. 158pp. Rome: ARACNE editrice. ISBN 978-88-548-5668-4.

Chapters in books

Chidester, D.S. 2012. African Christian communities. In M.P. Fisher and L.W. Bailey (eds), An Anthology of Living Religions, pp. 266-268. 3rd edition. New Jersey: Pearson: Prentice Hall. ISBN 9780205246809.

Chidester, D.S. 2012. Dreaming in the contact zone: Zulu dreams, visions, and nineteenth-century South Africa. In R.D. Hecht and V.F. Biondo III (eds), Religion and Culture: Contemporary Practices and Perspectives, pp. 47-63. Philadelphia: Ausburg Fortress Press. ISBN 9780800698980.

Chidester, D.S. 2012. Pure heritage: indigenous, missionary, and anthropological constructions of sexual purity in South Africa. In P. Rösch and U. Simon (eds), How Purity is Made, pp. 451-473. Wiesbaden: Harrassowitz Verlag. ISBN 978-3-447-06542-9.

Cochrane, J.R. 2012. Instruments or inhibitors of civil society? The role of Christians in South African state formation. In S.K. Elolia (ed.), Religion, Conflict, and Democracy in Modern Africa: The Role of Civil Society in Political Engagement, pp. 230-252. Eugene, Oregon: Pickwick Publications. ISBN 9781608998562.

Cochrane, J.R. 2012. Religion, health, and the economy. In E.K. Bongmba (ed.), The Wiley-Blackwell companion to African Religions, pp. 430-442. UK: Wiley-Blackwell Publishing, Inc. ISBN 9781405196901.

Cochrane, J.R. 2012. The incommensurability of development and justice. In J.R. Cochrane, E. Bongmba, I. Phiri and D. van der Water (eds), Living on the Edge: Essays in Honour of Steve de Gruchy - Activist and Theologian, pp. 188-200. Pietermaritzburg: Cluster Publications. ISBN 9781875053971.

De Gruchy, J.W. 2011. Redefining sainthood and martyrdom: the case of Dietrich Bonhoeffer. In M. Higton, J. Law and C. Rowland (eds), Theology and Human Flourishing: Essays in Honor of Timothy J. Gorringe, pp. 157-168. Eugene, Oregon: Cascade Books. ISBN 9781608997558.

De Gruchy, J.W. 2012. The tension between confessing Christ and the unity of the church in the struggle for justice. In J.R. Cochrane, E. Bongmba, I. Phir and D. van der Water (eds), Living on the Edge: Essays in Honour of Steve de Gruchy - Activist and Theologian, pp. 2-16. Pietermaritzburg: Cluster Publications. ISBN 9781875053971.

Hall, K. and Leatt, A. 2012. Support for children: social services and social security. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 264-272. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Melis, D.r. and Nobili, M. 2012. A plurality of historical and linguistic experiences. In N. Melis and M Nobili (eds), Futh al-buldhn: Sources for the Study of Islamic societies, pp. 1-8. Rome: ARACNE editrice. ISBN 978-88-548-5668-4.

Nobili, M. 2012. Risla min Maryam bt Fd ila al-ibn. A brief contribution to the study of Muslim eschatology in 19th century Nigeria. In N. Melis and M Nobili (eds), Futh al-buldhn: Sources for the Study of Islamic societies, pp. 45-54. Rome: ARACNE editrice. ISBN 978-88-548-5668-4.

Shaikh, S. 2012. Engaging surrender: the intimacy and power of the gender jihad. In K. Ali, J. Hammer and L. Silvers (eds), A Jihad for Justice: Honouring the Work and Life of Amina Wadud, pp. 213-216. USA: 48HrBooks. ISBN 9780615614540.

Articles in Peer-reviewed Journals

Breier, M. and Holness, L.J. 2012. Towards a theorisation of a cross-disciplinary research development programme at the University of Cape Town. Acta Academica, 2011(2): 149-168.

Brigaglia, A. 2012. A contribution to the history of the Wahhabi Da'wa in West Africa: the career and the murder of Shaykh Ja'far Mahmoud Adam (Daura, ca. 1961/1962-Kano2007). Islamic Africa, 3(1): 1-23.

De Gruchy, J.W. 2012. Bonhoeffer's Legacy and Kairos-Palestine. Journal of Theology for Southern Africa, 143: 67-80.

De Gruchy, J.W. 2012. Historical consciousness and theological imagination: in appreciation of Philippe Denis. Studia Historiae Ecclesiastical, 38(1): 5-15.

De Gruchy, J.W. 2011. Revisiting doing theology in context: re-assessing a legacy. Journal of Theology for Southern Africa, 141: 21-31.

Hoel, N. 2012. Engaging religious leaders: South African Muslim women's experiences in matters pertaining to divorce initiatives. Social Dynamics, 38(2): 184-200.

Tayob, A.I. 2012. Politics and Islamization in African public spheres. Islamic Africa, 3(2): 139-168.

Tayob, S. 2012. The 2010 World Cup in South Africa: a millennial capitalist moment. Journal of Southern African Studies, 38(3): 717-736.

Department of Social Development Research Report 2012

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR VIVIENE TAYLOR

Departmental Profile

The Department of Social Development provides undergraduate social work education and training commensurate with the professional standards laid down by the South African Council for Social Service Professions. It also offers postgraduate specialist taught programmes in Social Development, Social Policy & Management, Probation & Corrections and Clinical Social Work. Postgraduate programmes by research are offered in Social Planning & Administration, Social Work and Social Development. As befits professional education, the Department maintains relationships with a wide variety of community-based organisations where students undergo professional practice based learning.

The Department places great importance on research. Current research interests of the Department include social policy and social protection systems, the social development of emergent communities, clinical intervention strategies, restorative justice, research on gender inequalities and social transformation, human development and capabilities as pathways out of poverty & social exclusion, social work in prisons, child & youth care, social administration and planning, and HIV/AIDS care strategies.

The Department is also involved in a number of extension services at both national and international levels. The Department collaborates with the Western Cape Provincial Government by providing the specialist social work honours courses in the treatment of substance abuse disorders. International research and comparative work is encouraged. At present staff in the Department are involved in international research collaboration in the fields of comparative social policy in Africa, conflict resolution and community development, financial management of the third sector and mapping social protection systems in Africa.

Departmental Statistics

Permanent and Long-term Contract Staff

Associate Professors	2
Adjunct Associate Professor	1
Senior Lecturers	4
Research Associate	2
Lecturers	3
Junior Researcher	1
Administrative and Clerical Staff	2
Total	15

Students

Doctoral	10
Master's	63
Honours	51
Undergraduate	391
Total	515

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR VIVIENE TAYLOR
Social policy and social protection; human security and social and economic development with emphasis on governance, poverty and gender inequalities.

ASSOCIATE PROFESSOR ANDRÉ DE V SMIT
Organisational theory; management and administration; social policy; social security; resource allocation.

ADJUNCT ASSOCIATE PROFESSOR ERIC ATMORE
Organisational theory; leadership and management; non profit sector; early childhood development.

DR MARGARET BOOYENS
Youth development; social development; community development; poverty alleviation; leadership and management in non-profit organizations.

DR CONNIE O'BRIEN
Community development; mental health issues; cultural diversities; peace education; conflict resolution/mediation; spirituality/counselling; qualitative research.

DR LEON HOLTZHAUSEN
Criminal Justice Social Work, Substance Addiction and Transnational Social Work and Migrant Issues.

DR JOHANNES JOHN-LANGBA
Migration, climate change and health; HIV/AIDS; social policy and social protection; behavioral and community health, social and public health dimensions of mining; sexual and gender-based violence; psycho social well-being; quality of life; mental health; sexual and reproductive health/rights; and programme evaluation.

MR THULANE GXUBANE
Crime and society; probation and correctional practice; youth justice, juvenile offending and restorative justice.

MRS FATIMA WILLIAMS
Casework/psychotherapy; groupwork and group psychotherapy; human development; mental health; professional development.

MR RONALD ADDINALL
Clinical social work, sexology and psychosexual therapy, sexual health and rights, sexual minorities and human rights, and gender identity variance.

ADMINISTRATIVE AND CLERICAL STAFF
Ms Marguerite Armstrong – Administrative Officer

Mr Olando Jacobs – Senior Secretary

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Research output

Chapters in books

Gxubane, T. 2012. A development social work approach to crime prevention through restorative justice. In L. Holtzhausen (ed.), Criminal Justice Social Work, pp. 99-117. Cape Town, South Africa: Juta and Co. Ltd. ISBN 978-0-70218-911-1.

Holtzhausen, L. 2012. The criminal justice practice framework. In L. Holtzhausen (ed.), Criminal Justice Social Work, pp. 15-46. Cape Town, South Africa: Juta and Co. Ltd. ISBN 978-0-70218-911-1.

Holtzhausen, L. 2012. What is criminal justice social work? In L. Holtzhausen (ed.), Criminal Justice Social Work, pp. 1-14. Cape Town, South Africa: Juta and Co. Ltd. ISBN 978-0-70218-911-1.

Holtzhausen, L. 2012. Working with offenders. In L. Holtzhausen (ed.), Criminal Justice Social Work, pp. 47-75. Cape Town, South Africa: Juta and Co. Ltd. ISBN 978-0-70218-911-1.

Articles in Peer-reviewed Journals

Booyens, M. and Crause, E.J. 2012. Excluded from education and work: perceptions of at risk youth. Social Work: A Professional Journal for the Social Worker, 48(3): 255-274.

Sturgeon, A.S.P. 2012. Stigma and marginalisation: structural violence and the impact on mental health. Social Work: A Professional Journal for the Social Worker, 48(1): 58-67.

Taylor, V.E.D. 2012. Social protection for social justice. New Agenda: South African Journal of Economic and Social Policy, 46: 34-37.

Twikirize, J.M. and Obrien, C. 2012. Why Ugandan rural households are opting to pay community health insurance rather than use the free healthcare services. International Journal of Social Welfare, 21: 66-78.

Doctoral dissertations

Gxubane, E. 2012. Exploration of residential diversion within a restorative justice framework in the management of young sex offenders in South Africa. 300pp. Supervised by D. Cooper and R. Graser.

Master's degrees (by research)

Campbell, P. 2012. A critical examination of the legislative and policy framework governing ECD service provision in South Africa since 1994. 201pp. Supervised by E. Atmore.

Dunne, R. 2012. Levels of alcohol intoxication: an assessment of perceptions, knowledge, attitudes, practices and breath alcohol levels. 88pp. Supervised by A.D.V. Smit.

Department of Sociology
Research Report 2012

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR DAVID COOPER

DEPARTMENTAL PROFILE

The department has a team of active researchers with growing clusters of research groupings formed around staff members and their Master's and PhD students. During the past few years a range of peer-reviewed journal articles but also a considerable number of books, research and consultancy reports, and public articles and presentations in the arena of national and local debate have been produced.

Research projects currently underway or recently completed in the Department, most with a South African and comparative focus, include work on: land tenure reform and traditional authorities; development of social movements; workers' experiences of recent social change in South Africa; health policies and medical facilities with particular orientation to the HIV/Aids pandemic; democracy and inequality in comparative perspective; industrial restructuring, unemployment, skills development and job creation; export agriculture and globalization; "race", identity and diversity in South Africa; dynamics of corporate culture and managerial identity; organizational transformation; higher education transformation and research development; pedagogics in higher education; urbanisation, social dynamics and inequality; the nature of sociology; issues in social research methods; globalization, it's meaning and impacts.

Professor Lungisile Ntsebeza's NRF Research Chair is now in its fifthyear of research activity and development. Professor Jeremy Seekings continues to serve as Director of the Centre for Social Science Research. Associate Professor Xolela Mangcu is a member of the Editorial Board of Acta Academica and Associate Professor David Cooper serves on the Editorial Advisory Board of the Journal of Applied Social Science.

Departmental Statistics

Permanent and long-term contract staff

Professors	4
Associate Professors	3
Senior Lecturers	4
Lecturers	2
Research Staff	1
Adjunct Associate Professors	2
Admin and Clerical Staff	2
Total	18

Students

Doctoral	35
Master's	44
Honours	21
Undergraduates	2708
Total	2808

Research Fields and Staff

ASSOCIATE PROFESSOR DAVID COOPER

Research development in higher education; students in the South African higher education system; issues of engaged scholarships at universities.

PROFESSOR OWEN CRANKSHAW

Racial and class divisions; sociology of housing and labour markets and the relationship between urbanisation, housing and employment.

DR JACQUES DE WET
Senior Lecturer; methodological issues in quantitative and qualitative research; social change and identities in post-Apartheid South Africa; people-centred development theory and practice.

ADJUNCT ASSOCIATE PROFESSOR RAJEN GOVENDER
Political behaviour; capability approach; social justice; methodological issues in quantitative research.

DR JOHANN GRAAFF
Senior lecturer; development theory; teaching sociology; rural education.

DR JONATHAN GROSSMAN
Senior lecturer; development of workers' movement; Marxist theory and practice.

DR JUDITH HEAD
Senior lecturer; Poverty, inequality & public health; HIV/AIDS in SA & Brazil.

EMERITUS ASSOCIATE PROFESSOR KEN JUBBER
Evolutionary theory; social theory; history of sociology, philosophy of sociological knowledge.

ASSOCIATE PROFESSOR DAVID LINCOLN
International division of labour; plantation agriculture; development.

ASSOCIATE PROFESSOR XOLELA MANGCU
Political Sociology; sociology of institutions; social theory; race, identity and culture; urban sociology.

EMERITUS PROFESSOR JOHANN MAREE
Industrial relations and industrial strategy; worker participation: skills development.

DR FRANK MATOSE
Senior Lecturer; Natural resource commons; co-management; biodiversity management and rural livelihoods; land reform and biodiversity conservation; Southern Africa.

DR ELENA MOORE
Senior Lecturer; Sociology of the family and personal life; intergenerational relations; gender; research methods; biographical research methods.

PROFESSOR LUNGISILE NTSEBEZA
Rural development; traditional authorities; land rights; rural/urban linkages; land and the struggle against poverty.

DR AMRITA PANDE
Senior Lecturer; Globalization; gendered bodies and gendered work spaces; new reproductive technologies and women's movement in the Global South.

PROFESSOR JEREMY SEEKINGS
Political sociology; unemployment; social stratification & race; public policy; social movement; urban sociology.

PROFESSOR ARI SITAS
Historical forms of deviance and social action; labour and livelihoods; industrialisation and work challenges in emerging powers; reconciliation and trauma; the labour movement in South Africa; migrant and marginal forms of labour.

ADJUNCT ASSOCIATE PROFESSOR SHARLENE SWARTZ
Marginalized youth and development outcomes in contexts of adversity; social aspects of restitution and transformation; race and education; participatory and emancipatory research methods.

Contact Details

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Research output

Authored books

Distiller, N. 2012. Shakespeare and the Coconuts: On Post-Apartheid South African Culture. Johannesburg: WITS University Press. 225pp. ISBN 978186814.

Mangcu, X. 2012. Biko: A Biography. Cape Town: Tafelberg Publishers. 328pp. ISBN 978 0 6240 5413 9.

Chapters in books

Favish, J., Ross, D.A., Inggs, S.C., Kathard, H., Clarkson, C.P., Case, J.M., Collier-Reed, B.I. and Reid, S. 2012. Reflections on developing distinctive University of Cape Town graduate attributes. In M. Coetzee (eds), Developing Student Graduateness and Employability, pp. 207-225. Randburg: Knowres Publishing. ISBN 978-1-86922-189-8.

Kiragu, S., Mclaughlin, C. and Swartz, S. 2012. Learning about HIV/AIDS education for children through consultation and dialogue with school stakeholders. In J. MacBeath and M. Young (eds), A Common Wealth of Learning: Millennium Development Goals Revisited. UK: Routledge. ISBN 978-0-415-64483-9.

Latif, D. and Sitas, A. 2012. The potential for reconciliation, forgiveness, and social transformation. In N. Trimikliniotis

and U. Bozkurt (eds), Beyond a Divided Cyprus, pp. 201-216. New Yord, USA: Palgrave Macmillan. ISBN 9780230338548.

Makoae, M.G., Richter, L.M. and Jubber, K.C. 2012. Maltreatment prevention and the ethic of care. In A. van Niekerk, S. Suffla and M. Seedat (eds), Crime, Violence and Injury in South Africa: 21st Century Solutions for Child Safety, pp. 67-83. Houghton: Psychological Society of South Africa. ISBN 978-1-920014-86-5.

Maree, J.G.B. 2012. COSATU, oligarchy and the consolidation of democracy in an African context. In S. Buhlungu and M. Tshoaedi (eds), COSATU'S Contested Legacy, pp. 56-89. Cape Town: HSRC Press. ISBN 978-0-7969-2395-0.

Posel, D.B. 2011. Screaming image: Klas Thibeletsa's child abuse and the post-apartheid confessional. In F. Rankin-Smith (ed.), Figuring Faith. Johannesburg: Fourthwall Books. ISBN 9780986985065.

Seekings, J.F. and Matisonn, H. 2012. South Africa: the continuing politics of basic income. In M.C. Murray and C. Pateman (eds), Basic Income Worldwide: Horizons of Reform, pp. 128-150. New York: Palgrave Macmillan. ISBN 978-0-230-28542-2.

Sitas, A. 2012. COSATU, the '2010 Class Project' and the contest for 'the soul' of the ANC. In S. Buhlungu and M. Tshoaedi (eds), COSATU'S Contested Legacy, pp. 132-146. Cape Town: HSRC Press. ISBN 978-0-7969-2395-0.

Wild, L.G. and Swartz, S. 2012. Adolescence. In J. Hardman (ed.), Child and Adolescent Development: A South African Socio-Cultural Perspective. Cape Town, RSA: Oxford University Press Southern Africa. ISBN 978-0-19-599979-2.

Articles in Peer-reviewed Journals

Crankshaw, O. 2012. Deindustrialization, professionalization and racial inequality in Cape Town. Urban Affairs Review, 48(6): 836-862.

Distiller, N. 2012. Authentic protest, authentic Shakespeare, authentic Africans: performing 'Othello' in South Africa. Comparative Drama, 46(3): 339-354.

Distiller, N. 2012. Future directions for South African Shakespeare studies: changing the emphasis, growing the field. Shakespeare in Southern Africa, 24: 1-2.

Distiller, N. 2012. Shakespeare's Perversion: a reading of Sonnet 20. Shakespeare, 8(2): 137-153.

Donovan, K. 2012. Mobile money, more freedom? The impact of M-PESA's network power on development as freedom. International Journal of Communication, 6: 2647-2669.

Donovan, K. 2012. Seeing like a slum: towards open, deliberative development. Georgetown Journal of International Affairs, 13(1): 97-104.

Favish, J., McMillan, J.M.E. and Ngcelwane, S. 2012. Developing a strategic approach to social responsiveness at the University of Cape Town, South Africa. Journal of Higher Education Outreach and Engagement, 16: 37-59.

Hardon, A. and Posel, D. 2012. Secrecy as embodied practice: beyond the confessional imperative. Culture, Health and Sexuality, 14(S1): S1-S13.

Hoffman, M., Coetzee, D.J., Hodes, R. and London, L. 2012. From comprehensive medicine to public health at the University of Cape Town: a 40-year journey. SAMJ South African Medical Journal, 102(6): 442-445.

Mangcu, X. 2011. Elections and political culture: issues and trends. Journal of Public Administration, 46(3.1): 1153-1168.

Mangcu, X. 2012. African modernity and the struggle for people's power: from protest and mobilization to community organizing. The Good Society, 21(2): 279-299.

Matebeni, Z. 2012. Queer(ing) porn – a conversation. Agenda, 26(3): 61-69.

Moore, E. 2012. From traditional to companionate marriages: women's changing experience of marriage and divorce in Ireland. Families, Relationships and Societies, 1(3): 345-361.

Moore, E. 2012. Paternal banking and maternal gatekeeping in postdivorce families. Journal of Family Issues, 33(6): 745-772.

Moore, E. 2012. Renegotiating roles postdivorce: a decisive break from tradition. Journal of Divorce and Remarriage, 53: 402-419.

Moore, E., Timonen, V., O'Dwyer, C. and Doyle, M. 2012. Divorce and intergenerational support: comparing the perceptions of divorced adults and their parents. Journal of Comparative Family Studies, 43(2): 261-279.

Muchapondwa, E., Biggs, H., Driver, A., Matose, F., Mungatana, E. and Scheepers, K. 2012. Providing economic incentives for biodiversity conservation in an emerging bioregional context. Journal of Sustainable Development, 5(11): 118-129.

Muyeba, S. and Seekings, J.F. 2012. Homeownership, privacy and neighbourly relations in poor urban neighbourhoods

in Cape Town, South Africa. South African Review of Sociology, 43(3): 41-63.

Nattrass, N.J., Maughan-Brown, B., Seekings, J.F. and Whiteside, A. 2012. Poverty, sexual behaviour, gender and HIV infection among young black men and women in Cape Town, South Africa. African Journal of AIDS Research, 11(4): 307-317.

O'Dwyer, C., Doyle, M., Moore, E. and Timonen, V. 2012. 'We have all moved on': how grandparents cope with their adult child's relationship breakdown. Families, Relationships and Societies, 1(2): 223-241.

Pande, A. 2012. From "balcony talk" and "practical prayers" to illegal collectives: Migrant domestic workers and meso-level resistances in Lebanon. Gender and Society, 26(3): 382-405.

Seekings, J.F. 2012. Pathways to redistribution: the emerging politics of social assistance across the global 'south'. Journal fur Entwicklungspolitik, 28(1): 14-34.

Sitas, A. 2012. The human, humanism and the human condition. Social Dynamics, 38(1): 40-47.

Steinberg, J. 2012. Establishing police authority and civilian compliance in post-apartheid Johannesburg: an argument from the work of Egon Bittner. Policing and Society, 22(4): 481-495.

Steinberg, J. 2012. Security and disappointment: policing, freedom and xenophobia in South Africa. British Journal of Criminology, 52: 345-360.

Swartz, S., Deutsch, C., Makoae, M.G., Michel, B., Harding, J.H., Garzouzie, G., Rozani, A., Runciman, T. and Van der Heijden, I. 2012. Measuring change in vulnerable adolescents: findings from a peer education evaluation in South Africa. SAHARA: Journal of Social Aspects of HIV/AIDS, 9(4): 242-254.

Van Wyk, I. 2012. 'Tata ma chance': on contingency and the lottery in post-apartheid South Africa. Africa, 82(1): 41-68.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Yaa Oduro, G., Swartz, S. and Arnot, M. 2012. Gender-based violence: young women's experiences in the slums and streets of three sub-Saharan African cities. Theory and Research in Education, 10(3): 275-294.

UCT Libraries

(Including the Library and Information Studies Centre)

EXECUTIVE DIRECTOR: MS GWENDA THOMAS

Departmental Profile

In addition to the University Libraries providing academic information services that form a strategically strong research, teaching and learning environment to support staff and students, librarians contribute to research in their areas of subject specialisation, aspects of research librarianship and information literacy and related areas such as visual archives, digital collections and assessment in academic libraries.

Research Fields and Staff

DR COLIN DARCH
Senior Information Specialist, current affairs in central and southern Africa; academic libraries; assessment; information facilities; academic and research libraries, South Africa.

MS JENNIFER EIDELMAN
Faculty Liaison Librarian, Information literacy and use of technology in service delivery.

MR PAUL WEINBERG
Senior curator, photography; visual archives; exhibition curation; digital collections; land and environment, South Africa.

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Library and Information Studies Centre

HEAD: – ASSOCIATE PROFESSOR JAYA RAJU

Centre Profile

The Library and Information Studies Centre (LISC) is organisationally located within UCT Libraries but administered academically via the Humanities Faculty. Its mission is to provide dynamic and innovative library and information studies programmes informed by global scholarship and its location in Africa. LISC offers, through

the Faculty of Humanities, a suite of academic programmes in library and information studies, ranging from the Postgraduate Diploma in Library and Information Studies to the PhD, with specialisation in academic and research libraries, and public libraries. Its particular subject foci are in impact analysis and assessment, and research librarianship. Staff research interests range over a wide number of important fields, ranging from the identification of skills sets for different contexts to performance measurement.

Centre Statistics

Staff

Emeritus Professors	1
Associate Professors	1
Emeritus Associate Professors	2
Emeritus Senior Lecturers	1
Administrative and Clerical Staff	1
TOTAL	6

Students

Doctoral	3
Master's	9
Postgraduate Diploma	20
TOTAL	32

Research Fields and Staff

ASSOCIATE PROFESSOR JAYA RAJU
LIS education and training, particularly its relevance to the African developing context; general/liberal arts education in the higher education context; Higher education information provision in the current knowledge context; Developing LIS skills statements

ASSOCIATE PROFESSOR KARIN DE JAGER
Library performance measurement and evaluation in academic and public libraries; establishing benchmarks for information literacy; databases

ASSOCIATE PROFESSOR MARY NASSIMBENI
Information society, information literacy; national library and information policy; performance measures for public libraries in South Africa

DR J. GRETCHEN SMITH
Communication of information; information need and use; subject analysis and control; indexing, classification and thesaurus construction; knowledge management

PROFESSOR PETER G. UNDERWOOD
Soft systems analysis; systems management; information systems design; change management; strategic management, information literacy

DR CHARLES A. MASANGO (ASSOCIATE)
Intellectual property rights (copyright); digital licensing agreements; contemporary copyright fair dealing management issues; First Sale Doctrine; public lending rights; indigenous traditional knowledge

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Research output

Authored books

Weinberg, P. 2012. Dear Edward – Family Footprints. Johannesburg: Jacana Media (Pty) Ltd. 181pp. ISBN 9781431405541.

Chapters in books

Darch, C. 2012. Burundi and Rwanda. In D.S. Lewis (ed.), The Annual Register: World Events 2012, pp. 259-260. p. 253. United Kingdom: CSA/ProQuest. ISBN 9781615402533.

Darch, C. 2012. Democratic Republic of Congo. In D.S. Lewis (ed.), The Annual Register: World Events 2012, pp. 257-258. p. 253. United Kingdom: CSA/ProQuest. ISBN 9781615402533.

Darch, C. 2012. Mozambique. In D.S. Lewis (ed.), The Annual Register: World Events 2012, pp. 261-262. 253. United Kingdom: CSA/ProQuest. ISBN 9781615402533.

Darch, C. 2012. The Horn of Africa. In D.S. Lewis (ed.), The Annual Register: World Events 2012, pp. 226-230. p. 253. United Kingdom: CSA/ProQuest. ISBN 9781615402533.

De Jager, K. and Nassimbeni, M. 2012. The research journey: an introduction to research methodology. In Professional Communication: Deliver Effective Written, Spoken and Visual Messages, pp. 239-276. 3rd edition. Claremont, Cape Town: Juta & Co. Ltd. ISBN 978-0-70217-792-7.

De Jager, K. 2012. Citation, referencing and avoiding plagiarism. In Professional Communication: Deliver Effective Written, Spoken and Visual Messages, pp. 222-238. 3rd edition. Claremont, Cape Town: Juta & Co. Ltd. ISBN 978-0-70217-792-7.

Nassimbeni, M. 2012. Research methods: libraries and the Internet. In Professional Communication: Deliver Effective

Written, Spoken and Visual Messages, pp. 211-221. 3rd edition. Claremont, Cape Town: Juta & Co. Ltd. ISBN 978-0-70217-792-7.

Skelly, S., Eidelman, J.L. and Underwood, P.G. 2012. Web 2.0 technology as a teaching tool. In J. Tramullas and P.Garrido (eds), Library Automation and OPAC 2.0: information access and services in the 2.0 landscape, pp. 187-205. Hershey, PA: Information Science Reference. 10.4018/ISBN 978-1-4666-1.

Articles in Peer-reviewed Journals

Darch, C. and De Jager, K. 2012. 'Making a Difference in the Research Community': South Africa's library academy experience and the researcher-librarian relationship. Journal of Academic Librarianship, 38(3): 145-152.

De Jager, K. and Nassimbeni, M. 2012. Giving them what they want and assessing impact: case studies of public library services in the Western Cape, South Africa. African Journal of Library Archives And Information Science, 22(1): 19-30.

Kwanya, T., Stilwell, C.S. and Underwood, P.G. 2012. Library 2.0 versus other library service models: a critical analysis. Journal of Librarianship and Information Science, 44(3): 145-162.

Naidoo, S. and Raju, J. 2012. Impact of the digital divide on information literacy training in a higher education context. South African Journal of Libraries and Information Science, 78(1): 34-44.

Weinberg, P. 2012. Reflections on the making of the "AmaBandla Ama-Afrika Exhibition" (2011-2012): Martin West's Soweto photographs. Kronos: Southern African Histories, 38(Nov): 82-85.

Centre for Social Science Research

Research Report 2012

DIRECTOR: PROFESSOR JEREMY SEEKINGS

Centre Profile

The Centre for Social Science Research (CSSR) is an interdisciplinary research centre at the University of Cape Town dedicated to conducting and building capacity for systematic, evidence based, policy-relevant, replicable social science research in South Africa, the region, and across Africa.

In 2012, the CSSR consisted of a small Directorate, three research units, and additional individual personnel and small projects. The esearch units were the AIDS and Society Research Unit (ASRU); Democracy in Africa Research Unit (DARU); and the Sustainable Societies (Research) Unit (SSU). All permanent academic staff in the Centre have departmental appointments also.

Methodologically, CSSR research is empirical, but problem-driven. While we utilize both quantitative and qualitative strategies of data collection, our work is always based on systematic research designs with clear conceptualization of variables and transparent rules of operationalising variables, selecting cases and collecting and analyzing data analysis (in contrast to *ad hoc* fact collection or narrative description). After a reasonable period, collected data are turned into public access data sets. CSSR projects are usually team-oriented, bringing together multiple local and international researchers, and offering post-graduate students significant opportunities for hands-on training by involving them in all stages of projects. Research findings are presented and discussed at regular weekly seminars and published as CSSR Working Papers. Substantively, the CSSR conducts research in the broad areas of globalization, industrialization, democratization, development, poverty and public health.

AIDS and Society Research Unit (ASRU)
The AIDS and Society Research Unit (ASRU) supports research into the social and economic dimensions of AIDS in South and Southern Africa. Special emphasis is placed on exploring the interface between qualitative and quantitative research. Focus areas include: AIDS policy in South Africa, AIDS-stigma, sexual relationships in the age of AIDS, social and economic factors driving HIV infection, disclosure (of HIV-status to others), the interface between traditional medicine and biomedicine, the international treatment rollout, global health citizenship, the international treatment rollout, global health citizenship and leadership, AIDS treatment activism and the impact of providing antiretroviral treatment on individuals and households.

Democracy in Africa Research Unit (DARU)
DARU supports students and scholars who conduct systematic research in the following four areas: public opinion and political culture in Africa and its role in democratization and consolidation; elections and voting in Africa; the development of legislative institutions; and the impact of the HIV/AIDS pandemic on democratization in southern Africa. DARU has also developed close working relationships with projects such as the Afrobarometer (a cross-national survey of public opinion in fifteen African countries) and the Comparative National Elections Project, which conducts post-election surveys over twenty countries across the world.

Sustainable Societies (Research) Unit (SSU) explores the social and institutional dimensions of economic development and the interaction between human society and the natural world. Focus areas include: winners and losers in South African economic growth and the interplay between ecological and economic concerns. The SSU was previously known as the Social Surveys Unit and still works on a number of survey projects, including the Cape Area Panel Study.

Centre Statistics

Professors, associate professors and lecturers, with departmental appointments	7
Research and Contract Staff	4
Administration and Clerical Staff	5
Total	56

Research fields and staff

PROFESSOR ROBERT MATTES (ALSO IN THE DEPARTMENT OF POLITICAL STUDIES)
Director of the Centre for Social Science Research; Director of Democracy in Africa Research Unit; public opinion; democratisation; electoral behaviour; social identity; legislatures; survey research

PROFESSOR NICOLI NATTRASS (ALSO IN THE SCHOOL OF ECONOMICS)
Director of the AIDS and Society Research Unit; AIDS; unemployment; inequality; social and economic policy; AIDS policy, AIDS denialism; AIDS conspiracy theory, defending HIV science

PROFESSOR JEREMY SEEKINGS (ALSO IN THE DEPARTMENT OF SOCIOLOGY)
Director of CSSR; political sociology (race and class; social attitudes, voting behaviour and political protest); comparative politics and political economy of public policy (especially education and welfare policy); democratic theory

ASSOCIATE PROFESSOR RAJEN GOVENDER (ALSO IN THE DEPARTMENT OF SOCIOLOGY)
Political behaviour, political deviance and political activism; welfare economics and the capability approach; household poverty dynamics; applied fiscal impact assessment; research methodology and advanced quantitative methods

DR BEATRICE CONRADIE (ALSO IN THE SCHOOL OF ECONOMICS)
Director of Sustainable Societies Unit; biodiversity and predators; farm labour markets; women in agriculture; wine industry mechanisation; irrigation farming; sustainability issues and environmental certification

DR ELENA MOORE (ALSO IN THE DEPARTMENT OF SOCIOLOGY)
Sociology of the family, family policy, gender and intimacy, intergenerational relations, feminist theories, biographical research methods.

DR PEDRO WOLF (ALSO IN THE DEPARTMENT OF PSYCHOLOGY)
Evolutionary psychology

DR JOANNE WREFORD
Research Fellow; relationships between Traditional African Healing (TAH) and biomedicine in HIV/AIDS interventions; TAH and HIV/AIDS; children, TAH and treatment for HIV/AIDS; traditional male circumcision/medical male circumcision and HIV/AIDS

DR ELIZABETH GUMMERSON
Post-doctoral research fellow: Demography and public policy (class, race, gender and policy effects on mortality and morbidity) poverty/inequality policies and their effect on health and wellbeing; education and health behaviour.

DR KEVIN ONEIL
Post-doctoral research fellow; International migration; migration and development; immigrant integration; migration policy; xenophobia; education and support for democracy.

DR COLLETTE SCHULZ-HERZENBERG
Post-doctoral research fellow: Elections, public opinion and voter behaviour; politics, groups and identity; party politics; democratization theory; legislative studies; corruption and governance.

MR NATHAN GEFFEN
Manager, GroundUp: HIV and TB science and human rights, epidemiology particularly agent-based simulation of epidemics, parallel computer algorithms.

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Research Output

Authored Books

Nattrass, N.J. 2012. The Aids Conspiracy: Science Fights Back. 216pp. Johannesburg: WITS University Press. ISBN 978186814562.

Edited books

Bennett, T.W., Brems, E., Corradi, G. and Nijzink, L. (eds) 2012. African Perspectives on Tradition and Justice. 168pp. United Kingdom: Intersentia. ISBN 978-1-78068-059-0.

Chapters in books

Donovan, K. 2012. Mobile Money for Financial Inclusion. In T. Kelly and M. Minges (eds), Information and Communication for Development. Washington, D.C.: World Bank.

Mattes, R.B. 2012. Opinion polls and the media in South Africa. In C. Holtz-Bacha and J. Stromback (eds), Opinion Polls and the Media. Reflecting and Shaping Public Opinion, pp. 175-197. New York, USA: Palgrave Macmillan. ISBN 978-0-230-27889-9.

Mattes, R. and Glenn, I.E. 2012. Political communications in post-apartheid South Africa. In H. Semetko and M. Scammell (eds), The Sage Handbook of Political Communication. London: Sage.

Schreiner, W. and Mattes, R.B. 2012. The possibilities of election campaigns as sites for political advocacy: South Africa in comparative perspective. In H.A. Tuynsma (ed.), Public Opinion and Interest Group Politics – South Africa's Missing Link? pp.154-172. Pretoria, South Africa: Africa Institute of South Africa. ISBN 978-0-7983-0292-0.

Seekings, J.F. and Matisonn, H. 2012. South Africa: the continuing politics of basic income. In M.C. Murray and C. Pateman (eds), Basic Income Worldwide: Horizons of Reform, pp. 128-150. New York: Palgrave Macmillan. ISBN 978-0-230-28542-2.

Figueredo, A.J., Olderbak, S.G., Schlomer, G.L., Garcia, R.A. and Wolf, P. 2012. Program Evaluation: Principles, Procedures, and Practices. In The Oxford Handbook of Quantitative Methods. Oxford: Oxford University Press.

Articles in Peer-reviewed journals

Conradie, B.I. 2012. Are hunting clubs the solution to small stock depredation? The case of Ceres, 1979 and 1980. Agrekon, 51(1): 96-113.

Donovan, K. 2012. Mobile money, more freedom? The impact of M-PESA's network power on development as freedom. International Journal of Communication, 6: 2647-2669.

Oberth, G. 2012. Who governs public health? Donor retreat and the shifting spheres of influence in southern African HIV/AIDS Policy Making. Sociology Study, 2 (July): 551-568.

Grebe, E. and Nattrass, N.J. 2012. AIDS conspiracy beliefs and unsafe sex in Cape Town. AIDS and Behavior, 16: 761-773.

Harper, S.E. 2012. The fungibility of aid earmarked for HIV/AIDS control programs. World Development, 40(11): 2263-2274.

Hoffman, M., Coetzee, D.J., Hodes, R. and London, L. 2012. From comprehensive medicine to public health at the University of Cape Town: a 40-year journey. SAMJ South African Medical Journal, 102(6): 442-445.

Logan, C. and Mattes, R.B. 2012. Democratising the measurement of democratic quality: public attitude data and the evaluation of African political regimes. European Political Science, 11(4): 469-491.

Mattes, R.B. 2012. The 'born frees': the prospects for generational change in post-apartheid South Africa. Australian Journal of Political Science, 47(1): 133-153.

Mattes, R.B. and Leuscher-Mamashela, T.M. 2012. The roles of higher education in the democratization of politics in Africa: survey reports from HERANA. Journal of Higher Education in Africa, 10(1): 139-170.

Maughan-Brown, B. and Venkataramani, A.S. 2012. Measuring concurrent partnerships: potential for underestimation in UNAIDS recommended method. AIDS, 25: 1549-1551.

Moore, E. 2012. From traditional to companionate marriages: women's changing experience of marriage and divorce in Ireland. Families, Relationships and Societies, 1(3): 345-361.

Moore, E. 2012. Paternal banking and maternal gatekeeping in postdivorce families. Journal of Family Issues, 33(6): 745-772.

Moore, E. 2012. Renegotiating roles postdivorce: a decisive break from tradition. Journal of Divorce and Remarriage, 53: 402-419.

Moore, E., Timonen, V., O'Dwyer, C. and Doyle, M. 2012. Divorce and intergenerational support: comparing the perceptions of divorced adults and their parents. Journal of Comparative Family Studies, 43(2): 261-279.

Nattrass, N.J., Maughan-Brown, B., Seekings, J.F. and Whiteside, A. 2012. Poverty, sexual behaviour, gender and HIV infection among young black men and women in Cape Town, South Africa. African Journal of AIDS Research, 11(4): 307-317.

Nattrass, N.J. 2012. Understanding the origins and prevalence of AIDS conspiracy beliefs in the United States and South Africa. Sociology of Health and Illness, published online (April). DOI: 10.1111/j.1467-9566.2012.01480.x.

Nunn, A., Dickman, S., Nattrass, N.J., Cornwall, A. and Gruskin, S. 2012. The impacts of AIDS movements on the policy responses to HIV/AIDS in Brazil and South Africa: a comparative analysis. Global public health, 7(10): 1031-1044.

Hodes, R. 2012. Investigating AIDS Conspiracies: the critical value of postmodernism. Science as Culture, 21(4).

Seekings, J.F. 2012. Pathways to redistribution: the emerging politics of social assistance across the global 'south'. Journal fur Entwicklungspolitik, 28(1): 14-34.

Muyeba, S. and Seekings, J. 2012. Slum Dwellers to Freeholders: Homeownership and Neighbourly Relations in Poor Post-Apartheid Urban Neighbourhoods of Cape Town, South Africa. South African Review of Sociology, 43(3): 41-63.

Strand, P. 2012. Public opinion as leadership disincentive: exploring a governance dilemma in the AIDS response in Africa. Contemporary Politics, 18(2): 174-185.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Institute for Humanities in Africa (HUMA)

Research Report 2012

DIRECTOR: PROFESSOR DEBORAH POSEL

Centre Profile

The humanities have long been vital to the creative and critical energies of societies in the throes of profound change. HUMA – the Institute for the Humanities in Africa – is a new initiative at UCT, intended to create a space of dynamic interdisciplinary community for scholars and students in the humanities at large. Fostering top-end academic research, HUMA seeks also to draw on that work to nurture critical public debate, promoting UCT's vision of itself as a civic university contributing to the making of democratic citizenship.

HUMA's intellectual agenda is driven by two inclusive research themes 'on being human', and 'circuits of consumption', which inform and structure three primary objectives:

- to conduct and promote research that is historically grounded and theoretically engaged, with an eye to the 'big' theoretical and ethical questions that anchor South African issues in wider fields of experience and analysis. The combination of intellectual focus and breadth provided by HUMA's research themes is intended to open up spaces for dialogue, collaboration and argument across disparate theoretical, epistemological and methodological traditions, and in ways that help examine the project of interdisciplinary work.

- to nurture the expertise and enthusiasm of graduate students interested in an academic career, through a combination of intensive and supportive doctoral supervision, and a broader programme of seminars, symposia and workshops that help develop the intellectual versatility and confidence which an academic career requires. A doctoral fellowship programme is central to the pursuit of this objective.

- to bring scholars and graduate students into conversation with interested publics, around issues of shared and topical concern. HUMA hopes to promote what public intellectuals in the humanities do best, which is to de-familiarise and unsettle established ways of seeing, think creatively about pressing social and political questions, and keep the imagination of alternative futures alive.

This mission is embedded in a particular understanding of our location in Africa. Africa is a landmass with a deep and complex history of connection and disconnection amongst its many inhabitants; being African means being party to formative relationships of connection and disconnection that shape the ways we think and act. Our scholarship and debate, then, will be positioned in Africa, even if the focus of our deliberations is not limited to the continent.

Centre Statistics

Professors, associate professors and lecturers, with departmental appointments	2
Research and Contract Staff	2
Administrative Staff	2
Total	6

Research fields and staff

Deborah Posel is a professor of sociology, an appointment that coincided with her taking up the position as HUMA's founding director in January 2010. She has written and

published widely on aspects of South African politics and society during and beyond apartheid.

Shamil Jeppie is an associate professor in the Department of Historical Studies at the University of Cape Town. He was educated at the universities of the Western Cape, Cape Town and Princeton. A recipient of a Fulbright Scholarship, he also held a Chevening Scholarship while at Oxford University and has been a fellow of the Amsterdam Institute for Social Science Research.

Zethu Matebeni studied Sociology at the University of Port Elizabeth (now NMMU), the University of Pretoria and completed an interdisciplinary PhD at WISER, Wits University. Zethu's wide research interests and publications cover: queer issues, sexuality, gender, race, HIV and AIDS, African film and cinema and popular culture.

Ilana van Wyk received her PhD from the Department of Anthropology and Sociology at the School of Oriental and African Studies in London. Her research focuses on the intersections between money and religion; she works on new forms of Christianity, in particular prosperity gospel and Pentecostal Charismatic Churches, and on the South African Lottery.

Contact Details

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Fax: +27 21 650 3949
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Research Output

Authored books

Distiller, N. 2012. Shakespeare and the Coconuts: On Post-Apartheid South African Culture. Johannesburg: WITS University Press. 225pp. ISBN 978186814.

Chapters in books

Matebeni, Z. 2012. Deconstructing violence towards black lesbians in South Africa. In Solari Ekins and Hakima Abas (eds), Queer African Reader. Oxford: Fahamu Books. ISBN 9780857490995

Matebeni, Z. 2012. Feminizing Lesbians, Degendering Transgender Men: A Model for Building Lesbian Feminist Thinkers and Leaders in Africa? In Shaka McGlotten and Dana-Ain Davis (eds), Black Genders and Sexualities. New York: Palgrave MacMillan. ISBN 9781403983992

Posel, D.B. 2011. Screaming image: Klas Thibeletsa's child abuse and the post-apartheid confessional. In F. Rankin-Smith (ed.), Figuring Faith. Johannesburg: Fourthwall Books. ISBN 9780986985065.

Articles in Peer-reviewed Journals

Distiller, N. 2012. Authentic protest, authentic Shakespeare, authentic Africans: performing 'Othello' in South Africa. Comparative Drama, 46(3): 339-354.

Distiller, N. 2012. Future directions for South African Shakespeare studies: changing the emphasis, growing the field. Shakespeare in Southern Africa, 24: 1-2.

Distiller, N. 2012. Shakespeare's Perversion: a reading of Sonnet 20. Shakespeare, 8(2): 137-153.

Hardon, A. and Posel, D. 2012. Secrecy as embodied practice: beyond the confessional imperative. Culture, Health and Sexuality, 14(S1): S1-S13.

Hoffman, M., Coetzee, D.J., Hodes, R. and London, L. 2012. From comprehensive medicine to public health at the University of Cape Town: a 40-year journey. SAMJ South African Medical Journal, 102(6): 442-445.

Matebeni, Z. 2012. Queer(ing) porn – a conversation. Agenda, 26(3): 61-69.

Steinberg, J. 2012. Establishing police authority and civilian compliance in post-apartheid Johannesburg: an argument from the work of Egon Bittner. Policing and Society, 22(4): 481-495.

Steinberg, J. 2012. Security and disappointment: policing, freedom and xenophobia in South Africa. British Journal of Criminology, 52: 345-360.

Van Wyk, I. 2012. 'Tata ma chance': on contingency and the lottery in post-apartheid South Africa. Africa, 82(1): 41-68.

Faculty of HEALTH SCIENCES

2012 marked the centenary of the Faculty of Health Sciences (FHS). It is therefore fitting that the achievements of the year were notable, and reflect the positive growth of the faculty over time.

Dean's Report

In 2010, the agreed and stated aspiration of the Faculty of Health Sciences was to achieve a position among the top fifty health science faculties in the world by 2017. In 2012, five years ahead of target, we became the first tertiary institution from any developing country globally to be placed in the Top 50 of the *Times Higher Education* World University Rankings for clinical, pre-clinical and health universities. Our subject-specific ranking was strongly influenced, by research performance, with scores of 89% on citations and 96% on innovation. This accomplishment was particularly special, because it coincided with the faculty's centenary celebrations during 2012, marking 100 years of extraordinary growth, achievement and excellence in advancing health. Among more than 70 centenary-branded events, during 2012 were research-centred activities that celebrated our collaborations (both within UCT and externally), as well as activities that centred around public engagement.

The inaugural Wolfson Memorial Colloquium, *Generating Knowledge Against Poverty*, was held in September, in recognition of contributions to the university by Lord Wolfson of Marylebone and the Wolfson Foundation. The keynote address, *A New Agenda for Global Health*, was delivered by Baron Peter Piot, Professor of Global Health and Director of the London School of Hygiene and Tropical Medicine, and the work of five top UCT scholars was profiled in this arena. The programme for this prestigious event included conferring four Young Investigators Best Publication Awards for 2011.

A centenary academic debate was hosted in December, on the topic *Cholesterol is not an important risk factor for heart disease and current dietary recommendations do more harm than good*. The lively presentations by proponent Professor Tim Noakes from the faculty and opponent Dr Jacques Rossouw of the National Institutes of Health in the USA were streamed live on the Internet to more than 1 000 people around the world and uploaded to YouTube. The faculty also hosted a community partnership event to encourage ongoing dialogue with the communities involved in our research, as well as a more focused community collaboration event, specifically highlighting the faculty's work with the Masiphumelele population, *Bringing science to the community*. The centenary theme was also incorporated into research days hosted by a number of departments, and was highlighted during the 2012 inaugural lectures of FHS researchers, who included professors Anthony Figaji, Clive Gray, Valerie Mizrahi, and Carolyn Williamson.

PROFESSOR
MARIAN JACOBS
Dean of Health Sciences

The FHS makes a significant contribution to UCT's research income. We were awarded 496 contracts in 2012, to the value of R393 million. This is approximately 57% of UCT's total research income, and represents a decrease of 4% in contracts income from 2011. The FHS also contributes significantly, in terms of its publication record, which is very strong, both within UCT and in comparison with health sciences faculties at other South African universities. We have been increasing our publication count steadily over the last few years. Peer-reviewed, accredited journal output units for 2011 were 452, approximately 67% more than five years ago and 20% more than in 2010. The 2011 figure, reported in 2012, accounts for 40% of the university's total.

The faculty is home to 23 research groupings that are accredited by the University Research Committee, including nine Medical Research Council units. In the 2012 NRF rating application cycle, an additional 11 FHS researchers received new ratings, including the faculty's 11th A rating, when this recognition was given to Professor Jack van Honk (Department of Psychiatry and Mental Health). This increased our total number of rated researchers to 97, including 17 Y ratings. Eight of the 33 DST/NRF SARChI Chairs at UCT are within the FHS, reflecting our involvement in this research and human capacity development initiative of the Department of Science and Technology. Two significant NRF awards were also bestowed on researchers in the faculty during 2012: Professor Tim Noakes, of the MRC/UCT Research Unit for Exercise Science and Sports Medicine, received the NRF's Lifetime Achievement Award, and Professor Kelly Chibale, of the cross-faculty Institute of Infectious Disease and Molecular Medicine and the Department of Chemistry, received recognition as the NRF Champion of Research Capacity Development at Higher Education Institutions in South Africa.

As part of the faculty's efforts to foster successful researchers in the health sciences, 21 of our academics joined UCT's Emerging Researcher Programme during 2012. This capacity-building initiative provides research development grants, workshops, and mentoring to emerging researchers, which serves to strengthen their profiles and prepare them for future research leadership.

In 2012, the faculty was home to more than 1 500 postgraduate students, 325 of these being PhD candidates. A total of 444 FHS students received, between them, 762 scholarships, with a value in excess of R30 million. The faculty benefited particularly from a second round of awards (13 PhD, nine postdoctoral) from the Carnegie Corporation's *Developing the Next Generation of Academics* programme. During two graduation ceremonies, the faculty awarded 76 honours, 133 master's and 38 PhD degrees across a wide range of disciplines. In addition, 192 postgraduate diplomas, one MD and one Doctor of Science were conferred, bringing the total for the year to 442. This is the highest number of postgraduate degrees/diplomas ever awarded in one academic year by the faculty and was greater than the number of undergraduate degrees awarded. The faculty was home to 99 postdoctoral fellows during 2012, representing more than a third of UCT's 282. Between them, FHS postdoctoral fellows received 168 fellowships, valued at over R20 million. An inaugural Postdoctoral Research Day was held in November, and fellows from across the university were invited to increase awareness and encourage interaction between this contingent of UCT researchers. The day featured 14 oral and 20 poster presentations.

The growth of health research is being encouraged at all levels, and there is huge potential for inspiring undergraduate students to develop research skills. The annual FHS Undergraduate Research Day was held in October and included 12 oral presentations and 14 poster presentations selected from 34 entries. In total, 85 undergraduates from across the faculty participated.

Following the review of the FHS in 2011, the faculty formulated a Strategic Plan for Research in 2012. The strategic plan covers the period 2013–2020 and presents as its main aim 'to advance and encourage research excellence within the FHS, within the context of the vision and mission of the Faculty and UCT, and thereby improve and promote our national and international standing as a research-led institution'. The ultimate goal is to improve the health of the people of South Africa and beyond. The faculty aims to achieve these targets via six key strategies: improving research infrastructure, building health research leadership and capacity for the future, enabling translation of research into public health impact, encouraging partnerships, increasing funding, and strengthening governance and raising standards.

In conclusion, 2012 was a busy and successful year for the faculty's research enterprise. We witnessed the contribution of FHS research to the achievement of a position among the top fifty health science faculties in the world during our lively and productive centenary year. With the finalisation of the new Strategic Plan for Research, we look forward to the next year of industry, innovation, and knowledge generation in our faculty.

DOCTORAL GRADUATIONS

L. AHRENSTEDT (SURGERY)
Drug eluting hydrogels: design, synthesis and evaluation
Supervised by Dr D. Bezuidenhout and Professor A. Hult (KTH Stockholm)

A.A. ALHAMUD (HUMAN BIOLOGY)
Implementation of anatomical navigators for real time motion correction in diffusion tensor imaging
Supervised by Associate Professor E. Meintjes

J. ASHMORE (PUBLIC HEALTH AND FAMILY MEDICINE)
Dual practice and equity in the availability of medical specialists in South Africa
Supervised by Professor L. Gilson

I.H. BURGER (HUMAN BIOLOGY)
A control system approach to subject specific prospective respiratory motion correction in cardiac MRI
Supervised by Associate Professor E. Meintjes

L.G. CLOETE (HEALTH AND REHABILITATION SCIENCES)
Developing appropriate Fetal Alcohol Spectrum Disorder (FASD) prevention initiatives within a rural community in South Africa
Supervised by Professor L. London and Professor L. van Niekerk (Stellenbosch University)

I. COOK (HUMAN BIOLOGY)
Voluntary physical activity: measurement and relationship to selected health parameters in rural black South Africans resident in the Limpopo Province, South Africa
Supervised by Professor E.V. Lambert and Professor M. Alberts (School of Health Science, University of Limpopo)

M. DAVIDS (MEDICINE)
Immunological studies in patients with extensively drug resistant tuberculosis
Supervised by Professor K. Dheda and Dr B. Nurse

G.M. DAVISON (CLINICAL LABORATORY SCIENCES)
The role of the immune system in the pathogenesis of myelodysplastic syndrome
Supervised by Professor N. Novitzky

L. DE MILANDER (HUMAN BIOLOGY)
Genetic factors associated with performance and exercise-associated weight loss in ironman triathletes
Supervised by Associate Professor M. Collins

K. DHANSAY (MEDICINE)
Isolation and identification of antimicrobial compounds from South African medicinal plants
Supervised by Associate Professor P. Smith and Professor K. Chibale

Departments

Department of Anaesthesia

Department of Clinical Laboratory Sciences

Department of Health and Rehabilitation Sciences

Department of Human Biology

Department of Medicine

Department of Obstetrics and Gynaecology

Department of Paediatrics and Child Health

Primary Health Care Directorate

Department of Psychiatry and Mental Health

School of Public Health and Family Medicine

Department of Radiation Medicine

Department of Surgery

L. ESAU (CLINICAL LABORATORY SCIENCES)
Proliferative and survival pathways in oesophageal cancer
Supervised by Associate Professor D. Hendricks

T. GENADE (HUMAN BIOLOGY)
A study of neurodegeneration and neuroprotection in Nothobranchius guentheri
Supervised by Associate Professor D. Lang

J. GRAY (HUMAN BIOLOGY)
Lower back pain in adolescent fast bowlers
Supervised by Professor W. Derman, Dr K. Vaughan (Cape Ray) and Professor P. Hodges (University of Queensland)

H.N. HAIRWADZI (MEDICINE)
Autoimmune hepatitis: a clinical-pathologic study of the role of ethnicity, genetics, Type 1 interferons and dendritic cells
Supervised by Associate Professor W. Spearman, Associate Professor E. Shephard and Associate Professor C.W.N. Spearman

M.S. HENDRICKS (HUMAN BIOLOGY)
The tackle in rugby union: understanding training and match behaviours to develop better coaching strategies for skill acquisition, performance and injury prevention
Supervised by Professor M.I. Lambert

M. JANSE VAN RENSBURG (CLINICAL LABORATORY SCIENCES)
The role of the human papilloma virus E6 gene in cellular transformation
Supervised by Professor M.I. Parker

S.Z. KALULA (MEDICINE)
Prevalence of and risk factors for falls in older people in an urban community in South Africa
Supervised by Professor G.H. Swingler and Professor A.A. Sayer (University of Southampton, United Kingdom)

R. KAREITHI (PSYCHIATRY AND MENTAL HEALTH)
Performance of development NGOs in HIV prevention for young people
Supervised by Associate Professor C. Lund

S.R. KLEINTJES (PSYCHIATRY AND MENTAL HEALTH)
Participation of people with psychosocial disability in mental health policy development in South Africa
Supervised by Associate Professor C. Lund and Professor L. Swartz (Stellenbosch University)

K. LAMONT (MEDICINE)
The role of melatonin in red wine-induced cardioprotection
Supervised by Associate Professor S. Lecour

E.E. LEKEI (PUBLIC HEALTH AND FAMILY MEDICINE)
Establishment of a comprehensive surveillance system for acute pesticide poisoning in Tanzania
Supervised by Professor L. London and Dr A.V.F. Ngowi (Muhimbili University, Dar-es-Salaam)

A. LOMBARD (HEALTH AND REHABILITATION SCIENCES)
The effect of sensory processing on the work performance of call centre agents in a South African context
Supervised by Associate Professor E. Duncan

L. MASSON (NEÉ ROBERTS) (CLINICAL LABORATORY SCIENCES)
The impact of sexually transmitted infections and inflammation in the female genital tract and blood on susceptibility to HIV-1 infection and disease progression
Supervised by Dr J. Passmore, Professor C. Williamson and Associate Professor F. Little

R. MATZOPOULOS (PUBLIC HEALTH AND FAMILY MEDICINE)
The body count: using routine mortality surveillance data to drive violence prevention
Supervised by Professor J. Myers and Professor M.L. Thomson

A.J. NICOL (SURGERY)
The current management of penetrating cardiac trauma
Supervised by Professor D. Kahn

R.S. NTALE (CLINICAL LABORATORY SCIENCES)
The role of early cytotoxic lymphocyte (CTL) escape in the pathogenesis of HIV-1 subtype C infection
Supervised by Professor C. Williamson

H. ONYA (PSYCHIATRY AND MENTAL HEALTH)
Alcohol use among adolescents in high schools in Mankweng District, South Africa
Supervised by Associate Professor B. Myers and Professor D. Stein

A. PANDOR (CLINICAL LABORATORY SCIENCES)
An investigation into the molecular mechanisms underlying retinitis pigmentosa 17 with the view to developing novel gene-based therapies
Supervised by Professor R. Ramesar

S.P. PARIHAR (CLINICAL LABORATORY SCIENCES)
A role of statins against listeria monocytogenes and Mycobacterium tuberculosis infection
Supervised by Professor F. Brombacher

G.E. PRINSLOO (HUMAN BIOLOGY)
The physiological effects of heart rate variability biofeedback during laboratory induced cognitive stress
Supervised by Professor W. Derman and Dr L. Rauch

F.C. ROBERTSON (HUMAN BIOLOGY)
Issues in the processing and analysis of functional NIRS imaging and a contrast with fMRI findings in a study of sensorimotor deactivation and connectivity
Supervised by Associate Professor E. Meintjes and Associate Prof T. Douglas

M.S. SHEY (CHILD AND ADOLESCENT HEALTH)
Determinants of innate immune responses to mycobacteria
Supervised by Professor W. Hanekom and Dr T. Scriba

K. STINSON (PUBLIC HEALTH AND FAMILY MEDICINE)
Coverage of prevention of mother-to-child transmission services in Cape Town, South Africa
Supervised by Associate Professor L. Myer

J. SUN (SURGERY)
Using community members to assist life-threatening emergencies in violent, developing areas
Supervised by Professor L. Wallis

J. SWART (HUMAN BIOLOGY)
Perceptual cues in the regulation of endurance exercise
Supervised by Professor M.I. Lambert and Professor T. Noakes

D. TAYLOR (MEDICINE)
The use of combinations of chemosensitisers to reverse chloroquine resistance in mice infected with malaria
Supervised by Associate Professor P. Smith

R.N. THUKU (CLINICAL LABORATORY SCIENCES)
Structural analysis of C-terminal truncated mutants of the nitrilase from Rhodococcus rhodochrous J1
Supervised by Professor B.T. Sewell

L. WATSON (CLINICAL LABORATORY SCIENCES)
Novel cell models for the study of Spinocerebellar Ataxia type 7 pathogenesis and therapy in a South African patient cohort
Supervised by Professor J. Greenberg, Professor M. Wood (University of Oxford) and Associate Professor M. Weinberg (University of the Witwatersrand)

S. WIYSONGE (CLINICAL LABORATORY SCIENCES)
Building evidence for improving childhood immunisation coverage in Africa
Supervised by Professor G. Hussey and Professor B.D. Schoub (National Health Laboratory Services)

C.J. YATES (CLINICAL LABORATORY SCIENCES)
Mechanisms of chloride modulated activity in the C-domain of angiotensin-converting enzyme
Supervised by Professor E.D. Sturrock

L. ZEMBE (CLINICAL LABORATORY SCIENCES)
Investigating cross-clade immune responses in HIV-1 subtype C-infected Individuals from South Africa: Implications for HIV Vaccine Design
Supervised by Dr W. Burgers

C. ZHANG (MEDICINE)
Population pharmacokinetic models describing drug-drug interactions and variability in HIV infected South Africans on protease inhibitor-based antiretroviral regimens with and without tuberculosis
Supervised by Dr H. McIlleron, Dr P. Denti and Professor M.O. Karlsson (Pharmaceutical Biosciences, Uppsala University)

PATENTS

FILED APPLICATIONS

BACON, T. AND MCNAUGHT, A.M.
Prosthesis with Underactuated Prosthetic Fingers.
PCT Patent Application PCT PCT/IB2012/056637

BLACKBURN, J.M., EVANS, M. AND SRIRAM, K.
A Method of Determining the Identity of Analyte Molecule Present in a Complex Sample.
PCT Patent Application PCT PCT/IB2012/056108

BRIJLAL, Y., JOHN, L.R. AND SIVARASU, S.
Hand Exoskeleton.
Provisional Patent Application South Africa 2012/08238

BURGER, I.H.
Method for Compensating for Respiratory Motion in Magnetic Resonance Imaging.
National Phase Patent Application South Africa 2012/06353

BURGER, I.H.
Method for Compensating for Respiratory Motion in Magnetic Resonance Imaging.
National Phase Patent Application United States 13/580,640

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound.
National Phase Patent Application China 201080052708.1

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound.
National Phase Patent Application Europe 10818478.9

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound.
National Phase Patent Application Japan 2012-530349

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound.
National Phase Patent Application South Africa 2012/02288

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound.
National Phase Patent Application United States 13/497,483

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
Divisional Patent Application China 201210488322.6

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
Divisional Patent Application India 9603/DELNP/2012

JACOBS, M. AND JARDINE, M.A.
Tricyclic Derivatives.
Provisional Patent Application South Africa 2012/08875

JOHN, L.R.
Non-invasive Deep Muscle Electromyography.
National Phase Patent Application China 201080030787.6

JOHN, L.R.
Non-invasive Deep Muscle Electromyography.
National Phase Patent Application Europe 10803972.8

JOHN, L.R.
Non-invasive Deep Muscle Electromyography.
National Phase Patent Application Japan J2012-522271

JOHN, L.R.
Non-invasive Deep Muscle Electromyography.
National Phase Patent Application United States 13/387,897

KATZ, A.A., MATJILA, M.J., MILLAR, R.P. AND VAN DER SPUY, Z.
Compounds and Methods for Preventing Preeclampsia and/or Preventing or Treating IUGR.
Provisional Patent Application South Africa 2012/03098

LAZARUS, J.M. AND WILLIAMS, J.
Manually Operable Positioning Device with Locking Facility.
Complete Patent Application South Africa 2012/08745

RESEARCH CONTRACTS
496

VALUE OF RESEARCH CONTRACTS
R393.47 million

NRF-RATED RESEARCHERS
95

SARCHI RESEARCH CHAIRS
8

ACCREDITED RESEARCH GROUPINGS
23

DOCTORAL GRADUATIONS
42

DHET-ACCREDITED JOURNALS
452 units

PEER-REVIEWED PUBLICATIONS
1550

FILED PATENTS
19

GRANTED PATENTS
12

POSTGRADUATE STUDENTS
1591

POSTGRADUATE FUNDING
R30.5 million

POSTDOCTORAL RESEARCH FELLOWS
99

POSTDOCTORAL RESEARCH FUNDING
R20.3 million

GRANTED APPLICATIONS

ACHARYA, K.R. AND STURROCK, E.D.
ACE N-Domain Crystal.
National Phase Patent Application Australia 2007204226

ACHARYA, K.R. AND STURROCK, E.D.
Crystal (N-Domain).
National Phase Patent Application Europe 07700357.2

BEETON-KEMPEN, N., BLACKBURN, J.M. AND COULSON, L.B.
Cytochrome P450 Bioassay.
National Phase Patent Application South Africa 2011/08293

BERGMAN, N.J. AND MORGAN, B.E.
Neonatal Brain Well-being Monitor.
National Phase Patent Application South Africa 2011/03203

BURGER, I.H.
Method for Compensating for Respiratory Motion in Magnetic Resonance Imaging.
National Phase Patent Application Britain 1103067.3

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound.
National Phase Patent Application South Africa 2012/02288

CHIBALE, K., NCHINDA, A.T. AND STURROCK, E.D.
Angiotensin I-Converting Enzyme (ACE) Inhibitors.
National Phase Patent Application Europe 06765437.6

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
National Phase Patent Application Europe 06740997.9

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
National Phase Patent Application South Africa 2008/03486

ILLING, N., STEIN, D.J. AND VAN HEERDEN, J.H.
A Method of Diagnosing a Mental State.
National Phase Patent Application South Africa 2011/06540

JOHN, L.R.
Non-invasive Deep Muscle Electromyography.
National Phase Patent Application South Africa 2011/09253

OPIE, L.H
Compositions and Methods for Treating Heart Failure.
National Phase Patent Application South Africa 2011/01773

Department of Anaesthesia

HEAD OF DEPARTMENT: PROFESSOR JUSTIAAN LC SWANEVELDER

Departmental Profile

Clinical research

The arrival of the new Professor and Head of Department of Anaesthesia, Justiaan LC Swanevelder, signalled a new era of cardiovascular research in the Department. Professor Swanevelder is an international expert in the field of Transoesophageal (TOE) and Transthoracic (TTE) Echocardiography, and has played a central role in the development of this field, and formal guidelines for practice and accreditation in the United Kingdom. He is a prominent member of the European Association of Cardio-thoracic Anaesthesia (EACTA). His initial contribution has involved a paper on a suggested time course for accreditation in South Africa, as well as several case reports and an editorial on the subject. Several important collaborations have been established during 2012, involving teaching and research on TTE and TOE by visiting experts (Professors E Sloth, Denmark, A Dennis, Australia and J Ender, Leipzig), with a view to training and studies in both intraoperative and point of care echocardiography. Professor Swanevelder has also established a new laboratory research post. The first incumbent will collaborate with Professor Karen Sliwa in the Hatter Institute of Cardiovascular Research.

The Red Cross Hospital operating theatre complex continued to create an environment conducive to research, and this was evidenced by the publication of several instructive case reports, and several MMed dissertations. These include including a completed pharmacokinetic study of the antimicrobial agent cefazolin during cardiopulmonary bypass. The Department of Pharmacology has developed an assay for cefazolin, which should facilitate several further important clinical trials. Important projects in thromboelastography (TEG) are ongoing, and Dr Owen Hodges is in the process of writing up his PhD on the use of TEG during burns surgery. Valuable guidelines have been published for pain management and sedation in children. A further study on the noninvasive measurement of haemoglobin in paediatrics, is nearly complete.

Obstetric Anaesthesia remains an important area of investigation. Ongoing projects involve spinal anaesthesia in preeclamptic parturients. One study has been completed on the effects of vasopressor therapy pre-delivery on neonatal acid-base status in patients with a non-reassuring fetal heart trace. A second study examines three aspects of spinal anaesthesia, namely stroke volume responsiveness prior to spinal anaesthesia, the haemodynamic effects of the vasopressor therapy prior to delivery, and the effects of various methods of administering oxytocin, including the interaction with an alpha-agonist. For this purpose, a non-invasive cardiac output device has been employed, using an algorithm based upon pulse wave form analysis. As part of these investigations, a collaboration was initiated with the Department of Anaesthesia of the University of Washington. This aspect of the study will examine the population characteristics of the adrenaline β2-haplotype in preeclamptic women. At the same time data would be collected on control healthy women. At least three MMed mini-dissertations will arise from this work. An abstract will be presented on stroke volume responsiveness in preeclampsia at the Obstetric Anaesthetists' Association Annual Meeting in Bournemouth in May 2013. One of the investigators represented the Department at the Obstetric Anaesthetists' Association annual 3 day course in London in November 2012. The leader of this research group, Professor RA Dyer, has received a B2 NRF rating on the basis of completed research in the period of review from 2004-2011.

Fluid therapy has continued to be a major area of interest within the Department. Studies on the anion composition of various intravenous fluids are ongoing, in collaboration with University College London. Further intravenous fluid therapy studies have included the development of a semi-automated fluid administration system for patients unable to maintain their own natural fluid balance. This project known as the "Quench" project is being developed jointly between the UCT and University College London Department of anaesthesia and critical care. A major systematic review has been published by Professor James, Professor Mythen (UCL), Professor van der Linden (Belgium) and Dr Richard Weiskopf (UCL) on the role of intravenous hydroxyethyl starch in the perioperative period. The conclusions of this review, together with the findings of the FIRST Trial, should inform the policy on use of the hyroxyethyl starches in the various settings of clinical practice at Groote Schuur Hospital. Professor James remains a very important contributor to research strategy and new protocol design in this and other areas.

The Department is an active research site for the international, multicentre POISE-2 trial of aspirin and clonidine for perioperative protection of high risk patients against perioperative myocardial events, and has recruited the second highest number of patients in South Africa. The South African principal investigator is Professor B Biccard,

from the Department of Anaesthesia, UKZN. The local site was initially set up by Professor M James. The lead author is Dr A Myburgh, with Drs O Porrill and A Emmanuel as co-investigators in 2012.

MMed mini-dissertations

The MMed programme for registrars is gathering momentum in the Department. Several projects are under way, and are listed below (Research Fields and Staff). Dr C de Jager has undertaken to provide training in the research process and methodology. In this regard, a formal course is envisaged, and all Consultant supervisors will be involved in the initiative, in order to increase the research capacity in the Department.

Laboratory Research:

The Department was involved in several areas of research in 2012. There are ongoing studies on coagulation, and an animal study of coagulation in a porcine model of acute liver failure. Transoesophageal echocardiography is being performed in baboons undergoing valve replacement. Further planned studies include the use of TEG to examine coagulation in HIV parturients, and in patients undergoing renal biopsy. The acquisition of the thromboelastometry device (ROTEM), will allow for more accurate diagnosis of causes of coagulation abnormalities. Lizel Immelman, our senior medical technologist, has been appointed to a permanent post and is performing an important research administrative role over and above her role in teaching and individual projects. She plays an important role in the teaching of the coagulation process and instruction on the use and utility of the TEG and ROTEM devices, which are based on viscoelastic changes during the clotting process.

Collaboration

Once again, junior consultants and registrars were encouraged to participate in research activities wherever possible, and scientific writing skills were also improved in this way. National collaboration has been strengthened, in particular with UKZN, where a study has been planned on biomarkers and echocardiography in patients with severe preeclampsia. International collaboration continues, and is constantly expanding. The Department collaborates with the University College London Hospitals, Stanford University, the Rikshospitalet in Oslo, the University of Toronto, the University of Washington, and Glenfield Hospital, Leicester. In the field of echocardiography, important collaborations have been established with Professors E Sloth (Denmark), A Dennis (Australia), and J Ender (Leipzig). In the area of the difficult airway, new ties have been established with Dr D Miller of Guy's Hosptal in London.

Research Fields and Staff

SWANEVELDER, JLC.
Transoesophageal and transthoracic echocardiography (see above). Laboratory work on local anaesthetic toxicity in mice, employing TTE.

JAMES, MF.
Ongoing coagulation studies employing thromboelastography; blood transfusion and anaesthesia; crystalloid v colloid in trauma resuscitation; saline v balanced salts in perioperative management.

DYER RA, REED AR, VAN DYK D, ARCACHE M, EMMANUEL A, SCHULEIN S, VORSTER A,
Okaisabor O, K Timmerman.
Obstetric anaesthesia:
Cardiac output studies during spinal anaesthesia in patients with preeclampsia; effects of fluid loading, vasopressors and oxytocin; the genetics of preeclampsia; effects of vasopressors on cord gases.

THOMAS J.
Management of burns in children; pain management in children; Case reports; Fluid management in children; Noninvasive haemoglobin measurement; Pharmacokinetics of antimicrobial agents during cardiopulmonary bypass;
Paediatric burns: Coagulation studies; Evaluation of the need for psychosocial services for paediatric burn patients at the RCWMCH.
See also further MMed supervision, below.

HODGES O.
Coagulation in patients with paediatric burns.

MYBURGH A, HEIJKE SA.
Transoesophageal echocardiography in cardiac anaesthesia. Point of care TTE.

MYBURGH A, JAMES MF.
POISE-2 trial

LLEWELLYN R.
Drug errors in anaesthesia.

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Research output

Articles in peer-reviewed Journals

Afshani, A., Biccard, B.M. and Dyer, R.A. 2012. The role of biomarkers and B-type natriuretic peptide in diagnosis and perioperative risk prediction. Southern African Journal of Anesthesia and Analgesia, 18(6): 303-308.

Brink, A., Botha, R.F., Poswa, X., Senekal, M., Badal, R.E., Grolman, D.C., Richards, G., Feldman, C., Boffard, K., Veller, M., Joubert, I. and Pretorius, J. 2012. Antimicrobial susceptability of gram-negative pathogens isolated from patients with complicated intra-abdominal infections in South African hospitals (SMART Study 2004 - 2009): impact of the new carbapenem breakpoints. Surgical Infections, 13(1): 43-49.

Butler, E., Dushianthan, A., Bennet-Guerrero, E., Cro, S., Gan, T.J., Grocott, M.P.W., James, M.F.M., Mythen, M.G., O'Malley, C., Roche, A.M. and Rowan, K. 2012. Perioperative buffered versus non-buffered fluid administration for surgery in adults. Cochrane Database of Systematic Reviews, 12: 1-67.

Diomede, L., Nyoka-mokgalong, S., Pastori, C., Scotti, L., Zambon, A., Sherman, G., Gray, C., Sarzotti-Kelsoe, M. and Lopalco, L. 2012. Passively transmitted gp41 antibodies in babies born from HIV-1 subtype c-seropositive women: correlation between fine specificity and protection. Journal of Virology, 86(8): 4129-4138.

Dyer, R.A. and Biccard, B.M. 2012. Ephedrine for spinal hypotension during elective caesarean section: the final nail in the coffin? Acta Anaesthesiologica Scandinavica, 56: 807-809.

Gray, R. 2012. The where, what and how of paediatric central venous access. Southern African Journal of Anesthesia and Analgesia, 18(5): 249-253.

James, M.F.M. 2012. Place of the colloids in fluid resuscitation of the traumatized patient. Current Opinion in Anesthesiology, 25(2): 248-252.

Ntusi, N., Badri, M., Khalfey, H., Whitelaw, A.C., Oliver, S.P., Piercy, J.L., Raine, R.I., Joubert, I. and Dheda, K. 2012. ICU-associated Acinetobacter baumannii colonisation/infection in a high HIV-prevalence resource-poor setting. PLoS One, 7(12): e52452.

Thomas, J.M., Reed, A.R., Gordon, P.C., Dyer, R.A. and James, M.F.M. 2012. Anaesthesia - what has the University of Cape Town contributed? SAMJ South African Medical Journal, 102(6): 415-418.

Department of Clinical Laboratory Sciences

Division Of Anatomical Pathology

HEAD OF DIVISION: PROFESSOR D GOVENDER

Division Profile

The Division of Anatomical Pathology has both diagnostic and academic components. The diagnostic laboratories form part of the National Health Laboratory Service (NHLS) complex at Groote Schuur and Red Cross War Memorial Children's hospitals.

The Diagnostic laboratories are at both sites and provide a diagnostic surgical pathology, cytopathology and autopsy services to GSH, the academic hospital complex and associated hospitals and clinics in the Western Cape. The division also serves as a public and private tertiary referral and consultation centre for Anatomical Pathology.

These service commitments drive most of the research programmes that are patient and disease orientated. The Division has recently acquired a research laboratory and had 1 PhD, 4 MSc, 13 MMed, 1 BSc Hon, 1 MPhil (Paediatric Pathology) and 3 elective students during the reporting period. The Division has been involved in a range of research activities using a variety of techniques and continues to broaden its research base. The main research focus is in the field of molecular pathology pertaining to diseases that are common in South Africa and the Western Cape – these include various cancers, in particular those affecting disadvantaged population groups. Other research areas include tuberculosis, cardiomyopathy and foetal-alcohol syndrome.

The Division has been approached to provide support for Anatomical Pathology specialist training at the Universities of Botswana and Zambia.

The Division successfully hosted a Centenary Paediatric Pathology Day in September 2012. This coincided with the Faculty centenary celebrations. Several talks were delivered by international guests.

Collaborative Research

The Division has active collaborations internationally with the United Kingdom and continues to establish collaborations with other Academic Pathology departments in Africa. We have recently embarked on a joint breast cancer research project with the Aga Khan University in Nairobi. We are exploring similar collaborations with the Pathology department at the Muhimbili University of Health and Allied Sciences in Dar es Salaam.

There are internal collaborations with the departments of Surgery, Medicine, Cardiology, Obstetrics and Gynaecology, Radiation Oncology, Human Genetics and Medical Biochemistry.

Staff

Permanent and Long-term Contract Staff on UCT Establishment

Professor (HOD)	1
Chief Scientific Officer	1
Administrative and Clerical Staff	1
Total	3

Permanent Joint Academic Staff on NHLS Establishment

Associate Professor	2
Senior Lecturer	3
Lecturer	3
Total	8

Honorary Staff

Honorary Senior Lecturer	1
Total	1

Students

PhD	1
Master's (MMed)	13
Master's (MSc)	4
BSc Hon (Med Biochemistry)	1
Master's (MPhil Paediatric Pathology)	1
Undergraduate (MBChB) Year 2	210
Undergraduate (MBChB) Year 3	214
Undergraduate (MBChB) Year 5 (Gynaecology)	192
Allied Health Sciences	124
Intercalated course	5
Elective students	3
Total	768

Distinguished Visitors

Dr Marta Cohen – Sheffield University, UK
Dr Cynthia Kaplan – Boston, USA
Professor Jane Dahlstrom – Canberra, Australia
Dr Ronald de Krijger – Rotterdam, Netherlands
Dr Adrian Charles – Perth, Australia
Dr Irene Scheimberg – London, UK
Dr Megan Dishop – Aurora, USA
Dr Aurore Coulomb – Paris, France
Dr Sara Vargas – Boston, USA
Dr Victor Mudenda – Lusaka, Zambia
Professor Victor Wakwe – Port Harcourt, Nigeria
Dr Carl Albrecht – CANSA
Alice Victor – CANSA

Research Fields and staff

PROFESSOR DHIRENDRA GOVENDER
Pathobiology of cancers, especially breast cancer, gastrointestinal tract cancers and paediatric solid tumours.

ASSOCIATE PROFESSOR RICHARD NAIDOO
Molecular pathology and biomarkers in cancer.

ASSOCIATE PROFESSOR HELEN WAINWRIGHT
Foetal, perinatal & neonatal pathology, placental pathology, respiratory pathology including TB, cardiac pathology including cardiomyopathy and liver disease.

DR MAUREEN DUFFIELD
Neuropathology, renal pathology and electron microscopy.

DR MICHAEL LOCKETZ
Gastrointestinal tract pathology.

DR SHUMANI MALAKA
Breast, gynaecological and thyroid gland pathology.

DR KOMALA PILLAY
Paediatric pathology, lymphoma and fine needle aspiration cytology.

DR RAVEENDRA SOOKHAYI
Lymphoma and Soft tissue sarcoma

DR HUE-TSI WU
Gynaecological pathology and tissue microarrays.

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Department Of Clinical Laboratory Sciences

Division Of Chemical Pathology

(Including the Chemical Pathology sections of Groote Schuur Hospital and Red Cross War Memorial Children's Hospital)

HEAD OF DIVISION: PROFESSOR DAVID MARAIS

Divisional Profile

The Division of Chemical Pathology comprises both academic and diagnostic sections. The academic section is located in the Faculty of Health Sciences and the diagnostic laboratories are based in NHLS core laboratory, Groote Schuur Hospital and and Red Cross Children's Hospital. These offer a comprehensive dedicated routine chemical pathology diagnostic service to both adult and paediatric patients attending the Groote Schuur and Red Cross Children's Hospitals. There is extensive clinical interaction with members of staff participating actively at the laboratory/ward interface by attendance at ward rounds and clinical meetings with the Division of Endocrinology, Porphyria service and the Lipid Clinic. The Division has a strong specialist diagnostics and research focus on metabolic disorders of acquired and familial aetiology. In addition, the Division has a proud historical tradition of basic science research that cascades down into registrar training. Teaching commitments address both undergraduate and postgraduate needs with a number of MSc, PhD and MMed students under current supervision. The Division is also actively involved in contributing to the teaching programmes of the Division of Medical Biochemistry and the Department of Molecular Cell Biology in the Faculty of Science.

Research activities cover the molecular cell biology of insulin signalling and insulin resistance, the molecular basis of metabolic disease in HIV/AIDS, identification of new biomarkers using proteomics, biochemical mechanisms of ion and drug pumps, the identification of new drug targets in Tuberculosis and Leishmaniasis, the molecular genetics of inherited metabolic disorders, mitochondrial myopathies and erythrocyte antioxidant biochemistry. Individual researchers have established international collaborations across the world. The Division is actively engaged in a number of outreach programmes across Africa. Strong academic links are in place with Walter Sisulu University and there are regular teaching/ examining visits from academic staff of the Division of Chemical Pathology to Mthatha. A joint registrar training platform has been established with the University of Stellenbosch and joint academic activities take place regularly between the two Divisions. The Division also regularly hosts supernumerary staff from neighbouring SADC countries (currently Malawi and Zambia) for the purpose of postgraduate training. The Division has established itself as one of the premier Chemical Pathology academic units in Africa for training and research. The Division has held a number of training courses in laboratory methods and laboratory management and has become the preferred provider of these in Africa. In addition, the Division has an active academic programme which is comprised of CPD-accredited weekly journal clubs, seminars and clinical 'grand rounds'. The Division has also established a tradition of hosting international guest lecturers under the auspices of the Visiting Lecturer's fund.

The Division's Research Laboratories and expertise have attracted junior and senior colleagues from other specialties and institutions who have been keen to interact with colleagues in the Division. In particular, these have included the Department of Medicine (Professor Bongani Mayosi), and Division of Medical Biochemistry (Professor Peter Meissner); the Department of Chemical Pathology at the University of Stellenbosch (Professor Rajiv Erasmus); Anatomical Pathology, University of Cape Town (Professor Dhiren Govender).

Distinguished visitors

Michael Livingston (04 Jan 2012)
Professor Gilles Lambert (12 March 2012)
Professor Neil Harris (02 April-13 April 2012)
Dr Ardie Viljoen (03 April)
Professor Ishwarlal Jialal (09 July 2012)
Professor TS Pillay (26 September 2012)
Dr Chantal de Chastellier (09 November 2012)
Professor Wim de Villiers (27 November 2012)
Dr Antonio Assane (04 December 2012)
Dr Eva Naiuea (04 December 2012)

Divisional Statistics

Permanent and Long-term Contract Staff

Professors	1
Emeritus Professors	2
Medical Natural Scientists	3
Medical Specialists	5
Administrative and Secretarial Staff	1
Technical Officers	2
Departmental Assistants	2
Total	16

Students

Doctoral	6
Master's	3
M Med	5
Undergraduate	200
Total	214

Research Fields and Staff

Permanent Staff

DR PETER A. BERMAN
Principal Specialist; Insulin gene polymorphisms; red cell chemistry and biochemistry, urate metabolism, metabolic disorders, Oxalate metabolism and the influence of ascorbate on oxalate excretion; undergraduate and postgraduate teaching. Retired at the end of May.

DR HELEEN VREEDE
Senior Specialist; oversees routine laboratory service at GSH; method development; information technology;

DR GEORGE VAN DER WATT
Specialist; oversees routine laboratory and inherited metabolic disease diagnostic service at RXH; Chemical Pathology of HIV/AIDS; undergraduate and postgraduate teaching; paediatric biochemistry.

DR FIERDOZ OMAR
Oversees the routine diagnostic and molecular laboratory service at Groote Schuur Hospital in charge of the undergraduate teaching portfolio; Postgraduate teaching; Role of cell-free DNA in prenatal sex determination

DR DAVID HAARBURGER
Oversees the routine diagnostic laboratory service at Groote Schuur hospital and supports method development and diagnostic interpretation of IMD profiles at RXH. Undergraduate teaching portfolio; Postgraduate teaching. Proteomic markers of HIV, molecular genetics of androgen insensitivity syndrome, steroid profiling by LC MS MS.

DR JUDY A. KING
Medical Scientist (Principal); hypertension; renin; aldosterone; sodium channel mutations; routine diagnostic reviewing; undergraduate and postgraduate teaching

DR E. PATRICIA OWEN
Medical Scientist (Principal); inherited metabolic disease; homocysteine; mitochondrial DNA mutations; TPMT mutations; urea cycle disorders; hypertension; pre-eclampsia, epithelial sodium channel mutations; new born screening for glutaric acid uria type 1, postgraduate teaching

MS FELICITY LEISEGANG
Medical Scientist (Senior II); molecular genetics of galactosaemia; spinal muscular atrophy; cystic fibrosis; Western blotting in limb-girdle muscular dystrophy; TB-PCR; application of PCR to genetic screening; postgraduate teaching

EMERITUS PROFESSORS
Emeritus Professor Eric Harley
Purine and pyrimidine metabolism; comparative biology of red cell antioxidant systems, wildlife conservation, genetics, theoretical evolutionary genetics.

Emeritus Professor Mervyn Berman

HONORARY PROFESSORS

Professor Ishwarlal Jialal; Honorary Professor of Chemical Pathology and Medicine, University of Cape Town; Robert E. Stowell Endowed Chair in Experimental Pathology, Director of the Laboratory for Atherosclerosis and Metabolic Research, and Professor of Internal Medicine, Division of Endocrinology, Clinical Nutrition and Vascular Medicine, at the University of California, Davis, Medical Center.

Professor TS Pillay, MBChB Natal, PhD Cambridge UK, MRCPath UK

GRADUATES 2012
Dr Philip Fortgens (Pathologist)
Dr Ryan Benjamin (Pathologist)

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Department Of Clinical Laboratory Sciences

Computational Biology Group

HEAD OF GROUP: ASSOCIATE PROFESSOR NICOLA MULDER

Group Profile

The University of Cape Town Computational Biology (CBIO) Group is the centre of Bioinformatics activities at the university. It was originally set up as a Node of the National Bioinformatics Network, which aimed to develop capacity in bioinformatics in South Africa, and to perform world-class bioinformatics research. The CBIO Group is located within the Institute of Infectious Disease and Molecular Medicine (IIDMM) in the Health Science Faculty, and integrates researchers interested in bioinformatics at the university. The group performs bioinformatics research and provides training and services in the discipline.

The mission of the UCT Computational Biology Group is to become an exceptional, internationally recognized research and training center, addressing the challenges of bioinformatics capacity development in South Africa.

CBIO has a large network of connections with other bioinformatics groups in Africa through the African Society for Bioinformatics and Computational Biology, and a pan African bioinformatics network for H3Africa (H3ABioNet). The group also has close ties with the African Institute for Mathematical Sciences (AIMS) by supervising student essays.

Training Activities in the Group

Undergraduate and Postgraduate teaching

The group teaches a module for Molecular medicine students and several modules for the Health Science Honours programme. It also coordinates the Health Science Honours Programme in Bioinformatics. However, the main focus of the group is on postgraduate education, and the group supervises a number of students (listed later). The CBIO staff also organize and teach on a national course program for postgraduate bioinformatics students.

Graduations

Renaud Gajoux –PhD
Holifidy Arisoa Rapanoel –Master's with distinctions
Boitumelo Mofolo –awarded Master's degree, will graduate in 2013
Arjun Khoosal –Honours degree
Catherine Van Zyl –Honours degree
Rebone Meraba – Honours degree
Sasha Moola – Honours degree with distinctions

Other Training Activities

The CBIO groups runs short specialized workshops for researchers. In 2012 this included:
High-throughput Biology and Human Genetics Course (Mauritius) Jan 2012
Workshop on Population Genetics and Genomics (June 2012)
UniProt and TubercuList Workshop (November 2012)
Microbiome Workshop (November 2012)
Chipster Workshop (December 2012)

Bioinformatics Service-Related Outputs

Human Genetics Division: Ayton Meintjes and Gerrit Botha work as part of the group's services team by providing support to other researchers. These include the following activities: Human Genetics Research Unit: Gerrit processed human exome data from 6 patients. He made use of the ICTS HPC (http://srvslnhpc001.uct.ac.za) to do quality control, alignment, post-processing and SNP calling. Visualisation was done with the Galaxy genome viewer together with IGV (Integrated Genome Viewer). He also processed full human genome data from 5 patients using the same hard-ware and tools, including SVA (Sequence Variant Analyzer). Ayton is working with Professor Ramesar from the Human Genetics Division on an AfriVariants database for local population genetics data.

Immunology Division: Gerrit worked with Heather Jaspan on analyzing her microbiome data on infants with HIV-infected mothers, and Ayton worked with Associate Professor Jo-Anne Passmore on array data her group generated on cervical samples.

Medical Biochemistry Division (Blackburn lab): assistance was provided with running large peptide blasts on the ICTS HPC cluster. Pre- and post-processing of data was done using customized tools in Galaxy on our local server.

Molecular and Cell Biology Department: EST data from the resurrection plant Xerophyta Humilis was assembled and genes were predicted. Assembled genes were annotated using a combination of tools such as InterProScan, Blast and Blast2GO. All modules from basecalling to annotation were integrated in our local Galaxy installation, so we can easily rerun the complete workflow. Gerrit also processed and assembled EST data from human, bats and mice. Some modules specific to this pipeline were developed and integrated in our Galaxy installation. Ayton provided support for analysis of array data for Maize and we performed function and path-way analysis on the results.

External collaborations: Ayton works with external collaborators on collecting, processing, storing and visualizing African human genetics variation data. He developed a population genetics module in Galaxy for mining the data. He is also supporting German collaborators on exon array and RNA-Seq data analysis. As part of a Swiss-SA collaboration, Gaston Mazandu's work on predicting functions for *M. tuberculosis* hypothetical proteins is being fed into the TubercuList and Swiss-Prot databases.

Additional Achievements in the CBIO Group

Nicola Mulder has been awarded ~$12 million by the NIH through their H3Africa initiative to lead the development of a Pan-African Bioinformatics network involving over 35 partners in 15 African countries and the USA. The network will be responsible for providing bioinformatics infrastructure to support the NIH and Wellcome Trust funded Human Heredity and Health in Africa projects and for building bioinformatics capacity on the continent. Nicola was promoted to full member of the IIDMM in 2011 and received her first NRF rating at B3. She was also voted in as the next President of the African Society for Bioinformatics and Computational Biology, and joined the African Institute for Mathematical Sciences Executive Committee.

Dr Darren Martin received an NRF rating of B3, and was invited to give a plenary talk at the fourth plant virus ecology network conference in Montpellier, France. In addition, his PhD student Aderito's first first-author paper was selected for the cover of the Journal of Virology. Finally, Darren's computer program appeared in the virus epidemic disaster movie Contagion!

Group Members

Staff

Associate Professor Nicola Mulder (Head of Group)
Dr Darren Martin (Senior Lecturer)
Ayton Meinjies (Software Developer)
Gerrit Botha (Software Developer)
Cashifa Karriem (Administrator)

Students

Postdoctoral	2
Doctoral	5
Master's	8
Honours	4
Undergraduate	
Total	

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Clinical Laboratory Sciences

Division Of Forensic Medicine And Toxicology

(Including the Gender, Health and Justice Research Unit)

HEAD OF DIVISION: PROFESSOR LORNA J. MARTIN

Divisional Profile

A range of activities related to the role of Forensic Medicine in public policy and health promotion are being pursued. These relate specifically to violence against women and children, the role of drugs and toxins in deaths, and firearm injuries. The provision of a sustainable database on violence and injury in the Cape Town Metropole is being implemented as an urgent research priority. We provide inputs into the National & Provincial Injury Mortality Surveillance System (NIMSS & PIMSS).

A large component of operational activity of the Division of Forensic Medicine is that of service delivery. The academic staff are on the joint staff establishment of the University of Cape Town and the PGWC: Health; Forensic Pathology Services. This is a fairly new programme of the PGWC: Health, established in April 2006, when the responsibility of "mortuary services" was transferred to the Province from SAPS. We are responsible for the medico-legal investigation of death of all persons who die within the

Metropole, an area comprising approximately 4,5 million persons, stretching from Atlantis on the West Coast, the Peninsula, the City, to everything south of the N2 up to, but not including, Khayelitsha. Our clinical services are based at Salt River Mortuary and we perform approx 3 500 autopsies per annum. The Division does not yet have a dedicated research laboratory, but this should be established in 2011. We do provide a clinical teaching neuropathology laboratory with a specialist neuropathologist. This, together with the heavy investigative service load and a critical shortage of pathologists, has limited research activities within the Division, but this will change with the establishment of our research laboratory and our proposed Master's course in Forensic Science (2012).

There are active collaborations with the departments of Anatomical Pathology, Surgery, Obstetrics and Gynaecology, Human Genetics, Paediatrics and Psychiatry; and EMS and the Law faculty.

Divisional Statistics

Permanent and Long-term Contract Staff

Head: Clinical Department/Professor	1
Head: Clinical Unit	1
Specialists	3
Medical Officer	1
Senior Lecturer / Course Convener	1
Chief Medical Technologist	1
Medical Technologist	1
Administrative and clerical	5
Admin & Clerical (part-time)	1
Laboratory Assistant	1
Total	16

Students

Master's (M Med)	5
Biomedical Forensic Science (M Phil)	16
Undergraduate (MBChB) - Year 5	179
Undergraduate (LLB) - Final year	13
Special Study Module – Year 2	8
Total	211

Research Fields and Staff

Permanent Staff

PROFESSOR L.J. MARTIN

Head of Clinical Department & Professor: Management protocols for rape survivors; domestic homicide; monitoring implementation of rape law reforms; domestic violence guidelines for the health sector; epidemiology of female murder; aortic disease; indicators for the Lodox Statscan in children; age estimations for children using Lodox statscans; paediatric trauma and World Cup Soccer; National study of female and children homicide in South Africa; identification of areas for quality improvements in preventable trauma deaths at Groote Schuur Hospital.

DR G.M. KIRK

Head of Clinical Unit & Senior Lecturer: Sudden deaths in sport; firearm injuries; death notification; drug-related deaths; forensic histopathology; history of forensic medicine

DR Y.Y. VAN DER HEYDE

Senior Specialist & Senior Lecturer: The effects of pre-natal alcohol exposure; paediatric mortality; animal bites in children; early adolescent suicide, child homicide including child abuse; sudden unexpected death in childhood including SIDS.

DR L. LIEBENBERG

Senior Specialist & Senior Lecturer: Firearm fatalities and final judicial outcome; aortic disease project; mast cell Tryptase; case studies – curious deaths; atherosclerotic disease prevalence in the Cape Town population; Lodox X-ray application in the forensic setup.

DR I.J. MOLEFE

10 year retrospective study of epidemiology and analysis of injury patterns of femicide and rape homicide in Cape Town: A follow-up study.

DR S. MAISTRY

Deaths on Table Mountain: A retrospective analysis 2000-2011

DR S. MFOLOZI

Development of the NecroChronometer: determining the post-mortem interval using a combination of three methods and location-specific weather information

DR E.B. AFONSO

Identifying trends and risk factors for deaths in police custody in the Cape Town Metropole, 1999-2008

DR A. KHAN

SNP genotypes and skin tone variation in South Africa; male sexual assault; maternal deaths (a forensic perspective)

Contact Details

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Gender, Health And Justice Research Unit

DIRECTOR: ASSOCIATE PROFESSOR LILLIAN ARTZ

ACTING DIRECTOR: DR KELLEY MOULT (2012)

Unit Profile

The mission of this Unit is to improve service provision to victims of violence against women in South Africa through research, advocacy and education. Drawing together established researchers with a strong record of social-action research in disciplines including law, criminology, forensic sciences and pathology, gynaecology, and psychology, this Unit is the first of its kind in South Africa to respond to the pressing need for research and interventions that cross disciplines in support of our efforts to address the alarmingly high levels of violence against women in this country. The Unit fulfils its mission by conducting rigorous evidence-based research into:

South African women's experiences of sexual and gender-based violence;
The responses of women, their communities and the criminal justice, health, and welfare systems to violence against women;
The intersections and disjunctures between health and criminal justice responses to violence against women;
The developmental context in which violence occurs, and the role of violence in perpetuating women's under-development;
The implementation difficulties of translating 'law on paper' into 'law in practice' in health, criminal justice and medico-legal settings;
The development of indicators for monitoring the implementation of progressive legislation and compliance by criminal justice and health sector personnel with statutory duties;
Risk factors and women's pathways to crime and experiences and impacts of female incarceration;
International and local models of best practice for addressing violence against women.

The Gender, Health and Justice Research Unit was awarded the University of Cape Town's Social Responsiveness Award for 2009.

Unit Staff

Research Staff	8
Associate Research Staff	2
Interns	7
Administrative	1
Total	14

Research Fields and Staff

ASSOCIATE PROFESSOR LILLIAN ARTZ
Feminist legal theory; women and law reform; sexual offences; domestic violence; research ethics; the medical management of female survivors of violence; incarcerated women; prison reform and torture.

DR KELLEY MOULT
Feminist criminology; gender-based violence and policy; domestic homicide; forensics, the intersection of traditional and western justice systems, research methods.

YONINA HOFFMAN-WANDERER
International and comparative law; women's socio-economic rights; religious and cultural rights; incarcerated women; sentencing.

DR STEFFI RÖHRS
Women's rights, HIV/AIDS and gender-based violence; HIV/AIDS and the law; law reform.

KATE ASCHMAN
Policing and law enforcement; sexual offences and HIV; human rights; gender-based violence and incarcerated women.

TALIA MEER
Gender-based violence, women's rights, LGBTI rights, access to justice, rural development, and political ecology

TSITSI MPOFU-MKETWA
Women's empowerment, rural development, urban poverty, social justice and social inclusion.

CARMEN CORRAL-BULNES
Gender-based violence, incarceration, women's mental health, domestic homicide and aggressive behaviour in intimate relationships.

Research Associates

Professor Jeanne Flavin (Fulbright Scholar – Fordham University)
The impact of the criminal justice system on women; social and civil rights of women; reproductive rights.

Helene Combrinck (University of the Western Cape)
Disability law and policy, domestic violence and disability.

Administration

Debbie Victor

Interns

Louise Carmody (Faculty of Law, UCT)
Chloë McGrath (Department of Criminal Justice, UCT)
Jenna Chai (University of Michigan)
Gabrielle Inglis (McMaster University, Canada)
Swantje Tiedemann (University of Hamburg)
Emma Backe (Vassar College, USA)
Lauren Gomer (University of Kent)

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Department Of Clinical Laboratory Sciences

Division Of Haematology And Uct Leukaemia Unit

HEAD OF DIVISION: PROFESSOR NICOLAS NOVITZKY

Divisional Profile

Diagnostic Services

The Division of Haematology at Groote Schuur Hospital is a complex unit with multi- disciplinary activities that include outpatient clinics, admission beds as well as diagnostic and research laboratories. The clinical services are organised under the umbrella of the Department of Internal Medicine, while the laboratory diagnostic sections are under the broader organisation of the Department of Clinical & Laboratory Sciences and National Health Laboratory Service (NHLS).

The laboratory continues to offer comprehensive diagnostic testing for the diagnosis and management of all haematological malignancies. It also offers diagnostic services for a Comprehensive Haemophilia Centre, as well as to a number of tertiary / quaternary programs. This laboratory also acts as a tertiary referral centre for local hospitals and outlying clinics of the Western Cape, as well for referral samples from the Eastern Cape. The routine and molecular haematology laboratories were again successfully accredited by SANAS.

Teaching and Training

The department remains a primary teaching and training site for medical technologists, technicians, undergraduate medical students of the University of Cape Town and registrars (specialising postgraduate doctors) in Haematopathology and Clinical Haematology. Currently there are five haematology pathology registrars and one clinical pathology registrar who are enrolled in the UCT postgraduate program.

Dr Karen Shires continues to provide training in the molecular haematology course for haematology registrars and technologists together with Ms Iva Shankland. Dr Karen Shires and Ms Iva Shankland have provided PCR and DNA lectures/practicals for Anatomical Pathology registrars. Dr Karen Shires is part of a team who have developed the Molecular Forensic MSc course. She is the Forensic Genetics course convener.

Dr Shaheen Mowla is involved in the following Undergraduate Teaching: MBChB Intercalated Molecular Medicine course: Basic cell structure and function; Cell Cycle; Cell Stress responses and cell death mechanisms; Restriction Enzymes and Electrophoresis; MBChB Semester 2: Histology of the skin; MBCHB Semester 3: Histopathology of the skin.

Consultant pathologists Drs Almero Du Pisani, Jessica Opie and Monalisa Ntobogwana as well as Mr Francois Barton have delivered training courses to NHLS technologists at NHLS Green Point Complex in Cape Town.

Divisional Statistics

Permanent and Long-term Contract Staff:

Professor	1
Clinical Service	
Senior Specialists	2
Rotational Clinical Registrars	2
Senior Registrars	2
Chief Professional Nurse	2
Administrative and clerical staff	3
Diagnostic Service	
Senior Pathologist	1
Pathologists	2
Pathologist part-time	1
Scientist	1
Pathology Registrars (Special and Clin Path)	7
Laboratory Manager	1
Medical Technologists	15
Technicians	4
UCT Leukaemia Unit	
Scientist	1
Research Officer	1
Research Technologist	1
Clinical Research Co-Ordinator	1
Administrative and clerical staff	1
Laboratory assistants (medical school)	2

Students

Doctoral	3
Master's	3
Honours	1
MMed	1
Total	8

Haematology Research Projects

DR KAREN SHIRES
Novel diagnostic, prognostic and MRD assays for haematological malignancies; cancer testis expression in Multiple Myeloma.

PROFESSOR NICOLAS NOVITZKY
Immunomodulation of stem cells for transplantation.

DR SHAHEEN MOWLA
Molecular Biology of Cancer; Burkitt's lymphoma and HIV; Role of activation-induced cytidine deaminase in cancer; miRNA in cancer

DR L A DU PISANI
Malaria diagnosis, Western Cape, managed and the outcome.

DR JESSICA OPIE
HIV-Associated Burkitt Lymphoma and Antiretroviral Therapy; HIV-Associated Hodgkin Lymphoma.

Research Fields and Staff

PROFESSOR NICOLAS NOVITZKY
Haematopoietic stem cell biology; clonogenic assays; haematopoietic stem cell transplantation; immune reconstitution; haematological malignancies

DR CECILE DU TOIT
Haematopoietic stem cell transplantation; haematological malignancies; haemophilia

DR ANDREW MCDONALD
Haemophilia; thrombophilia; stem cell transplantation

DR JESSICA OPIE
Molecular biology of neoplasia: chronic myelogenous leukaemia; coagulation abnormalities

DR KAREN SHIRES
Molecular biology and diagnostics

DR SHAHEEN MOWLA
Minimal residual disease and flow cytometry.

MRS RYGANA ABDULLA
Cellular biology of neoplasia; clonogenic assays

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Clinical Laboratory Sciences

Division Of Human Genetics

Including the MRC/UCT Human Genetics Research Unit and CANSA's National Colorectal Cancer Research Consortium

HEAD OF DIVISION: PROFESSOR RAJ S. RAMESAR

Divisional Profile

The Division is unusual in that it conducts its business through three interacting 'institutions':

1. An extensive clinical service through the Provincial Government of the Western Cape;

2. its laboratory diagnostic services through the National Health Laboratory Services, and

3. Its academic (research and teaching) activities through the University.

The UCT/MRC Human Genetics Research Unit was created while the Human Genome Project was underway. The mandate for this Unit was (i) primarily one of capacity development in the field of Genetics and Genomics, (ii) understanding the relevance of developments in genetics and genomics, as they may be applicable to South Africans, and (iii) the translation of research to the clinical environment.

An emphasis of this Unit is the investment in understanding the rich Human Diversity on our continent and relating this to disease and health. In this regard there has been a head-on engagement with state of the art high-throughput genetic studies of indigenous southern African population populations, which has resulted in the empowerment and capacity development of South African researchers in large scale data handling and analysis. This and other projects involve fruitful collaborations with other Unit directors, such as Professor Himla Soodyall, and colleagues in bioinformatics in the National Bioinformatics node at UCT. The Division is also in involved in several Human, Hereditary and Health Africa projects in networks spanning the continent (www.h3africa.org), and which are funded by the National Institutes of Health (USA) and the Wellcome Trust (UK).

A further investment has been in taking genetics to the 'clinical' high street. A measure of relevance and success of the Unit in this regard, is its attraction to other mainstream clinical practitioners e.g. from the disciplines of Gastroenterology, Nephrology, Internal Medicine, Psychiatry, Surgery, and Dentistry (UWC) who are completing PhDs in Genetics, in this Unit. A substantial effort has been made into introducing genetics/genomics into the undergraduate MBChB curriculum and to specialist groups.

Divisional Statistics

UCT Staff

Professors	2
Emeritus Professors	1
Associate Professor	1
Research Staff	7
Chief Scientific Officer	1
Administrative and Secretarial Staff	2
Departmental Assistants	1

Part Time Staff

Genetic Counselor Intern	1
Clinical Educator	1
Sessional Medical Officers	2

PGWC Personnel

Senior Specialist (F/T)	1
Associate Professor	1
Registered Nurses	2

PGWC/UCT Personnel

Registrar 2

NHLS Personnel

Discipline Specific Lab manager	1
Medical Technologists	8
Medical Scientist	1
Laboratory Clerk	1

Honorary Staff

Honorary Professor 2

Students

Postdoctoral	3
PhD	16
Master's	8
Honours	8
Total	35

Research Fields and Staff

PROFESSOR RAJ S. RAMESAR (UCT/PGWC)
Head of Division and Personal Chair
Director: MRC Human Genetics Research Unit
Principal Investigator: Genetics of Bipolar Disorder; Genetics of Retinal Degenerative Disorders; Molecular Genetics of Complex Disorders; Pharmacogenetics – Adverse Drug Reactions in Cancers

PROFESSOR JACQUIE GREENBERG (UCT)
Principal Investigator: Genetics of Neurological Disorders; Genetics of Neuromuscular Disorders
Co-Principal Investigator: Genetics of Retinal Degenerative Disorders

EMERITUS PROFESSOR PETER BEIGHTON
Principal Investigator: Genetics Connective Tissue Disorders

HONORARY PROFESSOR MICHAEL HAYDEN
Co-investigator: Genetics of Neurological Disorders

HONORARY PROFESSOR WILMOT JAMES
Director: Africa Genome Education Institute; African Genomics, and Co-host: The Darwin Seminars

HONORARY PROFESSOR MATTHEW WOOD
Co-investigator: Genetics of Neurological Disorders

ASSOCIATE PROFESSOR AMBROISE WONKAM (UCT)
Principal Investigator: Phenotypic correlation of sickle cell anemia to genotypic variations; Genetics of Deafness

ASSOCIATE PROFESSOR COLLET DANDARA (UCT)
Principal Investigator: Pharmacogenomics

DR KAREN FIEGGEN (PGWC / UCT)
Senior Specialist: Principal Investigator: X- linked Mental Rretardation; Bardet-Biedl Syndrome

MRS THERESA RUPPELT (NHLS)
Laboratory Manager: Cytogenetics

Contact Details

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Clinical Laboratory Sciences

Division Of Immunology

HEAD OF DIVISION: PROFESSOR CLIVE GRAY

Profile

The Division of Immunology is involved with a range of activities from identifying the basic mechanisms of immunity in infectious disease to laboratory diagnostic testing in the National Health Laboratory Services at Groote Schuur Hospital. The vision statement for the Division of Immunology is "Driving Science to promote World Health" and in 2012, a detailed strategic document outlining the next 5-10 years was formulated. Part of that mission is to formulate and introduce a revised immunology curriculum for MBChB undergraduate students at all years of their study. Numerous staff are also either Full or Associate members of the Institute of Infectious Disease and Molecular Medicine (IIDMM) and there is a very integrated relationship between the Division of Immunology and the IIDMM.

Basic Research: The Division houses the UCT/MRC Unit on Immunology of Infectious Diseases, an Allergy Section and the SARCHi chair on 'Immunology of infectious diseases in Africa'. The Division has an internationally recognized expertise in generating transgenic mice, for use in a wide range of immunological studies applicable to communicable and non-communicable diseases. These have been used to make important advances in diseases, such as Tuberculosis, Bilharzia, African Trypanosomiasis, Candidiasis and cutaneous Leishmaniasis and have contributed significantly to identifying fundamental cellular and molecular immunological mechanisms. Together with international and national collaborations, these animal tools contribute to many advances in Immunology and other fields. Basic research in the Allergy Section has focused on the role of IL-4 and IL-13 in allergy as well as the application of novel assays to identify sensitivity profiles. There are very close ties with the South African component of the International Centre for Genetic Engineering and Biotechnology, providing a very strong genomics thrust to the Division.

Translational Research: There is also a strong clinical immunology emphasis in the Division, specifically in HIV and TB immunology where studies are underway to understand adaptive and innate immune responses during acute HIV infection and in infants exposed to HIV in utero and upon receiving different childhood vaccinations. Successfully funded grants have been garnered from the

Canadian Institute of Health Research and the South African Department of Science and Technology for investigating the link between breast-feeding practices and newborn infant immune activation status, which may mitigate EPI responses. Understanding the link between HIV-induced inflammation and autoimmunity, where peripheral tolerance has been broken, is also a new direction within the Division.

NHLS activities: The combined functions of the Laboratory for Tissue Immunology (LTI) and the Clinical Immunology and Allergy Laboratory are responsible for providing NHLS activities. The LTI is responsible for HLA class I and class II typing for solid organ and bone marrow/stem cell matching. The Laboratory also performs cross-matching and pre-formed antibody testing for renal transplantation. Accreditation of LTI with the European Federation of Immunogenetics (EFI) was awarded for a further three years in 2012. The Clinical Immunology and Allergy Laboratory performs routine diagnostic testing for autoantibodies and different allergies. The DOI plays a leading role in the Immunology Expert Committee, which has formulated a new workload model for immunology services within the NHLS. The major task for the Expert Committee over the next year will be to formulate a national immunology curriculum so that immunology can become a registered specialist discipline.

Teaching: The Division has an active teaching component in the medical undergraduate syllabus and provides cutting edge lectures on the basics of the immune system and integrates immunology concepts and principals with the case studies and problem based learning approach by the Faculty. More advanced courses are offered at the postgraduate level through the Honours in Infectious Disease and Immunology programme and the short semester Research Immunology Course for postgraduate students. The Division also holds workshop on infectious disease and immunology and specifically train students from other countries in Africa on advanced immunology related techniques and cutting-edge science.

International Links: There are very strong links between staff in the Division with international collaborators on all continents in both basic and applied research.

Divisional Statistics

Permanent & Long Term Contract Staff (UCT/NHLS)

Professors	2
Associate Professors	1
Lecturers	2
Research Staff	7
Technical Staff	6
Technical Support Staff	5
Administrative Staff	2
Total	25

Students

Postdoctoral	12
Doctoral	19
Master's	10
Honours	5
Total	46

Staff Research Fields

Academic Staff

PROFESSOR CLIVE GRAY PHD

Wernher Beit Chair and HODv Immunology
Full member of the IIDMM; B rating by NRF; Research Profile: Immunology of HIV infection and specific T cell responses during acute infection.

PROFESSOR FRANK BROMBACHER, PHD

Professor of Immunology
UCT Fellow; SARCHi Chair, Director of an MRC Unit; ICGEB Coordinator & Group leader, Member of IIDMM; A1-rating by NRF; Research profile: Immunology of infectious diseases, including Tuberculosis, African Trypanosomiasis, Leishmaniasis, Bilharzia and other Helminth infections.

ASSOCIATE PROFESSOR MUAZZAM JACOBS, PHD

NHLS Medical Scientist and UCT Senior Lecturer; Full member of the IIDMM. Research profile: Understanding host pathogen interaction and associated immune mechanisms that bring about protection against tuberculosis infection.

DR BARBARA NURSE, PHD

NHLS Medical Scientist. Research profile: T cells in allergic diseases: Cytokine responses to allergen and mTB protein in atopic asthmatic children; Immune changes underlying successful immunotherapy; Investigation of the role of T cells in drug-responsive and extensively drug-resistant (XDR) tuberculosis.

DR WILLIAM HORSNELL PHD

UCT Lecturer in Immunology. Associate member of IIDMM. C2 NRF rating. Convener of IDI Honours postgraduate degree. Research profile: Immunity to helminth infections. Maternal and co-infection immunity. Acetylchoine signalling in the immune system.

DR HEATHER JASPAN MD, PHD, FAAP
Senior Lecturer. Associate member of the IIDMM. Research Profile: Investigating immune activation, T cell immunity and susceptibility to HIV in infants.

Visiting Professors

PROFESSOR GUIDO FERRARI
Professor, Duke University Medical Center, Durham, North Carolina, USA

Identifying CD8+ T cell activation, functional profile, and memory differentiation during acute HIV infection and role in in determining HIV escape mutants.
Identifying epitope targeted by ADCC-mediating Antibody responses and their role in protection from infection.

PROFESSOR JIM ALEXANDER
Strathclyde University, Scotland

Postdoctoral Fellows

DR LYCIAS ZEMBE
Understanding CD8+ T cell recognition patterns in HIV infection

DR SURAJ PARIHAR
DR NASIEMA ALLIE

DR RETO GULER
Investigate using 4 different pathogens, i.e. Listeria monocytogenes, mycobacteria tuberculosis, mycobacteria bovis BCG, and Leishmania major

DR NATALIE NIEUWENHUIZEN
Characterization of Anisakis Allergens

DR MARK BARKHUIZEN:
The Role of Interleukin-12 in Pathogenic Trypanasome Infections

DR ROANNE KEETON
TB Immunology

DR FRANK KIRSTEIN
Investigation of immune responses in different mouse models of allergic asthma"

DR NAI-JEN HSU
Understanding TNF-TNFR signaling and its impact on microglia-neuronal cell interaction

DR TIROYAONE BROMBACHER
Neuro-immunological effects of Nippostrongylus brasiliensis on cognitive function.

DR ROANNE KEETON
The role of TNFR signalling in pulmonary tuberculosis

DR MOHLOPHENI MARAKALALA
Investigation of C-type lectin receptors in immunity to Candidiasis,Tuberculosis and Staphylococcus infections

DR JENNIFER CLAIRE HOVING
Asthma and Allergy

Distinguished Visitors

Harukazu Suzuki - Riken Institute-Japan
Bernhard Ryffel - CNRS France
Daniel Barber - Max Planck, Germany
Martin Bachmann - Cytos,Switzerland
Claudia Jakubzic - Virginia, USA
Mattias Svensson - Karolinska Institute, Sweden
Benjamin Marsland - ETH Zurich, Switzerland
Gordon Brown - Univ Aberdeen, UK
Luisa Martinez Pomares - Univ Nottingham, UK
Jim Alexander - Univ Strathclyde, UK
Andrew Mcdonald - Univ Edinburgh, UK
Abhay Satoskar - Ohio State University, USA
Michael Pepper - University Of Pretoria, SA
Johanna Spaans - University of Ottawa
Stefan Magez - Vrije University, Belgium
Blanka Vidan-Jeras - Slovenia
Debra Rosa - CSIR
Gotfried Alber - Univ of Leipzig, Germany
Musa Mhlanga - CSIR, Pretoria
Thomas Heunig - University Wuerzburg, Germany
Abhay Satoskar - University of Ohio, USA
Bernhard Ryffel - University of Orleans, France
S. Barth - Univ. Fraeuenhofer,Germany

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Clinical Laboratory Sciences

Division Of Medical Biochemistry

HEAD OF DIVISION: PROFESSOR PETER MEISSNER

Divisional Profile

The Division of Medical Biochemistry is a preclinical, basic science division in the UCT Faculty of Health Sciences and is associated, either wholly or partly, with a number of advanced research entities. Some such entities are laboratory research groups contained entirely within

Division, while some have certain components or personnel falling within the Division, affiliated to other Institutes or Departmental groupings.

Specifically: The Division incorporates the MRC/UCT Research Group for Receptor Biology (co-directed by Associate Professor Arieh Katz and Dr Colleeen Flanagan, ex-UCT now at WITS, and Professor Bob Millar, Senior Scholar in our Division); the UCT Structural Biology Research Group (directed by Professor Trevor Sewell); members of the Institute of Infectious Disease and Molecular Medicine (IIDMM) at UCT (Profs Sturrock, Blackburn, Meissner, Parker, Katz and Leaner); and the International Centre for Genetic Engineering and Biotechnology (ICGEB) (Professor Iqbal Parker).

Through 2012 there were 53 research postgraduate students registered for either Master's or PhD (57 in 2011), and a further 11 Honours students were based wholly in Medical Biochemistry for the duration of their research projects (April – November) (6 in 2011). The Division graduated 4 PhD and 2 MSc students during the course of 2012 (6 PhD and 3 MSc during 2011). Together with various scientific and academic staff our postgraduate students and 20 postdoctoral fellows (18 in 2011) continued to form the basis of a vibrant and on-going research thrust and culture in the Division, forming the core of our Divisional research strategy – out of which flows a contemporary and effective approach to teaching at both under- and postgraduate levels. During 2012 the Division and its' affiliates published 56 papers in ISI accredited science journals and and 2 book chapters. Research activities of the Division cover seven major areas:

1. GnRH receptors, signalling, structure – function and as a target for development of therapeutics for treatment of reproductive cancers (Katz & Millar labs);
2. Molecular mechanisms of cervical cancer and oesophageal cancer development and progression (Leaner, Hendricks and Parker labs)
3. Identification and characterisation of anticancer drugs in natural products (Hendricks lab);
4. Angiotensin converting enzyme (ACE) structure activity relationships and development of ACE inhibitors (drug design) for treatment of hypertension, congestive heart failure, myocardial infarction and renal disease (Sturrock lab);
5. Application of functional proteomics for diagnostics, drug and vaccine development for infectious disease and cancers (Blackburn lab).
6. Diagnostic, structure and function studies in the porphyrias and haem biosynthesis (Meissner lab – currently sited and staffed in the Dept. of Medicine)
7. Structural basis for differential regulation of glutamine synthetase in humans and the malaria parasite, structural studies on the nitrilase family of enzymes in the context of cancer, mycothiol synthetic pathway in Mycobacterium tuberculosis (Sewell lab- currently located on UCT upper campus)

Physical space for the Structural biology research Unit and the Porphyria labs remain a problem.
Research staff members, fellows, postgrad students participated in many local and international conferences during the year. Our Division considers such travel essential and worthwhile in that they give rise to new collaborations and maintenance of established collaborations and lab research visits.

Selected Divisional Statistics

Professors	5
Professor (emeritus) appointed as Senior Scholar	1
Professors on establishment but working in affiliated Institutions	1
Associate Professors	3
Senior-Lecturers	0
Technical Support Staff	4
Departmental Assistants	3
Administrative Staff	2
Total	19

Honorary Staff

Honorary Professor	1
Honorary Associate Professor	1
Honorary Senior Lecturers	2
Honorary Research Associate	1
Total	5

Students & Fellows

Postdoctoral fellows	20
Research students:	
Doctoral	29
Master's	24
Honours	11
Undergraduate students taking Med. Biochem courses	626
Total	710

Research fields and staff

PROFESSORS

J M BLACKBURN, BSC (HONS) DPHIL OXON (SOUTH AFRICAN RESEARCH CHAIR)
Proteomics and genomics for diagnostics, drug and vaccine development for infectious disease and cancers

P N MEISSNER, BSC(MED)(HONS) PHD CAPE TOWN (FELLOW OF UCT)
Haem biosynthesis, disorders of porphyrin metabolism

E D STURROCK, BSC (MED)(HONS) PHD CAPE TOWN
Angiotensin converting enzyme (ACE) structure activity relationships and drug design related to ACE inhibitors for treatment of hypertension, congestive heart failure, myocardial infarction and renal disease

B T SEWELL, MSC WITWATERSRAND, PHD LONDON.
Structural biology related to regulation of glutamine synthetase in humans and the malaria parasite, nitrilases in the context of cancer, mycothiol synthetic pathway in *Mycobacterium tuberculosis*)

A A KATZ, PHD REHOVOT
Gonadotropin-Releasing Hormone (GnRH) receptors: function regulation and ligand receptor interactions; role of cyclooxygenases and prostaglandins in cervical cancer and uterine pathologies

R P MILLAR PHD, FRCPATH (CHEM), FRSE (LIFE FELLOW OF UCT)
Endocrine receptor and molecular biology

PROFESSORS (WORKING IN AFFILIATED INSTITUTES):
M I Parker, BSc(Hons) PhD Cape Town (MASSAf) (based in the International Centre for Genetic Engineering and Biotechnology – ICGEB, Cape Town) Cellular and molecular biology of cancer; Regulation of gene expression in cancer

ASSOCIATE PROFESSORS

DENVER HENDRICKS, BSC(HONS) PHD CAPE TOWN
Molecular biology of oesophageal cancer and development of novel chemotherapeutic drugs

VIRNA LEANER, BSC(HONS) PHD CAPE TOWN
Molecular mechanisms associated with the development and treatment of cervical cancer

CYNTHIA SIKAKANA, BS WESLEYAN PHD WISCONSIN-MADISON
Medical education, Metabolism of xenobiotics

HONORARY PROFESSOR

C. SEOIGHE, PHD DUBLIN
W-D SCHUBERT, PHD BERLIN

HONORARY ASSOCIATE PROFESSOR

LUIZ ZERBINI, MSC PHD SÃO PAULO BRAZIL

EMERITUS ASSOCIATE PROFESSOR

L R THILO, MSC UNIVERSITY OF PRETORIA DR RER NAT HEIDELBERG

HONORARY SENIOR LECTURERS

HENRY JABBOUR, PHD SYDNEY
G PROTEIN – COUPLED RECEPTORS IN REPRODUCTIVE BIOLOGY AND HIV
COLLEEN FLANAGAN, PHD CAPE TOWN
CYCLOOXYGENASES IN GYNAECOLOGICAL CANCERS

HONORARY RESEARCH ASSSOCIATE

ARVIND VARSANI, PHD CAPE TOWN.

POSTDOCTORAL FELLOWS

PAULINE VAN DER WATT
ANDREW JM NEL
PUTUMA GQAMANA
BRANDY YOUNG
KATE HADLEY
YABING WANG
JEAN WATERMEYER
ARON ABERA
VICTOR FRANCIS
ROSS ANDERSON
CLAIRE NEWTON
JACQUELINE BRACHER
ROSS DOUGLAS
JEREMY WOODWARD
ALBERT ABRIE
SERAH KIMANI
LISELOTTE ANGUS
REBECCA TADOKERA
BEVERLEY VAN ROOYEN
ROBERT NDORIA THUKU

CHIEF SCIENTIFIC OFFICER

SYLVA SCHWAGER, MSC
PROTEOLYTIC PROCESSING OF MEMBRANE PROTEINS

RESEARCH ASSOCIATES AND MID-CAREER FELLOWS

KURT SALES, PHD (KATZ/MILLAR LAB, IIDMM)
GEORGIA SCHAEFER (PARKER LAB, ICGEB)
CATHERINE KASCHULA (PARKER LAB, ICGEB)

Contact Details

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Clinical Laboratory Sciences

Division Of Medical Microbiology

HEAD OF DIVISION: PROFESSOR MARK NICOL

Divisional Profile

The Division of Medical Microbiology (www.medmicro.uct.ac.za) encompasses a tertiary diagnostic microbiology service, provided by the National Health Laboratory Service, Groote Schuur Hospital and an active research programme based at the Health Sciences Campus.

We aim to conduct research that is relevant to the needs of diagnostic microbiology services and focused on important infectious diseases in South Africa. This includes work on the development and assessment of novel diagnostics for tuberculosis as well as on the transmission and molecular epidemiology of drug resistant pathogens within our hospitals. The latter work is conducted under the ambit of the Centre for Hospital, Tropical and Opportunistic Infections of the National Institute for Communicable Diseases. More recently, together with the Department of Paediatrics and Child Health, the Division has developed a programme of research focusing on the evolution of the microbiome in early childhood and the association between the microbiome and respiratory illness in young children.

The Division is the academic home of the highly regarded Molecular Microbiology Research Unit (www.mrc.ac.za/mycobacteriology/mycobacteriology) headed by Professor Valerie Mizrahi and Dr Digby Warner which aims to develop and apply genetic tools for the identification, validation and characterisation of novel drug targets and vaccine candidates for tuberculosis. The Division is also the home of Professor Gregory Hussey and Dr Charles Wiysonge who lead the 'Vaccines for Africa' Initiative (www.vacfa.com) which is a partnership of concerned individuals and organisations who have come together with the expressed purpose of increasing awareness of and promoting uptake of vaccines on the African continent.

The Division has been successful in attracting substantial research funding from the Wellcome Trust, EDCTP, National Institutes of Health, Carnegie Foundation, Howard Hughes Medical Institute and Bill and Melinda Gates Foundation in recent years.

The composition of the Division is complex with staff drawn from the University of Cape Town, Groote Schuur Hospital and Red Cross Children's Hospital and the National Health Laboratory Service and National Institute for Communicable Diseases. This mix of pathologists, scientists and students offers the opportunity for creative, cross-disciplinary research.

Divisional Statistics

Permanent and Long-term Contract Staff

Professors	3
Senior Lecturers	3
Lecturers	3
Clinical Research Officer	1
Research Assistant	1
Senior Research Officer	1
Administrative and Clerical Staff	1
Project Manager	1
Lab Manager	1
Data Management staff	1
Technical Support Staff	1
Total	16

Honorary Staff

Honorary Lecturers	2

Students

Postdoctoral	4
Registrars	3
Doctoral	7
Master's	11
Honours	1
Undergraduates	407
Total	433

Research Fields and Staff

Permanent Staff

PROFESSOR MARK P NICOL
Development and evaluating point-of-care tests for tuberculosis; the strain biology of *Mycobacterium tuberculosis;* the origin and evolution of the human microbiome in early childhood and its impact on respiratory illness.

PROFESSOR GREGORY HUSSEY
Understanding the dynamics of TB infection and disease in adolescents; the epidemiology of TB in infants and young children; evaluation of new TB vaccines

PROFESSOR VALERIE MIZRAHI AND DR DIGBY WARNER
Investigate fundamental aspects of the metabolism and physiology of *Mycobacterium tuberculosis* of relevance to tuberculosis drug discovery and drug resistance

DR ANDREW WHITELAW
TB diagnostics, molecular epidemiology and infection control

DR C BAMFORD
Laboratory detection of multi-resistant organisms; molecular epidemiology of hospital acquired infections; rational use of antibiotics and surveillance of antimicrobial resistance; appropriate use of microbiological investigations; microbiological diagnosis of tuberculosis

DR ELIYA MADIKANE
Mycobacterium tuberculosis drug discovery and development; population genetics of *Acinetobacter baumannii* and *Staphylococcus aureus* in Cape Town Hospitals; the nasopharyngeal microbiome in early childhood

Registrars, Joint Appointments

DR NOLWAZI PEPU
DR SINDILE NTULI
DR SIPHOKAZI MAHOBE

Honorary Staff

ASSOCIATE PROFESSOR DAVID LEWIS
- Gonococcal resistance
- STI surveillance
- Men's sexual health

DR JOHN SIMPSON
Laboratory diagnosis of tuberculosis and identification of drug-resistance

Postdoctoral Fellows

DR WIDAAD ZEMANAY
Evaluation of novel diagnostic methods for tuberculosis in adults and children; evaluation of the impact of novel TB diagnostics on patient outcomes

DR ELLOISE DU TOIT
Household dust microbial burden and the development of recurrent wheezing in children in the Western Cape: a cohort study.

DR MAMADOU KABA
Molecular epidemiology of infectious diseases; the nasopharyngeal and stool microbiome in early childhood

Contact Details

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Department Of Clinical Laboratory Sciences

Division Of Medical Virology

HEAD OF DIVISION: PROFESSOR CAROLYN WILLIAMSON

Divisional Profile

The Division of Medical Virology contributes to the diagnosis, treatment, prevention and eradication of viral diseases in South Africa through a diagnostic laboratory service together with a dynamic research programme.

Virology has an vibrant research programme focussin on: HIV-1 vaccine development; biomarkers of HIV acquisition; mechanisms of HIV-1 transmission and virological control; HIV-1 breakthrough infections in large vaccine and microbicide trials; Human Papillomavirus (HPV); HIV/TB co-infection; Hepatitus B and C; novel respiratory viruses; cytomegalovirus; and the development of new molecular diagnostic tests. The division hosts one South African Research Chair (NRF SARChI) (Professor Anna-lise Williamon, Vaccinology). High impact research findings

in 2012 include a study elucidating the impact of HIV on the natural history of HPV genital infection; the finding that symptomatic vaginal discharge is a poor predictor of sexually transmitted infections and genital track inflammation; that genital tract inflammation during early HIV-1 infection predicts higher plasma viral load set-point in women; elucidation of the role of HIV-1 cytotoxic T-cell escape on viral replicative fitness and disease progression; and identification of mechanism of creating an HIV-1 broadly cross-neutralizing neutralizing epitope through immune escape. Research is largely performed within the Institute of Infectious Diseases and Molecular Medicine.

The Virology Diagnostic Laboratory falls within the National Health Laboratory Service, and is located at Groote Schuur Hospital (GSH). It provides a comprehensive service to both GSH and Red Cross Children's Hospital, and serves as a regional reference centre providing a clinical and diagnostic service to local teaching hospitals and surrounding public health clinics. The Diagnostic Laboratory is SANAS accreditation. Two viral outbreaks were investigated over the past year, one caused by influenza A virus in the Red Cross hospital ICU and a second due to respiratory syncytial virus infection.

The division contributes to undergraduate teaching and plays a major role in postgraduate training, and in 2012 hosted 43 postgraduate students and postdoctoral fellows.

Special awards / honours / promotions

Jo-Ann Passmore was promoted to Associate Professor.
Carolyn Williamson became a member of the Academy of Sciences, South Africa
Carolyn Williamson become a member of Royal Society of South Africa
Narjis Thawer was awarded a DST fellowship for 2012 South African Women in Science awards

The following students graduates

Roman Ntale was awarded his PhD

Distinguished visitors

Mark Brockman from Simon Frasier University, Canada
Suresh Boppana and Dr Cecilia Hutto from the University of Alabama, Birmingham
Mike Cherry from the University of Stellenbosch had his sabbatical in the division
Bert Jacobs was a visiting Fulbright specialist from the Biodesign Institute at the Arizona State University.
Lyle McKinnon from the University of Toronto and Kenyan AIDS Control Project, University of Nairobi
Saggie Pillay, CEO of NHLS
John Wherry from the NIH, USA
Bruce Walker from the Ragon Institute of MGH, MIT and Harvard, USA.

Divisional Statistics

Permanent and Long-term Contract Staff

Professors	3
Academic	13
Research and Technical Support Staff	15
Administrative and Clerical Staff	3
Total	34

Honorary Staff

Honorary Senior Lecturer	1
Honorary Research Associate	1

Students

MMed	3
Postdoctoral	8
Doctoral	14
Master's	15
Honours	3
Undergraduate (semesters 3-5)	407

Research Staff and Fields

Emeritus Professor

PROFESSOR KEITH DUMBELL

Academic Staff

PROFESSOR CAROLYN WILLIAMSON (UCT/NHLS)
HIV-1 pathogenesis and prevention; Head of Division.

DR DIANA HARDIE (NHLS/UCT)
Molecular biology of Hepatitis B Virus – Head Diagnostic Virology Laboratory.

PROFESSOR ANNA-LISE WILLIAMSON (NHLS/UCT) – SOUTH AFRICAN RESEARCH CHAIR
Human Papillomavirus; HIV-1 vaccine development.

ASSOCIATE PROFESSOR JO-ANN PASSMORE (NHLS/UCT)
HIV/HPV Immunology.

DR WENDY BURGERS
HIV Immunology and Pathogenesis

DR ROS CHAPMAN
HIV Vaccines

DR GERALD CHEGE
HIV Vaccines

DR NICOLA DOUGLASS
HIV Vaccines / poxviruses

DR MARVIN HSIAO (NHLS/UCT)
Clinical Virology, cytomegalovirus and molecular diagnostics

DR. STEPHEN KORSMAN (NHLS/UCT)
Clinical Virology, Hepatitis B, molecular diagnostics and outreach

DR ZIZIPHO MBULAWA (NHLS/UCT)
Human Pappilomavirus

DR HEIDI SMUTS (NHLS/UCT)
Hepatitis C; Novel respiratory viruses.

DR ZIYAAD VALLEY-OMAR (NHLS/UCT)
Molecular Epidemiology

Honorary Staff

DR ERICA ANDERSEN-NISSEN
Research Associate; HIV vaccines

DR TIM TUCKER
Senior Lecturer; HIV.

Research Staff

MELISSA-ROSE ABRAHAMS
HIV Diversity and Pathogenesis.

CRAIG ADAMS
HIV Vaccines.

BRUCE ALLAN
Human papillomavirus.

DESIREE BOWERS
HIV Vaccines.

KATRINA DOWNING
HIV Vaccines/ Project manager/GLP.

SHIREEN GALANT
HIV Vaccines.

HOYAM GAMIELDIEN
HIV Immunology.

MURRAY LOGAN
HIV Diversity and Pathogenesis.

JINNY MARAIS
HIV Diversity and Pathogenesis.

TRACEY MULLER
HIV Immunology and Pathogenesis.

CECILIA RADEMEYER
HIV Diversity and Pathogenesis.

DEBBIE STEWART
HIV Diversity and Pathogenesis/Project co-ordinator and GLP archivist

RUWAYHIDA THEBUS
HIV Diversity and Pathogenesis.

NONKULULEKO NDABAMBI
HIV Diversity and Pathogenesis.

DANIEL SHEWARD
HIV Diversity and Pathogenesis.

Postdoctoral Fellows

DR DENIS CHOPERA
HIV Diversity and Pathogenesis

DR ZEKARIAS GINBOT
HIV Immunology and Pathogenesis

DR ZIZIPHO MBULAWA
Human Papillomavirus

DR TRACY MEIRING
Human Papillomavirus

DR NOBUBELO NGANDU
HIV Diversity and Pathogenesis.

DR COBUS OLIVIER
HIV Immunology

DR LINDI ROBERTS
HIV Immunology

DR ANDREIA SOARES
HIV Immunology and Pathogenesis

Administrative Staff

SUSAN LANFEAR
PA to Professor Anna-Lise Williamson

NYAMEKA MHLONYELWA-MONA
PA to Head of Division and Divisional Secretary

KATHRYN NORMAN
Project Administrator

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Department of Clinical Laboratory Sciences

Research output

Authored books

Beighton, P., Grahame, R. and Bird, H. 2012. Hypermobility of Joints. 4th edition. London: Springer-Verlag. 199pp. ISBN 9781848820852.

Chapters in books

Beighton, P. 2012. Genetic disorders in minority groups in South Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 450-465. New York: Oxford University Press Inc. ISBN 9780195374759.

Beighton, P. 2012. Genetic epidemiology of South Atlantic oceanic islands. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 444-449. New York: Oxford University Press Inc. ISBN 9780195374759.

Beighton, P. 2012. Giants in mythology and medicine. In Festschrift, Honorary Volume for Professor Christos S. Bartsocas, pp. 343-350. Greece: ZHTA Medical Publications. ISBN 9789604661183.

Beighton, P. and Sellars, S.L. 2012. Hereditary deafness in southern Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 466-474. New York: Oxford University Press Inc. ISBN 9780195374759.

Beighton, P. 2012. Heritable disorders of connective tissue in South Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 482-486. New York: Oxford University Press Inc. ISBN 9780195374759.

Beighton, P. 2012. Heritable disorders of the skeleton in South Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 475-481. New York: Oxford University Press Inc. ISBN 9780195374759.

Blackburn, J., Shoko, A. and Beeton-Kempen, N. 2012. Chemical genomics and proteomics. In E.D. Zanders (ed.), Chemical Genomics and Proteomics, pp. 1-243. USA: Humana Press Inc. ISBN 9781617793486.

Blackburn, J., Shoko, A. and Beeton-Kempen, N. 2012. Miniaturized, microarray-based assays for chemical proteomic studies of protein functions. In E.D. Zanders (ed.), Chemical Genomics and Proteomics, pp. 133-162. USA: Humana Press Inc. ISBN 9781-617793486.

Dalvie, S. and Howells, F.M. 2012. Genetics and molecular biology. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 95-127. Cape Town: UCT Press. ISBN 9781919895291.

Douglas, R. and Sturrock, E.D. 2012. Structure-based design of domain-selective angiotensin-converting enzyme inhibitors. In K. Chibale, M. Davies-Coleman, and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 355-377. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Greenberg, J., Kromberg, J., Loggenberg, K. and Wessels, T.M. 2012. Genetic counselling in South Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 531-546. New York: Oxford University Press Inc. ISBN 9780195374759.

Guantai, E.M. and Chibale, K. 2012. Natural product-based drug discovery in Africa: the need for integration into modern drug discovery paradigms. In K. Chibale, M. Davies-Coleman and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 101-126. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Hardy, B.J., Seguin, B., Ramesar, R.S., Singer, P. and Daar, A. 2012. The genomic research and health applications in South Africa. In D. Kumar (ed.), Genomics and Health

in the Developing World, pp. 599-604. New York: Oxford University Press Inc. ISBN 9780195374759.

Kaschula, C.H., Lang, D.M. and Parker, M.I. 2012. Live in-cell visualization of proteins using super resolution imaging. In J. Cai and R. E. Wang (eds), Protein Interactions, pp. 311-326. Croatia: InTech Open Access Publisher. ISBN 9789535102441.

Kulkarni, A., Govender, D., Kellaway, L.A. and Kotwal, G.J. 2012. Central nervous system distribution of the poxviral proteins after intranasal administration of proteins and titering of vaccinia virus in the brain after intracranial administration. In S.N. Isaacs (ed.), Vaccinia Virus and Poxvirology: Methods and Protocols, pp. 305-326. 2nd edition. USA: Humana Press Inc. ISBN 9781617798757.

Mazandu, G.K. and Mulder, N.J. 2012. Enhancing drug target identification in mycobacterium tuberculosis. In S.E. Walker and D.F. Martin (eds), Tuberculosis: Risk Factors, Drug Resistance and Treatment, pp.181-209. New York: Nova Biomedical. ISBN 9781620819913.

Nzila, A. and Chibale, K. 2012. Anticancer drug repositioning against tropical diseases: the example of methotrexate in the treatment of malaria. In K. Chibale, M. Davies-Coleman and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 293-300. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Shao, Y. and Williamson, C. 2012. The HIV-1 epidemic: low- to middle-Income countries. In F. Bushman, G. Nabel and R. Swanstrom.(eds), HIV: From Biology to Prevention and Treatment, pp. 367-383. New York: Cold Spring Harbor Lab Press. ISBN 9781936113408.

Urban, M. and Geerts, L. 2012. Prenatal diagnostic services and prevention of birth defects in South Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 547-567. New York: Oxford University Press Inc. ISBN 9780195374759.

Warner, D. and Mizrahi, V. 2012. Tuberculosis drug discovery: target identification and validation. In K. Chibale, M. Davies-Coleman and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 53-84. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Wonkam, A. and Krause, A. 2012. Hemoglobinopathies in Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 409-420. New York: Oxford University Press Inc. ISBN 9780195374759.

Wonkam, A. 2012. The burden of birth defects and genetic disease in sub-Saharan Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 421-443. New York: Oxford University Press Inc. ISBN 9780195374759.

Articles in peer-reviewed Journals

Abrahams, G.L., Kumar, A., Savvi, S., Hung, A.W., Wen, S., Abell, C., Barry, C.E., Sherman, D.R., Boshoff, H.I. and Mizrahi, V. 2012. Pathway-selective sensitization of mycobacterium tuberculosis for target-based whole-cell screening. Chemistry & Biology, 19: 844-854.

Adler, D., Almudevar, A., Gray, G., Allan, B.R. and Williamson, A.-L. 2012. High level of agreement between clinician-collected and self-collected samples for HPV detection among South African adolescents. Journal of Pediatric and Adolescent Gynecology, 25(4): 280-281.

Akif, M., Masuyer, G., Bingham, R.J., Sturrock, E.D., Elwyn Isaac, R. and Acharya, K.R. 2012. Structural basis of peptide recognition by the angiotensin-1 converting enzyme homologue AnCE from drosophila melanogaster. Febs Journal, 279: 4525-4534.

Akinyi, M., Dandara, C., Gamieldien, J. and Heckmann, J.M. 2012. Association of transforming growth factor beta-1 (TGFB1) regulatory region polymorphisms with myasthenia gravis-related ophthalmoparesis. Journal of Neuroimmunology, 246: 96-99.

Albuquerque, L.C., Varsani, A., Fernandes, F.B., Pinheiro, B., Martin, D.P., Ferreira, P., Lemos, T.O. and Inoue-Nagata, A. 2012. Further characterization of tomato-infecting begomoviruses in Brazil. Archives of Virology, 157: 747-752.

Anthony, C., Masuyer, G., Sturrock, E.D. and Acharya, K.R. 2012. Structure based drug design of angiotensin-I converting enzyme inhibitors. Current Medicinal Chemistry, 19: 845-855.

Artz, L.M. 2012. 'Porn norms': a South African feminist conversation about pornography. Agenda, 93(26.3): 8-18.

Aschman, G., Meer, T. and Artz, L.M. 2012. Behind the screens: domestic violence and health care practices. Agenda, 92(26.2): 51-64.

Baum, S., Williamson, D., Sewell, B.T. and Stolz, A. 2012. Conversion of sterically demanding a, a -disubstituted phenylacetonitriles by the arylacetonitrilase from pseudomonas fluorescens EBC191. Applied and Environmental Microbiology, 78(1): 48-57.

Beighton, P., Hamersma, H. and Brunkow, M.E. 2012. SOST-Related Sclerosing Bone Dysplasia. GeneReviews at GeneTests: Medical Genetics Information Resource. [Online]. http://www.genetests.org.

Benjamin, E., Khanna, R., Schilling, A., Flanagan, J., Pellegrino, L.J., Brignol, N., Lun, Y., Guillen, D., Ranes, B.E., Fracella, M., Soska, R., Feng, J., Dungan, L., Young, B., Lockhart, D.J. and Valenzano, K.J. 2012. Co-administration with the pharmacological chaperone AT1001 increases recombinant human alpha-galactosidase a tissue uptake and improves substrate reduction in fabry mice. Molecular Therapy, 20(4): 717-726.

Bersanetti, P.A., Sabatini, R., Matos, B.S., Douglas, R., Nchinda, A.T., Juliano, M., Pesquero, J.B., Sturrock, E.D. and Carmona, A. 2012. Characterization of angiotensin I-converting enzyme N-domain selectivity using positional-scanning combinatorial libraries of fluorescence resonance energy transfer peptides. Biological Chemistry, 393(12): 1547-1554.

Besnard, A.-G., Togbe, D., Couillin, I., Tan, Z., Zheng, S.G., Erard, F., Le Bert, M., Quesniaux, V. and Ryffel, B. 2012. Inflammasome-IL-1-TH17 response in allergic lung inflammation. Journal of Molecular Cell Biology, 4: 3-10.

Black, J.M., Kruger, R., Roberts, R., Lehloenya, R. and Mendelson, M. 2012. Acute generalised exanthematous pustulosis secondary to cotrimoxazole or tenofovir. Southern African Journal of HIV medicine, 13(4): 198-200.

Boast, L.K. and Houser, A.M. 2012. Density of large predators on commercial farmland in Ghanzi, Botswana. South African Journal of Wildlife Research, 42(2): 138-143.

Bohm, L., Serafin, A.M., Fernandez, P., Van Der Watt, G.F., Bouic, P.J.D. and Harvey, J. 2012. Plasma sarcosine does not distinguish early and advanced stages of prostate cancer. SAMJ South African Medical Journal, 8: 677-679.

Botha, G. and Barnard, E. 2012. Factors that affect the accuracy of text-based language identification. Computer Speech and Language, 26: 307-320.

Boyles, T.H., Black, J.M., Meintjes, G. and Mendelson, M. 2012. Failure to eradicate isospora belli diarrhoea despite immune reconstitution in adults with HIV - a case Series. PLoS One, 7(8): e42844.

Boyles, T.H. and Maartens, G. 2012. Should tuberculin skin testing be a prerequisite to prolonged IPT for HIV-infected adults? International Journal of Tuberculosis and Lung Disease, 16(7): 857-859.

Broadley, S., Gumbart, J., Weber, B.W., Marakalala, M., Steenkamp, D.J. and Sewell, B.T. 2012. A new crystal form of MshB from mycobacterium tuberculosis with glycerol and acetate in the active site suggests the catalytic mechanism. Acta Crystallographica Section D-Biological Crystallography, 68: 1450-1459.

Burgers, W., Manrique, A., Masopust, D., McKinnon, L.R., Reynolds, M.R., Rolland, M., Blish, C., Chege, G., Curran, R., Fischer, W., Herrera, C. and Sather, D.N. 2012. Measurements of immune responses for establishing correlates of vaccine protection against HIV. AIDS Research and Human Retroviruses, 28(7): 641-648.

Bye, H., Prescott, N.J., Lewis, C.M., Matejcic, M., Moodley, L., Robertson, B.M., van Rensburg, C., Parker, M.I. and Mathew, C.G. 2012. Distinct genetic association at the PLCE1 locus with oesophageal squamous cell carcinoma in the South African population. Carcinogenesis, 33(11): 2155-2161.

Chapman, R.E., Shephard, E.G., Stutz, H., Douglass, N., Sambandamurthy, V., Garcia, I., Ryffel, B., Jacobs, W. and Williamson, A.-L. 2012. Priming with a recombinant pantothenate auxotroph of mycobacterium bovis BCG and boosting with MVA elicits HIV-1 gag specific CD8+ T cells. PLoS One, 7(3): e32769.

Chetty, R., Gill, P., Govender, D., Bateman, A., Chang, H.J., Driman, D., Duthie, F., Gomez, M., Jaynes, E., Lee, C.S., Locketz, M.L., Mescoli, C., Rowsell, C., Rullier, A., Serra, S., Shepherd, N., Szentgyorgyi, E., Vajpeyi, R. and Wang, L.M. 2012. A multi-centre pathologist survey on pathological processing and regression grading of colorectal cancer resection specimens treated by neoadjuvant chemoradiation. Virchows Archiv, 460(2): 151-155.

Chetty, R., Gill, P., Govender, D., Bateman, A., Chang, H.J., Deshpande, V., Driman, D., Gomez, M., Greywoode, G., Jaynes, E., Soon Lee, C., Locketz, M.L., Rowsell, C., Rullier, A., Serra, S., Shepherd, N., Szentgyorgyi, E., Vajpeyi, R., Wang, L.M. and Bateman, A.R. 2012. International study group on rectal cancer regression grading: interobserver variability with commonly used regression grading systems. Human Pathology, 43: 1917-1923.

Chetty, R. and Govender, D. 2012. Lymphocytic and collagenous colitis: an overview of so-called microscopic colitis. Nature Reviews Gastroenterology & Hepatology, 9(4): 209-218.

Chiririwa, H., Moss, J.R., Hendricks, D.T. and Meijboom, R. 2012. 1-(Thiophen-2-yl)-N-(4-{E)-[(thiophen-2-yl) methyl]iminomethyl}benzylidene)-methanamine. Acta Crystallographica Section E-Structure Reports Online, E68: o3137.

Chirwa, N., Govender, D., Ndimba, B.K., Lotz, Z., Tyler, M., Panieri, E., Kahn, D. and Mall, A.S. 2012. A 40-50kDa glycoprotein associated with mucus is identified as -1-acid glycoprotein in carcinoma of the stomach. Journal of Cancer, 3: 83-92.

Chopera, D., Cotton, L.A., Zawaira, A., Mann, J.K., Ngandu, N., Ntale, R., Carlson, J.M., Mlisana, K., Woodman, Z.L., de Assis Rosa, D., Martin, E., Miura, T., Pereyra, F., Walker, B.D., Gray, C., Martin, D.P., Ndungu, T., Brockman, M.A., Abdool-Karim, S., Brumme, Z.L., Williamson, C. and Caprisa 002. Acute Infection Study Team, 2012. Intersubtype differences in the effect of a rare p24 gag mutation on HIV-1 replicative fitness. Journal of Virology, 86(24): 13423-13433.

Clarke, I.J., Smith, J.T., Henry, B.A., Oldfield, B.J., Stefanidis, A., Millar, R.P., Sari, I.P., Chng, K., Fabre-Nys, C., Caraty, A., Ang, B.T., Chan, L. and Fraley, G.S. 2012. Gonadotropin-inhibitory hormone is a hypothalamic peptide that provides a molecular switch between reproduction and feeding. Neuroendocrinology, 95: 305-316.

Coetzee, E., Whitelaw, A.C., Kahn, D. and Rode, H. 2012. The use of topical, un-buffered sodium hypochloride in the management of burn wound infection. Burns, 38: 529-533.

Conesa-Botella, A., Meintjes, G., Coussens, A.K., van Der Plas, H., Goliath, R., Schutz, C., Moreno-Reyes, R., Mehta, M., Martineau, A., Wilkinson, R.J., Colebunders, R. and Wilkinson, K. 2012. Corticosteriod therapy, vitamin d status, and inflammatory cytokine profile in the HIV-tuberculosis immune reconstitution inflammatory syndrome. Clinical Infectious Diseases, 55(7): 1004-1011.

Crowther-Gibson, P., Cohen, C., Klugman, K.P., de Gouveia, L., von Gottberg, A., Vasaikar, S., Hoosen, A.A., Lekalakala, R., Meyer, L.C.R., Perovic, O., Coovadia, Y., Moodley, P., Hoffmann, R., Simpson, J., Wasserman, E., Brink, A., Smit, J., Whitelaw, A.C., Govender, N., Keddy, K., Klugman, K.P., Meiring, S., Quan, V. and Sooka, A. 2012. Risk factors for multidrug-resistant invasive pneumococcal disease in South Africa, a steeting with high HIV prevalence, in the prevaccine era from 2003-2008. Antimicrobial Agents and Chemotherapy, 56(10): 5088-5095.

Dandara, C., Adebamowo, C., de Vries, J., Dove, E.S., Fisher, E., Gibbs, R. and Hotez, P.J. 2012. An idea whose time has come? An african foresight observatory on genomics medicine and data-intensive global science. Current Pharmacogenomics and Personalized Medicine, 10(1): 7-15.

Dandara, C., Scott, C., Urban, M., Fieggen, K., Arendse, R. and Beighton, P. 2012. Confirmation of the recurrent ACVRI 617G> a mutation in South Africans with fibrodysplasia ossificans progressiva. SAMJ South African Medical Journal, 102(7): 631-633.

Davids, V., Blackhurst, D.M., Katz, A.A. and Harley, E.H. 2012. Origins and function of 3-ribosylurate in bovid erythrocytes. Veterinary Journal, 192: 326-332.

Davidson, A. and Novitzky, N. 2012. Stem cell transplantation for primary immunodeficiency. Current Allergy & Clinical Immunology, 25(4): 205-208

Dayaram, A., Opong, A., Jaschke, A., Hadfield, J., Baschiera, M., Dobson, R.C.J., Offei, S.K., Shepherd, D.N., Martin, D.P. and Varsani, A. 2012. Molecular characterisation of a novel cassava associated circular ssDNA virus. Virus Research, 166(2012): 130-135.

De Bruyn, A., Villemot, J., Lefeuvre, P., Villar, E., Hoareau, M., Harimalala, M., Abdoul-Karime, A.L., Abdou-Chakour, C., Reynaud, B., Harkins, G.W., Varsani, A., Martin, D.P. and Lett, J.-M. 2012. East African cassava mosaic-like viruses from Africa to Indian ocean islands: molecular diversity, evolutionary history and geographical dissemination of a bipartite begomovirus. BMC Evolutionary Biology, 12:228.

De Vries, J. and Pepper, M.S. 2012. Genomic sovereignty and the African promise: mining the African genome for the benefit of Africa. Journal of Medical Ethics, 38: 474-478.

De Vries, J., Jallow, M., Williams, T.N., Kwiatkowski, D., Parker, M. and Fitzpatrick, R. 2012. Investigating the potential for ethnic group harm in collaborative genomics research in Africa: is ethnic stigmatisation likely? Social Science & Medicine, 75: 1400-1407.

Diomede, L., Nyoka-mokgalong, S., Pastori, C., Scotti, L., Zambon, A., Sherman, G., Gray, C., Sarzotti-Kelsoe, M. and Lopalco, L. 2012. Passively transmitted gp41 antibodies in babies born from HIV-1 subtype c-seropositive women: correlation between fine specificity and protection. Journal of Virology, 86(8): 4129-4138.

Douglas, T.S., Fenton-Muir, N., Kewana, K., Ngema, Y. and Liebenberg, L. 2012. Radiological findings at a South African forensic pathology laboratory in cases of sudden unexpected death in infants. SA Journal of Radiology, February: 4-6.

Duncan, K., Uwimpuhwe, H., Czibere, A., Sarkar, D., Libermann, T.A., Fisher, P.B. and Zerbini, L.F. 2012. NSAIDs induce apoptosis in nonproliferating ovarian cancer cells and inhibit tumor growth in vivo. Iubmb Life, 64(7): 636-643.

Duncan, K., Schafer, G., Vava, A., Parker, M.I. and Zerbini, L.F. 2012. Targeting neddylation in cancer therapy. Future Oncology, 8(11): 1461-1470.

Dzobo, K., Leaner, V.D. and Parker, M.I. 2012. Feedback regulation of the 2(1) collagen gene via the mek-erk signaling pathway. Iubmb Life, 64(1): 87-98.

Ehlers, M.R.W., Gordon, K., Schwager, S. and Sturrock, E.D. 2012. Shedding the load of hypertension: the proteolytic processing of angiotensin-converting enzyme. SAMJ South African Medical Journal, 102(6): 461-464.

Eklund, C., Forslund, O., Wallin, K.-L., Zhou, T., Dillner, J., Williamson, A.-L. and WHO Human Papillomavirus Network, 2012. The 2010 global proficiency study of human papillomavirus genotyping in vaccinology. Journal of Clinical Microbiology, 50(7): 2289-2298.

England, R.J., Pillay, K., Davidson, A., Numanoglu, A. and Millar, A.J.W. 2012. Intussusception as a presenting feature of burkitt lymphoma: implications for management and outcome. Pediatric Surgery International, 28: 267-270.

Epstein, D., Mistry, K., Whitelaw, A.C., Watermeyer, G. and Pettengell, K.E. 2012. The effect of physiological concentration of bile acids on the in vitro growth of mycobacterium tuberculosis. SAMJ South African Medical Journal, 102(6): 522-524.

Esmail, H., Barry 3rd, C.E. and Wilkinson, R.J. 2012. Understanding latent tuberculosis: the key to improved diagnostic and novel treatment strategies. Drug Discovery Today, 17(9/10): 514-521.

Faro-Trindale, I., Willment, J., Kerrigan, A.M., Redelinghuys, P., Hadebe, S., Reid, D.M., Srinivasan, N., Wainwright, H.C., Lang, D.M., Steele, C. and Brown, G.D. 2012. Characterisation of innate fungal recognistion in the lung. PLoS One, 7(4): e35675(1-12).

Fauconnier, M., Palomo, J., Bourigault, M.L., Meme, S., Szeremeta, F., Beloeil, J.C., Danneels, A., Charron, S., Rihet, P., Ryffel, B. and Quesniaux, V. 2012. IL-12Rb2 is essential for the development of experimental erebral Malaria. Journal of Immunology, 188: 1905 -1914.

Gaujoux, R. and Seoighe, C. 2012. Semi-supervised nonnegative matrix factorization for gene expression deconvolution: a case study. Infection Genetics and Evolution,12: 913-921.

Geeleher, P., Huang, S.R., Gamazon, E., Golden, A. and Seoighe, C. 2012. The regulatory effect of mirNAs is a heritable genetic trait in humans. BMC Genomics,13: 383.

Geering, A.D.W., Thomas, J.E., Holton, T., Hadfield, J. and Varsani, A. 2012. Paspalum striate mosaic virus: an Australian mastrevirus from *paspalum dilatatum*. Archives of Virology, 157: 193-197.

Geldenhuys, H.D., Kleynhans, W., Buckerfield, N., Tameris, M.D., Gonzalez-Angulo, Y., Mahomed, H., Hussey, G.D., Hanekom, W.A. and Hatherill, M. 2012. Safety and tolerability of sputum induction in adolescents and adults with suspected pulmonary tuberculosis. European Journal of Clinical Microbiology & Infectious Diseases, 31: 529-537.

George, J.T., Anderson, R.A. and Millar, R.P. 2012. Kisspeptin-10 stimulation of gonadotrophin secretion in women is modulated by sex steroid feedback. Human Reproduction, 27(12): 3552-3559.

Ghani, A.S.A., Morrow, B., Hardie, D.R. and Argent, A.C. 2012. An investigation into the prevalence and outcome of patients admitted to a pediatric intensive care unit with viral respiratory tract infections in Cape Town, South Africa. Pediatric Critical Care Medicine, 13(5): e275-e281.

Gogishvili, T., Luhder, F., Kirstein, F., Nieuwenhuizen, N., Goebbels, S., Beer- Hammer, S., Pfeffer, K., Reuter, S., Taube, C., Brombacher, F. and Hunig, T. 2012. Interruption of CD28-mediated costimulation during allergen challenge protects mice from allergic airway disease. Journal of Allergy and Clinical Immunology, 130: 1394-1403.

Gonzalez-Angulo, Y., Wiysonge, C.S., Geldenhuys, H.D., Hanekom, W.A., Mahomed, H., Hussey, G.D. and Hatherill, M. 2012. Sputum induction for the diagnosis of pulmonary tuberculosis: a systematic review and meta-analysis. European Journal of Clinical Microbiology & Infectious Diseases, 31: 1619-1630.

Goodman, R.L., Maltby, M., Millar, R.P., Hileman, S.M., Nestor, C.C., Whited, B., Tseng, A.S., Coolen, L.M. and Lehman, M.N. 2012. Evidence that dopamine acts via kisspeptin to hold GnRH pulse frequency in check in anestrous ewes. Endocrinology, 153(12): 5918-5927.

Govender, D., Serra, S. and Chetty, R. 2012. Collision tumor of the stomach: an unusual combination of adenocarcinoma and immature "neuroepitheliomatous" teratoma. International Journal of Surgical Pathology, 20(5): 507-510.

Govender, D. and Chetty, R. 2012. Gene of the month: Braf. Journal of Clinical Pathology, 65(11): 986-988.

Govender, D. and Chetty, R. 2012. Gene of the month: Pten. Journal of Clinical Pathology, 65(7): 601-603.

Gqamana, P., Duan, P., Fu, M., Gallardo, V. and Kenttamaa, H.I. 2012. A novel chemical ionization reagent ion for organic analytes: the aquachloromanganese(II) cation [ClMnH2O+]. Rapid Communications in Mass Spectrometry, 26: 940-942.

Grachev, P., Li, X.F., Lin, Y.S., Hu, M.H., Elsamani, L., Paterson, S.J., Millar, R.P., Lightman, S.L. and O'Byrne, K.T. 2012. GPR54-dependent stimulation of luteinizing hormone secretion by neurokinin B in prepubertal rats. PLoS One, 7(9): e44344.

Grachev, P., Li, X.F., Kinsey-Jones, J.S., di Domenico, A.L., Millar, R.P., Lightman, S.L. and O'Byrne, K.T. 2012. Suppression of the GnRH pulse generator by neurokinin B involves a -opioid receptor-dependent mechanism. Endocrinology, 153(10): 4894-4904.

Graham, L., Gupta, V., Schafer, G., Reid, D.M., Kimberg, M., Dennehy, K.M., Horsnell, W., Guler, R., Asuncion Campanero-Rhodes, M., Palma, A., Feizi, T., Kim, S.K., Sobieszczuk, P., Willment, J.A. and Brown, G.D. 2012. The C-type lectin receptor ClecSf8(CLEC4D) is expressed by myeloid cells and triggers cellular activation through syk kinase. Journal of Biological Chemistry, 287(31): 25964-25974.

Greenberg, J. and Roberts, L.J. 2012. The parent trap: unexpected revelations that influenced the genetic management of a family with Stargardt disease. SA Ophthalmology Journal, 7(1): 18-21.

Smith, D., Bryer, A., Watson, L. and Greenberg, J. 2012. Inherited polyglutamine spinocerebellar ataxias in South Africa. SAMJ South African Medical Journal, 102(8): 683-686.

Watson, L., Scholefield, J., Greenberg, J. and Wood, M. 2012. Polyglutamine disease: from pathogenesis to therapy. SAMJ South African Medical Journal, 102(6): 481-484.

Roberts, L.J., Nossek, C., Greenberg, J. and Ramesar, R.S. 2012. Stargardt macular dystrophy: common ABCA4 mutations in South Africa-establishment of a rapid genetic test and relating risk to patients. Molecular Vision, 18: 280-289.

Beighton, P., Fieggen, K., Wonkam, A., Ramesar, R.S. and Greenberg, J. 2012. The University of Cape Town's contribution to medical genetics in Africa-from the past into the future. SAMJ South African Medical Journal, 102(6): 446-448.

Solomon, G.A.E., Greenberg, J., Futter, M.J., Vivian, L.M.H. and Penn, C. 2012. Understanding of genetic inheritance among Xhosa-speaking caretakers of children with hemophilia. Journal of Genetic Counseling, 21: 726-740.

Griffin, J.E., Pandey, A.K., Gilmore, S.A., Mizrahi, V., McKinney, J., Bertozzi, C.R. and Sassetti, C.M. 2012. Cholesterol catabolism by mycobacterium tuberculosis requires transcriptional and metabolic adaptations. Chemistry & Biology, 19: 218-227.

Guerriero, K.A., Keen, K.L., Millar, R.P. and Terasawa, E. 2012. Developmental changes in gnrh release in response to kisspeptin agonist and antagonist in female rhesus monkeys (*Macaca mulatta*): implication for the mechanism of puberty. Endocrinology, 153(2): 825-836.

Hadfield, J., Thomas, J.E., Schwinghamer, M.W., Kraberger, S., Stainton, D., Dayaram, A., Parry, J.N., Pande, D., Martin, D.P. and Varsani, A. 2012. Molecular charcterisation of dicot-infecting mastreviruses from Australia. Virus Research, 166: 13-22.

Hanekom, W.A., Hawkridge, A.J., Mahomed, H., Scriba, T.J., Tameris, M.D., Hughes, J., Hatherill, M., Day, C. and Hussey, G.D. 2012. SATVI - after 10 years closing in on a new and better vaccine to prevent tuberculosis. SAMJ South African Medical Journal, 102(6): 438-441.

Hanlyn, E., Hickling, S., Porter, K., Frater, J., Phillips, R., Robinson, M., Mackie, N.E., Kaye, S., McClure, M., Filder, S., Wood, R., Pitt, J.A., Orrell, C., Cilliers, C., Croxford, R., Middelkoop, K., Bekker, L., Heiberg, C., Aploon, J., Killa, N.J., Fielder, E. and Buhler, T.C. 2012. Increased levels of CD4 T-cell activation in individuals with CXCR4 using viruses in primary HIV-1 infection. AIDS, 26: 887896.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: a story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Hastings, J.M., Morris, K.D., Allan, D., Wilson, H., Millar, R.P., Fraser, H.M. and Moran, C.M. 2012. Contrast imaging ultrasound detects abnormalities in the marmoset ovary. American Journal of Primatology, 74: 1088-1096.

Hift, R., Peters, T.J. and Meissner, P.N. 2012. A review of the clinical presentation, natural history and inheritance of variegate porphyria: its implausibility as the source of the 'Royal Malady'. Journal of Clinical Pathology, 65: 200-205.

Hoving, J., Kirstein, F., Nieuwenhuizen, N., Fick, L., Hobeika, E., Reth, M. and Brombacher, F. 2012. B cells that produce immunoglobulin E mediate colitis in balb/c mice. Gastroenterology, 142(1): 96-108.

Huisamen, B., Dietrich, D., Bezuidenhout, N., Lopes, J., Flepisi, B., Blackhurst, D.M. and Lochner, A. 2012. Early cardiovascular changes occuring in diet-induced, obese insulin-resistant rats. Molecular and Cellular Biochemistry, 368: 37-45.

Hunter, S., Jones, P., Mitchell, A., Apweiler, R., Attwood, T.K., Bateman, A., Bernard, T., Binns, D., Bork, P., Burge, S., De Castro, E., Cogill, P., Corbett, M., Das, U., Daugherty, L., Duquenne, L., Finn, R.D., Fraser, M., Gough, J., Haft, D., Hulo, N., Kahn, D., Kelly, E., Letunic, I., Lonsdale, D., Lopez, R., Madera, M., Maslen, J., McAnulla, C., McDowall, J., McMenamin, C., Mi, H., Mutowo-Muellenet, P., Mulder, N.J., Natale, D., Orengo, C., Pesseat, S., Punta, M., Quinn, A.F., Rivoire, C., Sangrador-Vegas, A., Selengut, J.D., Sigrist, C.J.A., Scheremetjew, M., tate, J., Thimmajanarthanan, M., Thomas, P.D., Wu, C.H., Yeats, C. and Yong, S. 2012. InterPro in 2011: new developments in the family and domain prediction database. Nucleic Acids Research, 40: D306-D312.

Jacob, R., Abrahams, F., Tongo Passo, A., Schomaker, M., Roux, P., Mpoudi Ngole, E., Burgers, W. and Dorfman, J. 2012. Refined identification of neutralization-resistant HIV-1 CRF02_AG viruses. Journal of Virology, 86(14): 7699-7703.

Jansen van Rensburg, M., Whitelaw, A.C. and Elisha, B.G. 2012. Genetic basis of rifampicin resistance in methicillin-resistant staphylococcus aureus suggests clonal expansion in hospital in Cape Town, South Africa. BMC Microbiology, 12: 46(1-7).

Johnson, L. 2012. Access to antiretroviral treatment in South Africa, 2004 - 2011. Southern African Journal of HIV medicine, 13(1): 22-27.

Jones, E., Owen, P. and Rayner, B.L. 2012. The association of the R563Q genotype of the ENaC with phenotypic variation in Southern Africa. American Journal of Hypertension, 25(12): 1286-1291.

Julian, L., Lorenzo, A., Chenuet, J.P., Bonzon, M., Marchal, C., Vignon, L., Collings, D.A., Walters, M., Jackson, B. and Varsani, A. 2012. Evidence of multiple introductions of beak and feather disease virus into the pacific islands of nouvelle-caldonie. Journal of General Virology, 93: 2466-2472.

Kampira, E., Kumwenda, J., van Oosterhout, J.J., Chaponda, M. and Dandara, C. 2012. Pharmacogenetics research developments in Africa: a focus on Malawi. Current Pharmacogenomics and Personalized Medicine, 10(1): 87-97.

Kaschula, C.H., Hunter, R., Stellenboom, N., Caira, M.R., Winks, S., Ogunleye, T., Richards, P., Cotton, J., Zilbeyaz, K., Wang, Y., Siyo, V., Ngarande, E. and Parker, M.I. 2012. Structure-activity studies on the anti-proliferation activity of ajoene analogues in WHCO1 oesophageal cancer cells. European Journal of Medicinal Chemistry, 50: 236-254.

Kaye, J., Meslin, E.M., Knoppers, B.M., Juengst, E.T., Deschenes, M., Cambon-Thomsen, A., Chalmers, D., de Vries, J., Edwards, K., Hoppe, N., Kent, A., Adebamowo, C., Marshall, P. and Kato, K. 2012. ELSI 2.0 for genomics and society. Science, 336: 673-674.

Keddy, K., Sooka, A., Crowther-Gibson, P., Quan, V., Meiring, S., Cohen, C., Nana, T., Sriruttan, C., Seetharam, S., Hoosen, A.A., Naicker, P., Elliott, E., Haffejee, S., Whitelaw, A.C. and Klugman, K.P. 2012. Systemic shigellosis in South Africa. Clinical Infectious Diseases, 54(10): 1448-1454.

Kenyon, C., Mfolozi, S., Croxford, R., Colebunders, R. and Cohen, K. 2012. Severe efavirenz-induced vacuolar axonopathy complicated by fatal aspiration pneumonia. British Journal of Clinical Pharmacology, 74(6): 1070-1072.

Komai-Koma, M., Brombacher, F., Pushparaj, P.N., Arendse, B., McSharry, C., Alexander, J., Chaudhury, R., Thomson, N.C., McKenzie, A., McInnis, I., Liew, F.Y. and Xu, D. 2012. Interleuken-33 amplifies synthesis and triggers mast cell degranulation via interleuken-4 in naive mice. Allergy, 67: 1118-1126.

Kraberger, S., Thomas, J.E., Geering, A.D.W., Dayaram, A., Stainton, D., Hadfield, J., Walters, M., Parmenter, K.S., Van Brunschot, S., Collings, D.A., Martin, D.P. and Varsani, A. 2012. Australian monocot-infecting mastrevirus diversity rivals that in Africa. Virus Research, 169: 127-136.

Lan, Q., Fan, H., Quesniaux, V., Ryffel, B., Liu, Z. and Zheng, S.G. 2012. Induced Foxp3+ regulatory T cells: a potential new weapon to treat autoimmune and inflammatory diseases? Journal of Molecular Cell Biology, 4: 22-28.

Lawn, S.D., Kerkhoff, A., Vogt, M.C., Ghegrekristos, Y., Whitelaw, A.C. and Wood, R. 2012. Characteristics and early outcomes of patients with xpert MTB/RIF-negative pulmonary tuberculosis diagnosed during screening before antiretroviral therapy. Clinical Infectious Diseases, 54(8): 1071-1079.

Lawn, S.D., Kerkhoff, A., Vogt, M.C. and Wood, R. 2012. Diagnostic accuracy of a low-cost, urine antigen, point-of-care screening assay for HIV-associated pulmonary tuberculosis before antiretroviral therapy: a descriptive study. Lancet Infectious Diseases, 12: 201-209.

Lawn, S.D., Kerkhoff, A., Pahlana, P., Vogt, M.C. and Wood, R. 2012. Diagnostic yield of tuberculosis using sputum induction in HIV-positive patients before antiretroviral therapy. International Journal of Tuberculosis and Lung Disease, 16(10): 1354-1357.

Lawn, S.D., Kerkhoff, A., Vogt, M.C. and Wood, R. 2012. High diagnostic yield of tuberculosis from screening urine samples from HIV-infected patients with advanced immunodeficiency using the xpert MTB/RIF assay. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60: 289-294.

Le Roux, D., Pillay, K., Nourse, P., Gajjar, P., Nuttall, J. and Eley, B.S. 2012. Systemic amyloidosis complicating multidrug-resistant tuberculosis in childhood. Pediatric Infectious Disease Journal, 31(9): 994-997.

Link, A., Zabel, F., Schnetzler, Y., Titz, A., Brombacher, F. and Bachmann, M.F. 2012. Innate immunity mediates follicular transport of particulate but not soluble protein antigen. Journal of Immunology, 188: 3724-3733.

Loubser, F., de Villiers, J.N.P. and van der Merwe, N.C. 2012. Two double heterozygotes in a South African Afrikaner family: implications for BRCA1 and BRCA2 predictive testing. Clinical Genetics, 82(6): 599-600.

Lowe, D., Redford, P.S., Wilkinson, R.J., O'Garra, A. and Martineau, A. 2012. Neutrophils in tuberculosis: friend or foe? Trends in Immunology, 33(1): 14-25.

Lynch, A.G., Meyers, A.E., Williamson, A.-L. and Rybicki, E.P. 2012. Stability studies of HIV-1 Pr55gag virus-like particles made in insect cells after storage in various formulation media. Virology Journal, 9: 210(1-5).

Macharia, M., Hassan, M.S., Blackhurst, D.M., Erasmus, R.T. and Matsha, T.E. 2012. The growing importance of PON1 in cardiovascular health: a review. Journal of Cardiovascular Medicine, 13: 443-453.

Magombedze, G. and Mulder, N.J. 2012. A mathematical representation of the development of mycobacterium tuberculosis active, latent and dormant stages. Journal of Theoretical Biology, 292: 44-59.

Manole, V., Laurinmäki, P., Van Wyngaardt, W., Potgieter, C.A., Wright, I.M., Venter, G.J., van Dijk, A.A., Sewell, B.T. and Butcher, S.J. 2012. Structural insight into african horsesickness virus infection. Journal of Virology, 86(15): 7858-7866.

Marais, D., Blom, D., Petrides, F., Goueffic, Y. and Lambert, G. 2012. Proprotein convertase subtilisin/kexin type 9 inhibition. Current Opinion in Lipidology, 23: 511-517.

Masic, A., Hurdayal, R., Nieuwenhuizen, N., Brombacher, F. and Moll, H. 2012. Dendritic cell-mediated vaccination relies on interleuken-4 receptor signalling to avoid tissue damage after leishmania major infection of BALB/c mice. Plos Neglected Tropical Diseases, 6(7): e1721.

Massaro, M., Ortiz-Catedral, L., Julian, L., Galbraith, J., Kurenbach, B., Kearvell, J., Kemp, J., van Hal, J., Elkington, S., Taylor, G., Greene, T., van de Wetering, M., Pryde, M., Dilks, P., Heber, S., Steeves, T.E., Walters, M., Shaw, S., Potter, J., Farrant, M., Brunton, D.H., Hauber, M.E., Jackson, B., Bell, P., Moorhouse, R., McInnes, K. and Varsani, A. 2012. Molecular characterisation of beak and feather disease virus (BFDV) in New Zealand and its implications for managing an infectious disease. Archives of Virology, 157: 1651-1663.

Masuyer, G., Schwager, S.L.U., Sturrock, E.D., Elwyn Isaac, R. and Acharya, K.R. 2012. Molecular recognition and regulation of human angiotensin-1 converting enzyme (ACE) activity by natural inhibitory peptides. Scientific Reports, 2(717): 1-10.

Mathers, J.C., Movahedi, M., Macrae, F., Mecklin, J.P., Moeslein, G., Olschwang, S., Eccles, D., Evans, G., Maher, E.R., Bertario, L., Bisgaard, M.L., Dunlop, M., Ho, J.W.C., Hodgson, S., Lindblom, A., Lubinski, J., Morrison, J., Murday, V., Ramesar, R.S., Side, L., Scott, R.J., Thomas, H.J.W., Vasen, H.F.A., Gerdes, A.M., Barker, G., Crawford, G., Elliot, F., Pylvanainen, K., Wijnen, J.T., Fodde, R., Lynch, H.T., Bishop, D.J. and Burn, J. 2012. Long-term effect of resistant starch on cancer risk in carriers of hereditary colorectal cancer: an analysis from the CAPP2 randomised controlled trial. Lancet Oncology, 13(12): 1242-1249.

Mazandu, G.K. and Mulder, N.J. 2012. Function prediction and analysis of mycobaterium tuberculosis hypothetical proteins. International Journal of Molecular Sciences, 13: 7283-7302.

Mazandu, G.K. and Mulder, N.J. 2012. Using the underlying biological organization of the mycobaterium tuberculosis functional network for protein function prediction. Infection Genetics and Evolution, 12: 922-932.

Mbulawa, Z., Marais, D.J., Johnson, L., Coetzee, D.J. and Williamson, A.-L. 2012. Impact of human immunodeficiency virus on the natural history of human papillomavirus genital infection in South African men and women. Journal of Infectious Diseases, 206: 15-27.

Meintjes, G., Skolimowska, K., Wilkinson, K., Matthews, K., Tadokera, R., Conesa-Botella, A., Seldon, R.R., Rangaka, M.X., Rebe, K.B., Pepper, D.J., Morroni, C., Colebunders, R., Maartens, G. and Wilkinson, R.J. 2012. Corticosteroid-modulated immune activation in the tuberculosis immune reconstitution inflammatory syndrome. American Journal of Respiratory and Critical Care Medicine, 186(4): 369-377.

Meiring, S., Quan, V., Cohen, C., Dawood, H., Karstaedt, A.S., McCarthy, K.M., Whitelaw, A.C. and Govender, N.P. 2012. A comparison of cases of paediatric-onset and adult-onset cryptococcosis detected through population-based surveillance, 2005-2007. AIDS, 26: 2307-2314.

Meiring, T., Salimo, A., Coetzee, B., Maree, H.J., Moodley, J.R., Hitzeroth, I.I., Freeborough, M.J., Rybicki, E.P. and Williamson, A.-L. 2012. Next-generation sequencing of cervical DNA detects human papillomavirus types not detected by commercial kits. Virology Journal, 9:164.

Meissner, P.N., Corrigall, A.V. and Hift, R. 2012. Fifty years of porphyria at the Unviersity of Cape Town. SAMJ South African Medical Journal, 102(6): 422-426.

Mendelson, M., Barday, Z., Eastman, R.W., Le Feuvre, D.E.J., Candy, S., Wu, H. and Swanepoel, C.R. 2012. Rapidly progressive post-transplant lymphoproliferative disease following withdrawal of sirolimus. SAMJ South African Medical Journal, 102(12): 924-928.

Mlisana, K., Naicker, N., Werner, L., Roberts, L., van Loggerenberg, F., Baxter, C., Passmore, J., Grobler, A.C., Sturm, A.W., Williamson, C., Ronacher, K., Walzl, G. and Abdool-Karim, S. 2012. Symptomatic vaginal discharge is a poor predictor of sexually transmitted infections and genital tract inflammation in high-risk women in South Africa. Journal of Infectious Diseases, 206(1): 6-14.

Monjane, A., Pande, D., Lakay, F., Shepherd, D.N., Van Der Walt, E., Lefeuvre, P., Lett, J.-M., Varsani, A., Rybicki, E.P. and Martin, D.P. 2012. Adaptive evolution by recombination is not associated with increased mutation rates in maize streak virus. BMC Evolutionary Biology, 12:252.

Moore, P.L., Gray, E.S., Wibmer, K., Bhiman, J., Nonyane, M., Sheward, D., Hermanus, T., Bajimaya, S., Tumba, N.L., Abrahams, M., Lambson, B.E., Ranchobe, N., Ping, L.H., Ngandu, N., Abdool Karim, Q., Abdool Karim, S., Swanstrom, R., Seaman, M.S., Williamson, C. and Morris, L. 2012. Evolution of an HIV glycan-dependent broadly neutralizing antibody epitope through immune escape. Nature Medicine, 18(11): 1688-1692.

Mortimer, E., Maclean, J., Mbewana, S., Buys, A., Williamson, A.-L., Hitzeroth, I.I. and Rybicki, E.P. 2012. Setting up a platform for plant-based influenzavirus vaccine production in South Africa. BMC Biotechnology, 12(14): 1-10.

Mu, C., Yang, Q., Zhang, Y., Zhou, Y., Zhang, J., Martin, D.P., Xia, P. and Cui, B. 2012. Genetic variation and phylogenetic analysis of porcine circovirus type 2 infections in central China. Virus Genes, 45: 463-473.

Mulder, N.J., Burge, S., Lonsdale, D., Mutowo-Muellenet, P., McAnulla, C., Mitchell, A., Sangrador-Vegas, A., Yong, S., Kelly, E. and Hunter, S. 2012. Manual GO annotation of predictive protein signatures: interPro appraoch to Go curation. Database: The Journal of Biological Databases and Curation, 2012: bar068.

Muller, E., Venter, J.M.E., Magooa, P., Morrison, C., Lewis, D.A. and Mavedzenge, S.N. 2012. Development of a rotor-gene real-time PCR assay for the detection and quantification of mycoplasma genitalium. Journal of Microbiological Methods, 88: 311-315.

Muller, E., Paz-Bailey, G. and Lewis, D.A. 2012. Macrolide resistance testing and molecular subtyping of treponema pallidum strains from Southern Africa. Sexually Transmitted Infections, 88: 470-474.

Muller, U., Piedler, D., Stenzel, W., Kohler, G., Frey, O., Held, J., Grahnert, A., Richter, T., Eschke, M., Kamradt, T., Brombacher, F. and Alber, G. 2012. Lack of IL-4 receptor expression on T helper cells reduces T helper 2 cell polyfunctionality and confers resistance in allergic bronchopulmonary mycosis. Mucosal Immunology, 5(3): 299-310.

Musyoki, A., Mothapo, K., Rakgole, J., Lukhwareni, A., Bessong, P., Selabe, G., Bredell, H., Williamson, C. and Mphahlele, J. 2012. Genetic characterization of HIV before

widespread testing of HIV vaccine candidates at a clinical trial site in Pretoria, South Africa. AIDS Research and Human Retroviruses, 28(9): 1131-1138.

Nachega, J.B., Morroni, C., Chaisson, R., Goliath, R., Efron, A., Ram, M. and Maartens, G. 2012. Impact of Immune reconstitution inflammatory syndrome on antiretroviral therapy adherence. Patient Preference and Adherence, 6: 887-891.

Nglazi, M., Kaplan, R., Caldwell, J., Peton, N., Lawn, S.D., Wood, R. and Bekker, L. 2012. Antiretroviral treatment uptake in patients with HIV-associated TN attending co-located TB and ART services. SAMJ South African Medical Journal, 102(12): 936 -939.

Nglazi, M., Kranzer, K., Holele, P., Kaplan, R., Mark, D., Jaspan, H.B., Lawn, S.D., Wood, R. and Bekker, L. 2012. Treatment outcomes in HIV-infected adolescents attending a community-based antiretroviral therapy clinic in South Africa. BMC Infectious Diseases, 12: 21.

Nieuwenhuizen, N., Kirstein, F., Jayakumar, J., Emedi, B., Hurdayal, R., Horsnell, W., Lopata, A.L. and Brombacher, F. 2012. Allergic airway disease is unaffected by the absence of IL-4-dependent alternatively activated macrophages. Journal of Allergy and Clinical Immunology, 130: 743-750.

Novitzky, N. and Thomas, V. 2012. In the absence of clinically significant graft vs. host disease, myeloablative conditioning may allow an effective graft vs leukaemia effect. Leukemia Research, 36(1): 104-109.

Ntale, R., Chopera, D., Ngandu, N., Assis de Rosa, D., Zembe, L., Gamieldien, H., Mlotshwa, M., Werner, L., Woodman, Z.L., Mlisana, K., Abdool Karim, S., Gray, C., Williamson, C. and Caprisa 002 study team. 2012. Temporal association of HLA-B*81:01 and B*39:10 mediated HIV-1 p24 sequence evolution with disease progression. Journal of Virology, 86(22): 12013-12024.

Ntsekhe, M., Matthews, K., Wolske, J., Badri, M., Wilkinson, K., Wilkinson, R.J., Sturrock, E.D. and Mayosi, B.M. 2012. Ac-SDKP (N-acetyl-seryl-aspartyl-lysyl-proline) and Galectin-3 levels in tuberculous pericaridal effusion: implications for pathogenesis and prevention of pericardial constriction. Heart, 98(17): 1326-1328.

Ntusi, N., Badri, M., Khalfey, H., Whitelaw, A.C., Oliver, S.P., Piercy, J.L., Raine, R.I., Joubert, I. and Dheda, K. 2012. ICU-associated acinetobacter baumannii colonisation/infection in a high HIV-prevalence resource-poor setting. PLoS One, 7(12): e52452.

Nyo, M.T.L., Schoeman, L., Sookhayi, R. and Mayosi, B.M. 2012. HIV infection, pulmonary arterial hypertension and pregnancy: a fatal triad. Cardiovascular Journal of Africa, 23(7): e4-e6.

Okpechi, I.G., Swanepoel, C.R., Tiffin, N., Duffield, M. and Rayner, B.L. 2012. Clinicopathological insights into lupus nephritis in South Africa: a study of 251 patients. Lupus, 21: 1017-1024.

Okpechi, I.G., Ayodele, O., Jones, E., Duffield, M. and Swanepoel, C.R. 2012. Outcome of patients with membranous lupus nephritis in Cape Town South Africa. Nephrology Dialysis Transplantation, 27: 3509-3515.

Olesen, O.F. and Parker, M.I. 2012. Health research in Africa: getting priorities right. Tropical Medicine & International Health, 17(9): 1048-1052.

Olivier, A., Liebenberg, L., Coetzee, D.J., Williamson, A.-L., Passmore, J.S. and Burgers, W. 2012. Isolation and characterization of T cells from semen. Journal of Immunological Methods, 375: 223-231.

Omar, F. 2012. Essential laboratory knowledge for the clinician. CME-Continuing Medical Education, 30: 244-248.

Oni, T., Gideon, H., Bangani, N.M., Tsekela, R., Seldon, R.R., Wood, K.A., Wilkinson, K., Goliath, R., Ottenhoff, T.H.M. and Wilkinson, R.J. 2012. Risk factors associated with indeterminate gamma interferon responses in the assessment of latent tuberculosis infection in a high incidence environment. Clinical and Vaccine Immunology, 19(8): 1243-1247.

Oni, T., Gideon, H., Bangani, N.M., Tsekela, R., Seldon, R.R., Wood, K.A., Wilkinson, K., Goliath, R., Ottenhoff, T.H.M. and Wilkinson, R.J. 2012. Smoking, BCG and employment and the risk of tuberculosis infection in HIV-infected persons in South Africa. PLoS One, 7(10): e47072.

Opie, J.J. 2012. Haematological complications of HIV infection. SAMJ South African Medical Journal, 102(6): 465-468.

Owen, P., Leisegang, F., Whitelaw, A.C., Simpson, J., Baker, S., Wurzner, R., Potter, P.C. and Orren, A. 2012. Complement component C5 and C6 mutation screening indicated in meningococcal disease in South Africa. SAMJ South African Medical Journal, 102(6): 525-527.

Paget, C., Ivanov, S., Fontaine, J., Renneson, J., Blanc, F., Pichavant, M., Dumoutier, L., Ryffel, B., Renauld, C.J.,

Gosset, P., Gosset, P., Si-Tahar, M., Faveeuq, C. and Trottein, F. 2012. Interleukin-22 is produced by invariant natural killer T lymphocytes during Influenza A virus infection: potential role in protection against lung epithelial damages. Journal of Biological Chemistry, 287(12): 8816-8829.

Pande, D., Kraberger, S., Lefeuvre, P., Lett, J.-M., Shepherd, D.N., Varsani, A. and Martin, D.P. 2012. A novel maize-infecting masrevirus from La Reunion Island. Archives of Virology, 157: 1617-1621.

Pardeep, P., Raj, R., Bhargava, G., Hendricks, D.T., Handa, S., Slaughter, L.M. and Kumar, V. 2012. Lactam synthon-interceded diastereoselective synthesis of functionalized octahydroindole-based molecular scaffolds and their in vitro cytotoxic evaluation. European Journal of Medicinal Chemistry, 58: 513-518.

Patrinos, G.P., Smith, T.D., Howard, H.J., Al-Mulla, F., Chouchane, L., Hadjisavvas, A., Hamed, S.A., Li, X., Marafie, M.J., Ramesar, R.S., Ramos, F.J., de Ravel, T., El-Ruby, M.O., Shrestha, T.R., Sobrido, M., Tadmouri, G.O., Witsch-Baumgartner, M., Zilfalil, B., Auerbach, A.D., Carpenter, K., Cutting, G.R., Dung, V.C., Grody, W., Hasler, J., Jorde, L., Kaput, J., Macek, M., Matsubara, Y., Padilla, C., Robinson, H., Rojaz-Martinez, A., Taylor, G.R., Vihinen, M., Weber, T., Burn, J., Qi, M., Cotton, R.G.H. and Rimoin, D. 2012. Human variome project country nodes: documenting genetic information within a Country. Human Mutation, 33(11): 1513-1519.

Peter, J., Theron, G., Van Zyl Smit, R., Haripersad, A., Mottay, L., Kraus, S., Binder, A.B., Meldau, R., Hardy, A. and Dheda, K. 2012. Diagnostic accuracy of a urine lipoarabinomannan strip-test for TB detection in HIV-Infected hospitlised patients. European Respiratory Journal, 40(5): 1211-1220.

Piasecki, T., Kurenbach, B., Chrzastek, K., Bednarek, K., Kraberger, S., Martin, D.P. and Varsani, A. 2012. Molecular characterisation of an avihepadnavirus isolated from Psittacula krameri (ring-necked parrot). Archives of Virology, 157: 585-590.

Pinilla, L., Aguilar, E., Dieguez, C., Millar, R.P. and Tena-Sempere, M. 2012. Kisspeptins and reproduction: physiological roles and regulatory mechanisms. Physiological Reviews, 92: 1235-1316.

Ramautar, A., Mabandla, M.V., Blackburn, J. and Daniels, W.M.U. 2012. Inhibition of HIV-1 tat-indicated transactivation and apoptosis by the divalent metal chelators, fusaric acid and picolinic acid-Implications for HIV-1 dementia. Neuroscience Research, 74: 59-63.

Rangaka, M.X., Wilkinson, R.J., Glynn, J.R., Boulle, A.M., Van Cutsem, G., Goliath, R., Mathee, S. and Maartens, G. 2012. Effect of antiretroviral therapy on the diagnostic accuracy of symptom screening for intensified tuberculosis case finding in a South African HIV clinic. Clinical Infectious Diseases, 55(12): 1698-1706.

Rangaka, M.X., Gideon, H., Wilkinson, K., Pai, M., Mwansa-Kambafwile, J.R.M., Maartens, G., Glynn, J.R., Boulle, A.M., Fielding, K.L., Goliath, R., Mathee, S., Titus, R. and Wilkinson, R.J. 2012. Interferon release does not add discriminatory value to smear-negative HIV-tuberculosis algorithms. European Respiratory Journal, 39(1): 163-171.

Rangaka, M.X., Wilkinson, K., Glynn, J.R., Ling, D., Menzies, D., Mwansa-Kambafwile, J.R.M., Fielding, K.L., Wilkinson, R.J. and Pai, M. 2012. Predictive value of interferon- release assays for incident active tuberculosis: a systematic review and meta-analysis. Lancet Infectious Diseases, 12(1): 45-55.

Rayner, B.L., Ramesar, R.S., Steyn, K., Levitt, N.S., Lombard, C. and Charlton, K.E. 2012. G-protein-coupled receptor kinase 4 polymorphisms predict blood pressure response to dietary modification in Black patients with mild-to-moderate hypertension. Journal of Human Hypertension, 26(0): 334-339.

Rey, M.E.C., Ndunguru, J., Berrie, L.C., Paximadis, M., Berry, S., Cossa, N., Nuaila, V.N., Mabasa, K.G., Abraham, N., Rybicki, E.P., Martin, D.P., Pietersen, G. and Esterhuizen, L.L. 2012. Diversity of dicotyledenous-infecting geminiviruses and their associated DNA molecules in Southern Africa, including the South-West Indian Ocean islands. Viruses-Basel, 4: 1753-1791.

Riou, C., Ganusov, V.V., Campion, S., Mlotshwa, M., Liu, M., Whale, V.E., Goonetilleke, N., Borrow, P., Ferrari, G., Betts, M.R., Haynes, B.F., McMichael, A.J. and Gray, C. 2012. Distinct kinetics of gag-specific CD4+ T cell responses during acute HIV-1 infection. Journal of Immunology, 188: 2198-2206.

Riou, C., Perez-Peixoto, B., Roberts, L., Ronacher, K., Walzl, G., Manca, C., Rustomjee, r., Mthiyane, T., Fallows, D., Gray, C. and Kaplan, G. 2012. Effect of standard tuberculosis treatment on plasma cytokine levels in patients with active pulmmonary tuberculosis. PLoS One, 7(5): e36886.

Riou, C., Treurnicht, F., Abrahams, M.H., Mlisana, K., Liu, M., Goonetilleke, N., Koup, R., Roederer, M., Abdool Karim, S., de Bruyn, G., Williamson, C., Gray, C., Burgers, W. and Caprisa 002 study team. 2012. Increased memory differentiation Is associated with decreased polyfunctionality

for HIV but not for cytomegalovirus-specific CD8+ T Cells. Journal of Immunology, 189(8): 3838-3847.

Roberts, L., Passmore, J., Mlisana, K., Williamson, C., Little, F., Bebell, L.M., Walzl, G., Abrahams, M.H., Woodman, Z.L., Abdool Karim, Q. and Abdool Karim, S. 2012. Genital tract inflammation during early HIV-1infection predicts higher plasma viral load setpoint in women. Journal of Infectious Diseases, 205: 194-203.

Roberts, L., Liebenberg, L.J., Barnabas, S. and Passmore, J. 2012. Vaginal microbiocides to prevent human immunodeficiency virus infection in women: perspectives on the female genital tract, sexual maturity and mucosal inflammation. Best Practice & Research Clinical Obstetrics & Gynaecology, 26: 441-449.

Robertson, B.D., Altmann, D., Barry 3rd, C.E., Bishai, B., Cole, S., Dick, T., Duncan, K., Dye, C., Ehrt, S., Esmail, H., Flynn, J., Hafner, R., Handley, G., Hanekom, W.A., Van Helden, P., Kaplan, G., Kaufmann, S.H.E., Kim, P., Lienhardt, C., Mizrahi, V., Rubin, E., Schnappinger, D., Sherman, D.R., Thole, J., Vandal, O., Walzl, G., Warner, D., Wilkinson, R.J. and Young, D.B. 2012. Detection and treatment of subclinical tuberculosis. Tuberculosis, 92: 447-452.

Roland, M., Myer, L., Martin, L.J., Maw, A., Batra, P., Arend, E., Coates, T. and Denny, L.A. 2012. Preventing human immunodeficiency virus infection among sexual assault survivors in Cape Town, South Africa: an observational study. Aids and Behavior, 16: 990-998.

Rosario, K., Dayaram, A., Marinov, M., Ware, J., Kraberger, S., Stainton, D., Breitbart, M. and Varsani, A. 2012. Diverse circular ssDNA viruses discovered in dragonflies (Odonata: Epiprocta). Journal of General Virology, 93: 2668-2681.

Roseweir, A.K., Katz, A.A. and Millar, R.P. 2012. Kisspeptin-10 inhibits cell migration in vitro via a receptor-GSK3 beta-FAK feedback loop in HTR8SVneo cells. Placenta, 33: 408-415.

Salazar, G.A., Garcia, L.J., Jones, P., Jimenez, R.C., Quinn, A.F., Jenkinson, A.J., Mulder, N.J., Martin, M., Hunter, S. and Hermjakob, H. 2012. MyDas, an extensible Java DAS server. PLoS One, 7(9): e44180.

Sales, K.J. and Katz, A.A. 2012. Inflammatory pathways in cervical cancer – the University of Cape Town's contribution. SAMJ South African Medical Journal, 102(6): 493-496.

Sales, K.J., Sutherland, J., Jabbour, H. and Katz, A.A. 2012. Seminal plasma induces angiogenic chemokine expression in cervical cancer cells and regulates vascular function. Biochimica Et Biophysica Acta-Molecular Cell Research, 1823: 1789-1795.

Salm, S.N., Burger, P.E. and Wilson, E.L. 2012. TGF- and stem cell factor regulate cell proliferation in the proximal stem cell niche. Prostate, 72: 998-1005.

Sarkar, R., Lenders, L., Wilkinson, K., Wilkinson, R.J. and Nicol, M.P. 2012. Modern lineages of mycobacterium tuberculosis exhibit lineage-specific patterns of growth and cytokine induction in human monocyte-derived macrophages. PLoS One, 7(8): e43170.

Schmidt, S., Hoving, J., Horsnell, W., Mearns, H., Cutler, A., Brombacher, T.M. and Brombacher, F. 2012. Nippostrongylus-induced intestinal hypercontractility requires il-4 receptor alpha-responsiveness by T cells in mice. PLoS One, 7(12): e522111.

Schwartzberg, L.S., Jacobs, P., Matsouka, P., Azevedo, W. and Pinto, A. 2012. The role of second - generation 5-HT3 receptor antagonists in managing chemotherapy - induced nausea and vomiting in hematological malignancies. Critical Reviews in Oncology Hematology, 83: 59-70.

Scriba, T.J., Tameris, M.D., Smit, E., Van der Merwe, L., Hughes, J., Kadira, B., Mauff, K.A.L., Moyo, S., Brittain, N., Lawrie, A., Mulenga, H., de Kock, M., Makhethe, L., Janse Van Rensburg, E., Gelderbloem, S., Veldsman, A., Hatherill, M., Geldenhuys, H.D., Hill, A.V.S., Hawkridge, A.J., Hussey, G.D., Hanekom, W.A., McShane, H. and Mahomed, H. 2012. A Phase IIa trial of the new tuberculosis vaccine, mva85A, in HIV- and/or mycobacterium tuberculosis-infected adults. American Journal of Respiratory and Critical Care Medicine, 185(7): 769-778.

Sharma, R.K., Douglas, R., Louw, S., Chibale, K. and Sturrock, E.D. 2012. New ketomethylene inhibitor analogues: synthesis and assessment of structural determinants for N-domain selective inhibition of angiotensin-converting enzyme. Biological Chemistry, 393: 485-493.

Shey, M., Hughes, J., de Kock, M., Barnard, C., Stone, L., Kollmann, T.R., Hanekom, W.A. and Scriba, T.J. 2012. Optimization of a whole blood intracellular cytokine assay for measuring innate cell responses to mycobacteria. Journal of Immunological Methods, 376: 79-88.

Shittu, A., Oyedara, O., Abegunrin, F., Okon, K., Raji, A., Taiwo, S., Ogunsola, F., Onyedibe, K. and Elisha, B.G. 2012. Characterization of methicillin-susceptible and -resistant staphylococci in the clinical setting: a multicentre study in Nigeria. BMC Infectious Diseases, 12: 286.

Singh, L., Hallan, V., Martin, D.P., Ram, R. and Zaidi, A. 2012. Genomic sequence analysis of four new chrysanthemum virus B isolates: evidence of RNA recombination. Archives of Virology, 157: 531-537.

Singh, R., Fröbel, J., Cadeddu, R.P., Bruns, B., Schroeder, T., Brünnert, D., Wilk, C.M., Zerbini, L.F., Haas, R. and Czibere, A. 2012. The novel compound OSI-461 induces apoptosis and growth arrest in human acute myeloid leukemia cells. Annals of Hematology, 91: 173-181.

Skelton, M., Kew, M.C. and Kramvis, A. 2012. Distinct mutant hepatitis B virus genomes, with alterations in all four open reading frames, in a single South African hepatocellular carcinoma patient. Virus Research, 163(1): 59-65.

Skolimowska, K., Rangaka, M.X., Meintjes, G., Pepper, D.J., Seldon, R.R., Matthews, K., Wilkinson, R.J. and Wilkinson, K. 2012. Altered ratio of IFN-y/IL-10 in patients with drug resistant mycobacterium tuberculosis and HIV-tuberculosis immune reconstitution inflammatory syndrome. PLoS One, 7(10): e46481.

Smith, S.E., Showers-Cornelli, P., Dardenne, C.N., Harpending, H., Martin, D.P. and Beiko, R.G. 2012. Comparative genomic and phylogenetic approaches to characterize the role of genetic recombination in mycobacterial evolution. PLoS One, 7(11): e50070.

Son, Y.L., Ubuka, T., Millar, R.P., Kanasaki, H. and Tsutsui, K. 2012. Gonadotropin-inhibitory hormone inhibits GnRH-induced gonadotropin subunit gene transcriptions by inhibiting AC/cAMP/PKA-dependent ERK pathway in LT2 cells. Endocrinology, 153(5): 2332-2343.

Sonigo, C., Bouilly, J., Carré, C., Tolle, V., Caraty, A., Tello, J.A., Simony-Conesa, F.J., Millar, R.P., Young, J. and Binart, N. 2012. Hyperprolactinemia-induced ovarian acyclicity is reversed by kisspeptin administration. Journal of Clinical Investigation, 122(10): 3791-3795.

Staff, L., Hurd, P., Reale, L., Seoighe, C., Rockwood, A. and Gehring, C. 2012. The hidden geometries of the arabidopsis thaliana epidermis. PLoS One, 7(9): e43546.

Stainton, D., Kraberger, S., Walters, M., Wiltshire, E.J., Rosario, K., Halafihi, M., Iolohea, S., Katoa, I., Faitua, T.H., Aholelei, W., taufa, L., Thomas, J.E., Collings, D.A., Martin, D.P. and Varsani, A. 2012. Evidence of inter-component recombination, intra-component recombination and reassortment in banana bunchy top virus. Journal of General Virology, 93: 1103-1119.

Strasser, D., Neumann, K., Bergmann, H., Marakalala, M., Guler, R., Rajowska, A., Hopfner, K.P., Brombacher, F., Urlaub, H., Baier, G., Brown, G.D., Leitges, M. and Ruland, J. 2012. Syk kinase-coupled c-type lectin receptors engage protein kinase c- to elicit card9 adaptor-mediated innate immunity. Immunity, 36: 36-42.

Stringer, T., Hendricks, D.T., Guzgay, H. and Smith, G.S. 2012. Synthesis and characterization of multimeric salicylaldimine thiosemicarbazones and their Pd(II) and Pt(II) complexes. Polyhedron, 31: 486-493.

Su, D., Musaji, A., Legrain, S., Detalle, L., Van der Kaa, J., Verbeek, J.S., Ryffel, B. and Coutelier, J.P. 2012. Antibody-independent thrombocytopenia in lactate dehydrogenase-elevating virus-infected mice. Journal of Virology, 86(22): 12414-12416.

Sutherland, J., Sales, K.J., Jabbour, H. and Katz, A.A. 2012. Seminal plasma enhances cervical adenocarcinoma cell proliferation and tumour growth in vivo. PLoS One, 7(3): e33848.

Swanepoel, C.R., Wearne, N., Duffield, M. and Okpechi, I.G. 2012. The evolution of our knowledge of HIV-associated kidney disease in Africa. American Journal of Kidney Diseases, 60(4): 668-678.

Swart, M., Ren, Y., Smith, P.J. and Dandara, C. 2012. ABCB1 4036A>G and 1236C>T polymorphisms affect plasma efavirenz levels in South African HIV/AIDS patients. Frontiers in Genetics, 3:326.

Swart, M., Skelton, M., Wonkam, A., Kannemeyer, L., Chin'ombe, N. and Dandara, C. 2012. CYP1A2, CYP2A6, CYP2B6, CYP3A4 and CYP3A5 Polymorphisms in two bantu-speaking populations from Cameroon and South Africa: implications for global pharmacogenetics. Current Pharmacogenomics and Personalized Medicine, 10(1): 1-11.

Swart, M., Whitehorn, H., Ren, Y., Smith, P.J., Ramesar, R.S. and Dandara, C. 2012. PXR and CAR single nucleotide polymorphisms influence plasma efavirenz levels in South African HIV/Aids patients. BMC Medical Genetics, 13: 112.

Tamura, R.E., Vasconcellos, J.F., Sarkar, D., Libermann, T.A., Fisher, P.B. and Zerbini, L.F. 2012. GADD45 Proteins: central players in tumorigenesis. Current Molecular Medicine, 12: 634-651.

Tello, J.A., Newton, C., Bouligand, J., Guiochon-Mantel, A., Millar, R.P. and Young, J. 2012. Congenital hypogonadotropic hypogonadism due to GNRH receptor mutations in three

brothers reveal sites affecting conformation and coupling. PLoS One, 7(6): e38456.

Thierry, M., Lefeuvre, P., Hoareau, M., Perefarres, F., Delatte, H., Reynaud, B., Martin, D.P. and Lett, J.-M. 2012. Differential disease phenotype of begomoviruses associated with tobabacco leaf curl disease in Comoros. Archives of Virology, 157: 545-550.

Topaloglu, A.K., Tello, J.A., Kotan, L.D., Ozbek, M.N., Yilmaz, M.B., Erdogan, S., Gurbuz, F., Temiz, F., Millar, R.P. and Yuksel, B. 2012. Inactivating KISS1 mutation and hypogonadotropic hypogonadism. New England Journal of Medicine, 366(7): 629-635.

Tordiffe, A.D.W., Van Der Watt, G.F. and Reyers, F. 2012. Cyctine urolithiasis in a caracal (Caracal caracal). Journal of Zoo and Wildlife Medicine, 43(3): 649-651.

Twala, B.V., Sewell, B.T. and Jordaan, J. 2012. Immobilisation and characterisation of biocatalytic co-factor recycling enzymes, glucose dehydrogenase and NADH oxidase, on aldehyde functional ReSynTM polymer microspheres. Enzyme and Microbial Technology, 50: 331-336.

Valley-Omar, Z., Sibeko, S., Anderson, J.A., Goodier, S., Werner, L., Arney, L., Naranbhai, V., Treurnicht, F., Abrahams, M.H., Bandawe, G.P., Swanstrom, R., Abdool Karim, Q., Abdool Karim, S. and Williamson, C. 2012. Caprisa 004 tenofovir microbicide trial: no impact of tenofovir gel on the HIV transmission bottleneck. Journal of Infectious Diseases, 206: 35-40.

Van Oosterhout, J.J., Mallewa, J., Kaunda, S., Chagoma, N., Njalale, Y., Kampira, E., Mukaka, M. and Heyderman, R.S. 2012. Stavudine toxicity in adult longer-term art patients in Blantyre Malawi. PLoS One, 7(7): e42029.

Van Schalkwyk, G., de Vries, J. and Moodley, K. 2012. "It's for a good cause, isn't it?" - Exploring views of South African TB research participants on sample storage and re-use. BMC Medical Ethics, 13:19.

Visser, M.M.E., Stead, M., Walzl, G., Warren, R.M., Schomaker, M., Grewal, H.M.S., Swart, E.C. and Maartens, G. 2012. Baseline predictors of sputum culture conversion in pulmonary tuberculosis: importance of cavities, smoking, time to detection and W-Beijing Genotype. PLoS One, 7(1): e29588.

Vogelsang, M., Wang, Y., Veber, N., Mwapagha, L. and Parker, M.I. 2012. The cumulative effects of polymorphisms in the DNA mismatch repair genes and tobacco smoking in oesophagael cancer risk. PLoS One, 7(5): e36962.

Von Gottberg, A., Cohen, C., Whitelaw, A.C., Chhagan, M., Flannery, B., Cohen, L., de Gouveia, L., du Plessis, M., Madhi, S. and Klugman, K.P. 2012. Invasive disease due to haemophilus influenzae serotype b ten years after routine vaccination, South Africa, 2003-2009. Vaccine, 30: 561-571.

Wang, L., Watermeyer, J., Mulelu, A., Sewell, B.T. and Benedik, M.J. 2012. Engineering pH-tolerant mutants of a cyanide dihydratase. Applied Microbiology and Biotechnology, 94: 131-140.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Warner, D. and Mizrahi, V. 2012. Approaches to target identification and validation for tuberculosis drug discovery: a University of Cape Town perspective. South African Medical Journal, 102(6): 457-459.

Watkins, M., Benjamin, R., Kotze, E. and Hawarden, D. 2012. Reference range for specific igg antibodies to aspergillus fumigatus in the South African adult population. Current Allergy & Clinical Immunology, 25(4): 212-214.

Wearne, N., Swanepoel, C.R., Boulle, A.M., Duffield, M. and Rayner, B.L. 2012. The spectrum of renal histologies seen in HIV with outcomes prognostic indicators and clinical correlations. Nephrology Dialysis Transplantation, 27: 4109-4118.

Wilkinson, K., Meintjes, G., Seldon, R.R., Goliath, R. and Wilkinson, R.J. 2012. Immunological characterisation of an unmasking TB-IRIS case. SAMJ South African Medical Journal, 102(6): 512-517.

Williamson, A.-L., Rybicki, E.P., Shephard, E.G., Gray, G., Bekker, L., Downing, K.J. and Williamson, C. 2012. South African HIV-1 vaccine candidates the journey from the bench to clinical trials. SAMJ South African Medical Journal, 102(6): 452-455.

Wiysonge, C.S., Ngcobo, N.J., Jeena, P.M., Madhi, S., Schoub, B.D., Hawkridge, A.J., Shey, M. and Hussey, G.D. 2012. Advances in childhood immunisation in South Africa: where to now? Programme managers' views and evidence from systematic reviews. BMC Public Health, 12: 578.

Wonkam, A., Tekendo, C.N., Zambo, H. and Morris, M.A. 2011. Initiation of prenatal genetic diagnosis of sickle cell anaemia in Cameroon (sub-Saharan Africa). Prenatal Diagnosis, 31: 1210-1212.

Wonkam, A., Ponde, C., Nicholson, N., Fieggen, K., Ramesar, R.S. and Davidson, A. 2012. The burden of sickle cell disease in Cape Town. SAMJ South African Medical Journal, 102(9): 752-754.

Wood, R., Racow, K., Bekker, L., Morrow, C.D., Middelkoop, K., Mark, D. and Lawn, S.D. 2012. Indoor social networks in a South African township: potential contribution of location to tuberculosis transmission. PLoS One, 7(6): e39246.

Wood, R., Racow, K., Bekker, L., Middelkoop, K., Vogt, M.C., Kreiswirth, B. and Lawn, S.D. 2012. Lipoarabinomannan in urine during tuberculosis treatment: association with host and pathogen factors and mycobacteriuria. BMC Infectious Diseases, 12: 47.

Zar, H.J., Workman, L.J., Isaacs Dollie, W., Munro, J., Black, F., Eley, B.S., Allen, V., Boehme, C., Zemanay, W. and Nicol, M.P. 2012. Rapid molecular diagnosis of pulmonary tuberculosis in children using nasopharyngeal specimens. Clinical Infectious Diseases, 55(8): 1088-1095.

Zar, H.J., Eley, B.S., Nicol, M.P., Figaji, A.A. and Hawkridge, A.J. 2012. Advances in childhood tuberculosis - contributions from the University of Cape Town. SAMJ South African Medical Journal, 102(6): 518-521.

Peer-reviewed published conference proceedings

Liebenberg, L. 2012. Lodox x-ray is an invaluable asset in autopsy procedures. In F.T Bosman (ed.), Proceedings of the 24th European Congress of Pathology, 8-12 September 2012, Prague, Czech Republic. Heidelberg, Germany: Springer-Verlag Berlin Heidelberg. ISBN 9781461421696.

Maistry, S. 2012. An unusual case of sudden unexpected death. In N. Lynnerup (ed.), Proceedings of the 18th Nordic Conference on Forensic Medicine, 13-16 June 2012, Aarhus, Denmark. Oslo: Dansk Selskab for Retsmedicin. ISSN 15039552.

Department of Health and Rehabilitation Sciences

Department Profile

The Department of Health and Rehabilitation Sciences is a multi-professional Department, and offers undergraduate and postgraduate programmes in Audiology, Speech and Language Pathology, Occupational Therapy, and Physiotherapy. The Department also offers Postgraduate Diplomas, Master's and PhD programmes in Disability Studies and Nursing.

2012 was a productive year with regard to research activities and graduation of postgraduate candidates. Professor Steve Ersser continues his appointment as an Honorary Professor to the Division of Nursing to develop collaborative research in dermatology nursing. Naeema Abrahams continues her appointment as an Honorary Associate Professor to the Division of Nursing for teaching clinical research methods. One staff members obtained her PhD (Lizhan Cloete). In addition, in 2012 the Department achieved the best throughput rate of postgraduate candidates to date, with one doctoral and 22 master's graduates. In 2012, the Department entered the second year of a five-year strategy to accelerate the throughput of staff doing PhDs. This programme has been supported by the Emerging Researcher Programme and the Research Office.

Researchers received funding for numerous research activities. Amsuda Sonday, Elewani Ramugondo and Madri Engelbrecht secured NRF grants. Fadia Gamieldien and Matumo Ramafikeng secured scholarships from Canon Collins Trust and Mellon respectively. Madie Duncan secured the final tranche of funding from SANPAD for a participatory development project for disability inclusion in deep rural villages in the Eastern Cape. Dr Wimpenny from Innovation Enterprise Centre at Coventry University, (UK) secured an applied research fellow grant from Coventry University for a cross contextual investigation of undergraduate mental health occupational therapy curriculum & entrepreneurship in collaboration with Madie Duncan and Loren Lewis. Romy Parker was awarded NRF Thuthuka funding to complete her PhD. Niri Naidoo, Gillian Ferguson and Vivienne Norman were awarded Research Development Grants. Pat Mayers and Una Kyriacos received funding from the URC to attend and present at the Nursing Education Tomorrow conference in the UK. Nicki Fouché received a URC Travel grant to visit The Netherlands. Douglas Newman-Valentine was selected to attend a PhD Proposal Development Programme that was run by SANTRUST, an organisation that specialises in

supporting capacity development around PhD proposal development. SANTRUST (legal entity of SANPAD) is funded by Irish Aid and the NRF with the aim of building enhanced doctoral throughput capacity for the Nursing Sciences. Two parallel workshops were held for supervisors at each end of the course and these were attended by Sinegugu Duma and Pat Mayers.

Jennifer Jelsma received funding from the EuroQoL Foundation as well as from the NRF. Theresa Lorenzo received funding from the NRF Community Engagement Strategy Fund for the Disabled Youth Enabling Sustainable Livelihoods (DYESL) study, which investigates the strategies of disabled youth in sustaining their livelihoods. The Division of Disability Studies collaborated with Occupational Therapy departments of five universities in South Africa for this study. She also received funding from the URC Programme for Enhanced Research Capacity for a study that explores the capacity of community disability workers to address the needs of disabled youth. This study is being conducted in rural areas of Botswana, Malawi and Mpumalanga, South Africa. The study on the housing and support options for adults with intellectual disability in the Western Cape was completed as part of the postdoctoral research project by Judy Mckenzie. Theresa Lorenzo was awarded funding from the Vice Chancellor's Strategic Fund to investigate disability inclusion in the curriculum of faculties at UCT. Jennifer Jelsma was awarded a travel grant from the Vice Chancellor's Strategic Fund to be used for developing teaching and learning at Kigali Institute in Rwanda.

Elewani Ramugondo was awarded funding from the Vice Chancellor's Strategic Fund for Internalisation with an Afropolitan Niche to establish occupational therapy training in African countries, including Lesotho, Malawi, Namibia and Botswana. Sinegugu Duma is participating in the PLUME project. This is an initiative of FUNDISA (the Forum for University Nursing Deans in South Africa) and is funded by the NRF to develop lead researchers in all member universities.

The Department raised its international research profile in 2012. Staff members from the Division of Occupational Therapy presented work at the Occupational Therapy Association of South Africa Congress in Durban, as well as Towards Carnegie 3: Reducing Poverty and Inequality Conference in Cape Town. Madie Duncan participated in a panel presentation at a conference on South African Netherlands Academic Partnerships at the Institute of Social Studies (Erasmus University) in The Hague, Netherlands. Romy Parker won the prize for best poster for clinical research at the Pain, Mind and Movement IV pre-congress symposium of the World Congress on Pain. Trish Lang (master's student) was awarded second prize for a free paper presentation at the Pain SA Congress on EMG activity in chronic neck pain.

Undergraduate student research was also well-represented. Occupational therapy students were were awarded the Marie & Vona du Toit prize for best student project in South Africa for a study on the perceptions of disability of people living in informal settlements in the Saldanha Bay sub-district, South Africa. Undergraduate physiotherapy students also won first and second prize for their presentations the Regional Inter-varsity Physiotherapy Research Forum; and second prize for a poster at the Faculty of Health Sciences Undergraduate Research Day.

There were numerous collaborative research activities and scholarly visits in 2012. Roshan Galvaan initiated a project of international cooperation entitled Occupational Therapy Education for Social Transformation (OTEST): a pilot co-operative inquiry. This project was funded in 2010/2011 by Higher Education South Africa together with the National Research Foundation of South Africa under the auspices of the Academic committee of the India-Brazil-South Africa trilateral Forum (IBSA, 2012). Madie Duncan served as one of 400 people internationally in the UN Grand Challenges for Global Mental Health in 2011 (published in 2012) adding an occupational perspective to this internationally significant policy initiative. Sinegugu Duma presented a workshop on sexual assault forensic nurses for UNEDSA project, based on a study of clinical competencies for forensic nurses. Doris Khalil conducted a study on violence in nursing at the Kwame Nkrumah University of Science & Technology. Pat Mayers continues to be involved in the UCT Knowledge Translation Unit on-going Practical Approach to Lung Health and HIV (PALSA Plus) project on an ad hoc basis. Jennifer Jelsma continues to serve as a member of the WHO Functioning and Disability Group and as a member of the EuroQoL Quality of Life Group. Romy Parker is the secretary of the International Pain and Movement Special Interest Group.

The Department continues to contribute to the development of the professions. Shajila Singh is the Chair of the Professional Board for Speech, Language and Hearing Professions, and is also Chair of the CPD Committee for the Health Professions Council of South Africa. Sinegugu Duma is Chair of the Accreditation Committee of the South African Nursing Council. Sheila Clow has continued to serve on the National Executive Committee of the Society of Midwives of South Africa. Helen Buchanan is president of the Occupational Therapy Association of South Africa. Madie Duncan serves as an ad hoc consultant to OTASA for drafting policy documents, which recently included position statements on re-engineering of PHC,

role & scope of OT, and groupwork practice on OT. She also served as one of 400 people internationally in the UN Grand Challenges for Global Mental Health in 2011 (published in 2012) adding an occupational perspective to this internationally significant policy initiative. Fadia Gamieldien (clinical educator) is on the Mental Health Advisory Committee for the Western Cape Department of Health. Roshan Galvaan initiated a project of international cooperation entitled Occupational Therapy Education for Social Transformation (OTEST): a pilot co-operative inquiry. This project was funded in 2010/2011 by Higher Education South Africa together with the National Research Foundation of South Africa under the auspices of the Academic committee of the India-Brazil-South Africa trilateral Forum (IBSA, 2012). The project included the participation of Dr. Shovan Saha from India and Dr. Sandra Galheigo from Brazil, as co-researchers. Progress was made in 2012 towards joint publications. Michal Harty is a Member of Professional Association's task team that works towards developing a strategy to facilitate research process for members of the South African Speech, Language and Hearing Professions, and has a VIO Grant with Vanderbilt Peabody College to develop research collaboration.

Michelle Pascoe is Chief Editor of the South African Journal of Communication Disorders. Harsha Kathard, Vivienne Norman (co-Editor), and Lucretia Petersen are on the Editorial Board for the South African Journal of Communication Disorders. Harsha Kathard is on the Editorial Board for the South African Medical Journal. Michelle Pascoe also serves on the Editorial Board for Child Language Teaching and Therapy. Nicki Fouche remains as the Editor for Nursing Science for The Southern African Journal of Critical Care. Seyidele Amosun and Jennifer Jelsma are on the Editorial Board of the South African Journal of Physiotherapy, and Theresa Burgess is on the Editorial Board for the South African Journal of Sports Medicine. Pat Mayers is a member of the BMC Health Services Research Editorial Board.

Department Statistics

Staff

Professor	2
Associate Professor	9
Senior Lecturer & Lecturer	20
Part-time Lecturer	4
Clinical Educator	24
Technical and Support Staff	1
Administrative and Clerical Staff	11
Total	71

Students

Doctoral	13
Master's	128
Postgraduate Diplomas	58
Undergraduate	633
Total	832

Research fields and staff

PROFESSOR S.L. AMOSUN
Non-communicable diseases; disability prevention and health promotion

MS HELEN BUCHANAN
Evidence-based practice; hand therapy; measurement instruments; rehabilitation in physical health; clinical reasoning and reflection

DR THERESA BURGESS
Muscle damage and endurance exercise; clinical sports physiotherapy; bioethics

MS LIZAHN CLOETE
Foetal Alcohol Spectrum Disorders; community development & occupational therapy in primary health care

ASSOCIATE PROFESSOR SHEILA CLOW
Midwifery; women's health care; intrapartum care; mentorship

ASSOCIATE PROFESSOR SINEGUGU DUMA
Interplay between HIV and gender-based violence; sexual assault; and curriculum development

ASSOCIATE PROFESSOR EVE DUNCAN
Poverty, occupation & psychiatric disability; disability inclusion through participatory development in deep rural communities

MS EILEEN DU PLOOY
Occupation based work practice; palliative care

MS GILLIAN FERGUSON
HIV; paediatric motor assessment and rehabilitation

MS NICKI FOUCHE
Lived experiences in the care of patients in the Intensive Care Units

ASSOCIATE PROFESSOR ROSHAN GALVAAN
Occupation-based community development practice; occupational justice; occupational choice; youth; OT curriculum and human rights

MS PAM GRETCHEL
Best paediatric occupational therapy practice

DR MICHEAL HARTY
Augmentative and Alternative Communication (AAC) and family-centred intervention practices

MS CANDICE HENDRICKS
Rehabilitation of sports-related orthopaedic and neuromusculoskeletal conditions

PROFESSOR JENNIFER JELSMA
Function in children with HIV/AIDS; health related quality of life; living conditions of people with disabilities; use of the ICF

ASSOCIATE PROFESSOR HARSHA KATHARD
Communication impairment; disability and service delivery

DR UNA KYRIACOS
Role of biosciences in clinical nursing education; ophthalmic nursing; preparation of nurse educators

ASSOCIATE PROFESSOR THERESA LORENZO
Disability rights and equity for youth and women; community based rehabilitation

MS SORAYA MAART
Incontinence and sexual dysfunction amongst sexually abused persons; HIV and community empowerment

MS SHAMILA MANIE
Intensive Care Unit management; cardio-pulmonary rehabilitation, TB

ASSOCIATE PROFESSOR PAT MAYERS
Mental health; support and training for primary health care providers/clinical nurse practitioners with special to HIV and ARV rollout; primary care practice teams

MR DOUGLAS NEWMAN
LGBTI health

MS VIVIENNE NORMAN
Paediatric dysphagia and early intervention

DR MICHELLE PASCOE
Speech, language and literacy difficulties in school-aged children

MS LUCRETIA PETERSEN
Ototoxicity; otoacoustic emissions

MS ROMY PARKER
Pain in HIV

DR LEBOGANG RAMMA
Noise and public health

ASSOCIATE PROFESSOR ELELWANI RAMUGONDO
Promoting childhood play in context; play, learning & development outcomes for children on anti-retroviral treatment; the politics of human occupation

MS CHRISTINE ROGERS
Vestibular assessment and management

ASSOCIATE PROFESSOR SHAJILA SINGH
Dysphagia; motor speech disorders; ethics; HIV/AIDS

MS AMSHUDA SONDAY
Inclusive education; profound multiple intellectual disability and quality of life

Clinical Educator Staff

MRS FATEMAH CAMROODIEN-SURVE
Early childhood intervention; parent training

MRS NAILA EDRIES
Occupational health and wellness; promoting behaviour change; musculoskeletal injury management; evaluation and feedback methods to drive learning

MRS MADRI ENGELBRECHT
Disability and employment

MRS FADIA GAMIELDIEN
Health professionals' attitudes towards mental health service users; disability, diversity and social change

MRS FAHMIDA HARRIS
The impact of physical activity on quality of life of persons with mental illness

MS JANE LE ROUX
Evaluating the effectiveness of The Shine Program for literacy development in grade 2 and 3 learners

MR MARC NAIDOO
Clinical education models and strategies; rehabilitation in neuro patients; soccer injury prevention at school level

MRS ELRIETHA OLIVIER
Cochlear implants; bimodal fitting and FM use; balance disorders in cochlear implant recipients

MRS LAURA RUSSELL
Traumatic brain injury care pathways after discharge; assessment of aphasia in South African languages

MRS CELESTE SAMUELS
Right hemisphere communication disorders intervention and referral pathways; cerebral palsy and communication

MRS DES SCOTT
Group teaching in clinical practice; paediatric clinical practice

MRS HEATHER TALBERG
Clinical education best practice models and guidelines; developing professional and reflective practitioners

MS FREDA WALTERS
Fluency, community based rehabilitation; clinical education

Contact Details

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Research output

Chapters in books

Duma, S.E., Dippenaar, J.D., Bhengu, B.B., Oosthuizen, A.O., Middleton, L.M., Phillips, M.P., Naude, S. and Uys, L.U. 2012. Specialist and advanced specialist nursing and midwifery practice. In L. Uys and H.C. Klopper (eds), Trends in Nursing, pp. 109-128. Pretoria, South Africa: Fundisa. ISBN 9781868407293.

Duma, S.E. 2012. The state of nursing regulation. In L. Uys and H.C. Klopper (eds), Trends in Nursing, pp. 11-20. Pretoria, South Africa: Fundisa. ISBN 9781868407293.

Favish, J., Ross, D.A., Inggs, S.C., Kathard, H., Clarkson, C.P., Case, J.M., Collier-Reed, B.I. and Reid, S. 2012. Reflections on developing distinctive University of Cape Town graduate attributes. In M. Coetzee, et al. (eds), Developing Student Graduateness and Employability, pp. 207-225. Randburg: Knowres Publishing. ISBN 9781869221898.

Galvaan, R. 2012. Occupational choice: the significance of socio-economic and political factors. In E.G. Whiteford and C. Hocking (eds), Occupational Science: Society, Inclusion, Participation, pp. 152-162. UK: Wiley-Blackwell Publishing, Inc. ISBN 9781444333169.

Lorenzo, T. 2012. Advocating for equality in accessing livelihood assets for disabled youth. In K. Kometsi (ed.), South African Human Rights Commission Equality Report, 43-48. Braamfontein: South African Human Rights Commission. ISBN 9780621408058.

Lorenzo, T. and Chappell, P. 2012. Exploring capacity for disability-inclusive development. In H. Hermann (ed.), Disability Catalyst Africa, pp. 6-35. Cape Town: Disability Innovations Africa, Disability Studies Programme, DHRS, UCT. ISBN 9780987020314.

Lorenzo, T., Mutao, J.M. and Chappell, P. 2012. Community rehabilitation workers as catalysts for disability-inclusive youth development. In H. Hermann (ed.), Disability Catalyst Africa, pp. 37-48. Cape Town: Disability Innovations Africa, Disability Studies Programme, DHRS, UCT. ISBN 9780987020314.

Maart, S. 2012. Reflections on how to use disability data for service planning. In H. Hermann (ed.), Disability Catalyst Africa, pp. 58-61. Cape Town: Disability Innovations Africa, Disability Studies Programme, DHRS, UCT. ISBN 9780987020314.

Mubi, M.Z., Kabaso, B.K., Mashuke, K.M. and Butao, S.B. 2012. Stories from the field. In H. Hermann (ed.), Disability Catalyst Africa, pp. 50-57. Cape Town: Disability Innovations Africa, Disability Studies Programme, DHRS, UCT. ISBN 9780987020314.

Articles in peer-reviewed Journals

Amosun, S.L., Hartman, N., Janse van Rensburg, V.C., Duncan, E.M. and Badenhorst, E.S. 2012. Process in widening access to undergraduate allied health sciences education in South Africa. African Journal of Health Professions Education, 4(1): 34-39.

Amosun, S.L., Maart, S., Ferguson, G. and Manie, S. 2012. Widening access to undergraduate physiotherapy education in South Africa: pointers from students records. South African Journal of Physiotherapy, 68(2): 38-44.

Conran, J., Frantz, J., Hendricks, C. and Smith, M.S. 2012. Evaluation of a new clinical performance assessment tool: a reliability study. South African Journal of Physiotherapy, 68(3): 15-19.

Duma, S.E. 2012. The costs and benefits of nurse migration on families: a Lesotho experience. Curationis, 13(1): 1-8.

Glaser, M. and van Pletzen, E. 2012. Inclusive education for deaf students: literacy practices and South African sign language. Southern African Linguistics and Applied Language Studies, 30(1): 25-37.

Hanekom, S., Brooks, J., Denehy, L.D., Fagevik-Olsen, M.O., Hardcastle, T., Manie, S. and Louw, Q. 2012. Reaching consensus on the physiotherapeutic management of patients following upper abdominal surgery: a pragmatic approach to interpret equivocal evidence. BMC Medical Informatics and Decision Making, 12:5. [Online]. http://www.biomedcentral.com/1472-6947/12/5.

Harris, T., Bardien, S., Schaaf, H., Petersen, L., de Jong, G.J. and Fagan, J.J. 2012. Aminoglycoside-induced hearing loss in HIV-positive and HIV-negative multidrug-resistant tuberculosis patients. SAMJ South African Medical Journal, 102(6): 363-366.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health Sciences undergraduate education at University of Cape Town: a story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Ibekwe, T.I., Ramma, L. and Chindo, A. 2012. Potential roles of stem cells in the management of sensorineural hearing loss. Journal of Laryngology and Otology, 126: 653-657.

Jelsma, J.M., Burgess, T.L. and Henley, L.D. 2012. Does the requirement of getting active consent from parents in school-based research result in biased sample? An empirical study. Journal of Empirical Research on Human Research Ethics, 7(5): 56-62.

Joseph, C.J., Frantz, J., Hendricks, C. and Smith, S.M. 2012. Evaluation of a new clinical performance assessment tool: a reliability study. South African Journal of Physiotherapy, 68(3): 15-19.

Kyriacos, U. and October, N.O. 2012. Trabeculectomy (with cytotoxic adjunct) as first line of treatment in chronic glaucoma at a rural secondary level hospital in South Africa. Clinical and Experimental Ophthalmology, 3(4): 1000218.

Lorenzo, T. and Cramm, J.M.C. 2012. Access to livelihood assets among youth with and without disabilities in South Africa: implications for health professional education. SAMJ South African Medical Journal, 102(6): 578-581.

Martin, W.G., Jelsma, J.M. and Rogers, C. 2012. Motor proficiency and dynamic visual acuity in children with bilateral sensorineural hearing loss. International Journal of Pediatric Otorhinolaryngology, 76: 1520-1525.

Pascoe, M. and Smouse, M.R. 2012. Clinical Practice: masithethe and language development and difficulties in isiXhosa. SAMJ South African Medical Journal, 102(6): 469-471.

Ramugondo, E. 2012. Play rhetoric across generations within family: a window of opportunity to discern the African condition. African Journal of Rhetoric, 3: 134-153.

Rouillard, S., De Weerdt, W., de Wit, L.D.W. and Jelsma, J.M. 2012. Functioning at 6 months post stroke following discharge from inpatient rehabilitation. SAMJ South African Medical Journal, 102(6): 545-548.

Sonday, A., Anderson, K.A., Flack, C.F., Fisher, C.F., Greenhough, J.G., Kendal, R.K. and Shadwell, C.S. 2012. School-based occupational therapists: an exploration into their role in a Cape Metropole full service school. South African Journal of Occupational Therapy, 42(1): 2-6.

Speake, J.S., Stackhouse, J.S. and Pascoe, M. 2012. Vowel targeted intervention for children with persisting speech difficulties: impact on intelligibility. Child Language Teaching & Therapy, 28(3): 277-295.

Peer-reviewed published conference proceedings

Jelsma, J.M., McKenzie, J. and Ramma, L. 2012. Differences in subjective construction of health related quality of life (as described by the components of the EQ-5D) for adults and children. Proceedings of the 28th Scientific Plenary Meeting of the EuroQol Group, 15-17 September, Oxford, United Kingdon. Netherlands: EuroQol Group Executive Office. ISBN 9789081442541.

Doctoral dissertations

Cloete, L. 2012. Developing appropriate foetal alcohol spectrum disorder (FASD) prevention initiatives within a rural community in south africa. Supervised by London, L. and Van Niekerk, L.

Lombard, A. 2012. The effect of sensory processing on the work performance of call centre agents in a South African context. Supervised by Watson, R. and Duncan, E.

Master's degrees (by research)

Bissessur, D. 2012. The communication between low-risk low birth weight premature infants and their mothers in the first year of life: a description of four cases. MSc Speech-Language Pathology. Supervised by Pascoe, M. and Mayers, P.

Dutton, M. 2012. The effects of scapulothoracic rehabilitation on shoulder pain in competitive swimmers. MSc Physiotherapy. Supervised by Burgess, T. and Parker, R.

Gangji, N. 2012. Phonological development in Swahili: a descriptive, cross-sectional study of typically developing pre-schoolers in Tanzania. MSc Speech-Language Pathology. Supervised by Pascoe, M. and Smouse, M. R.

Ghafari, N. 2012. A profile of the auditory function of children with TB receiving ototoxic medication at Brooklyn Chest Hospital. MSc Audiology. Supervised by Petersen, L., Rogers, C. and Singh, S.

Lang, P. 2012. Cervico-mandibular muscle activity in females with chronic cervical pain: a descriptive, cross-sectional, correlational study. MSc Physiotherapy. Supervised by Parker, R. and Burgess, T.

Maphalala, Z. 2012. Phonological development of first language Xhosa-speaking children aged 3;0 - 6;0 years: a descriptive cross-sectional study. MSc Speech-Language Pathology. Supervised by Pascoe, M. and Smouse, M.R.

Moosajie, C. 2012. The effect of functional electrical stimulation of the abdominal muscles on functional activity in patients with stroke: a feasibility study. MSc Physiotherapy. Supervised by Jelsma, J. and Ferguson, G.

Olivier, O. 2012. A comparison of treatment protocols for infants with motor delay. MSc Physiotherapy. Supervised by Ferguson, G. and Jelsma, J.

Oosthuizen, N. 2012. "The Western Cape profile of paediatric feeding and swallowing difficulties". MSc Speech-Language Pathology. Supervised by Norman, V.

Department of Human Biology

The Department of Human Biology (HUB) includes Anatomy; Biological Anthropology; Biomedical Engineering and Medical Imaging; Cell Biology, Exercise Science and Sports Medicine; Healthcare Technology Management; Human Nutrition; Neurosciences and Physiology.

Professor Laurie Kellaway was an invited guest speaker at the Neuroscience Society of Nigeria (NSN) Conference held Calabar, Nigeria in 2012.

Professor Susan Kidson has been Deputy Dean and was acting Dean of the Faculty of Health Sciences during 2012. During this time she initiated the UCT Stem Cell Initiative along with Professor Jacquie Greenberg of Human Genetics. As part of this initiative Dr Robea Ballo spent two months at the James Martin Stem Cell Unit of the University of Oxford, UK, sharpening her skills in induced Pluripotent Stem Cell technology. She is now offering training in this technology at the Stem Cell laboratory in Cell Biology, to clinicians and postgraduate students at UCT who wish to use the technique in their projects. The team published their first stem cell paper in the SAMJ online in December 2012.

Professor Alan Morris began a 10 month sabbatical to the United States in September 2012 under a Fullbright Visiting Scholar Fellowship. He is currently based at Ohio State University as part of the 'Global History of Health Project' being led by Clark Larsen.

Researchers in the biomedical engineering programme and the MRC/UCT Medical Imaging Research Unit were active in many aspects of the research enterprise. Associate Professor Meintjes co-edited a book titled "Substance Use and Abuse in South Africa: Insights from Brain and Behavioural Sciences". Dr Sudesh Sivarasu's PhD - "Artificial High Flexion Knee for Eastern Lifestyles" - was published by a German publisher. Drs Lester John and Sudesh Sivarasu filed patent applications for deep muscle electromyography and rehabilitative robotics respectively, while they collaborated with student Yasheen Brijlal on the patent for a hand exoskeleton. Professor Tania Douglas was an invited guest lecturer at the University of Minnesota and was invited to present a seminar to celebrate the South Africa-Germany Year of Science. Professor Douglas delivered a keynote lecture at the International Conference on Biomedical Signals, Systems and Images in Chennai, India. Dr Sivarasu delivered an invited lecture at the International Conference on Biomaterials, Implants and Tissue Engineering, also in Chennai. Dr Barak Morgan and his collaborators delivered a paper to the national congress - Towards Carnegie III: Strategies to Overcome Poverty and Inequality - held at UCT.

Professor Viv Russell was appointed Co-Editor-in-Chief of Behavioral and Brain Functions. She continued to serve

as Deputy Chief Editor of *Metabolic Brain Disease* and produced a Special Issue on neuroscience research in Southern Africa in 2012. Professor Russell was invited to give a seminar on her research on ADHD at the University of Massachusetts, USA, in October 2012. Hayley Tomes attended the IBRO school on Epigenetics, Environment and Behaviour in Kalifi, Kenya. Jacqueline Dimatelis, Jurgens van Zyl, Toni-Lee Sterley and Viv Russell attended the Society for Neuroscience meeting in New Orleans, USA in October. Jurgens van Zyl was awarded an IBRO Travel Fellowship to attend the Society for Neuroscience meeting in New Orleans.

Associate Professor Sharon Prince was invited to present a talk at the University of Oxford, in September. She received a C2 NRF Rating and was elected head of the Cancer Research initiative of South Africa (CARISA) breast cancer consortium. She was elected member of the NRF Specialist Committee for Health Sciences. The Prince Laboratory organised and hosted its second CANSA Shavathon, in conjunction with the Cancer Association of South Africa (CANSA).

Associate Professor Dirk Lang was invited as an instructor in advanced microscopic imaging techniques for the prestigious summer courses at the Woods Hole Marine Biological Labs (MBL) in Massachusetts, USA during his sabbatical leave from May – August. Together with Tyrone Genade he attended the Society for Neuroscience meeting in New Orleans in October. With Susan Cooper, they continue to be active as consultants and maintain numerous collaborations involving the Confocal and Light Microscope Imaging Facility at UCT.

Dr Liz van der Merwe was elected as chairperson of the Association of South African Woman in Science and Engineering (Western Cape) in December.

Associate Professor Marjanne Senekal was invited by the Sackler Institute for Nutrition Sciences, New York Academy of Sciences, to present at their Conference in New York in December.

Exercise Science and Sports Medicine Research Unit: Academic staff within ESSM continue to be consulted on various issues related to exercise science and sports medicine and are therefore often in the public eye. Professor Tim Noakes published an updated version of "Challenging Beliefs. Memoirs of a Career", with Michael Vlismas during 2012. The new edition incorporates why the Springboks lost the 2011 Rugby World Cup, and how a low-carbohydrate, high-protein diet will improve your life. He also published "Waterlogged: The serious problem of overhydration in endurance sports" in 2012.

Professors Wayne Derman and Martin Schwellnus were commissioned by the International Paralympic Committee to conduct what is regarded as pioneering research on injuries and illnesses suffered by the athletes at the 2012 Paralympic Games.

Dr Alison September, Dr Mike Posthumus and Professor Malcolm Collins were invited to write a review which coincided with the opening of the Summer Olympics in 2012. The review was titled: Application of genomics in the prevention, treatment and management of Achilles tendinopathy and anterior cruciate ligament ruptures, published in Recent Patents on DNA and Gene Sequences 2012; 6: 216-223.

Dr Alison September was elected as committee member of the Association of South African Women in Science and Engineering (Western Cape) in December 2012, and chairs the Education portfolio.

Dr Julia Goedecke's NRF rating was renewed and Professor Malcolm Collins' and Associate Professor Andrew Bosch's NRF ratings were increased, while Dr Mike Posthumous was rated for the first time. Associate Professor Malcolm Collins was promoted to full Professor in November 2012

Departmental Statistics

Permanent and long-term contract staff

Professors (1 Discovery)	13
Associate Professors (1 MRC)	6
Senior Lecturers (1 MRC)	14
Lecturers (including part-time)	15
Postdoctoral and Research Staff	32
Technical and Support Staff	24
Admin and Clerical Staff	15
Total	119

Students

Doctoral	48
Master's	76
M Phil	26
Honours	47
PG Diploma	23
Undergraduate	1649
Total	1869

Research Fields and Staff

PROFESSOR LAURISTON KELLAWAY

Head of Department; Models of neuroinflammation, stress and brain function, in vivo and in vitro visual cortical mechanisms

PROFESSOR MALCOLM COLLINS
RUESSM: Chief Specialist Scientist, MRC; Biochemistry; Molecular biology; Genetics – applied to performance and injuries

PROFESSOR WAYNE DERMAN
RUESSM:Sport and Exercise Medicine, Skeletal muscle dysfunction in chronic disease; exercise training in chronic disease

PROFESSOR TANIA DOUGLAS
Director of the MRC/UCT Medical Imaging Research Unit (MIRU); biomedical engineering, image processing

PROFESSOR SUE KIDSON
Developmental biology; melanocytes and hypopigmentary disorders; eye development and glaucoma

PROFESSOR MIKE LAMBERT
RUESSM: Exercise training and recovery; Science applied to rugby, Co-ordinator of the Ex Sci Hons Course

PROFESSOR ESTELLE V. LAMBERT
RUESSM: Physical activity epidemiology and chronic diseases of lifestyle; obesity and chronic disease

PROFESSOR GRAHAM J. LOUW
Human growth; medical education; skeletal analysis

PROFESSOR ALAN G. MORRIS
Human evolution; forensic anthropology, skeletal biology of early peoples in southern Africa; history of physical anthropology

PROFESSOR TIMOTHY D. NOAKES
Discovery Health Chair of Exercise and Sports Science and Director of UCT/MRC Research and Exercise Medicine Research Unit
RUESSM: Regulation of exercise performance; sport and exercise medicine

PROFESSOR VIVIENNE RUSSELL
Neurophysiology: Development, stress, exercise and vulnerability to neuronal injury; Attention deficit hyperactivity disorder; Depression

PROFESSOR MARTIN P. SCHWELLNUS
RUESSM: Sport and Exercise Medicine, Co-ordinator of the MPhil Sport and Exercise Medicine programme

ASSOCIATE PROFESSOR ANDREW BOSCH
RUESSM: Fuel substrate metabolism, exercise training

ASSOCIATE PROFESSOR DIRK M. LANG
Nervous system development and degeneration; axon growth and regeneration. Head of the Confocal and Light Microscope Imaging Facility at UCT

ASSOCIATE PROFESSOR ERNESTA MEINTJES
MIRU: NRF chair; magnetic resonance imaging

ASSOCIATE PROFESSOR EDWARD OJUKA
RUESM: glucose disposal in muscle

ASSOCIATE PROFESSOR SHARON PRINCE
The cell and molecular biology of cancer and the identification of novel targets for anti-cancer drugs, with special focus on the T-box transcription factors Tbx2 and Tbx3.

ASSOCIATE PROFESSOR MARJANNE SENEKAL
Head: Division of Human Nutrition, Weight management and health interventions, dietary assessment, nutritional genomics

DR COLIN ANDREW
MIRU: Senior Lecturer (part-time); Biomedical signal processing

MS ELMI BADENHORST
Lecturer; medical education, underpreparedness and academic performance

MS SHARMILAH BOOLEY
Lecturer; Division of Human Nutrition; Nutrition, HIV/AIDS and quality of life; nutrition related behaviour change interventions for prevention and management of chronic diseases of lifestyle (school and work-place based)

DR KISHOR BUGARITH
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DR LAUREN HILL
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DR MARCIN JANKIEWICZ
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DR LESTER JOHN
MIRU: Senior Lecturer and Software Specialist; Electromyography, Electroencephalography, Brain-Computer Interfacing, Medical Electronics & Devices

DR ROISIN KELLY-LAUBSCHER
Lecturer: Cardiovascular Physiology, arterial hemodynamics, cardioprotection, ischaemia-reperfusion injury

DR TRACY KOLBE-ALEXANDER
RUESSM: Senior Lecturer, Physical activity and health; Co-ordinator of the BSc (Hons) Biokinetics and MPhil (Biokinetics) courses

MS BAHEYA NAJAAR
Lecturer and clinical educator, Division of Human Nutrition, community nutrition, infant and young child feeding

MR MLADEN POLUTA
Senior Lecturer; Director: Healthcare Technology Management

DR DELVA SHAMLEY
Senior Lecturer; upper limb morbidity in breast cancer, molecular effects of adjuvant therapies in cancer

DR CHARLES P. SLATER
Senior Lecturer; anatomy, medical education

MR STEF STEINER
Lecturer; biomechanics

DR SUDESH SIVARASU
Lecturer, biomechanics, biomechatronics, medical devices & rehabilitation engineering

DR LIZ VAN DER MERWE
Senior Lecturer; ocular development and regeneration, vascular biology, pancreatic islet regeneration, 3-D microscopic image reconstruction.

DR CHRISTOPHER WARTON
Senior Lecturer; medical education, teaching materials, MRI analysis and cerebellar structure

Postdoctoral Fellows/Scientific and Research Officers, Research Associates

DR AMAAL ABRAHAMS
Cell Biology: Research Officer. Role and regulation of the T-box transcription factor TBX3 during the cell cycle

DR YUMNA ALBERTUS-KAJEE
RUESSM: Research Officer. Electromyography in the the prevention of chronic disease in patients, and neuromuscular adaptations to exercise in athletes, commercial research.

DR ALI ALHAMUD
MIRU: Postdoctoral Fellow; magnetic resonance imaging

DR REYNA DEEYA BALLIM
Cell Biology: Postdoctoral Fellow. The identification of target genes of the transcription factor TBX2 which mediate its pro-proliferative activities in cancer and the elucidation of its crystal structure with a view to designing drugs that inhibit TBX2's oncogenic function

DR ROBEA BALLO
Cell Biology and genetics: Genetics of vitiligo.

DR IAN BURGER
MIRU: Postdoctoral Fellow; magnetic resonance imaging

MS SUSAN COOPER
Microscopy Unit: Technical Officer

MS GABI DE BIE
Scientific and Research Officer: knowledge and curriculum in the medical biosciences

DR KYLIE DE JAGER
MIRU: Postdoctoral Fellow; automated microscopy; medical devices

DR JACQUELINE DIMATELIS
Physiology: Postdoctoral Fellow. Neurophysiology: Development, stress, exercise and vulnerability to neuronal injury; Attention deficit hyperactivity disorder; Depression

DR CATHERINE DRAPER
RUESSM: Senior Research Officer. Social science aspects of physical activity as a means of health promotion and disease prevention. Evaluation of physical activity and sport-related programmes. Medical Education.

DR JANINE GRAY
RUESSM: Honorary lecturer. Cricket research – research co-ordinator for Cricket South Africa

DR MARTHA HOLMES
MIRU: Postdoctoral Fellow, neuroimaging

MR DAVID KARPUL
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DR DHESHNIE KESWELL
RUESSM: Postdoctoral Fellow, Obesity and diabetes research

DR TERTIUS KOHN
RUESSM: Senior Research Officer. Muscle biochemistry and exercise science

MR SRIRAM KRISHNAN
Development of a light microscope for automated identification of TB bacilli in ZN stained sputum smears

DR JACOLENE KROFF
RUESSM: Senior Research Officer: Manages, runs and supervises all research conducted in the Metabolic Lab.

DR WENDY KRÖGER
Postdoctoral fellow in cell biology: The molecular mechanisms by which the T-box transcription factor TBX3 contributes to tumourigenesis.

DR AMOD KULKARNI
Postdoctoral Fellow (Claude Leon Foundation). In vitro and in vivo neuro-pharmacokinetics and neuropharmacodynamics of natural neuroprotective agents.

DR ROBERT LAMBERTS
RUESSM: Honorary Research Officer Thermoregulation

DR LELANI MARAIS
Physiology: Postdoctoral Fellow. Neurophysiology: Development, stress, exercise and vulnerability to neuronal injury; Depression

DR BARAK MORGAN
MIRU: Behavioural, physiological and neuroimaging studies in affective neuroscience

DR LISA MICKLESFIELD
RUESSM: Senior Researcher/Honorary Research Fellow (Wits University). Bone health and physical activity

MS MWEETE NGLAZI
RUESSM: Research Officer. Epidemiology and biostatistics

DR MICHAEL POSTHUMUS
RUESSM: Senior Research Officer. Sports orthopaedic research

DR DALE RAE
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DR LAURIE RAUCH
RUESSM: Research Officer: Neurobiology of exercise and regulation of the autonomic nervous system during peak performance

DR FRANCES ROBERSTON
MIRU: Postdoctoral Fellow; magnetic resonance imaging

DR ELSKE SCHABORT
RUESSM: Research Officer: Thermoregulation, Performance, Brain regulation of exercise; Commercial research

DR ALISON V. SEPTEMBER
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DR JAMES SMITH
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DR JEROEN SWART
RUESSM: Honorary lecturer. Sport and Exercise Medicine

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Research output

Authored books

Noakes, T.D. and Vlismas, M. 2012. Challenging Beliefs: Memoirs of a Career. 392pp. Cape Town: Zebra Press, an imprint of Random House Struik (Pty) Ltd. ISBN 9781770224599.

Noakes, T.D. 2012. Waterlogged: The Serious Problem of Overhydration in Endurance Sports. 428pp.USA: Human Kinetics Publ. Inc. ISBN 9781450424974.

Sivarasu, S. and Mathew, L. 2012. Artificial High Flexion Knee for Eastern Lifestyles: Artifical High Flexion Knee implant design that could benefit the people in the eastern world. 136pp. Lambert Academic Publishing. ISBN 978-3-8484-9635-8.

Edited books

Ellis, G.F.R., Stein, D.J., Thomas, K. and Meintjes, E.M. (eds) 2012. Substance Use and Abuse in South Africa: 394pp. Cape Town: UCT press. ISBN 9781919895291.

Chapters in books

Kaschula, C.H., Lang, D.M. and Parker, M.I. 2012. Live in-cell visualization of proteins using super resolution imaging. In J. Cai and R.E. Wang (eds), Protein Interactions, pp. 311-326. Croatia: InTech Open Access Publisher. ISBN 9789535102441.

Kulkarni, A., Kellaway, L.A. and Kotwal, G.J. 2012. Application of quartz crystal microbalance with dissipation monitoring technology for studying interactions of poxviral proteins with their ligands. In S.N. Isaacs (ed.), Vaccinia Virus and Poxvirology: Methods and Protocols, pp. 289-303. Second edition. USA: Humana Press Inc. ISBN 9781617798757.

Kulkarni, A., Govender, D., Kellaway, L.A. and Kotwal, G.J. 2012. Central nervous system distribution of the poxviral proteins after intranasal administration of proteins and titering of vaccinia virus in the brain after intracranial administration. In S.N. Isaacs (ed.), Vaccinia Virus and Poxvirology: Methods and Protocols, pp. 305-326. Second edition. USA: Humana Press Inc. ISBN 9781617798757.

Meintjes, E.M., Uhlmann, A. and Carey, P. 2012. Brain imaging and neural circuitry in methamphetamine users. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 129-141. Cape Town, South Africa: UCT Press. ISBN 9781919895291.

Morris, A.G. and Steyn, M. 2012. Paleopathological studies in South Africa: a history. In J.E. Buikstra and C.A. Roberts (eds), The Global History of Paleopathology: Pioneers and Prospects, pp. 235-242. New York, USA: Oxford University Press. ISBN 9780195389807.

Russell, V.A., Dimatelis, J. and Daniels, W.M.U. 2012. Animal models of substance abuse. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 201-227. Cape Town, South Africa: UCT Press. ISBN 9781919895291.

Stein, D.J., Ellis, G.F.R., Thomas, K. and Meintjes, E.M. 2012. Introduction: substance use and abuse in South Africa. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 1-9. Cape Town, South Africa: UCT Press. ISBN 9781919895291.

Articles in peer-reviewed Journals

Ahmed, F., Spottiswoode, B., Carey, P., Stein, D.J. and Seedat, S. 2012. Relationship between neurocognition and regional brain volumes in traumatized adolescents with and without posttraumatic stress disorder. Neuropsychobiology, 66: 174-184.

Alhamud, A., Tisdall, M.D., Hess, A., Hasan, K.M., Meintjes, E.M. and van der Kouwe, A.J. 2012. Volumetric navigators for real-time motion correction in diffusion tensor imaging. Magnetic Resonance in Medicine, 68: 1097-1108.

Amosun, S.L., Hartman, N., Janse van Rensburg, V.C., Duncan, E.M. and Badenhorst, E.S. 2012. Process in widening access to undergraduate allied health sciences education in South Africa. African Journal of Health Professions Education, 4(1): 34-39.

Andronikou, S., Spottiswoode, B. and Tomazos, N. 2012. A semi-automated method for measuring thickness and white matter integrity of the corpus callosum. SA Journal of Radiology, 16(4): 130-133.

April, K., Lifson, D. and Noakes, T.D. 2012. Emotional

intelligence of elite sports leaders & elite business leaders. International Journal of Business and Commerce, 1(5): 82-115.

Auger, D., Zhong, X., Epstein, F. and Spottiswoode, B. 2012. Mapping right ventricular myocardial mechanics using 3D cine DENSE cardiovascular magnetic resonance. Journal of Cardiovascular Magnetic Resonance, 14:4.

Ballim, R., Mendelsohn, C., Papaioannou, V.E. and Prince, S. 2012. The ulnar-mammary syndrome gene, Tbx3, is a direct target of the retinoic acid signaling pathway, which regulates its expression during mouse limb development. Molecular Biology of the Cell, 23(12): 2362-2372.

Baron, Y., Corre, S., Mouchet, N., Vaulont, S., Prince, S. and Galibert, M.D. 2012. USF-1 is critical for maintaining genome integrity in response to UV-induced DNA photolesions. Plos Genetics, 8(1): e1002470.

Bath, D., Turner, L.A., Bosch, A.N., Tucker, R., Lambert, E.V., Thompson, K.G. and St Clair Gibson, A. 2012. The effect of a second runner on pacing strategy and RPE during a running time trial. International Journal of Sports Physiology and Performance, 7: 26-32.

Beis, L.Y., Wright-Whyte, M., Fudge, B., Noakes, T.D. and Pitsiladis, Y. 2012. Drinking behaviors of elite male runners during marathon competition. Clinical Journal of Sport Medicine, 22(3): 254-261.

Beltrami, F., Froyd, C., Mauger, A.R., Metcalfe, A.J., Marino, F. and Noakes, T.D. 2012. Conventional testing methods produce submaximal values of maximum oxygen consumption. British Journal of Sports Medicine, 46: 23-29.

Botha, M., Grace, L., Bugarith, K., Russell, V., Kidd, M., Seedat, S. and Hemmings, S. 2012. The impact of voluntary exercise on relative telomere length in a rat model of developmental stress. BMC Research Notes, 5:697.

Brown, J.C., Verhagen, E., Viljoen, W., Readhead, C., van Mechelen, W., Hendricks, M.S. and Lambert, M.I. 2012. The incidence and severity of injuries at the 2011 South African Rugby Union (SARU) youth week tournaments. South African Journal of Sport Medicine, 24(2): 49-54.

Burger, I., Meintjes, E.M., Keegan, J. and Firmin, D.N. 2012. Elliptical subject specific model for respiratory motion. Journal of Cardiovascular Magnetic Resonance, 14(Suppl. 1):P267.

Carter, R.C., Jacobson, J.L., Molteno, C.D., Jiang, H., Meintjes, E.M., Jacobson, S.W. and Duggan, C. 2012. Effects of heavy prenatal alcohol exposure and iron deficiency anemia on child growth and body composition through age 9 years. Alcoholism-Clinical and Experimental Research, 36(11): 1973-1982.

Chantler, S., Dickie, K., Goedecke, J.H., Levitt, N.S., Lambert, E.V., Evans, J., Joffe, Y. and Micklesfield, L.K. 2012. Site-specific differences in bone mineral density in black and white premenopausal South African women. Osteoporosis International, 23: 533-542.

Clark, D.R., Lambert, M.I. and Hunter, A. 2012. Muscle activation in the loaded free barbell squat: a brief review. Journal of Strength and Conditioning Research, 26(4): 1169-1178.

Cook, I., Alberts, M. and Lambert, E.V. 2012. Influence of cut-points on patterns of accelerometry-measured free-living physical activity in rural and urban black South African women. Journal of Physical Activity & Health, 9(2): 300-310.

Coquart, J.B., Eston, R.G., Noakes, T.D., Tourny-Chollet, C., L'hermette, M., Lemaitre, F. and Garcin, M. 2012. Estimated time limit: a brief review of a perceptually based scale. Sports Medicine, 42(10): 845-855.

Cornwall, J., Perry, G., Louw, G. and Stringer, M.D. 2012. Who donates their body to science? An international, multicenter, prospective study. Anatomical Sciences Education, 5(4): 208-216.

Curry, J.W., Hohl, R., Noakes, T.D. and Kohn, T.A. 2012. High oxidative capacity and type IIx fibre content in springbok and fallow deer skeletal muscle suggest fast sprinters with a resistance to fatigue. Journal of Experimental Biology, 215: 3997-4005.

Daanen, H.A.M., Lamberts, R., Kallen, V.L., Jin, A. and Van Meeteren, N.L.U. 2012. A systematic review on heart-rate recovery to monitor changes in training status in athletes. International Journal of Sports Physiology and Performance, 7: 251-260.

Daniels, W.M.U., Marais, L., Stein, D.J. and Russell, V.A. 2012. Exercise normalizes altered expression of proteins in the ventral hippocampus of rats subjected to maternal separation. Experimental Physiology, 97(2): 239-274.

De Guio, F., Jacobson, S.W., Molteno, C.D., Jacobson, J.L. and Meintjes, E.M. 2012. Functional magnetic resonance imaging study comparing rhythmic finger tapping in children and adults. Pediatric Neurology, 46: 94-100.

De Milander, L., Ah Kun, M., September, A.V., Schwellnus, M.P., Noakes, T.D. and Collins, M. 2012. AVPR2 gene and weight changes during triathlons. International Journal of Sports Medicine, 33: 67-75.

De Villiers, A., Steyn, N., Draper, C.E., Fourie, J., Barkhuizen, G., Lombard, C., Dalais, L., Abrahams, Z. and Lambert, E.V. 2012. "HealthKick": formative assessment of the health environment in low-resource primary schools in the Western Cape Province of South Africa. BMC Public Health, 12:794.

Dembetembe, K.A. and Morris, A.G. 2012. Is Greulich-Pyle age estimation applicable for determining maturation in male Africans? South African Journal of Science, 108(9/10): 1036.

Dimatelis, J., Stein, D.J. and Russell, V.A. 2012. Behavioral changes after maternal separation are reversed by chronic constant light treatment. Brain Research, 1480: 61-71.

Dimatelis, J., Pillay, N., Mutyaba, A., Russell, V.A., Daniels, W.M.U. and Stein, D.J. 2012. Early maternal separation leads to down-regulation of cytokine gene expression. Metabolic Brain Disease, 27: 393-397.

Dimatelis, J., Russell, V.A., Stein, D.J. and Daniels, W.M. 2012. Effects of maternal separation and methamphetamine exposure on protein expression in the nucleus accumbens shell and core. Metabolic Brain Disease, 27: 363-375.

Dimatelis, J., Russell, V.A., Stein, D.J. and Daniels, W.M. 2012. The effects of lobeline and naltrexone on methamphetamine-induced place preference and striatal dopamine and serotonin levels in adolescent rats with a history of maternal separation. Metabolic Brain Disease, 27: 351-361.

Douglas, T.S. 2012. Biomedical engineering at the University of Cape Town - challenges and opportunities. SAMJ South African Medical Journal, 102(6): 456.

Douglas, T.S. 2012. Biomedical engineering education for developing countries. IEEE Technology and Society Magazine, 2012: 51-57.
Douglas, T.S., Gresak, L., Koen, N., Fenton-Muir, N., Van As, A.B. and Pitcher, R.D. 2012. Measurement of prevertebral cervical soft tissue thickness on lateral digital radiographs. Journal of Pediatric Orthopaedics, 32(3): 249-252.

Douglas, T.S., Fenton-Muir, N., Kewana, K., Ngema, Y. and Liebenberg, L. 2012. Radiological findings at a South African forensic pathology laboratory in cases of sudden unexpected death in infants. SA Journal of Radiology, February: 4-6.

Draper, C.E. and Louw, G.J. 2012. Competence for internship: perceptions of final-year medical students. Education for Health: Change in Training and Practice, 25(1): 16-22.

Draper, C.E., Achmat, M., Forbes, J. and Lambert, E.V. 2012. Impact of a community-based programme for motor development on gross motor-skills and cognitive function in preschool children from disadvantaged settings. Early Child Development and Care, 182(1): 137-152.

Draper, C.E., Forbes, J., Taylor, G. and Lambert, M.I. 2012. Empowering professional soccer players in South Africa: evaluation of project thuseng. International Journal of Sports Science & Coaching, 7(3): 579-591.

Draper, C.E., Moller, N.A., Aubin, L.A., Edelstein, G. and Weiss, R. 2012. Developing a standardised patient programme in a primary healthcare curriculum: a needs analysis. African Journal of Health Professions Education, 4(2): 97-101.

Eicher, A., Marais, P.C., Warton, C.M.R., Jacobson, S.W., Jacobson, J.L., Molteno, C.D. and Meintjes, E.M. 2012. A heuristic image search algorithm for active shape model segmentation of the caudate nucleus and hippocampus in brain MR Images of children with FASD. South African Computer Journal, 49: 35-53.

Faro-Trindale, I., Willment, J., Kerrigan, A.M., Redelinghuys, P., Hadebe, S., Reid, D.M., Srinivasan, N., Wainwright, H.C., Lang, D.M., Steele, C. and Brown, G.D. 2012. Characterisation of innate fungal recognistion in the lung. PLoS One, 7(4): e35675.

Foroud, T., Wetherill, L., Vinci-Booher, S., Moore, E.S., Ward, R.E., Hoyme, H.E., Robinson, L.K., Rogers, J., Meintjes, E.M., Molteno, C.D., Jacobson, J.L. and Jacobson, S.W. 2012. Relation over time between facial measurements and cognitive outcomes in fetal alcohol-exposed children. Alcoholism-Clinical and Experimental Research, 36(9): 1634-1646.

Gabriels, G.A., Lambert, M.I. and Smith, P.J. 2012. Information on nutritional supplement labels: time for legislation. South African Journal of Clinical Nutrition, 25(1): 22-26.

Gwanyanya, A., Macianskiene, R. and Mubagwa, K. 2012. Insights into the effects of diclofenac and other non-steroidal anti-inflammatory agents on ion channels. Journal of Pharmacy and Pharmacology, 64: 1359-1375.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: a story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Hemmerich, A., van der Merwe, W., Batterham, M. and Vaughan, C.L. 2012. Knee rotational laxity: an investigation of bilateral asymmetry for comparison with the contralateral uninjured knee. Clinical Biomechanics, 27: 607-612.

Hendricks, M.S., Jordaan, E. and Lambert, M.I. 2012. Attitude and behaviour of junior rugby union players towards tackling during training and match play. Safety Science, 50: 266-284.

Hendricks, M.S., Ojuka, E., Kellaway, L.A., Mabandla, M.V. and Russell, V.A. 2012. Effect of maternal separation on mitochondrial function and role of exercise in a rat model of Parkinson's disease. Metabolic Brain Disease, 27: 387-392.

Hendricks, M.S., Karpul, D., Nicolls, F. and Lambert, M.I. 2012. Velocity and acceleration before contact in the tackle during rugby union matches. Journal of Sports Sciences, 30(12): 1215-1224.

Hess, A., Andronesi, O.C., Tisdall, M.D., Sorensen, A.G., van der Kouwe, A.J.W. and Meintjes, E.M. 2012. Real-time motion and B0 correction for localized adiabatic selective refocusing (LASER) MRSI using echo planar imaging volumetric navigators. NMR in Biomedicine, 25(2): 347-358.

Hew-Butler, T., Boulter, J., Bhorat, R. and Noakes, T.D. 2012. Avoid adding insult to injury - correct management of sick female endurance athletes. SAMJ South African Medical Journal, 102(12): 927-930.

Hoare, J., Fouche, J., Spottiswoode, B., Donald, K.A., Phillips, N., Bezuidenhout, H., Mulligan, C., Webster, V., Oduro, C., Schrieff, L.E., Paul, R., Zar, H.J., Thomas, K. and Stein, D.J. 2012. A diffusion tensor imaging and neurocognitive study of HIV-positive children who are HAART-naive "slow progressors". Journal of Neurovirology, 18: 205-212.

Hoare, J., Westgarth-Taylor, J., Fouche, J., Spottiswoode, B., Paul, R., Thomas, K., Stein, D.J. and Joska, J. 2012. A diffusion tensor imaging and neuropsychological study of prospective memory impairment in South African HIV positive individuals. Metabolic Brain Disease, 27: 289-297.

Howells, F., Stein, D.J. and Russell, V.A. 2012. Synergistic tonic and phasic activity of the locus coeruleus norepinephrine (LC-NE) arousal system is required for optimal attentional performance. Metabolic Brain Disease, 27: 267-274.

Howells, F.M., Ives-Deliperi, V.L., Horn, N. and Stein, D.J. 2012. Mindfulness based cognitive therapy improves frontal control in bipolar disorder: a pilot EEG study. BMC Psychiatry, 12:15.

Howells, F.M., Stein, D.J. and Russell, V.A. 2012. Childhood trauma is associated with altered cortical arousal: insights from an EEG study. Frontiers in Integrative Neuroscience 6:120.

Ives-Deliperi, V.L. and Butler, J.T. 2012. Naming outcomes if anterior temporal lobectomy in epilepsy patients: a systematic review of the literature. Epilepsy & Behavior, 24: 194-198.

Joffe, Y., van der Merwe, L., Evans, J., Collins, M., Lambert, E.V., September, A.V. and Goedecke, J.H. 2012. The tumor necrosis factor-alpha gene -238 G > a polymorphism, dietary fat intake, obesity risk and serum lipid concentrations in black and white South African women. European Journal of Clinical Nutrition, 66: 1295-1302.

Kadner, K., Dobner, S., Franz, T., Bezuidenhout, D., Sirry, M.S., Zilla, P. and Davies, N.H. 2012. The beneficial effects of deferred delivery on the efficiency of hydrogel therapy post myocardial infarction. Biomaterials, 33: 2060-2066.

Kagura, J., Feeley, A.B.B., Micklesfield, L.K. and Norris, S.A. 2012. Association between infant nutrition and anthropometry, and pre-pubertal body composition in urban South African children. Journal of Developmental Origins of Health and Disease, 3(6): 415-423.

Kaikkonen, P., Hynynen, E., Mann, T., Rusko, H. and Nummela, A. 2012. Heart rate variability is related to training load variables in interval running exercises. European Journal of Applied Physiology, 112: 829-838.

Keswell, D., Davids, L.M. and Kidson, S.H. 2012. Migration of human melanocytes into keratinocyte monolayers in vitro. Journal of Dermatological Science, 66: 160-168.

Klionsky, D.J., Abdalla, F.C., Abeliovich, H., Abraham, R.T., Acevedo-Arozena, A. and Davids, L.M. 2012. Guidelines for the use and interpretation of assays for monitoring autophagy. Autophagy, 8: 445-544.

Kohl, H.W., Craig, C.L., Lambert, E.V., Inoue, S., Alkandari, J.R., Leetongin, G. and Kahlmeier, S. 2012. The pandemic of physical inactivity: global action for public health. Lancet, 380: 294-305.

Kolbe-Alexander, T.L., Proper, K., Lambert, E.V., van Wier, M.F., Pillay, J., Nossel, C., Adonis, L. and van Mechelen, W. 2012. Working on wellness (WOW): a worksite health promotion intervention programme. BMC Public Health, 12:372.

Kunorozva, L., Stephenson, K., Rae, D. and Roden, L.C. 2012. Chronotype and PERIOD3 variable number tandem repeat polymorphism in individual sports athletes. Chronobiology International, 29(8) 1004-1010.

Lamberts, R., Lambert, M.I., Swart, J. and Noakes, T.D. 2012. Allometric scaling of peak power output accurately predicts time trial performance and maximal oxygen consumption in trained cyclists. British Journal of Sports Medicine, 46: 36-41.

Langerak, N., Tam, N., Vaughan, C.L., Fieggen, A.G. and Schwartz, M.H. 2012. Gait status 17-26 years after selective dorsal rhizotomy. Gait & Posture, 35: 244-249.

Lochner, C., Fouche, J.-P., du Plessis, S., Spottiswoode, B., Seedat, S., Fineberg, N.A., Chamberlain, S.R. and Stein, D.J. 2012. Evidence for fractional anisotropy and mean diffusivity white matter abnormalities in the internal capsule and cingulum in patients with obsessive-compulsive disorder. Journal of Psychiatry & Neuroscience, 37(3): 193-199.

Makena, N., Bugarith, K.H. and Russell, V.A. 2012. Maternal separation enhances object location memory and prevents exercise-induced MAPK/ERK signalling in adult Sprague-Dawley rats. Metabolic Brain Disease, 27: 377-385.

Mapanga, R.F., Rajamani, U., Dlamini, N., Zungu-Edmondson, M., Kelly, R., Shafiullan, M., Wahab, A., Hasan, M.Y., Fahim, M.A., Rondeau, P., Bourdon, E. and Essop, M.F. 2012. Oleanolic acid: a novel cardioprotective agent that blunts hyperglycemia-induced contractile dysfunction. PLoS One, 7(10): e47322.

Marraccini, T., Meltzer, S., Bourne, L. and Draper, C.E. 2012. A qualitative evaluation of exposure to and perceptions of the Woolworths healthy tuckshop guide in Cape Town, South Africa. Childhood Obesity, 8(4): 369-377.

McFie, S., Sterley, T.-L., Howells, F. and Russell, V.A. 2012. Clozapine decreases exploratory activity and increases anxiety-like behaviour in the Wistar-Kyoto rat but not the spontaneously hypertensive rat model of attention-deficit/hyperactivity disorder. Brain Research, 1467: 91-103.

Medbo, J.I., Mamer, A. and Beltrami, F. 2012. Examination of the moxus modular metabolic mystem by the Douglas-bag technique. Applied Physiology Nutrition and Metabolism, 37: 860-871.

Micklesfield, L.K., Gray, J. and Taliep, M. 2012. Bone mineral density and body composition of South African cricketers. Journal of Bone and Mineral Metabolism, 30: 232-237.

Micklesfield, L.K., Goedecke, J.H., Punyanitya, M., Wilson, K.E. and Kelly, T.L. 2012. Dual-energy x-ray performs as well as clinical computed tomography for the measurement of visceral fat. Obesity, 20(5): 1109-1114.

Miller, E.M., Pomerleau, F., Huettl, P., Russell, V.A., Gerhardt, G.A. and Glaser, P.E.A. 2012. The spontaneously hypertensive and Wistar Kyoto rat models of ADHD exhibit sub-regional differences in dopamine release and uptake in the striatum and nucleus accumbens. Neuropharmacology, 63(8): 1327-1334.

Morgan, B.E., Terburg, D., Thornton, H.B., Stein, D.J. and van Honk, J. 2012. Paradoxical facilitation of working memory after basolateral amygdala damage. PLoS One, 7(6): e38116.

Morris, A.G. 2012. Biological anthropology at the southern tip of Africa: carrying European baggage in an African context. Current Anthropology, 53(Suppl 5): S152-S160.

Morris, A.G. 2012. Trauma and violence in the later stone age of Southern Africa. SAMJ South African Medical Journal, 102(6): 568-570.

Naude, C.E., Carey, P., Laubscher, R., Fein, G. and Senekal, M. 2012. Vitamin D and calcium status in South African adolescents with alcohol use disorders. Nutrients, 4: 1076-1094.

Nell, E.-M., van der Merwe, L., Cook, J., Handley, C.J., Collins, M. and September, A.V. 2012. The apoptosis pathway and the genetic predispositiion to achilles tendinopathy. Journal of Orthopaedic Research, 30(11): 1719-1724.

Nieuwenhuizen, N., Kirstein, F., Jayakumar, J., Emedi, B., Hurdayal, R., Horsnell, W., Lopata, A.L. and Brombacher, F. 2012. Allergic airway disease is unaffected by the absence of IL-4-dependent alternatively activated macrophages. Journal of Allergy and Clinical Immunology, 130: 743-750.

Noakes, T.D. 2012. The central governor model in 2012: eight new papers deepen our understanding of the regulation of human exercise performance. British Journal of Sports Medicine, 46(1): 1-3.

Noakes, T.D. 2012. The University of Cape Town taught me how to challenge beliefs. SAMJ South African Medical Journal, 102(6): 430-432.

Ojuka, E., Goyaram, V. and Smith, J. 2012. The role of CaMKII in regulating GLUT4 expression in skeletal muscle. American Journal of Physiology-Endocrinology and Metabolism, 303: E322-E331.

Oosthuyse, T. and Bosch, A.N. 2012. Oestrogen's regulation of fat metabolism during exercise and gender specific effects. Current Opinion in Pharmacology, 12: 363-371.

Patel, B. and Douglas, T.S. 2012. Creating a virtual slide map from sputum smear images for region-of-interest localisation in automated microscopy. Computer Methods and Programs in Biomedicine, 108(1): 38-52.

Paul, S.K., Sivarasu, S. and Mathew, L. 2012. Customized foot orthosis development by 3D reconstruction of the CT images. Engineering, 4(10): 692-695.

Peer, N., Steyn, K., Lombard, C., Lambert, E.V., Vythilingum, B. and Levitt, N. 2012. Rising diabetes prevalence among urban-dwelling black South Africans. PLoS One, 7(9): e43336.

Petersen, M., Davids, L.M. and Kidson, S.H. 2012. Simultaneous immunofluorescent labeling using anti-BrdU monoclonal antibody and a melanocyte-specific marker in formalin-fixed paraffin-embedded human skin samples. Applied Immunohistochemistry & Molecular Morphology, 20(6): 614-617.

Posthumus, M., Collins, M., van der Merwe, L., O'Cuinneagain, D., van der Merwe, W., Ribbans, W.J., Schwellnus, M.P. and Raleigh, S.M. 2012. Matrix metalloproteinase genes on chromosome 11q22 and the risk of anterior cruciate ligament (ACL) rupture. Scandinavian Journal of Medicine & Science in Sports, 22: 523-533.

Rapson, M., Tapson, J.C. and Karpul, D. 2012. Unification and extension of monolithic state space and iterative cochlear models. Journal of the Acoustical Society of America, 131(5): 3935-3952.

Romero-Aleman, M., Monzon-Mayor, M., Santos, E., Lang, D.M. and Yanes, C. 2012. Neuronal and glial differentiation during lizard (Gallotia galloti) visual system ontogeny. Journal of Comparative Neurology, 520(10): 2163-2184.

Saleh, M., Sharp, S., Alhamud, A., Spottiswoode, B., van der Kouwe, A.J., Davies, N.H., Franz, T. and Meintjes, E.M. 2012. Long-term left ventricular remodelling in rat model of nonreperfused myocardial infarction: sequential MR imaging using a 3T clinical scanner. Journal of Biomedicine and Biotechnology, 504037: 1-10.

Schmidt, S., Hoving, J., Horsnell, W., Mearns, H., Cutler, A., Brombacher, T.M. and Brombacher, F. 2012. Nippostrongylus-induced intestinal hypercontractility requires IL-4 receptor alpha-responsiveness by T cells in mice. PLoS One, 7(12): e522111.

Schwellnus, M.P., Derman, E.W., Jordaan, E., Page, T., Lambert, M.I., Readhead, C., Roberts, C., Kohler, R., Collins, R., Kara, S., Morris, I., Strauss, O. and Webb, S. 2012. Elite athletes travelling to international destinations >5 time zone differences from their home country have a 2-3-fold increased risk of illness. British Journal of Sports Medicine, 46: 816-821.

Schwellnus, M.P., Derman, E.W., Page, T., Lambert, M.I., Readhead, C., Roberts, C., Kohler, R., Jordaan, E., Collins, R., Kara, S., Morris, I., Strauss, O. and Webb, S. 2012. Illness during the 2010 Super 14 rugby union tournament: a prospective study involving 22 676 player days. British Journal of Sports Medicine, 46: 499-504.

Senekal, M. 2012. Genotype-based personalised nutrition for obesity prevention and treatment: are we there yet? South African Journal of Clinical Nutrition, 25(1): 9-14.

September, A.V., Posthumus, M. and Collins, M. 2012. Application of genomics in the prevention, treatment and management of achilles tendinopathy and anterior cruciate ligament ruptures. Recent Patents on DNA & Gene Sequences, 6: 216-223.

Shamley, D.R., Lascurain-Aguirrebena, I., Oskrochi, R. and Srinaganathan, R. 2012. Shoulder morbidity after treatment for breast cancer is bilateral and greater after mastectomy. Acta Oncologica, 51: 1045-1053.

Sharma, K. and Davids, L.M. 2012. Depigmentation in melanomas increases the efficacy of hypericin-mediated photodynamic-induced cell death. Photodiagnosis and Photodynamic Therapy, 9: 156-163.
Sharma, K. and Davids, L.M. 2012. Hypericin-PDT-induced rapid necrotic death in human squamous cell carcinoma cultures after multiple treatment. Cell Biology International, 36: 1261-1266.

Shultz, S.J., Schmitz, R.J., Benjaminse, A., Chauhari, A.M., Collins, M. and Padua, D.A. 2012. ACL research retreat VI: an update on ACL injury and risk prevention. Journal of Athletic Training, 47(5): 591-603.

Spottiswoode, B., du Plessis, S., Gretschel, A. and Lotz, M.A. 2012. Functional MRI in pre-surgical planning: case study and cautionary notes. SA Journal of Radiology, 16(3): 107-110.

Spurway, N.C., Ekblom, B., Noakes, T.D. and Wagner, P. 2012. What limits VO2max? Journal of Sports Sciences, 30(6): 517-531.

Swart, J., Lindsay, T.i.m.o.t.h.y., Lambert, M.I., Brown, J.C. and Noakes, T.D. 2012. Perceptual cues in the regulation of exercise performance - physical sensations of exercise an awareness of interact as separate cues. British Journal of Sports Medicine, 46: 42-48.

Syal, S., Hattingh, C., Fouche, J., Spottiswoode, B., Carey, P., Lochner, C. and Stein, D.J. 2012. Grey matter abnormalities in social anxiety disorder: a pilot study. Metabolic Brain Disease, 27: 299-309.

Terburg, D., Morgan, B.E., Montoya, E.R., Hooge, I.T., Thornton, H.B., Hariri, A.R., Panksepp, J., Stein, D.J. and van Honk, J. 2012. Hypervigilance for fear after basolateral amygdala damage in humans. Translational Psychiatry, 2: e115.

Testa, M., Noakes, T.D. and Desgorces, F.D. 2012. Training state improves the relationship between rating of perceived exertion and relative exercise volume during resistance exercises. Journal of Strength and Conditioning Research, 26(11): 2990-2996.

Tisdall, M.D., Hess, A., Reuter, M., Meintjes, E.M., Fischl, B. and van der Kouwe, A.J. 2012. Volumetric navigators for prospective motion correction and selective reacquisition in neuroanatomical MRI. Magnetic Resonance in Medicine, 68: 389-399.

Tucker, R. and Collins, M. 2012. Athletic performance and risk of injury: can genes explain all? Dialogues in Cardiovascular Medicine, 17(1): 1-11.

Tucker, R. and Collins, M. 2012. What makes champions? A review of the relative contribution of genes and training to sporting success. British Journal of Sports Medicine, 46: 555-561.

Vaughan, C.L. and Evans, M.D. 2012. Diagnosing breast cancer: an opportunity for innovative engineering. SAMJ South African Medical Journal, 102(6): 562-564.

Von Bezing, H., Andronikou, S., van Toorn, R. and Douglas, T.S. 2012. Are linear measurements and computerized volumetric ratios determined from axial MRI useful for diagnosing hydrocephalus in children with tuberculosis meningitis? Childs Nervous System, 28(1): 79-85.

Wright, C., Norval, M., Summers, B., Davids, L.M., Coetzee, G. and Oriowo, M. 2012. Solar ultraviolet radiation exposure and human health in South Africa: finding a balance. SAMJ South African Medical Journal, 102(8): 665-666.

Wright, C., Norval, M., Summers, B., Davids, L.M., Coetzee, G. and Oriowo, M. 2012. The impact of solar ultraviolet radiation on human health in sub-Saharan Africa. South African Journal of Science, 108(11/12): 1245(1-6).

Zwane, R.E., Parker, A., Kudanga, T., Davids, L.M. and Burton, S.G. 2012. Novel, biocatalytically produced hydroxytyrosol dimer protects against ultraviolet-induced cell death in human immortalized keratinocytes. Journal of Agricultural and Food Chemistry, 60(46): 11509-11517.

Peer-reviewed published conference proceedings

Alhamud, A., Tisdall, M.D., Hasan, K.M., van der Kouwe, A.J.W. and Meintjes, E.M. 2012. Potential misinterpretation of diffusion tensor imaging data due to head motion. Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM), 20th Annual Meeting & Exhibition (2012), 5-11 May 2012, Melbourne, Australia. USA: ISMRM International Society for Magnetic Resonance in Medicine. ISSN 1545-4428.

Auger, D., Zhong, X., Epstein, F. and Spottiswoode, B. 2012. Mapping regional right ventricular myocardial strain using 3D cine DENSE MRI. Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM), 20th Annual Meeting & Exhibition (2012), 5-11 May 2012, Melbourne, Australia. USA: ISMRM International Society for Magnetic Resonance in Medicine. ISSN 1545-4428.

Auger, D., Spottiswoode, B., Budge, L.P., Zhong, X., Epstein, F. and Bilchick, K.C. 2012. The effect of left bundle branch block and heart failure on circumferential right ventricular dyssynchrony and function: assessment with MR CINE DENSE. Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM), 20th Annual Meeting & Exhibition (2012), 5-11 May 2012, Melbourne, Australia. USA: ISMRM International Society for Magnetic Resonance in Medicine. ISSN 1545-4428.

Britto, P., Rekha, V. and Sivarasu, S. 2012. Conceptual design of a paraplegic walker. Proceedings of the 7th International Appropriate Healthcare Technologies Conference - World Wellbeing Health and for Developing Countries (AHT 2012), 18-19 September 2012, London, UK. London: IET The Institution of Engineering and Technology. ISBN 9781849196819.

Burger, I., Meintjes, E.M., Firmin, D.N. and Keegan, J. 2012. Subject specific respiratory motion correction accounting for hysteresis. Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM), 20th Annual Meeting & Exhibition (2012), 5-11 May 2012, Melbourne, Australia. USA: ISMRM International Society for Magnetic Resonance in Medicine. ISSN 1545-4428.

Douglas, T.S. 2012. Drivers and restrainers of relevance in graduate BME education - a South African study. Proceedings of 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2012), 28 August - 1 September 2012, San Diego, CA, USA. USA: IEEE. ISBN 9781424441204.

Holloway, P., Angelova, M., St Clair Gibson, A., Lombardo, S., Lee, D., Ellis, J., Lambert, E.V. and Rauch, H.G.L. 2012. Modelling techniques for analysis of human activity patterns. Proceedings of the 2012 6th IEEE International Conference Intelligent Systems (IS 2012), 6-8 September 2012, Sofia, Bulgaria. New York: Curran Associates, Inc. ISBN 9781467322768.

Narayanan, P., Warton, C.M.R., Jacobson, S.W., Jacobson, J.L., Molteno, C.D. and Meintjes, E.M. 2012. Comparison of volumes of cerebellar lobules on structural MRI using manual and automatic segmentation in normal and alcohol-exposed children. Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM), 20th Annual Meeting & Exhibition (2012), 5-11 May 2012, Melbourne, Australia. USA: ISMRM International Society for Magnetic Resonance in Medicine. ISSN 1545-4428.

Paul, S.K., Rekha, V. and Sivarasu, S. 2012. Tactile sensing fabrics for detecting impairments in leprosy patients. Proceedings of the 7th International Appropriate Healthcare Technologies Conference - World Wellbeing Health and for Developing Countries (AHT 2012), 18-19 September 2012, London, UK. London: IET The Institution of Engineering and Technology. ISBN 9781849196819.

Suresh, A., Harn, C., Pollack, E., Kroon, M., Poluta, M.A.J., Kelso, D. and Glucksberg, M. 2012. Novel device to conduct flash-heat treatment in efforts to reduce mother-to-child HIV transmission in low-resource areas. Proceedings of the 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2012), 28 August - 1 September 2012, San Diego, CA, USA. USA: IEEE. ISBN 9781424441204.

Tezoo, T. and Douglas, T.S. 2012. Interactive segmentation of airways from chest x-ray images using active shape models. Proceedings of the 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2012), 28 August - 1 September 2012, San Diego, CA, USA. USA: IEEE. ISBN 9781424441204.

Patents

Brijlal, Y., John, L.R. and Sivarasu, S. Hand Exoskeleton. Provisional Patent Application. South Africa 2012/08238.

Britto, P.I., Rekha, V. and Sivarasu, S. Rehabilitative Robotics in Mobility Assistance for Paraplegics. March 2012. Application No.: 923/CHE/2012. Indian Patent Office.

Doctoral dissertations

Alhamud, A. 2012. Implementation of anatomical navigators for real time motion correction in diffusion tensor imaging. Supervised by Meintjes, E.M.

Burger, I. 2012. A control system approach to subject specific prospective respiratory motion correction in cardiac MRI. Supervised by Meintjes, E.M.

Cook, I. 2012. Voluntary physical activity: measurement and relationship to selected health parameters in rural black South Africans resident in the Limpopo Province, South Africa. Supervised by Lambert, E.V. and Alberts, M.

De Milander, L. 2012. Genetic factors associated with performance and exercise-associated weight loss in ironman triathletes. 277pp. Supervised by Collins, M.

Genade, T. 2012. A study of neurodegeneration and neuroprotection in nothobranchius guentheri. 192pp. Supervised by Lang, D.M. and Kidson, S.

Gray, J. 2012. Lower back pain in adolescent fast bowlers. 298pp. Supervised by Derman, E. and Vaughan, C.

Hendricks, M.S. 2012. The tackle in rugby union: understanding training and match behaviours to develop better coaching strategies for skill acquisition, performance and injury prevention. Supervised by Lambert, M.I.

Prinsloo, G. 2012. The physiological effects of heart rate variability biofeedback during laboratory induced cognitive stress. Supervised by Derman, E. and Rauch, H.G.L.

Robertson, F.C. 2012. Issues in the processing and analysis of functional NIRS imaging and a contrast with fMRI findings in a study of sensorimotor deactivation and connectivity. Supervised by Meintjes, E.M. and Douglas, T.

Swart, J. 2012. Perceptual cues in the regulation of endurance exercise. Supervised by Lambert, M.I. and Noakes, T.

Master's degrees (by research)

Bonthuys, A. 2012. Stem cells and neoplasia: a study of benign melanocytic naevi. MSc (Med) Cell Biology. 90pp. Supervised by Kidson, S. and Todd, G.

Boonzaier, N. 2012. Effects of prenatal alcohol exposure on cerebellar volume in children: an MRI study. MSc (Med) Applied Anatomy. 58pp. Supervised by Meintjes, E.M. and Warton, C.M.R.

Chetty, A.K. 2012. Involvement of p300 in caffeine-induced hyper-acetylation of histones at the MEF2 binding domainon the Glut4 gene. MSc (Med) Cell Biology. 124pp. Supervised by Ojuka, E.

Cuzen, N. 2012. Disinhibition in South African treatment-nave adolescents with alchohol use disorders. MA Psychological Research. 127pp. Supervised by Thomas, K. and Andrew, C.

Dixon, T.-L. 2012. Implementation and evaluation of a bony structure suppression software tool for chest x-ray imaging. MSc (Med) Biomedical Engineering. 83pp. Supervised by Douglas, T.S.

Garson, C. 2012. The effects of ethanolamine and magnesium on cardiac and neurological function in isoprenaline-induced myocardial infarction and cardiac hypertrophy models in adult Wistar rats. MSc (Med) Physiology. 167pp. Supervised by Kelly, R.F., Gwanyanya, A. and Bugarith, K.H.

Goolam, M. 2012. An in vitro model of mouse corneal endothelial development. MSc (Med) Cell Biology. 116pp. Supervised by Kidson, S.

Gumede, D. 2012. Over-expression of NRF-1 in C2C12 myotubes increases GLUT4 content via a transcriptional cascade involving MEF2A . MSc (Med) Cell Biology. 65pp. Supervised by Ojuka, E.

Hope, F. 2012. Rehabilitation outcomes of a lifestyle intervention program for chronic disease: medical insurer referred and funded patients versus self-initiated and self-funded patients. MPhil Biokinetics. 90pp. Supervised by Derman, E.

Lombard, W. 2012. Secular changes in anthropometric and physical characteristics of South African national U/20 rugby union players (1998-2010). Mphil Biokinetics. 73pp. Supervised by Lambert, M.I.

Miller, R. 2012. A computational study of post-infarct mechanical effects of injected biomaterial into ischemic myocardium. MSc (Med) Biomedical Engineering. Supervised by Franz, T.

Modak, G. 2012. Characteristics of dynamics associated with skeletal muscle contraction initiated by acetylcholine injection. MSc (Med) Biomedical Engineering. Supervised by Bugarith, K.H. and Kellaway, L.

Mudd, R. 2012. Exploring the range of motion between the acetabular component and the femoral componentin hip resurfacing. MSc (Med) Biomedical Engineering. 116pp. Supervised by Vicatos, G. and Sivarasu, S.

Saleh, M. 2012. Methods and adaptations required to perform small-animal MRI scanning using a large bore clinical MRI. MSc (Med) Biomedical Engineering. 95pp. Supervised by Meintjes, E.M., Davies, N. and Franz, T.

Smit, S. 2012. Stress in the workplace: The contrasting effects of 10 minutes of listening to Chopin vs. heart rate variability biofeedback on autonomic reactivity and cognitive performance. MPhil Biokinetics. 70pp. Supervised by Rauch, L.

Speed, B. 2012. Assessing the applicability of the Greulich and Pyle (1959) skeletal age estimation method to South African children between 0 and 13 years. MSc (Med) Biological Anthrolopology. 171pp. Supervised by Morris, A.G.

Van Kets, V. 2012. An investigation into the cellular mechanisms underlying photodynamic rejuvenation in human skin . MSc (Med) Cell Biology. 130pp. Supervised by Davids, L.

Department of Medicine

HEAD OF DEPARTMENT: PROFESSOR B.M. MAYOSI

Departmental Profile

The Department of Medicine is a large clinical department which plays a leading role in medical education and research, and provides clinical services to the communities of the Western Cape and, in the case of our highly specialised services, to patients throughout southern Africa. The Department consists of 21 clinical and service divisions, 11 major research units, and four affiliated departments of medicine at GF Jooste, New Somerset, II Military, and Victoria hospitals (www.medicine.uct.ac.za). Each day, members of the department treat an average of 2,000 patients in our clinics, admit about 100 patients to our hospital services and perform over 210 medical procedures. The department offers a number of highly specialised services that are unique nationally such as allergology, bone marrow, heart, kidney, and liver transplantation, cardiac electrophysiology, endobronchial ultrasound guided bronchoscopy, and double balloon enteroscopy for visualisation of the small bowel.

There approximately 80 registrars who are training in the department, 20 of whom are from other countries such as Botswana, Ghana, Kenya, Libya, Malawi, Namibia, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. The department produces formularies and guidelines that are used in most health facilities in South Africa, such as the *South African Medical Formulary* and *Primary Care 101*.

Departmental Statistics

Permanent and Long-term Contract Staff

Professors	16
Associate Professors	22
Senior Lecturers/lecturers Full-time	85
Administrative and clerical staff	37
Total	160

Honorary Staff

Honorary Professors	7
Emeritus Professors	4
Honorary Associate Professors	3
Honorary Senior Lecturers	40
Honorary Research Associates	5
Total	59

Students

Doctoral	39
Master's	122
Undergraduates	1134
Total	1295

Research Fields and Staff

See Divisions and Research Units within the Department

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Department Of Medicine

Division Of Clinical Immunology

HEAD OF DIVISION: ASSOCIATE PROFESSOR S.R. RESS

Divisional Profile

The Division of Clinical Immunology undertakes a multi-disciplinary activity that includes teaching of undergraduate and postgraduate students, evaluation of immune function in patients with suspected immune deficiency, and a translational research programme focussed on immunology of autoimmunity, HIV and TB.

Divisional Statistics

Permanent and Long-term Contract Staff

Associate Professors	1
Technical Support Staff	1
Total	2

Research Fields and Staff

Associate Professor Stanley Ress
Immunology of tuberculosis; Autoimmunity

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Department Of Medicine

Division Of Dermatology

HEAD OF DIVISION: ASSOCIATE PROFESSOR NONHLANHLA P. KHUMALO

Division profile

The Division's training programme includes undergraduate teaching of 2nd to 6th year MBChB students. Postgraduate students include 8 registrars, 1 MRC fellow and 2 PhD fellows. The main research contributions of the Division are in the epidemiology, treatment and prevention of hair disorders and drug-induced skin injury.

Departmental statistics

Permanent and long term contract staff

Associate Professor	1
Emeritus Professor	1
Senior Lecturers (full-time)	2
Senior Lecturers (part-time, 5/8)	2
(part-time, sessional)	4
Lecturer (part-time, 5/8)	1
(sessional, DOE funds)	1
Research Staff	4
Administrative and Clerical Staff	4
Honorary Lecturers	3
TOTAL	23

Students

Doctoral	3
Master's	9
Undergraduate	784
TOTAL	796

Research fields

Permanent staff

ASSOCIATE PROFESSOR NONHLANHLA KHUMALO

Professor Khumalo is NRF rated and runs the only academic hair research clinic in the country (with Dr. Laduma Ngwanya). Her research interests include the epidemiology and treatment of hair and scalp disorders that uniquely affect individuals with afro-textured hair. Her international collaboration studies use various research tools - scanning (and transmission) electron microscopy and amino acid analysis of hair. Current studies are investigating the link between folliculitis keloidalis nuchea and HIV transmission. She is also developing a hair classification tool that will be useful for elucidating the relationship between the pathogenesis of alopecia and hair phynotype.

DR RANNAKOE LEHLOENYA

Dr Rannakoe Lehloenya leads a study of the clinical, molecular and genetic aspects of severe cutaneous adverse drug reactions (SCAR). Intrinsic to this will be the development of a predictive model for ascribing causality to ensure safe drug reintroduction especially for antituberculosis treatment reactions. Several other closely related clinical studies include a follow up of patients to assess long term sequelae, evaluation of placenta and newborn following SCAR in pregnancy and the use of clobetasol to prevent nail sequelae of SCAR. The division has become the only African member of the international group, RegiSCAR, contributing cases to the group database, essential as the cause of these reactions in Africa is very different from Europe and Asia.

Department Of Medicine

Chronic Diseases Initiative In Africa (Cdia)

DIRECTOR: PROFESSOR N.S. LEVITT

Divisional Profile

The Chronic Diseases Initiative in Africa (CDIA), funded by the United Health Chronic Disease Initiative and the National Heart Lung Blood Institute (NHLBI), was launched in November 2009. It forms part of an 11 centre Global Health Initiative focussing on non communicable disease research in the developing world. CDIA comprises of a network of researchers drawn from the University of Cape Town, Stellenbosch University and the University of the Western Cape, along with the South African Medical Research Council, Harvard University and Shree Hindu Mandal Hospital, Tanzania, in addition to representatives from local and national Departments of Health. CDIA's mission is to serve as a collaborating initiative for the development, evaluation and dissemination of methods and programmes to prevent chronic non-communicative diseases, and improve the quality of care for people with these diseases and their risk factors.

Research

Currently funded projects:

Develop, evaluate and implement integrated chronic disease management guidelines for primary care providers Eden District Randomised, Controlled-Trial for Primary Care of Chronic, Non-Communicable Diseases (NCDs) is being conducted to test the effectiveness of a novel training approach based on a previously tested model of syndromic screening and management of patients with conditions such as chronic obstructive pulmonary disease, asthma, or TB. A written guideline (101 pages) has been prepared for the management of chronic diseases by primary care nurses and doctors. The trial will test whether the approach, previously shown to be effective for respiratory diseases including tuberculosis and HIV/AIDS, will remain effective when expanded to include the primary care management of other major categories of chronic diseases (hypertension, diabetes, depression).

To calibrate and validate a non-laboratory based screening tool for cardiovascular disease (CVD) risk prediction in South Africa

The predictive performance and risk discrimination of the non-laboratory-based risk score to five commonly used laboratory-based scores (Framingham CHD and

CVD, SCORE for low and high risk settings, CUORE) was evaluated in 11 South African cohorts, which represents all cross sectional studies conducted in the country over the past 25 years for which the necessary data were available.

Develop, evaluate and implement an economic model to assess the cost-effectiveness of interventions.
This project aims to develop a CVD Prevention and Management Model that would allow us to predict CVD events accurately and be used in cost-effectiveness analyses comparing the use of different screening and intervention strategies.

Develop the capacity of community health workers, primary care facilities and managers in the area of chronic diseases
This project aims, in collaboration with the provincial DOH to define the role of a community health worker in caring for patients with NCDs and to develop suitable NCD training materials and tools for this group.

Develop, evaluate and implement lifestyle tools for the general public and patients.

"Putting Prevention into Practice" This project aims to produce and pilot a resource package for primary health care providers and community health workers to enable them to offer brief, best practice, behavioural change counselling in a variety of settings, on the topics of smoking; poor diet; obesity and overweight and lack of physical activity.

Develop, evaluate and implement new models for health education, communication and empowerment of patients
The evaluation, by means of a pragmatic cluster randomized controlled trial, the effectiveness of a group diabetes education programme delivered by health promoters with a guiding (motivational interviewing) style, in community health centres in Cape Town.

Divisional Statistics

CDIA/UCT Permanent and Long-term Contract Staff

Professor	1
Professor (Visiting)	1
Social Scientist	1
Administrative and Clerical Staff	2
Total	5

Professor Naomi Levitt	Professor
Professor Krisela Steyn	Professor
Mrs Kathy Murphy	Social Scientist
Carmelita Sylvester	Centre Manager
Susan Botha	Administrative

UCT Network Members

Professor	5
Senior Lecturer	1
Other (Senior Researcher)	1
Total	7

Professor Bongani Mayosi	Professor
Professor Eric Bateman	Professor
Professor Vicky Lambert	Professor
Professor Karen Sliwa-Hahnle	Professor
Associate Professor Alan Bryer	Associate Professor
Dr Tracy Kolbe-Alexander	Senior Lecturer
Dr Lara Fairall	Senior Researcher

NON-UCT Network Members

Professor Thandi Puoane (UWC)	Professor
Professor Bob Mash (Stellenbosch)	Professor
Professor Debbie Bradshaw (MRC)	Professor
Professor Carl Lombard (MRC)	Professor
Dr Thomas Gaziano (Harvard)	Adjunt Assistant Professor
Dr Kaushik Ramaiya (Shree Hindu Mandal Hospital, Tanzania)	Senior Lecturer
Mr Jimmy Ledwaba (Provincial Government, Dept. of Health)	Other
Ms Unita Van Vuuren (Provincial Government, Dept. of Health)	Other

Contact Details

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Department Of Medicine

Division Of Endocrinology And Diabetic Medicine

HEAD OF DIVISION: PROFESSOR N.S. LEVITT

Divisional Profile

The Division provides an inpatient and outpatient clinical service and sub-speciality training in adult endocrinology and diabetes. It has close clinical links with Paediatric Endocrinology and Diabetes, Reproductive Endocrinology and Chemical pathology.

Research

The Division is involved in a wide range of research activities, interacts with a number of international and local collaborators and is a member of the recently established Chronic Disease Initiative in Africa. The primary areas of research are:

Metabolic consequences of antiretroviral therapy in HIV+ patients: Cross-sectional and longitudinal studies examining the metabolic consequences of HAART are underway. These are being funded by the World Diabetes Foundation and Department of Health.

Burden of disease: The contribution of diabetes and other chronic diseases to the overall burden of disease pattern in the South African context is been studied in collaboration with Dr Debbie Bradshaw, BOD Group, MRC. A cross sectional survey of diabetes and other cardiovascular risk factors in the Black African community in Cape Town has been completed.

Obesity: In collaboration with the Department of Human Biology, a number of studies are in progress. These examine the mechanisms underlying the aetiology of obesity and insulin sensitivity in black and white African women.

Addison's Disease: Cardiovascular risk factors in Addison's disease has been investigated in collaboration with the University of Gothenberg. The impact of glucocorticoid receptor polymorphisms on cardiovascular risk factors has been assessed in Addison's disease.

Health Systems Research: The Division collaborates in projects being conducted by the Chronic Diseases Initiative in Africa. These include: a pragmatic cluster randomised trial of an integrated guideline for the management of diabetes and other chronic diseases is in primary care centre, a randomised controlled trial to evaluate the effectiveness of a group diabetic education programme using motivational interviewing in underserved communities; and the development of a resource package for primary health care providers and community health workers to enable them to offer brief counselling on lifestyle.

Divisional Statistics

Permanent and Long-term Contract Staff

Professor	1
Professor (visiting)	1
Senior Lecturers	2
Senior Registrar in Training	1
Medical Officer (sessional)	1
Diabetes Specialist Nurse	2
Administrative and Clerical Staff	1
Total	8

Research Fields and Staff

PROFESSOR N S LEVITT

Diabetes and hypertension health systems research, diabetes burden of disease, mechanisms underlying the metabolic sequelae of obesity, metabolic consequences of HAART

PROFESSOR K STEYN

Hypertension health systems research, burden of chronic disease and smoking in pregnancy

DR I L ROSS

National registry for Study of Addison's Disease and polyglandular autoimmune syndrome

DR J DAVE

Incidence of osteoporosis and vertebral fractures in patents with inflammatory bowel disease Metabolic consequences of antiretroviral therapy

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Department Of Medicine

Division Of Gastroenterology (Gastrointestinal Clinic)

HEAD OF GI CLINIC: PROFESSOR S THOMSON

Divisional Profile

The Gastrointestinal Clinic is a multi-disciplinary clinical unit consisting of Medical and Surgical components. This report primarily reflects the Medical component. The Clinic carries a large clinical load and offers a number of specialised services, with clinical and applied research interests in: Hepatobiliary disease; Colorectal disease; Oesophageal disease; Inflammatory bowel disease; *H.pylori* related disease; and Nutrition. The Clinic is involved in a number of collaborative research projects.

Divisional Statistics

Permanent and Long-term Contract Staff

Lecturers	5
Research Staff	1
Administrative and Clerical Staff	1
Total	5

Students

Master's	4

Research Fields and Staff

Dr Gill Watermeyer: Risk of malignancy in inflammatory bowel disease treated with Azathioprine or 6-Mercaptopurine; Predicting bad outcome in Crohn's disease; drug trials – various
Dr Dion Levin: Bleeding Peptic Ulcer Disease; *Helicobacter. pylori* testing.
Dr Sabelo Hlatshwayo: Achalsia.
Dr Mashiko Setshedi: Drug induced liver injury.

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Department Of Medicine

Division Of Haimatology and UCT Leukaemia Unit

HEAD OF DIVISION: PROFESSOR N. NOVITZKY

Divisional Profile

The Division of Haematology at Groote Schuur Hospital is a complex unit with multi disciplinary activities that include outpatient clinics, admission beds as well as diagnostic and research laboratories. The clinical services are organised under the umbrella of the Department of Internal Medicine, while the laboratory diagnostic sections are under the broader organisation of the Department of Clinical & Laboratory Sciences and National Health Laboratory Service (NHLS). The Haematology section of the laboratory was accredited with SANAS 3 years ago and after review, this accreditation was confirmed last year.

Patients with elaborate clinical problems, bone marrow failure or requiring stem cell transplantation are referred from all provinces; particularly the Northern and Eastern Cape and particularly we receive referrals from foreign institutions in Sub-Saharan Africa. In addition, individuals with multiple myeloma and other lymphoproliferative disorders are treated together with the Department of Radiation Oncology in combined clinics. Of concern is that a substantial increase in the numbers of HIV related malignancies and particularly Burkitt's lymphoma and leukaemia that have significantly strained our hospital beds.

The Division of Haematology provides training for both undergraduate and postgraduate students at the Medical Faculty. Registrars and consultants participate in undergraduate training, facilitating various modules focussing in blood disorders. At the postgraduate level, training is given at the level of Master's and PhD courses in cell biology as well as specialist training in haematopathology for medical graduates. In addition, within the Department of Clinical and Laboratory Sciences 3 divisions participate in the training provided to Clinical Pathology candidates. Regular experiential teaching and microscope tutorials are given to registrars in Haematopathology. Journal Clubs, seminars and group teaching is offered to Haematopathology, Clinical Haematology and general medical registrars. Interdepartmental meetings are held with academic staff from Tygerberg Hospital and Red Cross War Memorial Children's Hospital. Faculty members from the division also regularly contribute to the teaching programmes of the basic sciences as well as Departments of Internal Medicine and Clinical and Laboratory Sciences.

In addition a University of Cape Town Leukaemia Unit established within the division, has now been reviewed and approved by the University Research Committee and will continue focusing its research work in the area of haemopoietic stem cell biology and stem cell transplant immunology. The research laboratory located at the medical school campus is well equipped to support undergraduate and postgraduate pathology and science students. Dr Shaheen Mowla has joined Dr Karen Shires to expand the molecular and cellular research in the Leukaemia Unit laboratory. The main objective will be to pursue further research into the area normal and malignant haematopoiesis, detection of minimal residual disease in patients with leukaemia, cellular therapies and stem cell transplantation.

Divisional Statistics

Permanent and Long-term Contract Staff

Professor	1
Clinical Service	
Senior Specialists	2
Clinical Registrars	3
Senior House Officers	2
Chief Professional Nurse	2
Administrative and clerical staff	3
Diagnostic Service	
Senior Pathologist	1
Pathologists	2
Pathologist part-time	1
Scientist	1
Pathology Registrars	5
Laboratory Manager	1
Medical Technologists	17
Technicians	4
UCT Leukaemia Unit	
Scientist	1
Research Officer	1
Research Technologist	1
Clinical Research Co-Ordinator	1
Administrative and clerical staff	1
Laboratory assistants (medical school)	2

Students

Doctoral	2
Master's	3
MMed	2
Honours	1

Research Fields and Staff

PROFESSOR NICOLAS NOVITZKY
Haematopoietic stem cell biology; clonogenic assays; haematopoietic stem cell transplantation; immune reconstitution; haematological malignancies

DR CECILE DU TOIT
Haematopoietic stem cell transplantation; haematological malignancies; haemophilia

DR. ESTELLE VERBURGH
Myelodysplastic syndrome

DR MAUREEN STEIN
Haematopoietic stem cell biology

DR JESSICA OPIE
Molecular biology of neoplasia: chronic myelogenous leukaemia; coagulation abnormalities

DR KAREN SHIRES
Molecular biology and diagnostics

DR SHAHEEN MOWLA
Minimal residual disease and flow cytometry.

MRS RYGANA ABDULLA
Cellular biology of neoplasia; clonogenic assays

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Department Of Medicine

Division Of Hepatology

HEAD: ASSOCIATE PROFESSOR WENDY SPEARMAN

Divisional Profile

The Division of Hepatology runs the only dedicated liver clinic as well as the only state liver transplant programme in the country. We also run a Porphyria clinic.
The unit is referred patients from all provinces in South Africa as well as from neighbouring countries such as Zimbabwe and Namibia for assessment regarding the aetiology and management of both acute and chronic liver disease and suitability for liver transplantation. These referrals come from both the private and public sector.

We provide a direct call-in service telephonic to primary, secondary and tertiary medical centres regarding management of liver disease. The Liver unit works closely with the Surgical Hepatobiliary unit and collaborates with the Surgical Research laboratory.

The major areas of research include: viral hepatitis, autoimmune liver disease, immune abnormalities in liver disease, HIV and liver disease, porphyria, liver transplantation and development of bioartificial liver support devices.

The unit is actively involved in drawing up national guidelines for the management of Hepatitis B / HIV coinfection Hepatitis B and Hepatitis C.

Divisional Statistics

Permanent and Long-term Contract Staff

Associate Professors	1
Senior Lecturers / Research Officers	2
Technical Support Staff	2
Total	5

Honorary Staff

Honorary staff	1

Research Fields and Staff

H.N. HAIRWADZI
Autoimmune liver disease; viral hepatitis, bone disease in chronic liver disease

M.W. SONDERUP
HIV and liver disease; viral hepatitis; porphyria
C.W.N. SPEARMAN
Liver transplantation; viral hepatitis; paediatric liver disease, acute liver failure and bioartificial liver support devices

M. SETSHEDI
Drug-induced liver injury

M. KEW
Hepatitis; liver cancer

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Department Of Medicine

The Albertina And Walter Sisulu Institute Of Ageing In Africa/ Division Of Geriatric Medicine

HEAD OF DIVISION OF GERIATRIC MEDICINE: PROFESSOR M COMBRINCK

ACTING HEAD OF INSTITUTE OF AGEING IN AFRICA : DR S. KALULA

Institute Profile

The Albertina and Walter Sisulu Institute of Ageing in Africa (IAA) is a Cross-Disciplinary Group. The IAA represents a coalescence of institute – wide disciplines with a focus on ageing: specifically Geriatric Medicine; Geriatric Neurology; Geriatric Neuropsychology and Old Age Psychiatry. The International Longevity Centre–South Africa is incorporated in the Institute. The vision of the IAA is to be an academic, clinical, research and policy centre of excellence and relevance in Africa. Its mission is to facilitate the delivery of the highest standard of inter-disciplinary, in-context training for health and allied professionals and evidence-based clinical and social care for older people, whilst undertaking appropriate research and audit upon which policy and planning for older persons may be based. The mission is achieved through inter-disciplinary partnerships and teamwork, and human resources development within current legal, ethical and financial constraints. The IAA is a leader in the area of research on ageing in sub-Saharan Africa, and enjoys international recognition and acclaim.

Institute Statistics

Permanent and Long-term Contract Staff

Associate Professor	1
Senior Lecturers	5
Senior Scientific Officer	1
Medical registrars	2
Administrative and Clerical Staff	1
Total	10

Honorary Staff

Visiting Researcher	1
Senior Lecturer	2
Total	3

Students

Doctoral	3
Master's	3
Total	6

Research Fields and Staff

DR SEBASTIANA KALULA
Epidemiology of dementia; falls; quality of care.

DR LINDA DE VILLIERS
Stroke risk factors and rehabilitation; post-discharge stroke community care.

PROFESSOR MARC COMBRINCK
NRF Research Chair in Clinical Neurosciences: neuro-inflammation and mechanisms of neuro-degeneration with specific reference to cognitive impairment in the elderly and in HIV-associated encephalopathy.

DR KEVIN G.F. THOMAS
Senior Lecturer, Department of Psychology: geriatric neuropsychology; dementia; impact of stress on memory; impact of life stressors on age-related cognitive decline.

ASSOCIATE PROFESSOR JOHN A. JOSKA
Senior Lecturer, Division of Neuropsychiatry, Department of Psychiatry and Mental Health: neurocognitive disorders in HIV infection.

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Department Of Medicine

Division Of Nephrology And Hypertension

HEADS OF DIVISION: ASSOCIATE PROFESSOR B.L. RAYNER

Divisional Profile

Currently the new division offers a wide range of clinical services including chronic and acute dialysis, renal transplantation, assessment and treatment of a broad range of kidney disease and resistant hypertension, 24 blood pressure monitoring renal biopsies, prevention of chronic kidney, and cardiovascular risk assessment. The unit is supported by a dedicated team of transplant surgeons. Treatment is offered to both private and indigent patients. It also offers out reach programmes to Khayelitsha Community Health Centre and GF Jooste Hospital locally, and to George Hospital, the Northern and Eastern Cape.

There is active training programme for senior registrars in Nephrology and the unit is currently training 5 nephrology fellows. The division supports the Department of Medicine training of medical students, specialist physicians and professions allied to medicine. The division also supports training of renal technologists and the nephrology course for nurses.

The main academic research activities of the division relate to renal bone disease; systemic lupus erythematosis (SLE); genetics of salt sensitive hypertension; diabetic nephropathy; classification, genetics, prevalence and treatment of HIV associated nephropathy; the genetics of ACE inhibitor related angioedema in black and coloured South Africans; treatment of renal artery stenosis due to atherosclerosis; vascular calcification in CKD stage 5 and its effects on central aortic BP; detection of vascular calcification; and the effects of antiviral treatment on BP in patients living with HIV.

Divisional Statistics

Permanent and Long-term Contract Staff and students

Associate Professors	2
Senior Lecturers	2
Emeritus Professor	1
Senior registrar	5
Part-time consultant	1
Medical officers	3
Medical registrars	3
PhD Students	0
Total	15

Research Fields and Staff

ASSOCIATE PROFESSOR C.R. SWANEPOEL
HIV and the kidney – worked on the development of a HIV and renal disease classification. Principal researcher is Dr N Wearne.

DR Z BARDAY
Kidney transplantation

DR YVONNE TRINDER
Hypertension

DR IKE OKPECHI
Lupus registry; Quality of life in CAPD patients

ASSOCIATE PROFESSOR BRIAN RAYNER

Cardiovascular outcomes in renal atherosclerotic lesion (CORAL Study): A prospective, multi-center, unblinded, two-arm, randomized trial; Genetics of salt sensitive hypertension (PhD dissertation); PTH and low renin hypertension; The genetics of ACE inhibitor related angioedema in black and coloured South Africa

DR NICOLA WEARNE

Retrospective analysis of all HIV positive renal biopsies between 2004 and 2008 at GSH hospital; Prospective observational study of all HIV positive patients who undergo a renal biopsy at GSH hospital to establish best medical management, mortality and spectrum of disease; HIV related renal disease: Histological Classification; Randomised controlled study: Treatment of HIV +ve patients with confirmed HIVAN on renal biopsy with Corticosteroids; Epidemiology of renal dysfunction and chronic kidney disease in HIV positive HAART naïve patients

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Department Of Medicine

Division Of Neurology

HEAD OF DIVISION: ASSOCIATE PROFESSOR A. BRYER

Divisional Profile

A general clinical neurology service is operated at Groote Schuur Hospital. This provides a full range of clinical activities, including in-patients, consultative, and emergency services. Additionally, there is a clinical neurophysiology laboratory, a dedicated actue stroke unit, and specialised clinics for stroke, myasthenia gravis, HIV neurology, neuro-genetic disorder and epilepsy.

Areas of research include:

Stroke: A large cohort of stroke patients were followed up for 6 months post incident stroke to determine survival, disability and functional outcomes following their discharge from an acute stroke unit to community-based health care and rehabilitation. Factors predictive of poor outcome were identified. Data from this study are being used to develop a community based model of stroke care. An in-service training program for health care workers involved in stroke care in under-resourced settings is being developed. The new South African National Guideline for the management of acute ischaemic stroke and TIA has been published with substantial input from the GSH/UCT stroke Unit. A longitudinal study of HIV associated stroke to evaluate the underlying biological mechanisms (specifically endothelial dysfunction and ultrasonographic vascular phenotypes) has been undertaken.

Myasthenia gravis: Clinical and Laboratory-based research projects are focussed on improving therapeutic strategies and increasing understanding of disease pathogenesis.

a. Methotrexate vs. azathioprine randomized trial completed. Presented at NASA and ANA 2010. Submitted to Neuromuscular Dis. 2011
b. A Multi-center, Randomized Study comparing Thymectomy to No Thymectomy in Myasthenia Gravis- International study NIH funded. On advisory committee.
c. The psychiatric manifestions in thymomatous MG (Dr Freeman, Psychiatry) Complement regulation in MG subjects with DAF promoter SNP and the effect of therapies. This work done by the Neurology Research Group in partnership with Human Bilogy laboratory. PI J Heckmann with Dr's Amaal Abrahams and Sharon Prince. MSc student Ms J Auret.
d. TGFb polymorphisms and their association with extraocular muscle MG damage- in collaboration with Dr C Dandara, Human Genetics.

HIV/AIDS: Clinical and Laboratory-based research projects studying the risk factors for developing neuropathy in HIV-infected subjects.

a. Research collaboration with Endocrine (UCT) and Neurology (Emory University) – longitudinal prevalence study of HIV neuropathy and risk factors at the Crossroads CHC.
   Dr Johan van der Watt, received the CIDRI Post Graduate Scholarship award to study inflammation in HIV- associated toxic neuropathy
b. Dr Chad Centner is studying Pyridoxine & NAT – 2 genotypes as risk factors for HIV- associated neuropathy.
c. Dr John- Randel Vermaak is studying the incidence of HIV- neuropathy since the cART regimen has changed from d4T to Tenofovir.
d. Collaboration with Dr's Todd Hulgan (Vanderbilt University) and Dr P Sinxadi, Pharmacology, UCT to investigate mitochondrial DNA haplotype and susceptibility to HIV- associated toxic neuropathy by examining mitochondrial haplogroups and association with HIV- associated neuropathy in African subjects on d-drugs.
e. Dr Friedrich Thienemann is performing a retrospective analysis of demyelinating CNS disease in HIV- infected subjects.

f. Pilot project examining the efficacy and CSF drug penetration of cART in patient with neurological HIV-associated disease. Dr's Thienemann, Vermaak and Decloedt (Pharmacology)

Dementia: A longitudinal study of cognitive impairment in the elderly, with an emphasis on the role of inflammation in the pathogenesis of Alzheimer's disease. The study includes imaging techniques such as magnetic resonance spectroscopy (MRS) of the brain and volumetric MRI analyses of various brain regions.

Neurogenetics: A clinical and counselling service for patients with Huntington disease and familial spinocerebellar ataxia (SCA) with a study to find an appropriate SNP to target for SCA1 gene silencing and to knock down the expression of mutant Ataxin1.

Multi-media teaching: The use of clinical encounter simulations is being explored.

Drug trials: The division is active in phase 3 drug trials for Parkinson's disease, epilepsy and multiple sclerosis.

Divisional Statistics

Permanent and Long-term Contract Staff

Associate Professors (Full-time)	4
Senior Lecturers (Full-time)	1
Lecturers (Part-time)	2
Total	7

Postgraduate Students

B.Sc Hons	2
M. Sc.	4
PhD	1
M. Med (Psychiatry)	1
M. Med (Family Med)	1
MA (Neuropsychology)	2

Research Fields and Staff

ASSOCIATE PROFESSOR A. BRYER
Stroke; neuro-genetics.

DR E. LEE PAN
Health systems information technology; multi-media teaching.

ASSOCIATE PROFESSOR J. HECKMANN
Myasthenia gravis; HIV neurological disease, HIV neuropathy, neuro-immunology; neuro-genetics.

DR L. TUCKER
Epilepsy

DR K. BATEMAN
Tuberculous meningitis

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Department Of Medicine

Division Of Clinical Pharmacology

HEAD OF DIVISION: PROFESSOR GARY MAARTENS

Divisional Profile

The major research thrusts of the division are focused on drugs for malaria, tuberculosis and HIV. The research in these fields is broad and encompasses drug discovery, pharmacokinetics, pharmacogenomics, clinical trials, pharmacoepidemiology, and pharmacoeconomic evaluation. The analytical laboratory plays a key research role with small animal models for drug discovery and in patient samples for drug concentrations. A large multicentre malaria clinical research group headed by Professor Karen Barnes has secured substantial funding from the Gates Foundation and the Global Fund – this programme is at the forefront of translational malaria research in Africa. The MRC South African Traditional Medicines Research Group is a drug discovery programme: Professor Kelly Chibale, Dept Chemistry, UCT and Professor Peter Smith from our division are co-directors. Compounds with antimalarial, antibacterial (including antitubercular) and antifungal activity are identified and optimised from plants used in traditional medicine. The analytical laboratory has recently been awarded funding from NIH as an International Pharmacology Specialty Laboratory. Professor Helen McIlleron heads our clinical pharmacokinetic group, which conducts a series of pharmacokinetic studies evaluating antitubercular drugs, antiretroviral drugs, and the interaction between them in adults and children with funding from the Wellcome Trust, NIH, and MRC. Our collaboration on population pharmacokinetics with Uppsala University is ongoing and we have a pharmacometric laboratory to perform these complex analyses.

Divisional Statistics

Permanent And Long Term Contract Staff

Professors	2
Associate Professors	3
Senior Lecturer	3
Senior Research Officer	1
Medical Research Officer	1
Registrars	4
Research Fellow	1
Technical Support	10
Database Manager	1
Quality Assurance Manager	1
Information Pharmacist	4
Editor SAMF	1
Clinical Trial Monitors	1
Administrative and Clerical Staff	7
Departmental Assistance	1
TOTAL	41

Honorary Staff

Honorary professor	1
Honorary Lecturers	2
Honorary Research Associates	1
TOTAL	4

Postgraduate Students

Postdoctoral	1
Doctoral	13
Master's	1
TOTAL	15

Research Fields and Staff

BARNES, KI.
Malaria, combination antimalarial therapy – operational and policy research. Antimicrobial pharmacokinetic studies to inform optimal dosing in vulnerable populations

BLOCKMAN, M.
Rational and cost-effective prescribing of medicines; drug utilisation review; adverse drug reaction monitoring; drug policy and regulation; human research ethics.

CAMPBELL, WE.
Phytochemical studies on indigenous Amaryllidaceae species; structural studies on active compounds isolated from traditional medicinal plants

COHEN, K.
Antiretroviral pharmacokinetics and efficacy; pharmacokinetics of antiretrovirals in children; pharmacoepidemiology.

GABRIELS, G.
Analytical chemistry, pharmacokinetics, traditional medicines, drug discovery and development, drugs and sport performance

MAARTENS, G.
Adherence to antiretroviral therapy; immunopathology & diagnosis of HIV-associated tuberculosis; pharmacoeconomic evaluation of antiretroviral therapy; pharmacogenomics of antiretrovirals

MCILLERON, H.
Pharmacokinetic-pharmacodynamic relationships of antitubercular and antiretroviral drugs; pharmacogenomics; population pharmacokinetics; drug interactions between antiretrovirals and rifamycins.

SMITH, PJ.
Mechanisms of antimalarial drug resistance; pharmacokinetics of anti-tuberculosis drugs; isolation of novel drugs from traditional medicines; development of new drug assays.

WIESNER, L.
Pharmacokinetics of antimalarial drugs; drug assay development; metabolite identification; drug formulation.

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Department Of Medicine

Division Of Rheumatology

HEAD OF DIVISION: PROFESSOR ASGAR ALI KALLA

Divisional Profile

The Division of Rheumatology has several research interests relating to different aspects of the rheumatic diseases. Osteoporosis is an area of interest for many years and there is ongoing collection of longitudinal bone mineral density data in patients with rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE). Age-related bone loss at different skeletal sites is being prospectively studied in collaboration with the Department of Nuclear Medicine and the Endocrine Unit. Recently, collaborative studies with the Division of Hepatology have been carried out to see the relationship between bone mineral density (BMD) and auto-immune hepatitis. Clinical drug trials are in progress

to study the safety and efficacy of the newer biological DMARDs in RA and SLE. Recently, the trials of coxibs are concentrating on cardiovascular outcomes to a greater extent than their gastr-toxicity. We have also been looking at SLE genetics in collaboration with the Hepatology, with particular reference to the Vitamin D receptor and its role in the pathogenesis of auto-immune diseases. Newer areas of research include the study of chronic tophaceous GOUT; community aspects of diagnosing and treating rheumatic diseases at Community Health Centres; early rheumatoid arthritis; genetics of bone loss in SLE; and functional problems in ankylosing spondylitis.

Divisional Statistics

Permanent and Long-term Contract Staff

Professor	1
Senior Lecturer	1
Lecturers	2
Research Staff	2
Nurse practitioner	1
Administrative and Clerical staff	1
Total	8

Honorary Staff

Honorary Lecturers	3

Students

Rotating Medical Registrar	2
Medical Officer	1
Total	3

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Department of Medicine

Research output

Chapters in books

Barnes, K.I. 2012. Antimalarial drugs and the control and elimination of malaria. In H.M Staines and S. Krishna (eds), Treatment and Prevention of Malaria: Antimalarial Drug Chemistry, Action and Use, pp. 1-17. London: Springer Science & Business Media B.V. ISBN 9873034604796.

Bekker, L., Beyrer, C. and Quinn, T. 2012. Behavioral and Biomedical combination strategies for HIV Prevention. In F. Bushman, G. Nabel, and R. Swanstrom (eds), HIV: From biology to prevention and treatment, pp. 537-559. New York: Cold Spring Harbor Lab Press. ISBN 9781936113408.

Blumberg, L., Cohen, C. and Barnes, K.I. 2012. Malaria. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 404-411. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Mazandu, G.K. and Mulder, N.J. 2012. Enhancing drug target identification in mycobacterium tuberculosis. In S.E. Walker and D.F. Martin (eds), Tuberculosis: Risk Factors, Drug Resistance and Treatment, pp.181-209. New York: Nova Biomedical. ISBN 9781620819913.

Okombo, J., Mwai, L. and Nzila, A. 2012. Tackling the problem of antimalarial resistance. In K. Chibale, M. Davies-Coleman and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 301-324. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Articles in peer-reviewed Journals

Abdullahi, L., Hussey, G.D., Mahomed, H. and Wiysonge, C.S. 2012. Public stewardship of private for-profit care in low-and middle-income countries. Cochrane Database of Systematic Reviews, 5: 1-26.

Ahonkhai, A.A., Noubary, F., Munro, A., Stark, R., Wilke, M., Freedberg, K.A., Wood, R. and Losina, E. 2012. Not all are lost: interrupted laboratory monitoring early death, and loss to follow-up (LTFU) in a large South African treatment program. PLoS One, 7(3): e32993.

Airoldi, F., Faglia, E., Clerici, G. and Latib, A. 2012. Bailout directional atherectomy for side branch salvage following subintimal recanalization of infragenicular arteries. Vasa-European Journal of Vascular Medicine, 41: 292-294.

Akinyi, M., Dandara, C., Gamieldien, J. and Heckmann, J.M. 2012. Association of transforming growth factor beta-1 (TGFB1) regulatory region polymorphisms with myasthenia gravis-related ophthalmoparesis. Journal of Neuroimmunology, 246: 96-99.

Akl, E., Kennedy, C., Konda, K., Caceres, C., Horvath, T., Ayala, G., Doupe, A., Gerbase, A., Wiysonge, C.S., Segura, E.R., Schunemann, H.J. and Lo, Y.R. 2012. Using grade methodology for the development of public health guidelines for the prevention and treatment of HIV and other STI's among men who have sex with men and other transgender people. BMC Public Health, 12:386.

Alvarez, G.G., Sabri, E., Ling, D., Cameron, D.W., Maartens, G. and Wilson, D. 2012. A model to rule out smear-negative tuberculosis among symptomatic HIV patients using C-reactive protein. International Journal of Tuberculosis and Lung Disease, 16(9): 1247-1251.

Aminake, M.N., Mahajan, A., Kumar, V., Hans, R.H., Wiesner, L., Taylor, D., De Kock, C., Grobler, A., Smith, P.J., Kirschner, M., Rethwilm, A., Pradel, G. and Chibale, K. 2012. Synthesis and evaluation of hybrid drugs for a potential HIV/AIDS-malaria combination therapy. Bioorganic & Medicinal Chemistry, 20: 5277-5289.

Anderson, P.L., Glidden, D.V., Liu, A., Buchbinder, S.P., Lama, J.R., Guanira, J.V., McMahan, V., Bushman, L.R., Casapia, M., Montoya-Herrera, O., Veloso, V.G., Mayer, K.H., Chariyalertsak, S., Schechter, M., Bekker, L., Kallas, E.G. and Grant, R. 2012. Emtricitabine-tenofovir concentrations and pre-exposure prophylaxis efficacy in men who have sex with men. Science Translational Medicine, 4(151): 1-8.

Andrews, J.R., Wood, R., Bekker, L., Middelkoop, K. and Walensky, R.P. 2012. Projecting the benefits of antiretroviral therapy for HIV prevention: the impact of population mobility and linkage to care. Journal of Infectious Diseases, 206: 543-551.

Andrews, J.R., Lawn, S.D., Rusu, C., Wood, R., Noubary, F., Bender, M., Horsburgh, C.R., Losina, E., Freedberg, K.A. and Walensky, R.P. 2012. The cost-effectiveness of routinne tuberculosis screening with xpert MTB/RIF prior to initiation of antiretroviral therapy: a model-based analysis. AIDS, 26: 987-995.

Arentz, M., Pavlinac, P., Kimerling, M.E., Horne, D.J., Falzone, D., Schunemann, H.J., Royce, S., Dheda, K. and Walson, J.L. 2012. Use of anti-retroviral therapy in tuberculosis patients on second-line anti-TB regimens: a systematic review. PLoS One, 7(11): e47370.

Ataher, Q., Portsmouth, S., Napolitano, L., Eng, S., Greenacre, A., Kambugu, A., Wood, R., Badal-Faesen, S. and Tressler, R. 2012. The epidemiology and clinical correlates of HIV-1 co-receptor tropism in non-subtype B infections from India, Uganda and South Africa. Journal of the International AIDS Society, 15:2.

Bateman, E.D., Bleecker, E.R., Lotvall, J., Woodcock, A., Forth, R., Medley, H., Davis, A.M., Jacques, L., Haumann, B. and Busse, W. 2012. Dose effect of once-daily fluticasone furoate in persistent asthma: a randomized trial. Respiratory Medicine, 106: 642-650.

Bateman, E.D., Feldman, G., Kilbride, S., Brooks, J., Mehta, R., Harris, S., Maden, C. and Crater, G. 2012. Efficacy and safety of the long-acting muscarinic antagonist GSK233705 delivered once daily in patients with COPD. Clinical Respiratory Journal, 6: 248-257.

Beach, R.A., Wilkinson, K., Gumedze, F.N. and Khumalo, N. 2012. Baseline sebum IL-1α is higher than expected in afro-textured hair: a risk factor for hair loss? Journal of Cosmetic Dermatology, 11: 9-16.

Beach, R.A., Wilkinson, K., Gumedze, F.N. and Khumalo, N.P. 2012. Sebum transforming growth factor B1 induced by Hair Products. Archives of Dermatology, 148(6): 764-766.

Benatar, S.R. and Benatar, D. 2012. From medical manners to moral reasoning: an historical overview of bioethics in the University of Cape Town's Faculty of Health Sciences. SAMJ South African Medical Journal, 102(6): 406-408.

Benjamin, L.A., Bryer, A., Emsley, H.C.A., Khoo, S., Solomon, T. and Connor, M.D. 2012. HIV infection and stroke: current perspectives and future directions. Lancet Neurology, 11: 878-890.

Bertram, M.Y., Steyn, K., Wentzel-Viljoen, E., Tollman, S.M. and Hofman, K.J. 2012. Reducing the sodium content of high-salt foods: effect on cardiovascular disease in South Africa. SAMJ South African Medical Journal, 102(9): 743-745.

Besana, A., Wang, D.W., George Jr, A.L. and Schwartz, P.J. 2012. Nadolol block of nav1.5 does not explain its efficacy in the long QT syndrome. Journal of Cardiovascular Pharmacology, 59(3): 249-253.

Black, J.M., Kruger, R., Roberts, R., Lehloenya, R. and Mendelson, M. 2012. Acute generalised exanthematous pustulosis secondary to cotrimoxazole or tenofovir. Southern African Journal of HIV medicine, 13(4): 198-200.

Bleecker, E., Bateman, E.D., Busse, W., Woodcock, A., Frith, L., House, K.W., Jacques, L., Davis, A.M., Haumann, B. and Lotvall, J. 2012. Once-daily fluticasone furoate is efficacious in patients with symptomatic asthma on low-dose inhaled corticosteroids. Annals of Allergy Asthma & Immunology, 109(5): 353-358.

Blom, D. 2012. Statin therapy for the octogenarian? Journal of Endocrinology, Metabolism and Diabetes of South Africa (JEMDSA), 17(1): 37-42.

Bloom, C., Graham, C.M., Berry, M.P.R., Wilkinson, K., Oni, T., Rozakeas, F., Xu, Z., Rossello-Urgell, J., Chaussabel, D., Banchereau, J., Pascual, V., Lipman, C.I., Wilkinson, R.J. and O' Garra, A. 2012. Detectable changes in the bloodtransriptome are present after two weeks of antituberculosis therapy. PLoS One, 7(10): e46191.

Bond, E., Liang, F., Sandgrem, K.J., Smed-Sorensen, A., Bergman, P., Brighenti, S., Adams, W., Betemariam, S.A., Rangaka, M.X., Lange, C., Wilkinson, R.J., Andersson, J. and Lore, K. 2012. Plasmacytoid dendritic cells infiltrate the skin in positive tuberculin skin test indurations. Journal of Investigative Dermatology, 132: 114-123.
Booysen, H.L., Norton, G., Opie, L.H. and Woodiwiss, A. 2012. Reverse chamber remodelling following adrenergic-induced advanced cardiac dilatation and pump dysfunction. Basic Research in Cardiology, 107(238).

Boulet, L.-P., FitzGerald, J.M., Levy, M.L., Cruz, A.A., Pedersen, S., Haahtela, T. and Bateman, E.D. 2012. A guide to the translation of global initiative for asthma (GINA) strategy into improved care. European Respiratory Journal, 39(5): 1220-1229.

Bousquet, J., Anto, J.M., Demoly, P.,… Bateman, E.D.,... Zar, H.J. *et al*. 2012. Severe Chronic Allergic (and Related) Diseases: A Uniform Approach - A MeDALL - GA LEN - ARIA Position Paper. International Archives of Allergy and Immunology, 158: 216-231.

Bousquet, J., Schunemann, H.J., Samolinski, B.,… Potter, P.C.,… Bateman, E.D.,… Zar, H.J. *et al* 2012. Allergic Rhinitis and its Impact on Asthma (ARIA): Achievements in 10 years and future needs. Journal of Allergy and Clinical Immunology, 130: 1049-1062

Boyles, T.H., Black, J.M., Meintjes, G. and Mendelson, M. 2012. Failure to eradicate isospora belli diarrhoea despite immune reconstitution in adults with HIV - a case series. PLoS One, 7(8): e42844.

Boyles, T.H. and Maartens, G. 2012. Should tuberculin skin testing be a prerequisite to prolonged IPT for HIV-infected adults? International Journal of Tuberculosis and Lung Disease, 16(7): 857-859.

Brehm, J.H., Koontz, D., Wallis, L., Shutt, K., Sanne, I., Wood, R., McIntyre, J., Stevens, W.S., Sluis-Cremer, N. and Mellors, J.W. 2012. Frequent emergence of N3481 in HIV-1 subtype C reverse transriptase with failure of initial therapy reduces susceptibility to reverse-transcriptase inhibitors. Clinical Infectious Diseases, 55(5): 737-745.

Bryer, A. 2012. New antithrombotic drugs: a revolution in stroke management. Cardiovascular Journal of Africa, 23(2): 61-62.

Bucci, M., Borra, R., Nagren, K., Parkka, J.P., Del Ry, S., Maggio, R., Tuunanen, H., Viljanen, T., Cabiati, M., Rigazio, S., Taittonen, M., Pagotto, U., Parkkola, R., Opie, L.H., Nuutila, P., Knuuti, J. and Lozzo, P. 2012. Trimetazidine reduces endogenous free fatty acid oxidation and improves mysocardial efficiency in obese humans. Cardiovascular Therapeutics, 30: 333-341.

Burdzik, A., Jeebhay, M.F. and Todd, G. 2012. Occupational dermatitis in food processing workers with a special focus on the seafood processing industry - a review. Current Allergy & Clinical Immunology, 25(2): 88-93.

Busse, W., Bleecker, E., Bateman, E.D., Lotvall, J., Forth, R., Davis, A.M., Jacques, L., Haumann, B. and Woodcock, A. 2012. Fluticasone furoate demonstrate efficacy in patients with asthma symptomatic on medium doses of inhaled corticosteroid therapy: an 8-week, randomised, placebo-controlled trial. Thorax, 67: 35-41.

Cappelletti, A., Latib, A., Mazzavillani, M., Magni, V., Calori, G., Colombo, A., and Margonato, A. The coronary artery risk factors and prognostic localizaion study, C. 2012. Severity and prognostic localization of critical coronary artery stenoses: correlation with clinical control of major traditional risk factors. Coronary Artery Disease, 23: 455-459.

Chantler, S., Dickie, K., Goedecke, J.H., Levitt, N.S., Lambert, E.V., Evans, J., Joffe, Y. and Micklesfield, L.K. 2012. Site-specific differences in bone mineral density in black and white premenopausal South African women. Osteoporosis International, 23: 533-542.

Chapman, R.E., Shephard, E.G., Stutz, H., Douglass, N., Sambandamurthy, V., Garcia, I., Ryffel, B., Jacobs, W. and Williamson, A.-L. 2012. Priming with a recombinant pantothenate auxotroph of mycobacterium bovis BCG and boosting with MVA elicits HIV-1 gag specific CD8+ T Cells. PLoS One, 7(3): e32769.

Chellan, P., Land, K.M., Shokar, A., Au, A., An, S.H., Clavel, C.M., Dyson, P.J., De Kock, C., Smith, P.J., Chibale, K. and Smith, G.S. 2012. Exploring the versatility of cycloplatinated thiosemicarbazones as antitumour and antiparasitic agents. Organometallics, 31: 5791-5799.

Chigutsa, E., Meredith, S.A., Wiesner, J.L., Padayatchi, N., Harding, J., Moodley, P., Mac Kenzie, W.R., Weiner, M., McIlleron, H. and Kirkpatrick, C.M.J. 2012. Population pharmacokinetics and pharmacodynamics of ofloxacin in South African patients with multidrug-resistant tuberculosis. Antimicrobial Agents and Chemotherapy, 56(7): 3857-3863.

Chin, A., Badri, M., Ntusi, N. and Okreglicki, A.M. 2012. The clinical, electrocardiographic and echocardiographic characteristics and long-term outcome of patients with tachycardia-induced cardiomyopathy. Cardiovascular Journal of Africa, 23(3): 136-142.

Chockalingram, P., Crotti, L., Girardengo, G., Johnson, J.N., Harris, K.M., Van der Heijden, J., Hauer, R.N., Spazzolini, C., Rordorf, R., Rydberg, A., Clur, S.A.B., Fischer, M., Van den Heuvel, F., Kaab, S., Blom, N.A., Ackerman, M.J., Schwartz, P.J. and Wilde, A.A.M. 2012. Not all beta blockers are equal in the management of long QT syndrome types 1 and 2. Journal of the American College of Cardiology, 60: 2092-2099.

Chopera, D., Cotton, L.A., Zawaira, A., Mann, J.K., Ngandu, N., Ntale, R., Carlson, J.M., Mlisana, K., Woodman, Z.L., de Assis Rosa, D., Martin, E., Miura, T., Pereyra, F., Walker, B.D., Gray, C., Martin, D.P., Ndungu, T., Brockman, M.A., Abdool-Karim, S., Brumme, Z.L., Williamson, C. and Caprisa 002 Acute Infection Study Team, C.a.p.r.i.s.a. 2012. Intersubtype differences in the effect of a rare p24 gag mutation on HIV-1 replicative fitness. Journal of Virology, 86 (24): 13423-13433.

Chukwujekwu, J.C., De Kock, C., Smith, P.J., van Heerden, F. and Van Staden, J. 2012. Antiplasmodial and antibacterial activity of compounds isolated from ormocarpum trichocarpum. Planta Medica, 78: 1857-1860.

Cloete, T.T., Breytenbach, W.J., De Kock, C., Smith, P.J., Breytenbach, J.C.and N'Da, D.D. 2012. Synthesis, antimalarial activity and cytotoxicity of 10-aminoethylether derivatives of artemisinin. Bioorganic & Medicinal Chemistry, 20: 4701-4709.

Conesa-Botella, A., Meintjes, G., Coussens, A.K., van Der Plas, H., Goliath, R., Schutz, C., Moreno-Reyes, R., Mehta, M., Martineau, A., Wilkinson, R.J., Colebunders, R. and Wilkinson, K. 2012. Corticosteriod therapy, vitamin D status, and inflammatory cytokine profile in the HIV-tuberculosis immune reconstitution inflammatory syndrome. Clinical Infectious Diseases, 55(7): 1004-1011.

Cornell, M., Schomaker, M., Garone, D., Giddy, J., Hoffmann, C.J., Lessells, R., Maskew, M., Prozesky, H., Wood, R., Johnson, L.F., Egger, M., Boulle, A.M. and Myer, L. 2012. Gender differences in survival among adult patients starting antiretroviral therapy in South Africa: a multicentre cohort study. Plos Medicine, 9(9): e1001304.

Crotti, L., Marcou, C.A., Tester, D.J., Castelletti, S., Giudicessi, J.R., Torchio, M., Medeiros-Domingo, A., Simone, S., Will, M.L., Dagradi, F., Schwartz, P.J. and Ackerman, M.J. 2012. Spectrum and prevalence of mutations involving BrS1- though BrS12 - susceptibility genes in a cohort of unrelated patients referred for brugada syndrome genetic testing. Journal of the American College of Cardiology, 60(15): 1410-1418.

Crotti, L., Hu, D., Barajas-Martinez, H., De Ferrari, G.M., Oliva, A., Insolia, R., Pollevick, G.D., Dagradi, F., Guerchicoff, A., Greco, F., Schwartz, P.J. and Viskin, S. 2012. Torsades de pointes following acute mycardial infaction: evidence for a deadly link with a common genetic variant. Heart Rhythm, 9: 1104-1112.

Crotti, L., Spazzolini, C., Porretta, A.P., Dagradi, F., Taravelli, E., Petracci, B., Vicentini, A., Pedrazzini, M., La Rovere, M.T., Vanoli, E., Goosen, A., Heradien, M., George Jr, A.L., Brink, P. and Schwartz, P.J. 2012. Vagal reflexes following an exercise stress test: a simple clinical tool for gene-specific risk satisfaction in the long QT syndrome. Journal of the American College of Cardiology, 60(24): 2515-2524.

Crotti, L. and Schwartz, P.J. 2012. When genetic screening for your patient with long QT syndrome comes back negative, don't always take a no for a no. Heart Rhythm, 9(12): 1983-1985.

Damasceno, A., Mayosi, B.M., Sani, M., Ogah, O.S., Mondo, C., Ojji, D., Dzudie, A., Kauam, C., Suliman, A., Schreuder, N., Yonga, G., Ba, S.A., Maru, F., Alemayehu, B., Edwards, C., Davison, B.A., Cotter, G. and Sliwa, K. 2012. The causes, treatment, and outcome of acute heart failure in 1006 Africans from 9 countries. Archives of Internal Medicine, 172(18): 1386-1394.

Dandara, C., Scott, C., Urban, M., Fieggen, K., Arendse, R. and Beighton, P. 2012. Confirmation of the recurrent ACVRI 617G> a mutation in South Africans with fibrodysplasia ossificans progressiva. SAMJ South African Medical Journal, 102(7): 631-633.

Davidavicius, G., Godino, C., Shannon, J., Takagi, K., Bertoldi, L., Mussardo, M., Chieffo, A., Arioli, F., Ielasi, A., Montorfano, M., Latib, A. and Colombo, A. 2012. Incedence of overall bleeding in patients treated with intra-aortic balloon pump during percutaneous coronary intervention. Journal of the American College of Cardiology, 5(3): 350-357.

Davids, V., Blackhurst, D.M., Katz, A.A. and Harley, E.H. 2012. Origins and function of 3-ribosylurate in bovid erythrocytes. Veterinary Journal, 192: 326-332.

Davies, M., Boulle, A.M., Technau, K., Eley, B.S., Moultrie, H., Rabie, H., Garone, D., Giddy, J., Wood, R., Egger, M. and Keiser, O. 2012. The role of targeted viral load testing in diagnosing virological failure in children on antiretroviral therapy with immunological failure. Tropical Medicine & International Health, 17(11): 1386-1390.

Decloedt, E.H., Maartens, G., Smith, P.J., Merry, C., Bango, F. and McIlleron, H. 2012. The safety, effectiveness and concentrations of adjusted lopinavir/ritonavir in HIV-infected adults on rifampicin-based antitubercular therapy. PLoS One, 7(3): e32173.

Deetlefs, E., Epstein, D., Watermeyer, G., Seggie, R.M. and Thomson, S.R. 2012. Tuberculosis in an inflammatory bowel disease cohort from South Africa. SAMJ South African Medical Journal, 102(10): 802-804.

Dheda, K. and Migliori, G.B. 2012. The global rise of extensively drug-resistant tuberculosis: is the time to bring back sanatoria now overdue? Lancet, 379: 773-775.

Diacon, A., Dawson, R., von Groote-Bidlingmaier, F., Symons, G.J., Venter, A., Donald, P.R., van Niekerk, C., Everitt, D., Winter, H., Becker, P., Mendel, C.M. and Spigelman, M.K. 2012. 14-day bacterial activity of PA-824, bedaquiline, pyrazinamide, and moxifloxacin combinations: a randomised trial. Lancet, 380: 986-993.

Diacon, A., Dawson, R., du Bois, J., Narunsky, K., Venter, A., Donald, P.R., van Niekerk, C., Erondu, N., Ginsberg, A.M., Becker, P. and Spigelman, M.K. 2012. Phase II dose-ranging trial of the early bactericidal activity of PA-824. Antimicrobial Agents and Chemotherapy, 56(6): 3027-3031.

Diacon, A., Maritz, S.J., Venter, A., Van Helden, P., Dawson, R. and Donald, P.R. 2012. Time to liquid culture positivity can substitute for colony counting on agar plates in early bactericidal activity studies of antituberculosis agents. Clinical Microbiology and Infection, 18: 711-717.

Dimatelis, J., Pillay, N., Mutyaba, A., Russell, V.A., Daniels, W.M.U. and Stein, D.J. 2012. Early maternal separation leads to down-regulation of cytokine gene expression. Metabolic Brain Disease, 27: 393-397.

Dlamini, S.K. and Mendelson, M. 2012. Atypical pneumonia in adults in Southern Africa. South African Family Practice, 54(4): 286-297.

Draper, C.E., Moller, N.A., Aubin, L.A., Edelstein, G. and Weiss, R. 2012. Developing a standardised patient programme in a primary healthcare curriculum: a needs analysis. African Journal of Health Professions Education, 4(2): 97-101.

Dubuis, L., Avril, S., Debayle, J. and Badel, P. 2012. Patient-specific numerical model of soft tissues in the compressed leg: application to six subjects. Computer Methods In Biomechanics And Biomedical Engineering, 15(S1): 44-45.

Duncan, K., Schafer, G., Vava, A., Parker, M.I. and Zerbini, L.F. 2012. Targeting neddylation in cancer therapy. Future Oncology, 8(11): 1461-1470.

Echouffo-Tcheugui, J.B., Dzudie, A., Epacka, M.E., Choukem, S.P., Doualla, M.S., Luma, H. and Kengne, A.P. 2012. Prevalence and determinants of undiagnosed diabetes in an urban sub-Saharan African population. Primary Care Diabetes, 6: 229-234.

Echouffo-Tcheugui, J.B. and Kengne, A.P. 2012. Risk models to predict chronic kidney disease and its progression: a systematic review. PLoS One, 9(11): e1001344.

Echouffo-Tcheugui, J.B., Mayige, M., Ogbera, A.O., Sobngwi, E. and Kengne, A.P. 2012. Screening for hyperglycemia in the developing world: rationale, challenges and opportunities. Diabetes Research and Clinical Practice, 98: 199-208.

Ehrlich, R.I., Woolf, D.C. and Kibel, D.A. 2012. Disulfiram reaction in an artist exposed to solvents. Occupational Medicine-Oxford, 62: 64-66.

Epstein, D., Mistry, K., Whitelaw, A.C., Watermeyer, G. and Pettengell, K.E. 2012. The effect of physiological concentration of bile acids on the in vitro growth of mycobacterium tuberculosis. SAMJ South African Medical Journal, 102(6): 522-524.

Esmail, H., Barry 3rd, C.E. and Wilkinson, R.J. 2012. Understanding latent tuberculosis: the key to improved diagnostic and novel treatment strategies. Drug Discovery Today, 17(9/10): 514-521.

EstilL, J., Aubriere, C., Egger, M., Johnson, L.F., Wood, R., Garone, D., Gsponer, T., Wandeler, G., Boulle, A.M., Davies, M., Hallett, T.B. and Keiser, O. 2012. Viral load monitoring of antiretroviral therapy, cohort viral load and HIV transmission in southern Africa: a mathematical modelling analysis. Aids, 26: 1403-1413.

Fairall, L., Bachmann, M.O., Lombard, C., Timmerman, V., Uebel, K., Zwarenstein, M., Boulle, A.M., Georgeu, D., Colvin, C., Lewin, S.A., Faris, G.F., Cornick, R.V., Draper, B., Tshabalala, M., Kotze, E., Van Vuuren, C., Steyn, D., Chapman, R. and Bateman, E.D. 2012. Task shifting of antiretroviral treatment from doctors to primary-care nurses in South Africa: a pragmatic, parallel, cluster-randomised trial. Lancet, 380: 889-898.

Fatti, G., Meintjies, G., Shea, J., Eley, B.S. and Grimwood, A. 2012. Improved survival and antiretroviral treatment outcomes in adults receiving community-based adherence support: 5-year results from a multicentre cohort study in South Africa. Jaids-Journal of Acquired Immune Deficiency Syndromes, 61(4): e50-e58.

Fleming, J. 2012. WAya Kazi (Wire Work/Travaux de fil). African Journal of Emergency Medicine (AfJEM), 2: 87-88

Fox, M.P., Van Custem, G., Giddy, J., Maskew, M., Keiser, O., Prozesky, H., Wood, R., Hernan, M., Sterne, J.A.C., Egger, M. and Boulle, A.M. 2012. Rates and predictors of failure of first-line antiretroviral therapy and switch to

second-line art in South Africa. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60(4): 428-437.

Freercks, R., Swanepoel, C.R., Carrara, H., Moosa, S.E., Lachman, A. and Rayner, B.L. 2012. Vascular calcification in South African dialysis patients: ethnic variation, prevalence, detection and haemodynamic correlates. Nephrology, 17: 607-615.

Gabriels, G.A., Lambert, M.I. and Smith, P.J. 2012. Information on nutritional supplement labels: time for legislation. South African Journal of Clinical Nutrition, 25(1): 22-26.

Geduld, H. 2012. Shajara (African Diary/Dossier Africa). African Journal of Emergency Medicine (AfJEM), 2: 85-86

Georgeu, D., Colvin, C.J., Lewin, S., Fairall, L., Bachmann, M.O., Uebel, K., Zwarenstein, M., Draper, B. and Bateman, E.D. 2012. Implementing nurse-initiated and managed antiretroviral treament (NIMART) in South Africa: a qualitative process evaluation of the stretch trial. Implementation Science, 7:66.

Gideon, H., Wilkinson, K., Rustad, T.G., Oni, T., Guio, H., Sherman, D.R., Vordermeier, H., Robertson, B.D., Young, D.B. and Wilkinson, R.J. 2012. Bioinformatic and emperical analysis of novel hypoxia-inducible targets of the human antituberculosis t cell response. Journal of Immunology, 189: 5867-5876.

Glans, L., Ehnbom, A., De Kock, C., Martinez, A., Estranda, J., Smith, P.J., Haukka, M., Sanchez-Delgado, R.A. and Nordlander, E. 2012. Ruthenium(II) arene complexes with chelating chloroquine analogue ligands: synthesis, characterization and in vitro antimalarial activity. Dalton Transactions, 41: 2764-2773.

Glans, L., Hu, W., Jost, C., De Kock, C., Smith, P.J., Haukka, M., Bruhn, H., Schatzschneider, U. and Nordlander, E. 2012. Synthesis and biological activity of cymantrene and cyrhetrene 4 -aminoquiline conjugates against malaria, leishmaniasis, and trypanosomiasis. Dalton Transactions, 41: 6443-6450.

Gnecchi, M. and Schwartz, P.J. 2012. The unstoppable attraction for induced pluripotent stem cells. Journal of the American College of Cardiology, 60(11): 1001-1004.

Gottschalk, S., Warner, C., Burch, V.C. and Wallis, L.A. 2012. Warning scores in triage-Is there any point? African Journal of Emergency Medicine (AfJEM), 1: 103-107.

Graves, R.R. and Burch, V. 2012. Socks: launching education innovations on a firm footing. Medical Education, 46: 1099-1136.

Graziose, R., Rojas-Silva, P., Rathinasabapathy, T., De Kock, C., Grace, M.H., Poulev, A., Lila, M.A., Smith, P.J. and Raskin, I. 2012. Antiparasitic compounds from Cornus florida L. with activities against plasmodium falciparum and Leishmania tarentolae. Journal of Ethnopharmacology, 142: 456-461.

Gupta, A., Wood, R., Kaplan, R., Bekker, L. and Lawn, S.D. 2012. Tuberculosis incidence rates during 8 years of follow-up of an antiretroviral treatment cohort in South Africa: comparison with rates in the community. PLoS One, 7(3): e34156.

Hanekom, W.A., Hawkridge, A.J., Mahomed, H., Scriba, T.J., Tameris, M.D., Hughes, J., Hatherill, M., Day, C. and Hussey, G.D. 2012. Satvi - after 10 years closing in on a new and better vaccine to prevent tuberculosis. SAMJ South African Medical Journal, 102(6): 438-441.

Hanlyn, E., Hickling, S., Porter, K., Frater, J., Phillips, R., Robinson, M., Mackie, N.E., Kaye, S., McClure, M., Filder, S., Wood, R., Pitt, J.A., Orrell, C., Cilliers, C., Croxford, R., Middelkoop, K., Bekker, L., Heiberg, C., Aploon, J., Killa, N.J., Fielder, E. and Buhler, T.C. 2012. Increased levels of CD4 T-cell activation inindividuals with CXCR4 using viruses in primary HIV-1 infection. AIDS, 26: 887896.

Harding, R., Selman, L., Agupio, G., Dinat, N., Downing, J., Gwyther, E., Mashao, T., Mmoledi, K., Moll, T., Mpanga S., L., Ikin, B. and Higginson, I. 2012. Prevalence, burden, and correlates of physical and psychological symptoms among HIV palliative care patients in sub-Saharan Africa: an international multicenter study. Journal of Pain and Symptom Management, 44(1): 1-9.

Harries, A.D., Lawn, S.D., Getahun, H., Zachariah, R. and Havlir, D. 2012. HIV and tuberculosis - science and implementation to turn the tide and reduce deaths. Journal of the International AIDS Society, 15: 17396.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: a story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Heckmann, J.M., Hansen, P., van Toorn, R., Lubbe, E., van Rensburg, E.J. and Wilmshurst, J. 2012. The characteristics of juvenile myasthenia gravis among South Africans. SAMJ South African Medical Journal, 102(6): 532-536.

Helgadottir, A., Gretarsdottir, S., Thorleifsson, G., … Mayosi, B.M. *et al.* 2012. Apoliptrotein(a) genetic sequence

variants associated with systemic atherosclerosis and coronary atherosclerotic burden but not with venous thromboembolism. Journal of the American College of Cardiology, 60(8): 722-729.

Hendrik, S.H., Sudano, I., Theus, G., Noll, G. and Burnier, M. 2012. Target blood pressure attainment with antihypertensive therapy in Swiss primary care. Blood Pressure, 21(4): 211-219.

Herrmann, C., Salas, P.F., Cawthray, J.F., De Kock, C., O Patrick, B., Smith, P.J., Adam, M.J. and Orvig, C. 2012. 1,1'-Disubstituted ferrocenyl carbohydrate chloroquine conjugates as potential antimalarials. Organometallics, 31: 5736-5747.

Herrmann, C., Salas, P.F., O Patrick, B., De Kock, C., Smith, P.J., Adam, M.J. and Orvig, C. 2012. 1,2-Disubstituted ferrocenyl carbohydrate chloroquine conjugates as potential antimalarial agents. Dalton Transactions, 41: 6431-6442.

Herrmann, C., Salas, P.F., O Patrick, B., De Kock, C., Smith, P.J., Adam, M.J. and Orvig, C. 2012. Modular synthesis of 1,2- and 1,1'-disubstituted ferrocenyl carbohydrate chloroquine and mefloquine conjugates as potential antimalarial agents. Organometallics, 31: 5748-5759.

Holgate, S.L., Rabie, H., Smith, P. and Cotton, M. 2012. Trough lopinavir concentrations in preterm HIV-infected infants. Pediatric Infectious Disease Journal, 31(6): 602-604.

Howard, A., Gasana, M., Getahun, H., Harries, A.D., Lawn, S.D., Miller, B., Nelson, L., Sitienei, J. and Coggin, W.L. 2012. PEPFAR support for the scaling up of collaborative TB/HIV activities. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60(3): S136-S144.

Hu, D., Barajas-Martinez, H., Medeiros-Domingo, A., Crotti, L., Veltmann, C., Schimpf, R., Urrutia, J., Alday, A., Casis, O., Pfeiffer, R., Burashnikov, E., Caceres, G., Tester, D.J., Wolpert, C., Borggrefe, M., Schwartz, P.J., Ackerman, M.J. and Antzelevitch, C. 2012. A novel rare variant in SCN1Bb linked to Brugada syndrome and SIDS by combined modulation of Nav1.5 and Kv4.3 channel currents. Heart Rhythm, 9(5): 760-769.

Huisamen, B., Dietrich, D., Bezuidenhout, N., Lopes, J., Flepisi, B., Blackhurst, D.M. and Lochner, A. 2012. Early cardiovascular changes occuring in diet-induced, obese insulin-resistant rats. Molecular and Cellular Biochemistry, 368: 37-45.

Isaacs, T. 2012. Skin hypersensitivity reactions to preservatives. Current Allergy & Clinical Immunology, 25(1): 41-45.

Ishikawa, T., Sato, A., Marcou, C.A., Tester, D.J., Ackerman, M.J., Crotti, L., Schwartz, P.J., On, Y.K., Park, J.E., Nakamura, K., Hiraoka, M., Nakazawa, K., Sakurada, H., Arimura, T., Makita, N. and Kimura, A. 2012. A novel disease gene for Brugada syndrome: sarcolemmal membrane-associated protein gene mutations impair intracellular trafficking of hNav1.5. Circulation-Arrhythmia and Electrophysiology, 5: 1098 -1107.

Jabar, A., Wallis, L.A., Ruter, A. and Smith, W.P. 2012. Modified Delphi study to determine optimal data elements for inclusion in an emergency management database system. African Journal of Emergency Medicine (AfJEM), 2: 13-19.

Jackson, A., Nussbaum, J.C., Phulusa, J., Namarika, D., Chikasema, M., Kanyemba, C., Jarvis, J.N., Jaffar, S., Hosseinipour, M., van der Horst, C. and Harrison, T. 2012. A phase II randomized controlled trial adding oral flucytosine to high - dose fluconazole, with short-course amphotericin B, for cryptococcal meningitis. Aids, 26: 1363-1370.

James, R.W., Frias, M.A. and Lecour, S. 2012. Lipid-induced modulation of protective signalling pathways in cardiovascular disease: the role of high density lipoproteins. Current Signal Transduction Therapy, 7(2): 96-103.

Jarvis, J.N., Meintjes, G., Rebe, K., Williams, G.M., Bicanic, T., Williams, A., Schutz, C., Bekker, L., Wood, R. and Harrison, T. 2012. Adjunctive interferon- immunotherapy for the treatment of HIV-associated cryptococcal meningitis: a randomized controlled trial. Aids, 26: 1105-1113.

Jones, E., Owen, P. and Rayner, B.L. 2012. The association of the R563Q genotype of the ENaC with phenotypic variation in Southern Africa. American Journal of Hypertension, 25(12): 1286-1291.

Jones, P.W., Singh, D., Bateman, E.D., Agusti, A., Lamarca, R., de Miquel, G., Segarra, R., Caracta, C. and Gil, E.G. 2012. Efficacy and safety of twice-daily aclidinium bromide in COPD patients: the ATTAIN study. European Respiratory Journal, 40(4): 830-836.

Karthikeyan, G., Zuhlke, L., Engel, M.E., Rangarajan, S., Yusuf, S., Teo, K. and Mayosi, B.M. 2012. Rationale and design of a global rheumatic heart disease registry: the remedy study. American Heart Journal, 163: 535-540.

Kaze, F.F., Ashuntantang, G., Kengne, A.P., Hassan, A., Halle, M.P. and Muna, W. 2012. Acute hemodialysis complications in end-stage renal disease patients: the burden and implications for the under-resourced Sub-Saharan African health systems. Hemodialysis International, 16: 526-531.

Kengne, A.P., Ntyintyane, L. and Mayosi, B.M. 2012. A systematic overview of prospective cohort studies of cardiovascular disease in sub-Saharan Africa. Cardiovascular Journal of Africa, 23(2): 103-112.

Kengne, A.P., Czernichow, S., Hamer, M., Batty, D. and Stamatakis, E. 2012. Anaemia, haemoglobin level and cause - specific mortality in people with and without diabetes. PLoS One, 7(8): e41875.

Kengne, A.P., Batty, D., Hamer, M., Stamatakis, E. and Czernichow, S. 2012. Association of C-reactive protein with cardiovascular disease mortality according to diabetes status. Diabetes Care, 35: 396-403.

Kengne, A.P., Czernichow, S., Stamatakis, E., Hamer, M. and Batty, D. 2012. Gamma-glutamyltransferase and risk of cardiovascular disease mortality in people with and without diabetes: pooling of three British health surveys. Journal of Hepatology, 57: 1083-1089.

Kengne, A.P., Limen, S.N., Sobngwi, E., Djouogo, C.F.T. and Nouedoui, C. 2012. Metabolic syndrome in type 2 diabetes: comparative prevalence according to two sets of diagnostic criteria in sub-Saharan Africans. Diabetology & Metabolic Syndrome, 22(4): 1-8.

Kenyon, C., Mfolozi, S., Croxford, R., Colebunders, R. and Cohen, K. 2012. Severe efavirenz-induced vacuolar axonopathy complicated by fatal aspiration pneumonia. British Journal of Clinical Pharmacology, 74(6): 1070-1072.

Kenyon, C., Schreuder, N., Ntsekhe, M. and Meintjes, G. 2012. Heart failure and cardiogenic shock associated with the TB-immune reconstitution inflammatory syndrome. Cardiovascular Journal of Africa, 23(3): e14-e17.

Kenyon, C., Fatti, G., Schreuder, N., Bonorchis, K. and Meintjes, G. 2012. The value of blood culture audits at peripheral hospitals. SAMJ South African Medical Journal, 102(4): 224-225.

Kenyon, C. and Colebunders, R. 2012. What is the optimal first line antiretroviral therapy in resouce-limited settings? Plos Medicine, 9(8): e1001291.

Kerkhoff, A., Kranzer, K., Samandari, T., Nakiyingi-Miiro, J., Whalen, C.C., Harries, A.D. and Lawn, S.D. 2012. System review of TST responses in people living with HIV in under-resourced settings: implications for isoniazid preventive therapy. PLoS One, 7(11): e49928.

Kerstjens, H.A.M., Engel, M., Dahl, R., Paggiaro, P., Beck, E., Vandewalker, M., Sigmund, R., Seibold, W., Moroni-Zentgraf, P. and Bateman, E.D. 2012. Tiotropium in asthma poorly controlled with standard combination therapy. New England Journal of Medicine, 367: 1198-1207.

Kew, M.C. 2012. Hepatitis B virus / human immunodeficiency virus co-infection and Its hepatocarcinogenic potential in Sub-Saharan black africans. Hepatitis Monthly, 12: e7876.

Khumalo, N. and Gumedze, F.N. 2012. The adapted classification of male pattern hair loss improves reliability. Dermatology, 225(2):110-114.

Khumalo, N. and Gumedze, F.N. 2012. Traction: risk factor or coincidence in central centrifugal cicatricial alopecia? British Journal of Dermatology, 167(5): 1191-1193.

Kimmel, A.D., Daniels, N., Betancourt, T., Wood, R. and Prosser, L.A. 2012. Decision maker priorities for providing antiretroviral therapy in HIV-infected South Africans: a qualitative assessment. Aids Care, 24(6): 778-792.

Kranzer, K., Lawn, S.D., Meyer-Rath, G., Vassall, A., Raditlhalo, E., Govindasamy, D., Van Schaik, N., Wood, R. and Bekker, L. 2012. Feasibility, yield, and cost of active tuberculosis case finding linked to a mobile HIV science in Cape Town, South Africa: a cross-sectional study. PLoS One, 9(8): e1001281.

Kranzer, K., Govindasamy, D., Van Schaik, N., Thebus, L., Davies, N., Zimmerman, M.A., Jeneker, S., Lawn, S.D., Wood, R. and Bekker, L. 2012. Incentivized recruitment of a population sample to a mobile HIV testing service increases the yield of newly diagnosed cases, including those in need of antiretroviral therapy. HIV Medicine, 13: 132-137.

Lamont, K., Blackhurst, D.M., Albertyn, Z., Marais, A.D. and Lecour, S. 2012. Lowering the alcohol content of red wine does not alter its cardioprotective properties. SAMJ South African Medical Journal, 102(6): 565-567.

Langat, M.K., Crouch, N., Pohjala, L., Tammela, P., Smith, P.J. and Mulholland, D.A. 2012. Ent-kauren-19-oic acid derivatives from the stem bark of croton pseudopulchellus pax. Phytochemistry Letters, 5: 414-418.

Langhorne, P., De Villiers, L. and Pandian, J.D. 2012. Applicability of stroke-unit care to low-income and middle income countries. Lancet Neurology, 11: 341-348.

Latib, A., Colombo, A., Castriota, F., Micari, A., Cremonesi, A., De Felice, F., Marchese, A., Tespili, M., Presbitero, P., Sgueglia, G.A., Buffoli, F., Tamburino, C., Varbella, F. and Menozzi, A. 2012. A randomized multicenter study comparing a paclitaxel-eluting stent in small coronary

vessels. Journal of the American College of Cardiology, 60(24): 2473-2480.

Latib, A., Montorfano, M., Figini, F., Maisano, F., Chieffo, A., Benussi, S., Bellanca, R., Gerli, C., Spagnolo, P., Alfieri, O. and Colombo, A. 2012. Percutaneous valve replacement in a young adult for radiation-induced aortic stenosis. Journal of Cardiovascular Medicine, 13: 397-398.

Latib, A., Maisano, F., Bertoldi, L., Giacomini, A., Shannon, J., Cioni, M., Ielasi, A., Figini, F., Tagaki, K., Franco, A., Covello, R.D., Grimaldi, A., Spagnolo, P., Buchannan, G.L., Carlino, M., Chieffo, A., Montorfano, M., Alfieri, O. and Colombo, A. 2012. Transcatheter vs surgical aortic valve replacement in intermediate-surgical-risk patients with aortic stenosis: a propensity score-matched case-control study. American Heart Journal, 164: 910-917.

Latka, M.H., Fielding, K.L., Gray, G., Bekker, L., Nchabeleng, M., Mlisana, K., Nielson, T., Roux, S.M., Mkhize, B., Mathebula, M., Naicker, N., de Bruyn, G., Kublin, J.G. and Churchyard, G.J. 2012. Pregnancy incidence and correlates during the HVTN 503 phambili HIV vaccine trial conducted among South African Women. PLoS One, 7(4): e31387(1).

Lawn, S.D. 2012. Point-of-care detection of lipoarabinomannan (LAM) in urine for diagnosis of HIV-associated tuberculosis: a state of the art review. BMC Infectious Diseases, 12:103.

Lawn, S.D. and Zumla, A. 2012. Diagnosis of extrapulmonary tuberculosis using the Xpert MTB/RIF assay. Expert Review of Anti-Infective Therapy, 10(6): 631-635.

Lawn, S.D., Harries, A.D., Meintjes, G., Getahun, H., Havlir, D. and Wood, R. 2012. Reducing deaths from tuberculosis in antiretroviral treatment programmes in sub-Saharan Africa. AIDS, 26(17): 2121-2133.

Lawn, S.D., Kerkhoff, A., Pahlana, P., Vogt, M.C. and Wood, R. 2012. Diagnostic yield of tuberculosis using sputum induction in HIV-positive patients before antiretroviral therapy. International Journal of Tuberculosis and Lung Disease, 16(10): 1354-1357.

Lawn, S.D., Kerkhoff, A., Vogt, M.C. and Wood, R. 2012. Clinical significance of lipoarabinomannan detection in urine using a low-cost point-of-care diagnostic assay for HIV-associated tuberculosis. AIDS, 26: 1635-1643.

Lawn, S.D., Kerkhoff, A., Vogt, M.C. and Wood, R. 2012. Diagnostic accuracy of a low-cost, urine antigen, point-of-care screening assay for HIV-associated pulmonary tuberculosis before antiretroviral therapy: a descriptive study. Lancet Infectious Diseases, 12: 201-209.

Lawn, S.D., Kerkhoff, A., Vogt, M.C. and Wood, R. 2012. High diagnostic yield of tuberculosis from screening urine samples from HIV-infected patients with advanced immunodeficiency using the xpert MTB/RIF assay. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60: 289-294.

Lawn, S.D., Kerkhoff, A., Vogt, M.C., Ghegrekristos, Y., Whitelaw, A.C. and Wood, R. 2012. Characteristics and early outcomes of patients with Xpert MTB/RIF-negative pulmonary tuberculosis diagnosed during screening before antiretroviral therapy. Clinical Infectious Diseases, 54(8): 1071-1079.

Lehloenya, R.J., Wallance, J., Todd, G. and Dheda, K. 2012. Multiple drug hypersensitivity reactions to anti-tuberculosis drugs: five cases in HIV-infected patients. International Journal of Tuberculosis and Lung Disease, 16(9): 1260-1264.

Lekoubou, A., Kengne, A.P., Fezeu, L. and Mbanya, J.C. 2012. Determinants of active convulsive epilepsy in rural Cameroon: a population based case-control study. Neurological Research, 34(2): 159-162.

Levin, D.A., Watermeyer, G., Deetlefs, E., Metz, D.C. and Thomson, S.R. 2012. The efficacy of endoscopic therapy in bleeding peptic ulcer patients. SAMJ South African Medical Journal, 102(5): 290-293.

Levison, J.H., Orrell, C., Gallien, S., Kuritzkes, D.R., Fu, N., Losina, E., Freedberg, K.A. and Wood, R. 2012. Virologic failure of protease inhibitor-based second-line antiretroviral therapy without resistance in a large HIV treatment program in South Africa. PLoS One, 7(3): e32144.

Lombard, M.C., N'Da, D.D., Breytenbach, J.C., Kolesnikova, N.I., Tran Van Ba, C., Wein, S., Norman, J.J., Denti, P., Vial, H. and Wiesner, L. 2012. Antimalarial and anticancer activities of artemisinin-quinoline hybrid-dimers and pharmacokinetic properties in mice. European Journal of Pharmaceutical Sciences, 47: 834-841.

Lorenzana, S.B., Hughes, M., Grinsztejn, B., Collier, A., Luz, P.M., Freedberg, K.A., Wood, R., Levison, J.H., Mugyenyi, P., Salata, R., Wallis, L., Weinstein, M., Schooley, R.T. and Walensky, R.P. 2012. Genotype assays and third-line ART in resource-limited settings: a simulation and cost-effectiveness analysis of a planned clinical trial. Aids, 26: 1083-1093.

Lotvall, J., Bateman, E.D., Bleecker, E., Busse, W., Woodcock, A., Follows, R., Lim, J., Stone, S., Jacques, L. and Haumann, B. 2012. 24-h duration of the novel LABA vilanterol trifenatate in asthma patients treated with

inhaled corticosteroids. European Respiratory Journal, 40(3): 570-579.

Lowe, D., Redford, P.S., Wilkinson, R.J., O'Garra, A. and Martineau, A. 2012. Neutrophils in tuberculosis: friend or foe? Trends in Immunology, 33(1): 14-25.

Loyse, A., Wilson, D., Meintjes, G., Jarvis, J.N., Bicanic, T., Bishop, L., Rebe, K.B., Williams, A., Jaffar, S., Bekker, L., Wood, R. and Harrison, T. 2012. Comparison of the early fungicidal activity of high-dose fluconazole, voriconazole, and flucytosine as second-line drugs given in combination with amphotericin B for the treatment of HIV-associated cryptococcal meningitis. Clinical Infectious Diseases, 54(1): 121-128.

Lozano, R., Naghavi, M., Foreman, K., Lim, S., Shibuya, K., Aboyans, V., Abraham, J., Adair, T., Aggarwal, R., Ahn, S., Matzopoulos, R., Mayosi, B.M., Mensah, G. and Sliwa, K. 2012. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the global burden of disease study 2010. Lancet, 380: 2095-2128.

Luo, S., Ainslie, G.M., Pollini, D., Giragosian, L. and Monterosso, J.R. 2012. Moderators of the association between brain activation and farsighted choice. Neuroimage, 59: 1469-1477.

Maarman, G., Marais, E., Lochner, A. and du Toit, E.F. 2012. Effect of chronic CPT-1 inhibition on myocardial ischemia-reperfusion injury (I/R) in a model of diet-induced obesity. Cardiovascular Drugs and Therapy, 26: 205-216.

Macharia, M., Hassan, M.S., Blackhurst, D.M., Erasmus, R.T. and Matsha, T.E. 2012. The growing importance of PON1 in cardiovascular health: a review. Journal of Cardiovascular Medicine, 13: 443-453.

Maharaj, R., Geduld, H. and Wallis, L.A. 2012. Door-to-needle time for administration of fibrinolytics in acute myocardial infarction in Cape Town. SAMJ South African Medical Journal, 102(4): 241-244.

Mahler, D.A., D'Urzo, A., Bateman, E.D., Ozkan, S.A., White, T., Peckitt, C., Lassen, C. and Kramer, B. 2012. Concurrent use of indacaterol plus tiotropium in patients with COPD provides superior bronchodilation compared with tiotropium alone: a randomised, double-blind comparison. Thorax, 67: 781-788.

Mahomed, H. and Fourie, P.B. 2012. Clinical trials of TB vaccines: harmonization and cooperation. Tuberculosis, 92s1: S21-S24.

Marais, D., Blom, D., Petrides, F., Goueffic, Y. and Lambert, G. 2012. Proprotein convertase subtilisin/kexin type 9 inhibition. Current Opinion in Lipidology, 23: 511-517.

Mark, D., Middelkoop, K., Black, S., Roux, S.M., Fleur, L., Wood, R. and Bekker, L. 2012. Low acceptability of medical male cicumcision as an HIV/AIDS prevention intervention within a South African community that practises traditional circumcision. SAMJ South African Medical Journal, 102(6): 571-573.

Mash, B., Fairall, L., Adejayan, O., Ikpefan, O., Kumari, J., Mathee, S., Okun, R. and Yogolelo, W. 2012. A morbidity survey of South African primary care. PLoS One, 7(3): e32358.

Mash, B., Levitt, N., Steyn, K., Zwarenstein, M. and Rollnick, S. 2012. Effectiveness of a group diabetes education programme in underserved communities in South Africa: pragmatic cluster randomized control trial. BMC Family Practice, 13:126.

Maspero, J.F., Lee, B.W., Katelaris, C.H., Potter, P.C., Cingi, C., Lopatin, A., Saffer, M., Nadeau, G. and Walters, R.D. 2012. Quality of life and control of allergic rhinitis in patients from regions beyond Western Europe and the United States. Clinical and Experimental Allergy, 42: 1684-1696.

Matsha, T.E., Masconi, K., Yako, Y.Y., Hassan, M.S., Macharia, M., Erasmus, T. and Kengne, A.P. 2012. Polymorphisms in the non-muscle myosin heavy chain gene (MYH9) are associated with lower glomerular filtration rate in mixed ancestry diabetic subjects from South Africa. PLoS One, 7(12): e52529.

Matthews, K., Ntsekhe, M., Syed, F., Scriba, T.J., Russell, J.B.W., Tibazarwa, K., Deffur, A., Hanekom, W.A., Mayosi, B.M., Wilkinson, R.J. and Wilkinson, K. 2012. HIV-1 infection alters CD4+ memory T-cell phenotype at the site of disease in extrapulmonary tuberculosis. European Journal of Immunology, 42: 147-157.

Mayer, K.H., Bekker, L., Stall, R., Grulich, A.E., Colfax, G. and Lama, J.R. 2012. Comprehensive clinical care for men who have sex with men: an integrated approach. Lancet, 380: 378-387.

Mayosi, B.M. and Forrester, T.E. 2012. Serum-cholesterol, diet, and coronary heart-disease in Africans and Asians in Uganda' by AG Shaper and KW Jones. International Journal of Epidemiology, 41: 1233-1235.

Mayosi, B.M., Lawn, J.E.L., van Niekerk, A., Bradshaw, D., Karim, S.S.A. and Coovadia, H. 2012. Health in South Africa: changes and challenges since 2009. Lancet, 380: 2029-2043.

Mbeunkui, F., Grace, M.H., Lategan, C.A., Smith, P.J., Raskin, I. and Lila, M.A. 2012. In vitro antiplasmodial activity

of indole alkaloids from the stem bark of Geissospermum vellosii. Journal of Ethnopharmacology, 139: 471-477.

McIlleron, H., Rustomjee, r., Vahedi, M., Mthiyane, T., Denti, P., Connolly, C., Rida, W., Pym, A., Smith, P.J. and Onyebujoh, P.C. 2012. Reduced antituberculosis drug concerntrations in HIV-infected patients who are men or have low weight: implications for international dosing guidelines. Antimicrobial Agents and Chemotherapy, 56(6): 3232-3238.

McNerney, R., Maeurer, M., Abubakar, I., Marais, B., McHugh, T., Ford, N., Weyer, K., Lawn, S.D., Grobusch, M.P., Memish, Z., B Squire, B., Pantaleo, G., Chakaya, J., Casenghi, M., Migliori, G.B., Mwaba, P., Zijenah, L., Hoelscher, M., Cox, H., Swaminathan, S., Kim, P., Schito, M., Harari, A., Bates, M., Schwank, S., O'Grady, J., Pletschette, M., Ditui, L., Atun, R. and Zumla, A. 2012. Tuberculosis diagnostics and biomarkers: needs, challenges, recent advances, and opportunities. Journal of Infectious Diseases, 205: S147-158.

Meintjes, G., Skolimowska, K., Wilkinson, K., Matthews, K., Tadokera, R., Conesa-Botella, A., Seldon, R.R., Rangaka, M.X., Rebe, K.B., Pepper, D.J., Morroni, C., Colebunders, R., Maartens, G. and Wilkinson, R.J. 2012. Corticosteroid-modulated immune activation in the tuberculosis immune reconstitution inflammatory syndrome. American Journal of Respiratory and Critical Care Medicine, 186(4): 369-377.

Meissner, P.N., Corrigall, A.V. and Hift, R. 2012. Fifty years of porphyria at the Unvirsity of Cape Town. SAMJ South African Medical Journal, 102(6): 422-426.

Mendelson, M., Barday, Z., Eastman, R.W., Le Feuvre, D.E.J., Candy, S., Wu, H. and Swanepoel, C.R. 2012. Rapidly progressive post-transplant lymphoproliferative disease following withdrawal of sirolimus. SAMJ South African Medical Journal, 102(12): 924-928.

Meredith, S.A., Smith, P.J., Norman, J.J. and Wiesner, L. 2012. An LC-MS/MS method for the determination of ofloxacin in 20 1 human plasma. Journal of Pharmaceutical and Biomedical Analysis, 58: 177-181.

Metha, U., Clerk, C., Allen, E., Yore, M., Sevene, E., Singlovic, J., Petzold, M., Mangiaterra, V., Elefant, E., Sullivan, F.M., Holmes, L.B. and Gomes, M. 2012. Protocol for a drugs exposure pregnancy registry for implementation in resource-limited settings. BMC Pregnancy and Childbirth, 12:89.

Middelkoop, K., Bekker, L., Shashkina, E., Kreiswirth, B. and Wood, R. 2012. Retreatment tuberculosis in a South African community: the role of re-intection, HIV and antiretroviral treatment. International Journal of Tuberculosis and Lung Disease, 16(11): 1510-1516.

Migliori, G.B., Zellweger, J.P., Abubakar, I., Caminero, J.A., de Vries, G., D'Ambrosio, L., Centis, R., Sotgiu, G., Menegale, O., Kliiman, K., Aksamit, T., Cirillo, D.M., Danilovits, M., Dara, M., Dheda, K., Dinh-Xuan, A.T., Kluge, H., Lange, C., Leimane, V., Loddenkemper, R., Nicod, L.P., Raviglione, M.C., Spanevello, A., Thomsen, V.O., Villar, M., Wanlin, M., Wedzicha, J.A., Zumla, A., Blasi, F., Huitric, E., Sandgren, A. and Manissero, D. 2012. European union standards for tuberculosis care. European Respiratory Journal, 39(4): 807-819.

Mocumbi, A.O. and Sliwa, K. 2012. Women's cardiovascular health in Africa. Heart, 98: 450-455.

Montgomery, E.T., van der Straten, A., Cheng, H., Wegner, L., Masenga, G., von Mollendorf, C., Bekker, L., Ganesh, S., Young, K., Romano, J., Nel, A. and Woodsong, C. 2012. Vaginal ring adherence in Sub-Saharan Africa: expulsion, removal, and perfect use. Aids and Behavior, 16: 1787-1798.

Moons, K.G.M., Kengne, A.P., Grobbee, D.E., Royston, P., Vergouwen, Y., Altman, D.G. and Woodward, M. 2012. Risk prediction models: II. external validation, model updating, and impact assessment. Heart, 98: 691-698.

Moons, K.G.M., Kengne, A.P., Woodward, M., Royston, P., Vergouwen, Y., Altman, D.G. and Grobbee, D.E. 2012. Risk prediction models: I. development, internal validation, and assessing the incremental value of a new (bio)marker. Heart, 98: 683-690.

Morrow, C.D., Munro, A., Wilke, M., Stark, R. and Wood, R. 2012. Remote sensing of HIV care programme using centrally collected laboratory results: can we monitor ART programmes effectiveness. SAMJ South African Medical Journal, 102(6): 501-505.

Mosendane, T., Kew, M.C., Osih, R. and Mahomed, A. 2012. Nurses at risk for occupationally acquired blood-borne virus infection at a South African academic hospital. SAMJ South African Medical Journal, 102(3): 153-156.

Moyo, S., Verver, S., Hawkridge, A.J., Geiter, L., Hatherill, M., Workman, L.J., Ontong, C., Msemburi, W., Tameris, M.D., Geldenhuys, H.D., Mulenga, H., Snowden, M.A., Hanekom, W.A., Hussey, G.D., Mahomed, H. and the South African Tuberculosis Vaccine Initiative Neonatal Study Team, 2012. Tuberculosis case finding for vaccine trials in young children in high-incidence settings: a randomised trial. International Journal of Tuberculosis and Lung Disease, 16(2): 185-191.

Mufhandu, H.T., Gray, E.S., Madiga, M.C., Tumba, N.L., Alexandre, K.B., Khoza, T., Wibmer, C.K., Moore, P.L., Morris, L. and Khati, M. 2012. UCLA1, a synthetic derivative of a gp120 RNA aptamer, inhibits entry of human immunodeficiency virus type 1 subtype C. Journal of Virology, 86(9): 4989-4999.

Mulder, N.J., Burge, S., Lonsdale, D., Mutowo-Muellenet, P., McAnulla, C., Mitchell, A., Sangrador-Vegas, A., Yong, S., Kelly, E. and Hunter, S. 2012. Manual go annotation of predictive protein signatures: interpro appraoch to go curation. database: the journal of biological databases and curation, bar068.

Muller, E., Barday, Z., Mccurdie, F. and Kahn, D. 2012. Deceased donor organ transplantation: a single center experience from Cape Town, South Africa. African Journal of Urology, 18: 167-169.

Muller, E., Barday, Z., Mendelson, M. and Kahn, D. 2012. Renal transplantation between HIV-positive donors and recipients justified. SAMJ South African Medical Journal, 102(6): 497-498.

Murdoch-Eaton, D., Manning, D., Kwizera, E., Burch, V., Pell, G. and Whittle, S. 2012. Profiling undergraduates' generic learning skills on entry to medical school; an international study. Medical Teacher, 34: 1033-1046.

Murphy, R.A., Sunpath, H., Castilla, C., Ebrahim, S., Court, R.G., Nguyen, H., Kuritzkes, D.R., Marconi, V.C. and Nachega, J.B. 2012. Second-line antiretroviral therapy: long term outcomes in South Africa. Jaids-Journal of Acquired Immune Deficiency Syndromes, 61(2): 158-163.

Murray, C.J.L., Vos, T., Lozano, R., Naghavi, M., Flaxman, A., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J.A., Abdalla, S., Matzopoulos, R. and Mayosi, B.M. 2012. Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet, 380(December 15): 2197-2223.

Mutua, F.M., M'Imunya, J.M. and Wiysonge, C.S. 2012. Genital ulcer disease treatment for reducing sexual acquisition of HIV. Cochrane Database of Systematic Reviews, 8: 1-27.

Myer, L., Zulliger, R., Bekker, L. and Abrams, E. 2012. Systemic delays in the initiation of antiretroviral therapy during pregnancy do not improve outcomes of HIV-positive mothers: a cohort study. BMC Pregnancy and Childbirth, 12:94.

Myers, L., Zulliger, R., Black, S., Pienaar, D. and Bekker, L. 2012. Pilot programme for the rapid initiation of antiretroviral therapy in pregnancy in Cape Town, South Africa. Aids Care, 24(8): 986-992.

Nachega, J.B., Uthman, O.A., Yo, Y.-S., Lo, M., Anude, C., Kayembe, P., Wabwire-Mangen, F., Gomo, E., Sow, P.S., Obike, U., Kusiaku, T., Mills, E., Mayosi, B.M. and Ijsselmuiden, C. 2012. Current status and future prospects of epidemiology and public health training and research in the WHO African region. International journal of epidemiology, 41: 1829-1846.

Nachega, J.B., Morroni, C., Chaisson, R., Goliath, R., Efron, A., Ram, M. and Maartens, G. 2012. Impact of Immune reconstitution inflammatory syndrome on antiretroviral therapy adherence. Patient Preference and Adherence, 6: 887-891.

Nglazi, M., Kaplan, R., Caldwell, J., Peton, N., Lawn, S.D., Wood, R. and Bekker, L. 2012. Antiretroviral treatment uptake in patients with HIV-associated TN attending co-located TB and ART services. SAMJ South African Medical Journal, 102(12): 936-939.

Nglazi, M., Kranzer, K., Holele, P., Kaplan, R., Mark, D., Jaspan, H.B., Lawn, S.D., Wood, R. and Bekker, L. 2012. Treatment outcomes in HIV-infected adolescents attending a community-based antiretroviral therapy clinic in South Africa. BMC Infectious Diseases, 12:21.

Nglazi, M., Van Schaik, N., Kranzer, K., Lawn, S.D., Wood, R. and Bekker, L. 2012. An incentivized HIV counseling and testing program targeting hard-to-reach unemployed men in Cape Town, South Africa. Jaids-Journal of Acquired Immune Deficiency Syndromes, 59(3): e28-e34.

Ngongo, P.B., Priddy, F.H., Park, H.H., Becker, J., Bender, B., Fast, P., Anzala, O., Mutua, G., Ruzagira, E., Kamali, A., Karita, E., Mugo, P., Chomba, E., Bekker, L., Roux, S.M., Nanvubya, A. and Mebrahtu, T. 2012. Developing standards of care for HIV prevention research in developing countries - a case study of 10 research centers in Eastern and Southen Africa. Aids Care, 24(10): 1277-1289.

Ntale, R., Chopera, D., Ngandu, N., Assis de Rosa, D., Zembe, L., Gamieldien, H., Mlotshwa, M., Werner, L., Woodman, Z.L., Mlisana, K., Abdool Karim, S., Gray, C., Williamson, C. and caprisa 002 study team, c. 2012. Temporal association of HLA-B*81:01 and B*39:10 mediated HIV-1 p24 sequence evolution with disease progression. Journal of Virology, 86(22): 12013-12024.

Ntsekhe, M., Matthews, K., Wolske, J., Badri, M., Wilkinson, K., Wilkinson, R.J., Sturrock, E.D. and Mayosi, B.M. 2012. Ac-SDKP (N-acetyl-seryl-aspartyl-lysyl-proline) and Galectin-3 levels in tuberculous pericaridal effusion: implications for pathogenesis and prevention of pericardial constriction. Heart, 98(17): 1326-1328.

Ntsekhe, M., Mayosi, B.M. and Gumboo, T. 2012. Quantification of echodensities in tuberculous pericardial effusion using fractal geometry: a proof of concept study. Cardiovascular Ultrasound, 10:30.

Ntsekhe, M., Wiysonge, C.S., Commerford, P.J. and Mayosi, B.M. 2012. The prevalence and outcome of effusive constrictive pericarditis: a sysematic review of the literature. Cardiovascular Journal of Africa, 23: 281-285.

Ntusi, N., Badri, M., Khalfey, H., Whitelaw, A.C., Oliver, S.P., Piercy, J.L., Raine, R.I., Joubert, I. and Dheda, K. 2012. ICU-associated acinetobacter baumannii colonisation/infection in a high HIV-prevalence resource-poor setting. PLoS One, 7(12): e52452.

Nyo, M.T.L., Schoeman, L., Sookhayi, R. and Mayosi, B.M. 2012. HIV infection, pulmonary arterial hypertension and pregnancy: a fatal triad. Cardiovascular Journal of Africa, 23(7): e4-e6.

Obiero, J., Mwethera, P.G. and Wiysonge, C.S. 2012. Topical microbicides for prevention of sexually transmitted infections. Cochrane Database of Systematic Reviews, 6(CD007961): 1-94.
Obiero, J., Mwethera, P.G., Hussey, G.D. and Wiysonge, C.S. 2012. Vaginal microbicides for reducing the risk of sexual acquisition of HIV infection in women: systematic review and meta-analysis. BMC Infectious Diseases, 12:289.

Okpechi, I.G., Ayodele, O., Jones, E., Duffield, M. and Swanepoel, C.R. 2012. Outcome of patients with membranous lupus nephritis in Cape Town South Africa. Nephrology Dialysis Transplantation, 27: 3509-3515.

Okpechi, I.G., Rayner, B.L. and Swanepoel, C.R. 2012. Peritoneal dialysis in Cape Town, South Africa. Peritoneal Dialysis International, 32(3): 254-260.

Okpechi, I.G., Swanepoel, C.R. and Rayner, B.L. 2012. Outcomes of rationing dialysis therapy in biopsy-proven end-stage renal disease in South Africa. Journal of Nephrology, 25(4): 551-557.

Okpechi, I.G., Swanepoel, C.R., Tiffin, N., Duffield, M. and Rayner, B.L. 2012. Clinicopathological insights into lupus nephritis in South Africa: a study of 251 patients. Lupus, 21: 1017-1024.

Oni, T., Tsekela, R., Kwaza, B., Manjezi, L., Bangani, N.M., Wilkinson, K., Coetzee, D.J. and Wilkinson, R.J. 2012. A recent HIV diagnosis is associated with non-completion of isoniazid preventive therapy in an HIV-infected cohort in Cape Town. PLoS One, 7(12): e52489.

Oni, T., Gideon, H., Bangani, N.M., Tsekela, R., Seldon, R.R., Wood, K.A., Wilkinson, K., Goliath, R., Ottenhoff, T.H.M. and Wilkinson, R.J. 2012. Risk factors associated with indeterminate gamma interferon responses in the assessment of latent tuberculosis infection in a high incidence environment. Clinical and Vaccine Immunology, 19(8): 1243-1247.

Oni, T., Gideon, H., Bangani, N.M., Tsekela, R., Seldon, R.R., Wood, K.A., Wilkinson, K., Goliath, R., Ottenhoff, T.H.M. and Wilkinson, R.J. 2012. Smoking, BCG and employment and the risk of tuberculosis infection in HIV-infected persons in South Africa. PLoS One, 7(10): e47072.

Opie, L.H. 2012. Allopurinol for Heart Failure Novel Mechanism. Journal of the American College of Cardiology, 59(9): 809-812.

Opie, L.H. 2012. Cardioprotection from metabolism to molecules to certainties. SAMJ South African Medical Journal, 102(6): 491-492.

Oudijk, J.M., McIlleron, H., Mulenga, V., Chintu, C., Merry, C., Walker, A.S., Cook, A., Gibb, D.M. and Burger, D.M. 2012. Pharmacokinetics of nevirapine in HIV-infected children under 3 years on rifampicin-based antituberculosis treatment. Aids, 26(12): 1523-1528.

Owen, P., Leisegang, F., Whitelaw, A.C., Simpson, J., Baker, S., Wurzner, R., Potter, P.C. and Orren, A. 2012. Complement component C5 and C6 mutation screening indicated in meningococcal disease in South Africa. SAMJ South African Medical Journal, 102(6): 525-527.

Pandie, M., van Der Plas, H., Maartens, G. and Mendelson, M. 2012. The role of the infectious diseases unit at Groote Schuur Hospital in addressing South Africa's greatest burden of disease. SAMJ South African Medical Journal, 102(6): 528-531.

Parker, W., Steyn, N., Levitt, N. and Lombard, C. 2012. Health promotion services for patients having non-communicable diseases: feedback from patients and health care providers in Cape Town, South Africa. BMC Public Health, 12:503.

Pathai, S., Lawn, S.D. and Gilbert, C. 2012. Cytomegalovirus retinitis associated with HIV in resource-constrained settings: systematic screening and case detection. International Health, 4: 86-94.

Pathai, S., Weiss, H., Lawn, S.D., Peto, T., D'Costa, L.M., Cook, C.D., Wong, T.Y. and Gilbert, C.E. 2012. Retinal arterioles narrow with increasing duration of anti-retroviral therapy in HIV Infection: a novel estimator of vascular risk in HIV? PLoS One, 7(12): e51405.

Peer, N., Steyn, K., Lombard, C., Lambert, E.V., Vythilingum, B. and Levitt, N. 2012. Rising diabetes prevalence among urban-dwelling black South Africans. PLoS One, 7(9): e43336.

Pepper, D.J., Marais, S., Bhaijee, F., Wilkinson, R.J., De Azevedo, V. and Meintjes, G. 2012. Assessment at antiretroviral clinics during TB treatment reduces loss to follow-up among HIV-infected patients. PLoS One, 7(6): e37634.

Peter, J., Cashmore, T., Meldau, R., Theron, G., Van Zyl Smit, R. and Dheda, K. 2012. Diagnostic accuracy of induced sputum LAM ELISA for tuberculosis diagnosis in sputum-scare patients. International Journal of Tuberculosis and Lung Disease, 16(8): 1108-1112.

Peter, J., Theron, G., Muchinga, T., Govender, U. and Dheda, K. 2012. The diagnostic accuracy of urine-based xpert MTB/RIF in HIV-infected hospitalized patients who are smear-negative or sputum scarce. PLoS One, 7(7): e39966.

Peter, J., Theron, G., Van Zyl Smit, R., Haripersad, A., Mottay, L., Kraus, S., Binder, A.B., Meldau, R., Hardy, A. and Dheda, K. 2012. Diagnostic accuracy of a urine lipoarabinomannan strip-test for TB detection in HIV-Infected hospitlised patients. European Respiratory Journal, 40(5): 1211-1220.

Petros, G. 2012. Use of a mixed methods approach to investigate the support needs of older caregivers to family members affected by HIV and AIDS in South Africa. Journal of Mixed Methods Research, 6(4): 275-293.

Price, M.A., Rida, W., Mwangome, M., Mutua, G., Middelkoop, K., Roux, S.M., Okuku, H.S., Bekker, L., Anzala, O., Ngugi, E., Stevens, G., Chetty, P., Amornkul, P.N. and Sanders, E.J. 2012. Identifying at-risk populations in Kenya and South Africa: HIV incidence in cohorts of men who report sex with men, sex workers, and youth. Jaids-Journal of Acquired Immune Deficiency Syndromes, 59(2): 185-193.

Rangaka, M.X., Gideon, H., Wilkinson, K., Pai, M., Mwansa-Kambafwile, J.R.M., Maartens, G., Glynn, J.R., Boulle, A.M., Fielding, K.L., Goliath, R., Mathee, S., Titus, R. and Wilkinson, R.J. 2012. Interferon release does not add discriminatory value to smear-negative HIV-tuberculosis algorithms. European Respiratory Journal, 39(1): 163-171.

Rangaka, M.X., Wilkinson, K., Glynn, J.R., Ling, D., Menzies, D., Mwansa-Kambafwile, J.R.M., Fielding, K.L., Wilkinson, R.J. and Pai, M. 2012. Predictive value of interferon- release assays for incident active tuberculosis: a systematic review and meta-analysis. Lancet Infectious Diseases, 12(1): 45-55.

Rangaka, M.X., Wilkinson, R.J., Glynn, J.R., Boulle, A.M., Van Cutsem, G., Goliath, R., Mathee, S. and Maartens, G. 2012. Effect of antiretroviral therapy on the diagnostic accuracy of symptom screening for Intensified tuberculosis case finding in a South African HIV Clinic. Clinical Infectious Diseases, 55(12): 1698-1706.

Rayner, B.L. 2012. Hypertension, chronic kidney disease, atrial fibrillation and the newer anticoagulants. South African Family Practice, 54(5): 418-419.

Rayner, B.L., Ramesar, R.S., Steyn, K., Levitt, N.S., Lombard, C. and Charlton, K.E. 2012. G-protein-coupled receptor kinase 4 polymorphisms predict blood pressure response to dietary modification in black patients with mild-to-moderate hypertension. Journal of Human Hypertension, 26(0): 334-339.

Reddy, S.P., Resnicow, K., James, S., Funani, I., kambaran, n., omardien, r., Masuka, M., Sewpaul, R., Vaughan, R.D. and Mbewu, A. 2012. Rapid increases in overweight and obesity among South African adolescents: comparison of data from the South African national youth risk behaviour survey in 2002 and 2008. American Journal of Public Health, 102(2): 262-268.

Reid, E., Orrell, C., Stoloff, K. and Joska, J. 2012. Psychotropic prescribing in HIV. Southern African Journal of HIV medicine, 13(4): 188-194.

Rey, M.E.C., Ndunguru, J., Berrie, L.C., Paximadis, M., Berry, S., Cossa, N., Nuaila, V.N., Mabasa, K.G., Abraham, N., Rybicki, E.P., Martin, D.P., Pietersen, G. and Esterhuizen, L.L. 2012. Diversity of dicotyledenous-infecting geminiviruses and their associated DNA molecules in Southern Africa, including the South-West Indian Ocean islands. Viruses-Basel, 4: 1753-1791.

Rezq, A., Basavarajaiah, S., Latib, A., Takagi, K., Hasegawa, T., Figini, F., Cioni, M., Franco, A., Montorfano, M., Chieffo, A., Maisano, F., Corvaja, N., Alfieri, O. and Colombo, A. 2012. Incidence, management, and outcomes of cardiac tamponade during transcatheter aortic valve implantation. JACC-Cardiovascular Interventions, 5(12): 1264-1272.

Ritchie, P.L.M., van Lettow, M., Barnsley, J., Chan, A.K., Joshua, M., Martiniuk, A.L., Schull, M.J. and Zwarenstein, M. 2012. Evaluation of lay health worker's needs to effectively support anti-tuberculosis treatment adherence in Malawi. International Journal of Tuberculosis and Lung Disease, 16(11): 1492-1497.

Robertson, B.D., Altmann, D., Barry 3rd, C.E., Bishai, B., Cole, S., Dick, T., Duncan, K., Dye, C., Ehrt, S., Esmail, H., Flynn, J., Hafner, R., Handley, G., Hanekom, W.A., Van Helden, P., Kaplan, G., Kaufmann, S.H.E., Kim, P., Lienhardt, C., Mizrahi, V., Rubin, E., Schnappinger, D., Sherman, D.R., Thole, J., Vandal, O., Walzl, G., Warner, D., Wilkinson, R.J. and Young, D.B. 2012. Detection and treatment of subclinical tuberculosis. Tuberculosis, 92: 447-452.

Rotherham, L.S., Maserumule, M., Dheda, K., Theron, J. and Khati, M. 2012. Selection and application of ssDNA aptamers to detect active TB from sputum samples. PLoS One, 7(10): e46862.

Rustomjee, R., Mcleod, R., Hanekom, W.A., Steel, G., Mahomed, H., Hawkridge, A.J., Welte, A., Sinanovic, E., Loots, G., Grobler, A.C., MVUSI, L., Gray, G., Hesseling, A.C., Ginsberg, A.M., Lienhardt, C., Shea, J., Tong, X., Lockhart, S. and Churchyard, G.J. 2012. Key issues in the clinical development and implementation of TB vaccines in South Africa. Tuberculosis, 92(5): 359-364.

Sandgren, A., Cuevas, L.E., Dara, M., Gie, R., Grzemska, M., Hawkridge, A.J., Hesseling, A.C., Kampmann, B., Lienhardt, C., Manissero, D., Wingfield, C. and Graham, S. 2012. Childhood tuberculosis: progress requires an advocacy strategy now. European Respiratory Journal, 40: 294-297.

Sarkar, R., Lenders, L., Wilkinson, K., Wilkinson, R.J. and Nicol, M.P. 2012. Modern lineages of mycobacterium tuberculosis exhibit lineage-specific patterns of growth and cytokine induction in human monocyte-derived macrophages. PLoS One, 7(8): e43170.

Schmidt, S., Hoving, J., Horsnell, W., Mearns, H., Cutler, A., Brombacher, T.M. and Brombacher, F. 2012. Nippostrongylus-induced intestinal hypercontractility requires IL-4 receptor alpha-responsiveness by T cells in mice. PLoS One, 7(12): e522111.

Schutz, C., Ismail, Z., Proxenos, C.J., Marais, S., Burton, R., Kenyon, C., Maartens, G., Wilkinson, R.J. and Meintjes, G. 2012. Burden of antituberculosis and antiretroviral drug-induced liver injury at a secondary hospital in South Africa. SAMJ South African Medical Journal, 102(6): 506-511.

Schwartz, P.J. 2012. Automatic modulation for chronic heart failure: a new kid on the block? . European Journal Of Heart Failure, 14: 1316-1318.

Schwartz, P.J. 2012. Introduction to the arrhythmogenic disorders of genetic origin series. Circulation-Arrhythmia and Electrophysiology, 5: 604-605.

Schwartz, P.J., Crotti, L. and Insolia, R. 2012. Long-QT syndrome: from genetics to management. Circulation-Arrhythmia and Electrophysiology, 5: 868-877.

Seddon, J.A., Hesseling, A.C., Marais, B.J., McIlleron, H., Peloquin, C.A., Donald, P.R. and Schaaf, H. 2012. Paediatric use of second-line anti-tuberculosis agents: a review. Tuberculosis, 92: 9-17.

Seedat, Y. and Rayner, B.L. 2012. South African hypertension guideline 2011. SAMJ South African Medical Journal, 102(1): 60-84.

Selker, H.P., Beshansky, J.R., Sheehan, P.R., Massaro, J.M., Griffith, J.L., D'Agostino, R.B., Ruthazer, R., Atkins, J.M., Sayah, A., Levy, M.K., Richards, M.E., Aufderheide, T.P., Braude, D.A., Pirrallo, R.G., Doyle, D.D., Franscone, R.J., Kosiak, D.J., Leaming, J.M., Van Gelder, C.M., Walter, G.-P., Wayne, M.A., Woorlard, R.H., Opie, L.H., Rackley, C.E., Apstein, C.S. and Udelson, J.E. 2012. Out-of-hospital administration intravenous glucose-insulin-potassium in patients with suspected acute coronary syndromes. Jama-Journal of the American Medical Association, 307(18): 1925-1933.

Selker, H.P., Beshansky, J.R., Griffith, J.L., D'Agostino, R.B., Massaro, J.M., Udelson, J.E., Rashba, E.J., Ruthazer, R., Sheenan, P.R., Desvigne-Nickens, P., Rosenberg, Y.D., Atkins, J.M., Sayah, A., Aufderheide, T.P., Rackley, C.E., Opie, L.H., Lambrew, C., Cobb, L.A., Macleod, B., Ingwall, J.S., Zalenski, R.J. and Apstein, C.S. 2012. Study design for the immediate mycordial metabolic enhancement during initial assessment and treatment in emergency care (immediate) trial: a double-blind randomized controlled trial of intravenous glucose, insulen, and potassium for acute coronary syndromes in emergency medical services. American Heart Journal, 163: 315-322.

Setshedi, M., Epstein, D., Winter, T., Myer, L., Watermeyer, G. and Hift, R. 2012. Use of thiopurines in the treatment of inflammatory bowel disease is associated with an increased risk of non-melanoma skin cancer in an at-risk population: a cohort study. Journal of Gastroenterology and Hepatology, 27: 385-389.

Shaikh, M.M., Kruger, H.G., Bodenstein, J., Smith, P.J. and du Toit, K. 2012. Anti-inflammatory activities of selected synthetic homoisoflavanones. Natural Product Research, 26(16): 1473-1482.

Shannon, J., Latib, A. and Colombo, A. 2012. Iatrogenic perforation of the medial circumflex artery following femoral venous cannulation for tanscatheter aortic valve

replacement, presenting with retroperitoneal hematoma and successfully managed by percutaneous embolization and coiling. Catheterization and Cardiovascular Interventions, 80: 1002-1006.

Sinxadi, P., McIlleron, H., Dave, J.A., Smith, P.J., Levitt, N. and Maartens, G. 2012. Association of lopinavir concentrations with plasma lipid or glucose concentrations in HIV-infected South Africans: a cross sectional study. AIDS research and therapy, 9(32): 1-6.

Skelton, M., Kew, M.C. and Kramvis, A. 2012. Distinct mutant hepatitis B virus genomes, with alterations in all four open reading frames, in a single South African hepatocellular carcinoma patient. Virus Research, 163(1): 59-65.

Skolimowska, K., Rangaka, M.X., Meintjes, G., Pepper, D.J., Seldon, R.R., Matthews, K., Wilkinson, R.J. and Wilkinson, K. 2012. Altered Ratio of IFN-y/IL-10 in patients with drug resistant mycobacterium tuberculosis and HIV-tuberculosis immune reconstitution inflammatory syndrome. PLoS One, 7(10): e46481.

Sliwa, K. and Zilla, P. 2012. Rheumatic heart disease: the tip of the iceberg. Circulation, 125: 3060-3062.

Sliwa, K., Carrington, M., Becker, A., Thienemann, F., Ntsekhe, M. and Stewart, S. 2012. Contribution of the human immunodeficiency virus/acquired immunodeficiency syndrome epidemic to de novo presentations of heart disease in the heart of Soweto study cohort. European Heart Journal, 33: 866-874.

Sliwa, K., Lyons, J.G., Carrington, M., Lecour, S., Marais, A.D., Raal, D. and Stewart, S. 2012. Different lipid profiles according to ethnicity in the heart of Soweto study cohort of de novo presentations of heart disease. Cardiovascular Journal of Africa, 23(7): 389-395.

Smith, D., Bryer, A., Watson, L. and Greenberg, J. 2012. Inherited polyglutamine spinocerebellar ataxias in South Africa. SAMJ South African Medical Journal, 102(8): 683-686.

Smith, W.P. 2012. Triage in mass casualty situations. CME-Continuing Medical Education, 30(11): 413-415.

Smythe, W., Khandelwal, A., Merle, C., Rustomjee, r., Gninafon, M., Bocar Lo, M., Sow, O.B., Olliaro, P., Lienhardt, C., Horton, J., Smith, P.J., McIlleron, H. and Simonsson, U. 2012. A semimechanistic pharmacokinetic-enzyme turnover model for rifampin autoinduction in adult tuberculosis patients. Antimicrobial Agents and Chemotherapy, 56(4): 2091-2098.

Somers, S., Frias, M., Lacerda, L., Opie, L.H. and Lecour, S. 2012. Interplay between safe and risk pathways in sphingosine-1-phosphate-induced cardioprotection. Cardiovascular Drugs and Therapy, 26: 227-237.

Stanley, A., Candy, S., Levin, C. and Heckmann, J.M. 2012. The complexity of HIV vasculopathy. SAMJ South African Medical Journal, 102(6): 474-476.

Stewart, S., Carrington, M., Pretorius, S., Okechukwu, O.S., Blauwet, L., Antras-Ferry, J. and Sliwa, K. 2012. Elevated risk factors but low burden of heart disease in urban African primary care patients: a fundamental role for primary prevention. International Journal of Cardiology, 158: 205-210.

Stinson, K., Boulle, A.M., Smith, P.J., Stringer, E.M., Stringer, J.S.A. and Coetzee, D.J. 2012. Coverage of the prevention of mother-to-child transmission program in the Western Cape, South Africa using cord blood surveillance. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60(2): 199-204.

Streicher, E.M., Bergval, I., Dheda, K., Bottger, E.C., Gey van Pittius, N.C., Bosman, M., Coetzee, G., Anthony, R.M., Van Helden, P., Victor, T. and Warren, R.M. 2012. Mycobacterium tuberculosis population structure determines the outcome of genetic - based second - line drug resistance testing. Antimicrobial Agents and Chemotherapy, 56(5): 2420-2427.

Stuart-Clark, H., Vorajee, N., Zuma, S., van Niekerk, L., Burch, V.C., Raubenheimer, P.J. and Peter, J. 2012. Twelve-month outcomes of patients admitted to the acute general medical service at Groote Schuur Hospital. SAMJ South African Medical Journal, 102(6): 549-553.

Sunpath, H., Edwin, C., Chelin, N., Nadesan, S., Maharaj, R., Moosa, M.-Y.S., Smeaton, L., Court, R.G., Knight, S.E., Gwyther, E. and Murphy, R. 2012. Operationalizing early antiretroviral therapy in HIV-infected in-patients with opportunistic infections including tuberculosis. International Journal of Tuberculosis and Lung Disease, 16(7): 917-923.

Suthar, A.B., Lawn, S.D., del Amo, J., getahun, H., Dye, C., Sculier, D., Sterling, T.R., Chaisson, R., Williams, B., Harries, A.D. and Granich, R. 2012. Antiretroviral therapy for prevention of tuberculosis in adults with HIV: a systematic review and meta-analysis. PLoS One, 9(7): e1001270.

Svensson, E., Van der Walt, J.-S., Barnes, K.I., Cohen, K., Kredo, T., Huitema, A., Nachega, J.B., Karlsson, M.O. and Denti, P. 2012. Integration of data from multiple sources for simultaneous modelling analysis: experience from nevirapine population pharmacokinetics. British Journal of Pharmacology, 74(3): 465-476.

Swanepoel, C.R., Wearne, N., Duffield, M. and Okpechi, I.G. 2012. The Evolution of our knowledge of HIV-associated kidney disease in Africa. American Journal of Kidney Diseases, 60(4): 668-678.

Swart, M., Ren, Y., Smith, P.J. and Dandara, C. 2012. ABCB1 4036A>G and 1236C>T polymorphisms affect plasma efavirenz levels in South African HIV/AIDS patients. Frontiers in Genetics, 3:326.

Swart, M., Whitehorn, H., Ren, Y., Smith, P.J., Ramesar, R.S. and Dandara, C. 2012. PXR and CAR single nucleotide polymorphisms influence plasma efavirenz levels in South African HIV/AIDS patients. BMC Medical Genetics, 13:112.

Tacon, C., Guantai, E.M., Smith, P.J. and Chibale, K. 2012. Synthesis, biological evaluation and mechanistic studies of totarol amino alcohol derivatives as potential antimalarial agents. Bioorganic & Medicinal Chemistry, 20: 893-902.

Takagi, K., Ielasi, A., Shannon, J., Latib, A., Godino, C., Davidavicius, G., Mussardo, M., Ferrarello, S., Figini, F., Carlino, M., Montorfano, M., Chieffo, A., Nakamura, S. and Colombo, A. 2012. Clinical and procedural predictors of suboptimal outcome after the treatment of drug-eluting stent restenosis in the unprotected distal left main stem. Circulation-Cardiovascular Interventions, 5: 491-498.

Tan, W.C., Vollmer, W.M., Lamprecht, B., Mannino, D.M., Nizankowska-Mogilnicka, E., Mejza, F., Gislason, T., Burney, P.G.J., Buist, S.A., Bateman, E.D., Jithoo, A. and Johannisen, C.F. 2012. Worldwide patterns of bronchodilator responsiveness: results from the Burden of Obstructive Lung Disease study. Thorax, 67: 718-726.

Testa, L., Agnifili, M., Latini, R.A., Mattioli, R., Lanotte, S., De Marco F, F., Oreglia, J., Latib, A., Pizzocri, S., Laudisa, M.L., Brambilla, N. and Bedogni, F. 2012. Adjusted indirect comparison of new oral anticoagulants for stroke prevention in atrial fibrillation. QJM-An International Journal of Medicine, 105: 949-957.

Thelingwani, R.S., Dhansay, K., Smith, P., Chibale, K. and Masimirembwa, C.M. 2012. Potent inhibition of CYP1A2 by frutinone A, an active ingredient of the broad spectrum antimicrobial herbal extract from P.fruticosa. Xenobiotica, 42(10): 989-1000.

Theron, G., Peter, J., Lenders, L., Van Zyl Smit, R., Meldau, R., Govender, U. and Dheda, K. 2012. Correlation of mycobacterium tuberculosis specific and non-specific quantitative th1 t-cell responses with bacillary load in a high burden setting. PLoS One, 7(5): e37436.

Theron, G., Pooran, A., Peter, J., Van Zyl Smit, R., Mishra, H., Meldau, R., Calligaro, G., Allwood, B.W., Sharma, S.K., Dawson, R. and Dheda, K. 2012. Do adjunct tuberculosis tests, when combined with Xpert MTB/RIF, improve accuracy and the cost of diagnosis in a resource-poor setting. European Respiratory Journal, 40(1): 161-168.

Theron, G., Pinto, L., Peter, J., Mishra, H.K., Mishra, H., Van Zyl Smit, R., Sharma, S.K. and Dheda, K. 2012. The use of an automated quantitative polymerase chain reaction (Xpert MTB/RIF) to predict the sputum smear status of tuberculosis patients. Clinical Infectious Diseases, 54(3): 384-388.

Thomas, A., Orren, A., Connaughton, J., Feighery, C., Morgan, B.P. and Roberts, A. 2012. Characterization of a large genomic deletion in four irish families with C7 deficiency. Molecular Immunology, 50: 57-59.

Thompson, M.A., Mugavero, M.J., Amico, R., Cargill, V.A., Chang, L., Gross, R., Orrell, C., Altice, F.L., Bangsberge, D.R., Bartlett, J.G., Beckwith, C.G., Dowshen, N., Gordon, C.M., Horn, T., Kumar, P., Scott, J.D., Stirratt, M.J., Remien, R.H., Simoni, J.M. and Nachega, J. 2012. Guidelines for improving entry into and retention in care and antiretroviral adherence for person's with HIV: evidence based recommendations from an international association of physians in AIDS care panel. Annals of Internal Medicine, 156: 817-833.

Tibazarwa, K., Lee, G., Mayosi, B.M., Carrington, M., Stewart, S. and Sliwa, K. 2012. The 12-lead ECG in peripartum cardiomyopathy. Cardiovascular Journal of Africa, 23(6): 322-329.

To, T., Stanojevic, S., Moores, G., Gershon, A., Bateman, E.D., Cruz, A.A. and Boulet, L.-P. 2012. Global asthma prevalence in adults: findings from the cross-sectional world health survey. BMC Public Health, 12:204.

Tod, B., Carrara, H., Levin, M. and Todd, G. 2012. Dermatological manifestations of measles infection in hospitalised paediatric patients observed in the 2009 - 2011 Western Cape epidemic. SAMJ South African Medical Journal, 102(6): 356-359.

Van der Straten, A., Montgomery, E.T., Cheng, H., Wegner, L., Masenga, G., von Mollendorf, C., Bekker, L., Ganesh, S., Young, K., Romano, J., Nel, A. and Woodsong, C. 2012. High acceptability of a vaginal ring intended as a microbicide delivery method for HIV prevention in African women. AIDS and Behavior, 16: 1775-1786.

Van Dieren, S., Beulens, J., Kengne, A.P., Peelen, L.M., Rutten, G., Woodward, M., van der Schouw, Y.T. and Moons, K.G.M. 2012. Prediction models for the risk of cardiovascular disease in patients with type 2 diabetes: a systematic review. Heart, 98: 360-369.

Van Dieren, S., Czernichow, S., Chalmers, J., Kengne, A.P., de Galan, B.E., Poulter, N., Woodward, M., Beulens, J., Grobbee, D.E., van der Schouw, Y.T. and Zoungas, S. 2012. Weight changes and their predictors amongst the 11 140 patients with type 2 diabetes in the advance trial. Diabetes Obesity & Metabolism, 14: 464-469.

Van Heerden, L., Cloete, T.T., Breytenbach, W.J., De Kock, C., Smith, P.J., Breytenbach, J.C and N'Da, D.D. 2012. Synthesis and in vitro antimalarial activity of series of bisquinoline and bispyrrolo [1,2a] quinoxaline compounds. European Journal of Medicinal Chemistry, 55: 335-345.

Van Niekerk, L., Scribante, L. and Raubenheimer, P.J. 2012. Suicidal ideation and attempt among South African medical students. SAMJ South African Medical Journal, 102(6): 372-373.

Van Schalkwyk, S., Bezuidenhout, J., Burch, V.C., Clarke, M., Conradie, H., van Heerden, B. and de Villiers, M. 2012. Developing an educational research framework for evaluating rural training of health professionals: a case for innovation. Medical Teacher, 34: 1064-1069.

Visser, M.M.E., Stead, M., Walzl, G., Warren, R.M., Schomaker, M., Grewal, H.M.S., Swart, E.C. and Maartens, G. 2012. Baseline predictors of sputum culture conversion in pulmonary tuberculosis: importance of cavities, smoking, time to detection and w-beijing genotype. PLoS One, 7(1): e29588.

Vogel, J., Nel, D., Chapman, L. and Burch, V.C. 2012. The Game: student 'teaching' objective structured clinical examinations in South Africa. Medical Education, 46: 501-527.

Vordermeier, H., Hewinson, R.G., Wilkinson, R.J., Wilkinson, K., Gideon, H., Young, D.B. and Sampson, S.L. 2012. Conserved immune recognition hierarchy of mycobacterial PE/PPE proteins during Infection in natural hosts. PLoS One, 7(8): e40890.

Vos, T., Flaxman, A., Naghavi, M., Lozano, R., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J.A., Abdalla, S., Aboyans, V., Matzopoulos, R. and Mayosi, B.M. 2012. Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the global burden of disease study 2010. Lancet, 380 (December): 2163-2196.

Walensky, R.P., Park, J.-E., Wood, R., Freedberg, K.A., Scott, C.A., Bekker, L., Losina, E., Mayer, K.H., Seage III, G.R. and Paltiel, A.D. 2012. The cost-effectiveness of pre-exposure prophylaxis for HIV infection in South African women. Clinical Infectious Diseases, 54(10): 1504-1513.

Walenta, K., Schwarz, V., Schirmer, S.H., Kindermann, I., Friedrich, E.B., Solomayer, E.F., Sliwa, K., Labidi, S., Hilfiker-Kleiner, D. and Bohm, M. 2012. Circulating microparticles as indicators of perpartum cardiomyopathy. European Heart Journal, 33: 1469-1479.

Walker, N.F., O Clark, S., Oni, T., Andreu, N., Tezera, L., Singh, S., Saraiva, L., Pedersen, B., Kelly, D.L., Tree, J.A., D' Armiento, J., Meintjes, G., Mauri, M.A., Williams, A., Wilkinson, R.J., Friedland, J. and Elkington, P.T.G. 2012. Doxycycline and HIV infection suppress tuberculosis-induced matrix metalloproteinases. American Journal of Respiratory and Critical Care Medicine, 185(9): 989-997.

Wallis, L., Papathanasopolous, M.A., Fox, M.P., Conradie, F., Ive, P., Orrell, C., Zeinecker, J., Sanne, I., Wood, R., McIntyre, J., Stevens, W.S., The CIPRA SA project 1 study team, C., Badal-Faesen, S., Botile, M., Choonilal, N., Gelant, J. and Grab, J. 2012. Low rates of nucleoside reverse transcriptase inhibitor resistance in a well-monitored cohort in South Africa on antiretroviral therapy. Antiviral Therapy, 17: 313-320.

Wandeler, G., Keiser, O., Mulenga, L., Hoffmann, C.J., Wood, R., Chaweza, T., Brennan, A., Prozesky, H., Garone, D., Giddy, J., Chimbetete, C., Boulle, A.M. and Egger, M. 2012. Tenofovir in Second-Line ART in Zambia and South Africa: collaborative analysis of cohort studies. Jaids-Journal Of Acquired Immune Deficiency Syndromes, 61(1): 41-48.

Wasserman, S. and Bryer, A. 2012. Early outcomes of thrombolysis for acute ischaemic stroke in a South African tertiary care centre. SAMJ South African Medical Journal, 102(6): 541-544.

Watkins, D.A., Sebitloane, M., Engel, M.E. and Mayosi, B.M. 2012. The burden of antenatal heart disease in South Africa: a systematic review. BMC Cardiovascular Disorders, 12:23.

Wearne, N., Swanepoel, C.R., Boulle, A.M., Duffield, M. and Rayner, B.L. 2012. The spectrum of renal histologies seen in HIV with outcomes prognostic indicators and clinical correlations. Nephrology Dialysis Transplantation, 27: 4109-4118.

Wilkinson, K., Meintjes, G., Seldon, R.R., Goliath, R. and Wilkinson, R.J. 2012. Immunological characterisation of

an unmasking TB-IRIS case. SAMJ South African Medical Journal, 102(6): 512-517.

Williamson, A.-L., Rybicki, E.P., Shephard, E.G., Gray, G., Bekker, L., Downing, K.J. and Williamson, C. 2012. South African HIV-1 vaccine candidates the journey from the bench to clinical trials. SAMJ South African Medical Journal, 102(6): 452-455.

Wiysonge, C.S., Ngcobo, N.J., Jeena, P.M., Madhi, S., Schoub, B.D., Hawkridge, A.J., Shey, M. and Hussey, G.D. 2012. Advances in childhood immunisation in South Africa: where to now? programme managers' views and evidence from systematic reviews. BMC Public Health, 12:578.

Wiysonge, C.S., Bradley, H., Volmink, J., Mayosi, B.M., Mbewu, A. and Opie, L.H. 2012. Beta-blockers for hypertension. Cochrane Database of Systematic Reviews, 11: 1-80.

Wiysonge, C.S., Uthman, O.A., Ndumbe, P.M. and Hussey, G.D. 2012. Individual and contextual factors associated with low childhood immunisation coverage in sub-Saharan Africa: a multilevel analysis. PLoS One, 7(5): e37905.
Wonkam, A., Ponde, C., Nicholson, N., Fieggen, K., Ramesar, R.S. and Davidson, A. 2012. The burden of sickle cell disease in Cape Town. SAMJ South African Medical Journal, 102(9): 752-754.

Wood, R., Racow, K., Bekker, L., Morrow, C.D., Middelkoop, K., Mark, D. and Lawn, S.D. 2012. Indoor social networks in a South African township: potential contribution of location to tuberculosis transmission. PLoS One, 7(6): e39246.

Wood, R., Racow, K., Bekker, L., Middelkoop, K., Vogt, M.C., Kreiswirth, B. and Lawn, S.D. 2012. Lipoarabinomannan in urine during tuberculosis treatment: association with host and pathogen factors and mycobacteriuria. BMC Infectious Diseases, 12:47.

Yone, E.W.P., Kuaban, C. and Kengne, A.P. 2012. HIV testing, HIV status and outcomes of treatment for tuberculosis in a major diagnosis and treatment centre in Yaounde, Cameroon: a retrospective cohort study. BMC Infectious Diseases, 12:190.

Zar, H.J., Eley, B.S., Nicol, M.P., Figaji, A.A. and Hawkridge, A.J. 2012. Advances in childhood tuberculosis - contributions from the University of Cape Town. SAMJ South African Medical Journal, 102(6): 518-521.

Zawaira, A., Pooran, A., Barichievy, S. and Chopera, D. 2012. A discussion of molecular biology methods for protein engineering. Molecular Biotechnology, 51(1): 67-102.

Zhang, C., Denti, P., Van der Walt, J.-S., Ren, Y., Smith, P.J., Karlsson, M.O. and McIlleron, H. 2012. Population pharmacokinetic model for adherence evaluation using lamivudine concentration monitoring. Therapeutic Drug Monitoring, 34(4): 481-484.

Zhang, C., McIlleron, H., Ren, Y., Van der Walt, J.-S., Karlsson, M.O., Simonsson, U. and Denti, P. 2012. Population pharmacokinetics of lopinavir and ritonavir in combination with rifampicin - based antitubercular treatment in HIV-infected children. Antiviral Therapy, 17: 25-33.

Zuhlke, L., Myer, L. and Mayosi, B.M. 2012. The promise of computer-assisted auscultation in screening for structural heart disease and clinical teaching. Cardiovascular Journal of Africa, 23(7): 405-408.

Zumla, A., Abubaker, I., Raviglione, M., Hoelscher, M., Ditiu, L., McHugh, T., B Squire, B., Cox, H., Ford, N., McNerney, R., Marais, B., Grobusch, M.P., Lawn, S.D., Migliori, G.B., Mwaba, P., O'Grady, J., Pletschette, M., Ramsay, A., Chakaya, J., Schito, M., Swaminathan, S., Memish, Z., Maeurer, M. and Atun, R. 2012. Drug-resistant tuberculosis-current dilemmas, unanswered questions, challenges, and priority needs. Journal of Infectious Diseases, suppl 2(205): S228 -S240.

Zvada, S.P., Denti, P., Geldenhuys, H.D., Meredith, S.A., Van As, D., Hatherill, M., Hanekom, W.A., Wiesner, L., Simonsson, U., Jindani, A., Harrison, T. and McIlleron, H. 2012. Moxifloxacin population pharmacokinetics in patients with pulmonary tuberculosis and the effect of intermittent high-dose rifapentine. Antimicrobial Agents and Chemotherapy, 56(8): 4471-4473.

Department of Obstetrics and Gynaecology

HEAD OF DEPARTMENT: PROFESSOR LYNETTE DENNY

Departmental Profile

Our Mission Statement

- To provide high quality care to all women seeking our services
- To foster a climate of intellectual enquiry
- To pursue excellence in research at every level of care
- To help create a world-class African University

Research is predominantly clinical and largely aligned with our four sub-specialist areas: feto-maternal medicine, gynaecological oncology, reproductive medicine and urogynaecology. Research is conducted at all levels of

care and comprises participation in large, international, collaborative trials, cutting edge national research projects, self-initiated local and collaborative studies, as well as smaller individual projects. Several important clinical data bases have been established which provide valuable information in maternal medicine, gynae oncology and reproductive medicine. In addition, our Undergraduate Teaching Unit is actively engaged in education research. Research supervision is provided at the level of MMed and MPhil dissertations and PhD theses to registrars, sub-specialist trainees and staff.

Obtaining an MMed has become a compulsory requirement by the HPCSA for specialist registration, which has greatly increased the need for research supervisors. Our Department has 25 funded registrars in specialist training and 13 supernumerary registrars (all self funded), the majority of whom are non-South African from Malawi.

Staff and students

Permanent and long-term contract staff

Professors	2
Associate Professors (full time)	2
Associate Professor (part time)	1
Adjunctive Professors	3
Senior Lecturers	15
Lecturers (including part-time)	30
Postdoctoral and Research Staff	20
Technical and Support Staff	3
Admin and Clerical Staff	7
Total	83

Students

Doctoral	1
Master's	35
PG Diploma	
Undergraduate	775
Total	811

Research fields and staff

PROFESSOR LYNETTE DENNY
Cervical cancer: prevention in low-resource settings; natural history; precursors in HIV positive women. Other gynaecological cancers: management of endometrial, ovarian cancer and advanced vulval cancer. HPV: prevalence, types; vaccination, DNA typing.

PROFESSOR SUSAN FAWCUS
Maternal mortality; Perinatal mortality; Intrapartum asphyxia; Magnesium supplementation in pregnancy; Better Birthing Initiative.
Calcium and pre-eclampsia trial, co-investigator Associate PROFESSOR JOHN ANTHONY.
Obstetric haemorrhage pilot project. Multicentre collaborative study. Co-investigator Associate Professor J Anthony.

PROFESSOR ZEPHNE VAN DER SPUY
Contraceptive and interceptive development; Polycystic ovary syndrome; Reproductive failure; Endocrine dysfunction in pregnancy; Menopause; Nutrition and reproductive health; Genetics of benign gynaecological conditions.

ASSOCIATE PROFESSOR JOHN ANTHONY
Thrombophilia; Eclampsia; Bioethics.

ASSOCIATE PROFESSOR SILKE DYER
Infertility: health-services in low-resource settings, psychosocial consequences, quality of life, HIV.

ASSOCIATE PROFESSOR PETRUS STEYN
Fertility Regulation and Reproductive Health, Development of Sexuality Education.

ASSOCIATE PROFESSOR ATHOL KENT
Medical education: Reproducible assessment procedures.

DR SAADIQA ALLIE
Obstetric hysterectomy; Teenage pregnancy.

DR ANNE HORAK
High risk obstetrics; Fetal cardiac abnormalities.

DR STEPHEN JEFFERY
Refractory overactive bladder syndrome: treatment, epidemiology; HIV and obstetric pelvic floor trauma; surgical repair of posterior compartment prolapse; interdisciplinary patient care.

DR LYNELLE KENNETH
IUCD in HIV pos women

DR MUSHI MATJILA
Fetal Anomalies: Antenatal Pyelectasis; Reproductive endocrinology in normal and abnormal pregnancies.
PhD thesis (in process): "The role of Kisspeptin and cognate receptor GPR 54 in placentation".

DR NOMONDE MBATANI
Uterine sarcomas: outcome of treatment; Treatment outcome and complications of gynaecological malignancy.

DR VANESSA PERROTT
Medical education.

DR GREG PETRO
Clinical epidemiology; Haemorrhage and transfusion in the obstetric patient; Termination of pregnancy.

DR LINDA ROGERS
Vulval cancer, MRI Imaging in endometrial and cervical cancer, optimal management of early stage cervical cancer, outcome of ovarian cancer in developing countries.

DR LEANN SCHOEMAN
High-risk obstetrics; Audit of clinical obstetric management; cardiac disease in pregnancy.

DR VALENTIN STEFAN
Haemorrhage and transfusion in the obstetric patient.

DR CHANTAL STEWART
Fetal medicine; Women's expectations of and attitudes to fetal anomaly scans; Preterm labour; Ultrasound screening for risk of pregnancy complications.
DR HETTA VAN ZYL
Pre-eclampsia, eclampsia and complications; High risk obstetrics; Laparoscopic surgery; Caesarian section: prevalence and outcome.

DR LINDA WALMSLEY
Infertility: Quality of life, HIV

Sub-speciality trainees

DR TRACEY ADAMS: GYNAECOLOGICAL ONCOLOGY (GRADUATED 2012)
DR CATHERINE ELLIOTT: MATERNAL AND FETAL MEDICINE
DR MALIKA PATEL: REPRODUCTIVE MEDICINE(GRADUATED 2012)
DR D RICHARDS: GYNAECOLOGICAL ONCOLOGY

Teaching

Undergraduate

In 2012 there were 1229 students registered in the Faculty of Health Sciences over the 6 years of the MBChB course. The Department of Obstetrics & Gynaecology was responsible for tuition in Years 3, 4, 5 and 6 in both Obstetrics and Gynaecology.

Thus during 2012 approximately 800 students were taught by the O&G Department.

Awards and other major highlights

Professor Lynette Denny was awarded the Fellowship ad eundem of the Royal College of Obstetricians and Gynaecologists, London, UK.

Professor Lynette Denny awarded the South African Medical Association (SAMA) award for Extra-Ordinary service to Medicine.

Professor Lynette Denny President – International Society of Gynecologic Cancer, Chair FIGO Gynaecology Oncology Committee.

Professor Susan Fawcus promoted to Full Professor. Was invited as expert to WHO Maternal Surveillance and Response workshop for Anglophone African countries, Harare, Zimbabwe. Also served as advisor and Vice-Chairman at the Annual meeting of Scientific and Advisory Group of the Reproductive Health Research Unit of World Health Organisation, Geneva, Switzerland.

Professor Zephne van der Spuy appointed Emeritus Professor and Senior Scholar following her retirement as Professor and Head of Postgraduate Education. Awarded Honorary Fellowship from the Royal College of Physicians of Ireland. Part of the National Contraceptive Expert Committee which developed the new SA guidelines.

Dr Catherine Elliott graduated MMed (O&G): "Complications of anticoagulation in pregnant women with mechanical heart valves". Supervisor: Dr L Schoeman.

Dr Kobby Essel graduated MMed (O&G): "A Study on knowledge of contraception". Supervisor: Professor Z van der Spuy

Dr Anne Horak graduated MMed (O&G): "An analysis of the Caesarean Section rate at Mowbray Maternity Hospital using Robson's Ten Group Classification System". (Awarded with distinction) and supervised by Professor S Fawcus.

Dr Viju Thomas graduated MMed (O&G): "Maternal selenium levels in recurrent pregnancy loss". Supervisor: Professor Z van der Spuy

Dr Lindi Vollmer was awarded the Daubenton Medal for the College of Medicine Part II FCOG (SA). Graduated MMed (O&G): "Teenage pregnancy: A review of patients accessing obstetric care in the peninsula maternal and neonatal service". Supervisor: Professor Z van der Spuy.

General

Visitors to the Department included Professor John Guillebaud, Emeritus Professor, London UCL; Jody Steinhauer, University of CA, San Francisco; Professor W Utian; Professor S Lindow; Professor P Steer; Professor J Osborne; Professor C Wright and Professor Rafique Parkar from Kenya who assisted in developing laparoscopic operating skills.

Contact details

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Research output

Chapters in books

Denny, L.A. 2012. Cervical Cancer prevention and treatment in low-resource settings. In H. van Beekhuizen (ed.), A Textbook Of Gynecology for Less-Resourced Locations, pp. 317-336. UK: Sapiens Publishing. ISBN 9780955228285.

Mbatani, N. 2012. Ovarian cancer. In H. van Beekhuizen (ed.), A Textbook of Gynaecology for Less-Resourced Locations, pp. 344-355. UK: Sapiens Publishing. ISBN 9780955228285.

Soeters, R.P. 2012. Cancer of the uterine corpus. In H. van Beekhuizen (ed.), A Textbook of Gynaecology for Less-Resourced Locations, pp. 356-366. UK: Sapiens Publishing. ISBN 9780955228285.

Zweizig, S., Hughes, S., Denny, L.A. and Cain, J. 2012. End of Life Care, Chapter 34, pp 1052 – 1064. 6th edition. In Eds: Richard R Barakat, Andrew Berchuck. Mauire Markman, Marcus E Randall. Principles and Practice of Gynecology Oncology, USA: Lippincott Williams & Wilkins. ISBN 1451176597

Articles in peer-reviewed Journals

Arbyn, M., De Sanjose, S., Saraiya, M., Sideri, M., Palefsky, J., Lacey, C., Gillison, M., Bruni, L., Ronco, G., Wentzensen, N., Brotherton, J., Qiao, Y., Denny, L.A., Bornstein, J., Abramowitz, L., Giuliano, A., Tommasino, M. and Monsonego, J. 2012. Eurogin 2011 roadmap on prevention and treatment of HPV-related disease. International Journal of Cancer, 131: 1969 -1982.

Butt, J., Jeffery, S. and Van Der Spuy, Z.M. 2012. An audit of indications and complications associated with elective hysterectomy at a public service hospital in South Africa. International Journal of Gynecology & Obstetrics, 116: 112-116.

Coetzee, E.J. 2012. Gold, bronze or no medals. O & G Forum Obstetrics & Gynaecology Forum, 22(4): 1-3.

Davey, D.A. 2012. Androgens in women before and after the menopause and post bilateral oophorectomy: clinical effects and indications for testosterone therapy. Women's Health, 8(4): 437-446.

Davey, D.A. 2012. Osteoporosis, osteopenia and fracture risk: widening the therapeutic horizons. SAMJ South African Medical Journal, 102(5): 285-288.
Davey, D.A. 2012. Update: estrogen and estrogen plus progestin therapy in the care of women at and after menopause. Women's Health, 8(2): 169-189.

Denny, L.A. 2012. Cervical cancer prevention: new opportunities for primary and secondary prevention in the 21st century. International Journal of Gynecology & Obstetrics, 119: S80-S84.

Denny, L.A. 2012. Cervical Cancer: prevention and treatment. Discovery Medicine, 14(75): 25-31.

Denny, L.A. 2012. Cytological screening for cervical cancer prevention. Best Practice & Research in Clinical Obstetrics & Gynaecology, 26: 189-196.

Denny, L.A. and Anorlu, R. 2012. Cervical cancer in Africa. Cancer Epidemiology Biomarkers & Prevention, 21(9): 1434-1438.

Denny, L.A., Franceschi, S., De Sanjose, S., Heard, I., Moscicki, A. and Palefsky, J. 2012. Human papillomavirus, human immunodeficiency virus and immunosuppression. Vaccine, 30S: F168-F174.

Dyer, S.J. and Kruger, T.F. 2012. Assisted reproductive technology in South Africa: first results generated from the South African register of assisted reproductive techniques. SAMJ South African Medical Journal, 3(102): 167-170.

Fawcus, S. and Moodley, J. 2012. Prevention and management of blood loss at caesarean section. CME-Continuing Medical Education, 30(4): 138-143.
Fawcus, S., Mbombo, N. and Hofmeyr, G.J. 2012. Trends in maternal deaths from obstetric haemorrhage in South Africa 2008 - 2010. Obstetrics and Gynaecology Forum, 22: 9-17.

Horak, T.A. and Osman, A. 2012. Exercise in pregnancy. O & G Forum Obstetrics & Gynaecology Forum, 22(4): 13-16.

Jeffery, S.T. and Nieuwoudt, A. 2012. Beyond the complications: medium-term anatomical, sexual and functional outcomes following removal of trocar-guided transvaginal mesh. A retrospective cohort study. International Urogynecology Journal, 23: 1391-1396.

Juul, L., van Rensburg, J.A. and Steyn, P.S. 2012. Validation of the king's health questionnaire for South Afirca in English, Afrikaans and isiXhosa. SAJOG-South African Journal of Obstetrics and Gynaecology, 18(3): 82-84.

Kennedy, D., Fawcus, S. and Kroon, M. 2012. The effect of maternal HIV status on perinatal outcome at Mowbray Maternity Hospital and referring midwife obstetric units, Cape Town. SAJOG-South African Journal of Obstetrics and Gynaecology, 18(1): 6-10.

McDonald, A.C., Denny, L.A., Wang, C., Tsai, W., Wright, T. and Kuhn, L. 2012. Distribution of high-risk human papillomavirus genotypes among HIV-negative women with and without cervical intraepthelial neoplasia in South Africa. PLoS One, 7(9): e44332 (1-10).

Nyo, M.T.L., Schoeman, L., Sookhayi, R. and Mayosi, B.M. 2012. HIV infection, pulmonary arterial hypertension and pregnancy: a fatal triad. Cardiovascular Journal of Africa, 23(7): e4-e6.

Roland, M., Myer, L., Martin, L.J., Maw, A., Batra, P., Arend, E., Coates, T. and Denny, L.A. 2012. Preventing human immunodeficiency virus infection among sexual assault survivors in Cape Town, South Africa: an observational study. Aids and Behavior,16: 990-998.

Roos, P.J. 2012. Memory, menopause and cognition. O & G Forum Obstetrics & Gynaecology Forum, 22(4): 19-23.

Smythe, W., Khandelwal, A., Merle, C., Rustomjee, R., Gninafon, M., Bocar Lo, M., Sow, O.B., Olliaro, P., Lienhardt, C., Horton, J., Smith, P.J., McIlleron, H. and Simonsson, U. 2012. A semimechanistic pharmacokinetic-enzyme turnover model for rifampin autoinduction in adult tuberculosis patients. Antimicrobial Agents and Chemotherapy, 56(4): 2091-2098.

Stewart, C. 2012. Challenges in the management of twin pregnancy discordant for abnormality. O & G Forum Obstetrics & Gynaecology Forum, 22(4): 7-11.

Stewart, C., Constantatos, S., Joolay, Y. and Muller, L. 2012. In utero treatment of fetal goitrous hypothyroidism in a euthyroid mother: a case report. Journal of Clinical Ultrasound, 40: 603-606.

Steyn, P.S. 2012. HIV / AIDS and Contraception. O & G Forum Obstetrics & Gynaecology Forum, 22(4): 25-31.

Steyn, P.S. 2012. Women with HIV / AIDS. Gynaecology Forum, 17(4): 29-32.

Van Der Spuy, Z.M. 2012. Contraceptive choice in women with medical disorders: a global perspective. Gynaecology Forum, 4: 3.

Van Der Spuy, Z.M., Dyer, S.J., Jeffery, S.T. and Denny, L.A. 2012. The gynaecological subspecialities: advances in women's health. SAMJ South African Medical Journal, 102(6): 419-421.

Wiebe, E., Denny, L.A. and Thomas, G. 2012. Cancer of the cervix uteri. International Journal of Gynecology & Obstetrics, 118SX: S12-S21.

Peer-reviewed published conference proceedings

Denny, L.A. 2012. International perspective on the global advances in gynecologic oncology. In R Govindan (ed.), Proceedings of the American Society of Clinical Oncology 2012 Educational Book. 48th Annual Meeting, 1-5 June 2012, Chicago, Illinois. USA: The American Society of Clinical Oncology. ISSN 15488748.

Department of Paediatrics and Child Health

The Department of Paediatrics and Child Health is a large department in the Faculty of Health Sciences, encompassing the field of general paediatrics as well as a full spectrum of paediatric medical subspecialties with several affiliated disciplines, comprising the School of Child and Adolescent Health. The Department platformincludes Red Cross War Memorial Children's Hospital, Groote Schuur Hospital, Somerset Hospital, Mowbray Maternity and Victoria Hospital. All paediatric registrars are now required to register for a MMed degree as part of their training.

The department has a wide breadth of research activities with a substantial research output especially in the areas of priority child health problems such as tuberculosis, pneumonia, infectious diseases and HIV. The department has an established clinical research unit at Red Cross War Memorial Children's Hospital, which includes approximately 30 staff members funded on

grant support, mainly awarded by international funding agencies especially National Institute of Health (NIH) USA, European Developing Country Clinical Trials Partnership (EDCTP), Wellcome Trust UK, Global Alliance for Vaccines and Immunisation(GAVI) and the Bill and Melinda Gates Foundation. Current studies located in this clinical research unit include studies of childhood pneumonia, of paediatric TB and of HIV-associated illness. Other satellite clinical research sites have been established in secondary level and community based facilities, supported by this central unit. A recent highlight was a large 4 year award from the Bill and Melinda Gates Foundation for a birth cohort study, the Drakenstein Child Lung Health study to investigate the antenatal and early life determinants of child health with a focus on pneumonia. This has enabled the establishment of clinical research sites in the Drakenstein area, Paarl, and the undertaking of a mutlidisclipinary study that involves several departments and divisions in the Faculty of Health Sviences. There are 3 NRF rated researchers in the Department including one A-Rated person.

Departmental Profile

Professor and Head of Department and Director of the School of Child and Adolescent Health: Professor Heather Zar

General Paediatrics

- Emergency Unit
- Inpatient unit

Subspecialties:

- Adolescent Medicine
- Allergy
- Cardiology
- Critical Care
- Endocrine
- GIT
- Haematology/Oncology
- Infectious Diseases
- Neonatology
- Nephrology
- Neurodevelopment
- Neurology
- Pulmonology
- Rheumatology

Affiliated Disciplines

- Allied Health Sciences
- Dietetics
- Child & Adolescent Psychiatry
- Child Health Unit
- Children's Institute
- Dermatology
- Nuclear Medicine
- Paediatric Anaesthesia
- Palliative Care
- Paediatric Pathology
- Paediatric Radiology
- Paediatric Surgery
- Poisons Centre
- South African Tuberculosis Vaccine Initiative (SATVI)-IIDMM

Department of Paediatrics and Child Health

Departmental Statistics

Permanent and long-term contract staff

Professors	3
Associate Professors	9
Emeritus Professors	6
Emeritus Associate Professors	10
Honorary Senior Lecturers	12
Honorary Lecturers	3
Senior Lecturers (full time)	30
Lecturers (full time)	7
Senior Lecturers (part time)	10
Lecturers (part-time)	11
Research Staff	62
Administrative and clerical staff	16
Total	179

Students

Doctoral	9
Master's	47
MPhil	24
PG Diploma (Child Nurse Practice)	28
Undergraduate	553
Total	661

Research Fields and Staff

A.C. ARGENT

Respiratory mechanics in croup; respiratory mechanics and endotracheal suctioning; electrical impedance tomography

and respiratory disease in the PICU; care practices and inter-personal relationships in ICU; quality of care and safety in the PICU; management of traumatic brain injury in PICU; HIV in the PICU; fluids in the critically ill; prevention of nosocomial infections including ventilator associated pneumonia and central line sepsis; viral infections in the PICU; cardiomyopathy / myocarditis in children; ethical issues in resource allocation in the PICU; severe sepsis and septic shock; "Pathways to care" for critically ill children; training and simulation training for healthcare workers working with critically ill or injured children.

D.W. BEATTY
Primary immune deficiency disorders; tuberculosis in childhood; paediatric infectious disease.

H. BUYS
Ambulatory, emergency and outreach care; paediatric HIV disease and nutrition; diarrhoeal disease.

M. CARRIHILL
Type 1 diabetes in the South African youth; Neonatal screening programmes; Disorders of sex development.

A. DAVIDSON
HIV-related malignancy; Brain tumours; the impact of ethnicity on ALL outcomes; Stem Cell Transplantation for Immunodeficiency.

R. DE DECKER
The 22q11.2 deletion syndrome; Warfarin: implementation and impact; Genetic associations of congenital heart disease.

R. DE LACY
Cystic fibrosis; gastroenterology.

S. DELPORT
Paediatric endocrinology; advance diabetes.

F. DESAI
Paediatric oncology.

R. DIEDERICKS
Emergency paediatrics; Infectious Diseases.

K. DONALD
Developmental disabilities as they manifest and are managed in resource limited settings such as South Africa (including Cerebral palsy, Autism, Intellectual disability, genetic syndromes). Specific interests include the preventable causes of neurodisability such as alcohol and methamphetamine exposure, organophosphate poisoning and the neurological and neurocognitive complications of HIV.

B.S. ELEY
Primary immune deficiency disorders; paediatric tuberculosis; paediatric HIV/AIDS; paediatric infectious disease.

P. GAJJAR
Renal disease; paediatric organ transplantation especially infectious complications; paediatric hypertension including Takayasu's Arteritis; acute renal failure and peritoneal dialysis; paediatric HIV nephropathy; adolescent medicine.

E. GODDARD
Paediatric liver disease; transplantation in children; immunology; paediatric infectious disease; paediatric gastroenterology and nutrition.

M. HARRISON
Neonatal epidemiology; infection control; neonatal outcomes.

M. HENDRICKS
Clinical Outcomes in children with rhabdomyosarcoma at Red Cross Children's Hospital.

M.K. HENDRICKS
Child health, public health nutrition and child rights and nutrition

L. HENLEY
Research ethics in general. Ethical and legal issues in research with children.

J. HEWITSON
Resource allocation and cardiovascular disease; Trisomy 21 and cardiovascular disease; surgical management of patients with a single ventricle.

A. HORN
Assessment and Management of Hypoxic Ischaemic Encephalopathy.

S.M. KROON
Mother-to-child transmission of HIV.

M. LEVIN
Genotypic and phenotypic features of allergic Xhosa children; Prevalence and associations of food allergy in unselected children in Cape Town and in the Eastern Cape; relationship between food allergy and atopic dermatitis; the impact of demographic, environmental, nutritional and infectious influences on the expression of allergy and atopy within the Drakenstein birth-cohort study; communication issues in management of asthma and allergy in indigenous people in South Africa.

J. LAWRENSON
Developing standards for echocardiographic screening of individuals to detect subclinical rheumatic heart disease; Thoracopagus conjoined twins; Cardiovascular disease in patients with HIV disease.

L. LINLEY
Kangaroo mother care; HIE and the effect of head cooling; ethical issues in neonatal care.

G. MOLLER
Neonatal jaundice

B. MORROW
Paediatric respiratory infections; nosocomial infections in the PICU; distribution of ventilation in children with and without lung disease; respiratory mechanics; cystic fibrosis; resource allocation in PICU; paediatric cardiopulmonary physiotherapy.

R. MULOIWA
Pertussis in children hospitalised with Lower Respiratory Tract Infection (LRTI).

S. NAIDOO
Aeroallergen sensitisation and the prevalence of asthma, allergic rhinitis, and eczema in children with Vernal Keratoconjunctivitis.

A. NDONDO
Hydatid disease of the spine; epilepsies in childhood;neurometabolic disorders; the ketogenic diet in the African context; Rett syndrome; optimal management of refractory status; non-polio enterovirus infections.

J. NUTTALL
Paediatric HIV/AIDS and tuberculosis; pharmacokinetics & dosing of antiretroviral and antituberculous drugs; performance of HIV rapid tests in children.

R. PETERSEN
Cerebral Palsy.

V. RAMANJAM
Phenotype, neuroimaging and neurocognitive characteristics of children with neurofibromatosis type 1; DAX1 mutation; investigating the prevalence, comorbidities and responses to different forms of medical therapy for children and adolescents with ADHD.

N. RHODA
Neonatal care in rural communities / third world countries; Outreach; Distance learning; Care of the ELBW in resource limited settings; neonatal planning to existing research interest.

M. RICHARDS
Developmental medicine

G. RIORDAN
Mitochondrial disease; ADHD.

P. ROUX
Paediatric HIV/AIDS; ethics; palliative care; early childhood development.

S. SALIE
Sepsis, HIV and fluid resuscitation.

B. SCHLEGEL
Tuberous sclerosis.

C. SCOTT
Paediatric Systemic Lupus Erythematosus; Juvenile Idiopathic Arthritis; Fibrodysplasia Ossificans Progressiva; HIV Arthropathy

A. SPITAELS
Paediatric endocrinology, metabolism and diabetes; social circumstances, diabetes control, intersex.

P. SPRINGER
Management and outcome in tuberculous meningitis; neurodevelopment in children with HIV/Aids (with Stellenbosch University).

G. SWINGLER
Systemic literature reviews.

C. THOMSON
Follow-up of the high risk infant; HIE and the effect of head cooling

L. TOOKE
Neonatal research including PMTCT; general paediatrics.

F. VAN BEVER DONKER
Botulinum therapy in cerebral palsy.

A. (NIKI) VAN NIEKERK
Neonatology and Neonatal cardiology.

A. VANKER
Indoor air pollution and tobacco smoke exposure and the effects on lung health.Determinants of childhood pneumonia.

K. WALKER
Sydenham's chorea: post streptococcal movement disorders. Point of care INR testing. Cardiac management of Duchenne's Muscular Dystrophy. HIV encephalopathy

and HIV associated neurocognotive deficits in children. Use of Methylphenidate and management of ADHD in HIV.

A.T. WESTWOOD
Epidemiology, diagnosis and management of cystic fibrosis in South Africa; management of acute diarrhoea; causes of death among children; epidemiology of chronic illness in South Africa; health systems for children with long-term health conditions; policy perspectives on children with long term health conditions; adolescent health.

J. WILMSHURST
Spinal muscular atrophy; limb girdle muscular dystrophy; peripheral neuropathies; congenital myopathies; complex epilepsies in childhood; role of video telemetry in paediatric neurology practice; neurofibromatosis; paediatric spinal pathologies; neuroradiological diagnostic and prognostic indicators of TBM, neurological manifestations of HIV; rare neuromuscular disorders; tuberous sclerosis; ketogenic diet in epilepsy; child neurology training in Africa; child neurology service capacity in Africa; guidelines for management of epilepsy disorders (for the ILAE).

D. WOODS
Perinatal distance education; wind up monitoring technology

M. ZAMPOLI
Childhood respiratory infections; HIV-associated lung disease; Cystic fibrosis.

H. ZAR
Childhood TB (specifically new diagnostic strategies), childhood pneumonia, HIV-associated lung disease; low cost spacer devices for asthma; epidemiology of childhood asthma. Drakenstein child lung health study (a birth cohort study to investigate the antenatal and early life determinants of child health)

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Research coordinator: Geanine Hopley @ 021-6860086
Email: geanine.hopley@uct.ac.za

Department Of Paediatrics And Child Health

Affiliated Disciplines

Allied Health Sciences

HEAD OF UNIT: SAMEER RAHIM

Unit Profile

The Unit of Associated Paediatric Disciplines is multi-disciplinary, including all the paediatric therapy professions of Physiotherapy, Occupational Therapy, Dietetics/ Nutrition, Speech Therapy, Audiology and Social Work. The Division undertakes undergraduate and postgraduate teaching and training in all aspects of paediatric care, both acute and chronic. The Division is active in conducting research in Paediatric fields, often collaborating with members of other Divisions. The individual departments also run departmental weekly and monthly CPD programs accredited by UCT.

Unit Statistics

Students

Master's	1
Total	1

Permanent and long-term contract staff (PGWC)

Permanent staff (Full time)	33
Permanent staff (Part time)	2
Community service	4
Total	39

Undergraduate students	66
Elective registered via UCT	10
Postgraduate students (nursing and allied health)	107
Total	183

Research Fields and Staff

Lezanne le Roux (Speech Therapy)
The Nature of Feeding and Swallowing Difficulties in the Paediatric Cerebral Palsy Population Who Have Had Videoflouroscopic Swallow Studies.

Social Work Department
- Collaboration between Child Safe social worker and UCT academics and students who undertake research projects and utilises the Childsafe Trauma Database.

- Child Abuse Data base development commenced in 2012.
- Extensive pain management related research undertaker by Rene Albertyn.
- Post Graduate studies 2013, X2 social work staff members registered for Master's in social work
  Shihaam Cader and Bernadette Saayman [Dietitians]
  Case Series report of all patients receiving SMOF IV lipid at RCWMCH

Department of Paediatrics and Child Health

Affiliated Disciplines

Child And Adolescent Psychiatry

HEAD OF UNIT: DR WENDY VOGEL

Unit Profile

The clinical services associated with the Division of Child and Adolescent Psychiatry are offered in the following units: Outpatient Unit; Consultation-Liaison Unit; Parent-infant Mental Health Service; and Therapeutic Learning Centre (an in-patient unit for children under 13 years.) Training is provided for psychiatric registrars and clinical psychology interns. In addition, the Division offers a two-year M. Phil. (Child and Adolescent Psychiatry) degree, which leads to registration as a sub-specialist in Child and Adolescent Psychiatry with the Health Professions Council of SA. In addition, staff members in the Division supervise candidates for postgraduate degrees such as Master's and Doctoral degrees. Research interests include adolescent and infant mental health, autism and ADHD, community mental health services research and behavioural manifestations of HIV infection.

Unit Statistics

Permanent and long-term contract staff

Associate Professor	1
Senior Lecturers	4
Lecturers	2
Emeritus Professor	1
Honorary staff	3
Total	11

Students

Master's	2
Registrars Junior	2
Registrars Senior	2
Total	6

*MBChB students rotate through the Division

Research Fields and Staff

DR WENDY VOGEL:
Lecturer; ADHD and autism and service delivery.

BRIAN ROBERTSON
Emeritus Professor; child and adolescent psychiatric epidemiology; impact of violence on children; development of community mental health services; integration of mental health services at primary care level; youthful perpetrators of violent crime; cultural psychiatry and indigenous healers.

ASTRID BERG
Associate Professor; Senior lecturer and consultant, analytic psychotherapy; infant mental health; culture and mental health.

ROD ANDERSON
Senior Lecturer; analytic psychotherapy.

WILLEM DE JAGER
Senior Lecturer: Parent-child relational problems

NIC SHORTALL
Senior Lecturer; psycho social sequelae of chronic physical illness and medical student training / assessment.

JON YAKO
Senior lecturer; Cross-Cultural Child Development; Personality & Identity; Family Intervention Research, Social Psychology

MARIAN CAMPBELL
Senior Lecturer: The relationship between developmental and attachment theories and theory of mind leading to the ability in children and adolescents to symbolize and develop reflective functions.

PROFESSOR PETRUS DE VRIES
Sue Struengmann Professor of Child and Adolescent Psychiatry

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Please refer to the Psychiatry and Mental Health Research Report for publications by members of the Division: Child and Adolescent Psychiatry.

Department of Paediatrics and Child Health

Affiliated Disciplines

Child Health Unit

DIRECTOR: ROTATING ACTING HEAD

Unit Profile

The Child Health Unit's mission is to contribute to promoting equity in child health. The core business of the Unit is directed at children's public health and community-oriented child health promotion, protection, care and rehabilitation.

The target of the Unit's endeavours is those areas, which have a strong children's public health and interdisciplinary focus, viz. child development and disability, community nutrition, infectious diseases and health policy and service development. The Unit has close links with the Children's Institute.

Unit Statistics

Permanent and long-term contract staff

Associate Professor (part-time)	1
Emeritus Professor (part-time)	2
Specialist	2
Sub-specialist trainees	2
Senior Lecturers (part-time)	6
Lecturers	2
Administrative staff	1
Total	16

Research Fields and Staff

J. SHEA
Health promotion and education; the adaptation and piloting of a behavioural intervention to support HIV+ women in the core domains of health, mental health, parenting and HIV prevention for use by non-governmental organizations; an assessment of the feasibility of intervention trials on tuberculosis prevention in schools in the Western Cape Province; development of a certificate course in clinical research.

Department of Paediatrics and Child Health

Affiliated disciplines

Children's Institute

DIRECTOR: ASSOCIATE PROFESSOR SHANAAZ MATHEWS

Institute Profile

The Children's Institute aims to contribute knowledge and understanding to promotion of policies which govern improvement of child well-being, and fulfillment of the rights of all South Africa's children, with special emphasis on children rendered vulnerable by a range of difficult circumstances. It addresses the needs and rights of South Africa's children through policy research, advocacy and education and other academic activities that contribute to improvement in the policy analysis, formulation, implementation and evaluation processes.

Institute Statistics

Permanent and long-term contract staff

Professors	1
Senior Lecturers (Snr Researchers)	6
Lecturers (Researchers)	0
PASS (Administrative)	4
PASS (Scientific and Technical)	3
Total	14

Students

PhD	3
Master's	5
Total	8

Research Fields and Staff

ASSOCIATE PROFESSOR SHANAAZ MATHEWS
Director; Children & violence, child protection, child abuse, gender policy, gender-based violence, evidence-based programming.

LIZETTE BERRY
Senior researcher; Child socio-economic rights indicators; child poverty.

DR ARIANE DE LANNOY
Senior researcher; Youth and youth identity in rapidly changing, urban environments; Perceptions of opportunity structure; Education, identity and educational decision-making.

KATHARINE HALL
Senior researcher; Child poverty; socio-economic rights.

LUCY JAMIESON
Senior advocacy co-ordinator; Child rights; participatory democracy; governance; law reform & policy development.

HELEN MEINTJES
Senior Researcher; HIV/AIDS & children; alternative care; social policy; children's participation; media

DR TENDAI NHENGA-CHAKARISA
Senior researcher; International law; human rights law; child rights; child labour; applying international children's rights law in African cultural contexts; curriculum design & legal drafting.

PAULA PROUDLOCK
Senior Legal Researcher; Child rights; legislative review; law reform; democracy & governance; socio-economic rights for children.

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Department Of Paediatrics And Child Health

Affiliated Disciplines

Paediatric Anaesthesia

HEAD OF UNIT: ASSOCIATE PROFESSOR JENNY THOMAS

Unit profile

The Unit of Paediatric Anaesthesia, a division of the Department of Anaesthesia (UCT) and SCAH, is responsible for the provision anaesthesia for all children, infants and neonates undergoing surgery or procedures at the Red Cross War Memorial Children's Hospital (RCWMCH) and Maitland Cottage Children's Home. This department also provides acute, chronic and palliative care services for the children at this hospital, as well as providing input into the Paediatric Intensive Care services. The Paediatric Pain Team is a multidisciplinary group which falls under Paediatric Anaesthesia, run by Professor Thomas. These include SRN Angeline Schrikker (nurse practitioner in pain) and a number of other volunteers from nursing, child and family psychotherapists, child life specialists, aroma therapy, physiotherapy and art therapy.

Staffing

The head of this clinical unit is Associate Professor Jenny Thomas, with the following fulltime paediatric anaesthesia specialists: Dr Graeme Wilson, Dr Rebecca Gray, Dr Karmen Kemp and Dr Kotie Bester. The other three specialists rotate on a regular basis between GSH, Maitland Cottage and RCWMCH. There are 5 positions for registrars in training at RCWMCH.

In addition to teaching, training and lecturing at both under graduate and postgraduate levels, members of the department have lectured nationally and internationally. They also teach and train members of other disciplines which include paramedics, nurses, surgeons, pharmacists, emergency medicine trainees and family medicine practitioners. Professor Thomas and Dr Myburgh also teach on APLS courses.

In this past year, Ms Melissa Williams has joined the staff to provide much-needed administrative assistance. This has made a considerable difference to the efficient functioning of our paediatric anaesthetic department.

Unit statistics

Permanent and long term contract staff

Associate Professor	1
Specialists	7
Registrars	5
Total	13

Research fields and staff

ASSOCIATE PROFESSOR JENNY THOMAS
Acute and chronic pain management, palliative care, analgesia and sedation, burns, conjoined twins, paediatric trauma and orthopaediacs, HIV and Aids, transplantation, neonatal anaesthesia and pain,general paediatric surgery, peri-operative behavioural disorders, paediatric peri-operative audits of deaths and critical adverse event reporting.

GRAEME WILSON
Paediatric pharmacology, total intravenous anaesthesia techniques, target-controlled anaesthesia, cardiothoracic anaesthesia.

REBECCA GRAY
Transfusion medicine, vascular access, premature infants, ultrasound application, cardiacs, general paediatric surgery and burns.

KARMEN KEMP
Cardiac anaesthesia,childhood malignancies, teaching.

KOTIE BESTER
Ultrasound and echocardiography applications in paediatric anaesthesia, modalities for analgesia and sedation, interventional radiology and MRI.

Supernumerary fellowships in paediatric anaesthesia have been running for a number of years and two Kenyan anaesthetists have trained here as well as numerous South Africans. The plan is to find funding for these to ensure sustainability for this training in paediatric anaesthesia.

A number of paediatric anaesthetists do sessions at RCWMCH, and these include Drs Owen Hodges (research in Burns blood transfusion techniques), Tony Butt, and David Kirsch.

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Department Of Paediatrics And Child Health

Affiliated Disciplines

Paediatric Dermatology

HEAD OF UNIT: ASSOCIATE PROFESSOR N. KHUMALO

Unit profile

The division's only consultant runs the clinical service and is assisted by dermatology registrars from Groote Schuur Hospital for two clinics a week.

Professor Nonhlanhla Khumalo is NRF-rated and runs the only academic hair research clinic in the country (with Groote Schuur Hospital's Dr Ngwanya). Her research interests include the epidemiology and treatment of hair and scalp disorders that uniquely affect individuals with afro-textured hair. Her international collaboration studies use various research tools - scanning (and transmission) electron microscopy and amino acid analysis of hair. Current studies are investigating the link between folliculitis keloidalis nuchea and HIV transmission. She is also developing a hair classification tool that will be useful for elucidating the relationship between the pathogenesis of alopecia and hair phynotype.

Permanent staff

Associate Professor	1

Department Of Paediatrics And Child Health

Affiliated Disciplines

Paediatric Nuclear Medicine

HEAD OF UNIT: DR A. BRINK

Unit profile

The Paediatric Nuclear Medicine Service is part of the Department of Paediatric and Child Health. It provides the Nuclear Medicine investigations and therapy for all neonates and children being treated in facilities associated

with UCT and supports State and Private Health Care facilities in the Western Cape and other provinces which do not have a dedicated Paediatric Nuclear Medicine Service. In addition, staff actively participate in the Division of Nuclear Medicine at Groote Schuur Hospital.
Registrars from a number of institutions spend time at the Children's Hospital as part of their training, as do radiography students from Groote Schuur Hospital. Other activities include participation in International Congresses and the College of Nuclear Physicians.

Statistics

Permanent and long term contract staff

Senior specialist	1
Part-time specialist / Emeritus Associate Professor	1
Total	2

Students

Registrars	1
Total	1

Research fields

Renal scintigraphy, "milk" scans in gastro-intestinal motility disorders, limb perfusion in children with vascular compromise due to infection or burns, PET/CT applications in children, and brain perfusion scintigraphy.

Contact Details

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Department Of Paediatrics And Child Health

Affiliated Disciplines

Paediatric Pathology

HEAD OF HISTOPATHOLOGY UNIT: DR K. PILLAY

Unit profile

The Unit of Paediatric Pathology is primarily an NHLS laboratory service unit to Red Cross Children's Hospital and provides paediatric and neonatal services to other Western Cape Health Care Institutions. The pathology service functions as an amalgam of three sub units comprising: Anatomical Pathology, Chemical Pathology and Haematology. Undergraduate teaching activities are largely undertaken through equivalent disciplines at Groote Schuur Hospital and the Medical School of the University of Cape Town to medical and physiotherapy students. Postgraduate teaching is undertaken to MPhil (Paediatric Pathology), MMed (in all the pathology disciplines), and MSc and PhD students at UCT. Research activities are related to laboratory aspects of child health and molecular mechanisms underlying paediatric disease. Research also undertaken through collaborative projects with clinical colleagues, mainly in paediatrics and paediatric surgery.

Unit Statistics

Permanent and long-term contract staff

Senior Lecturers	3
NHLS Staff	40
Total	43

Students

Registrars	3
Total	3

Research Fields and Staff

DR MARGARET H.G. SHUTTLEWORTH
Molecular genetics of paediatric leukaemias and neuroblastomas; paediatric myelodysplastic syndromes.

DR KOMALA PILLAY
Pathology of muscle; pathology of placentas from HIV positive patients; lymphomas.

DR GEORGE VAN DER WATT
Inherited metabolic disorders.

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Department Of Paediatrics And Child Health

Affiliated Disciplines

Paediatric Radiology

HEAD OF UNIT: DR. T. KILBORN

Unit profile

A clinical radiology department providing imaging to all divisions in the School, performing a total of approximately 42,000 examinations per annum. Imaging modalities include plain-film radiography, computed and digital radiography, digital fluoroscopy, ultrasound (including Doppler), computerised tomography (CT), magnetic resonance imaging (MRI), angiography and interventional radiology. The Division conducts a Postgraduate teaching program for three registrars registered for the M.Med (Diagnostic Radiology) at the University of Cape Town on an ongoing rotational basis and for one registrar registered at the University of Stellenbosch. An undergraduate lecture series in paediatric radiology is provided at 5th year level. Training in paediatric sonography is conducted for B.Tech (Ultrasound) students of the Cape Peninsula University of Technology.

In addition, the Division offers an annual Paediatric Radiology Fellowship, providing further training in the discipline for qualified radiologists. Fellows are registered for the University's Postgraduate Diploma in Paediatric Radiology.

Unit Statistics

Permanent and Long-term Contract Staff

Lecturers	3
Radiographers and Aux. Staff	30
Total	33

Students

PhD	0
Registrars/Master's	4
Harry Crossley Fellow	1
Total	5

Research Fields and Staff

T. KILBORN
Oncology, HIV and TB, Pulmonary Imaging, Gastrointestinal, Neonatal Imaging

N. WIESELTHALER
Neuro-imaging; orthopaedic imaging; interventional radiology

E. BANDERKER
Cardiac and Chest imaging, Orthopaedics, Imaging in Trauma

Contact Details

Postal Address: Paediatric Radiology, School of Child and Adolescent Health, University of Cape Town, Red Cross Children's Hospital, Klipfontein Rd, Rondebosch, 7700
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Department Of Paediatrics And Child Health

Affiliated Disciplines

Paediatric Surgery

HEAD OF UNIT: PROFESSOR A.J.W. MILLAR

Unit profile

The department functions as a tertiary health care centre for paediatric surgery for the University of Cape Town and the Red Cross War memorial Children's Hospital. The department is a national/international centre for postgraduate paediatric surgical career development and is accredited with the HPCSA.

An extensive surgical outreach programme is in existence primarily to improve the surgical care of children at secondary and primary health care levels. The division is regarded as a national centre for minimally invasive surgery, surgical skills training, organ transplantation, specialized hepatobiliary surgery, neurosurgery, cardiothoracic surgery, oncology and burn care in children and for the separation of conjoined twins.

Research is being conducted in the department into a wide variety of aspects of paediatric surgical practice including gastrointestinal surgery, minimal invasive surgery, trauma care and prevention, liver and renal transplantation, renovascular hypertension, burn therapy, pain assessment and management, conjoined twins and common diseases of Africa including tuberculosis and HIV/AIDS. Financial support is received from the MRC, Pharmaceutical companies, private donations and from the Lombardi Government in Italy.

Unit Statistics

Permanent and long-term contract staff

Professor	2
Emeritus Professor	3
Adjunct Professor	1
Associate Professor	1
Senior Lecturers	1
Career Paediatric Surgical Registrars	3
African Fellowship Training Programme	1
Karl Storz Fellowship Programme	1
Research Technologists / Social Worker	2
Administrative staff	2
Total	17

Students

Doctoral	1
Master's	3
Undergraduate	168
Total	172

Research Fields and Staff

PROFESSOR A.J.W. MILLAR
Biliary atresia, choledochal cysts, liver transplantation, renovascular hypertension, non-transplant surgery for short bowel syndrome, oesophageal replacement with colon, hepatoblastoma, bilateral Wilms' tumour, surgical management of intestinal failure

EMERITUS PROFESSOR H. RÖDE
Burn and nutrition research; short bowel syndrome; HIV/AIDS; oncology and trauma.

EMERITUS PROFESSOR M.R.Q. DAVIES
General paediatric surgical conditions.

ADJUNCT PROFESSOR R.A. BROWN
Gastrointestinal surgery; surgical endoscopy; constipation and gastro-intestinal polyposis.

PROFESSOR A.B. VAN AS
Traumatology; child accident prevention; vascular injuries; gastro-intestinal diseases.

ASSOCIATE PROFESSOR A. NUMANOGLU
Minimal invasive surgery; transplantation; HIV/AIDS and diseases of the gastro-intestinal tract, teaching with technology, web based outreach, neonatal surgery

S. COX
The child sexual assault 'epidemic', Neonatal burns, surgical aspects of necrotising enterocolitis and other childhood general surgical conditions.

DR A. ALEXANDER
HIV/AIDS and surgical implications, surgical curriculum development. surgical research, urology, minimally invasive surgery.

DR R. ALBERTYN
Paediatric pain; rehabilitation and HIV/AIDS; web-based education

J. RAAD
Manometry and gastro-enterology.

Director: ChildSafe (post vacant)
Child accident prevention.

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Department Of Paediatrics And Child Health

Affiliated Disciplines

Poisons Centre

HEAD OF UNIT: DR C. ROBERTS

Unit profile

The Poisons Information Centre maintains and distributes the AfriTox poisons information database designed to help clinicians in Southern Africa treat poisoned adults and children. All types of potentially toxic substances are included with a particular accent on local South African trade names and natural toxins. The treatment protocols are tailored for the South African situation. The database is used at over 30 treatment centres countrywide and by both the other Poisons Centres, to underpin poisons advice given to health workers and the public. It is also distributed to centres in Botswana, Kenya, Mozambique, Nigeria and Zimbabwe.

The Poisons Emergency Telephone line is answered by the staff of the Poisons Information Centre during office hours on weekdays, and after hours in the Emergency Department of the hospital, using the AfriTox database.

The Centre collects data on all children seen at Red Cross Children's Hospital with known or suspected poisoning.

Statistics

Permanent and Sessional Staff

Medical officers	2
Pharmacists	2
Total	4

Research Fields and Staff

All staff members are involved in data collection

Dr Kate Balme is responsible for case data on poisoning.

Contact Details

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Department Of Paediatrics And Child Health

Affiliated Disciplines

SOUTH AFRICAN TUBERCULOSIS VACCINE INITIATIVE (SATVI)

HEAD OF UNIT: PROFESSOR WILLEM HANEKOM

Unit profile

SATVI's vision is "A World Without TB", while our mission is "Innovative And High-Quality TB Vaccine Research In Africa, To Impact The Global Epidemic". To achieve its mission, SATVI has been testing 6 new TB vaccine candidates in 15 completed or ongoing clinical trials. SATVI also addresses other critical clinical, epidemiological, immunological and human genetic questions in TB vaccine development. A large focus of this research is on identification of markers in blood to indicate whether a person is at risk of developing, or protected against, TB disease (correlates or risk or of protection).

SATVI is the largest dedicated TB vaccine research group on the African continent, with a personnel complement of >100 and an annual budget of ~R70 million. Its success is evident from manuscripts published in high impact journals, funding support from multiple international funding agencies, invited presentations at international conferences and representation on multiple international policy bodies.

SATVI also has an active postgraduate academic training programme, with multiple PhD and Master's students.

Particular highlights from 2012 included the first successful completion of an efficacy trial of a new TB vaccine, MVA85A, in nearly 50 years has been a prominent achievement. The group was also awarded a R41.6m grant from the Bill and Melinda Gates Foundation to identify correlates of risk of TB disease.

Divisional Statistics

Students and Postdoctoral Fellows

Master's	4
PhD	5
Postdoctoral Fellows	4
Total	13

Staff

Permanent staff (Full time)	123
Permanent staff (Part time)	1
Total	124

Research Fields and Staff

Research Staff

WILLEM HANEKOM – DIRECTOR
TB vaccine development and testing; Correlates of risk of TB disease in infants, adolescents and adults; Immunopathogenesis of TB and of TB/BCG/IRIS in infants, adolescents and adults.

MARK HATHERILL – DEPUTY DIRECTOR FOR CLINICAL TRIALS AND EPIDEMIOLOGY
TB vaccine development and testing; Epidemiology and diagnosis of TB in infants, adolescents and adults.

THOMAS SCRIBA – DEPUTY DIRECTOR FOR IMMUNOLOGY
TB vaccine development and testing; Correlates of risk of TB in infants and adolescents; Immunopathogenesis of TB in infants, adolescents and adults; Assay development.

HENNIE GELDENHUYS
TB vaccine development and testing, including novel administration of vaccines; Epidemiology and diagnosis of TB in infants, adolescents and adults.

BENJAMIN KAGINA
TB vaccine development and testing; Assay development.

ANGELIQUE KANY KANY LUABEYA
TB vaccine development and testing; Epidemiology and diagnosis of TB in infants, adolescents and adults.

EDWARD MAKGOTHLO
Correlates of risk of TB disease in adolescents.

ELISA NEMES
TB vaccine development and testing; Correlates of risk of TB disease in infants; Immunopathogenesis of TB and of TB/BCG/IRIS in infants, adolescents and adults.

Adam Penn-Nicholson
TB VACCINE DEVELOPMENT AND TESTING; CORRELATES OF RISK OF TB disease in adolescents; Assay development.

MICHELE TAMERIS
TB vaccine development and testing; Epidemiology and diagnosis of TB in infants and adolescents; Drama as a vehicle for communicating research technology.

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Department Of Paediatrics And Child Health

Research output

Edited Books

Kibel, M.A., Saloojee, H. and Westwood, A.T.R. (eds) 2012. Child Health for All. 580pp. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Chapters in books

Adams, C.M. 2012. Neurodevelopment. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 61-68. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Arendse, N., Swart, L.-A., van Niekerk, A. and Van As, A.B. 2012. Pedestrian safety. In A. van Niekerk, S. Suffla and M. Seedat (eds), Crime, Violence and Injury in South Africa: 21st Century Solutions for Child Safety, pp. 8-22. Houghton: Psychological Society of South Africa. ISBN 9781920014865.

Berg, A. 2012. Psychosocial development. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 69-74, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Boon, G. 2012. Human resources for child health services. In M. Kibel H. Saloojee and T. Westwood (eds), Child Health for All, pp. 184-191, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Boon, G. 2012. Training and retention of professional child health workers. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 194-199, 5th edition. Cape

Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Coetzee, M. 2012. Nursing care. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 289-295, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

de Villiers, F. and Philotheou, A. 2012. Physical growth in childhood and adolescence. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 50-60, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Eichhorst, M. and Van As, A.B. 2012. Falls. In A. van Niekerk, S. Suffla and M. Seedat (eds), Crime, Violence and Injury in South Africa: 21st Century Solutions for Child Safety, pp. 56-66. Houghton: Psychological Society of South Africa. ISBN 9781-920014865.

Eley, B.S. 2012. HIV infection. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 337-348, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Eley, B.S. and Nuttall, J. 2012. Management of HIV infection during infancy. In M.L. M.M. Lala and R.H. Merchant (eds), Principles of Perinatal and Pediatric HIV/AIDS, pp. 451-463. India: Jaypee Brothers Medical Publishers. ISBN 9789350251973.

Flisher, A.J. 2012. Adolescent health promotion. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 91-97. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Flisher, A.J. and Berg, A. 2012. Psychiatric disorders in childhood and adolescence. In M. Kibel H. Saloojee and T. Westwood (eds), Child Health for All, pp. 436-446. 5th edition. Cape Town: Oxford University Press Southern Africa. 9780199042357.

Greenfield, D.H. and Rhoda, N.R. 2012. Perinatal care. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 222-230, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Hall, K. and Leatt, A. 2012. Support for children: social services and social security. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 264-272, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Hawkridge, A.J. and Mahomed, H. 2012. Basic epidemiology. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 530-542, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Hendricks, M.K. 2012. The role of the district medical officer working in child health. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 273-279, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Jamieson, L. and Reynolds, L.G.V.B. 2012. Consent and competence in paediatrics. In M. Kibel H. Saloojee and T. Westwood (eds), Child Health for All, pp. 523-527. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Kattan, M. and Zar, H.J. 2012. Respiratory disorders in pediatric HIV infection. In R.W. Wilmott, T.F. Boat, A. Bush, V. Chernick, R.R. Deterding and F. Ratjen (eds), Kendig and Chernick's Disorders of the Respiratory Tract in Children, pp. 920-933, 8th edition. Philadelphia, USA: Elsevier Philadelphia. ISBN 9781437719840.

Kibel, M.A., Saloojee, H. and Westwood, A.T.R. 2012. Child health in context. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 2-13. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Kibel, M.A. and Westwood, A.T.R. 2012. Common functional problems. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 75-81. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Kibel, M.A. 2012. Cot death. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 456-461, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Kibel, S., du Toit, N. and Van As, A.B. 2012. Childhood injuries. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 397-403, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Lachman, P., Kibel, M.A. and Hendricks, M.K. 2012. Environmental influences on child health. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 34-40, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Lachman, P., Kibel, M.A. and Westwood, A.T.R. 2012. Health surveillance. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 147-153, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Leatt, A. and Hall, K. 2012. Support for children: social services and social security. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 264-272. 5th edition. Cape Town: Oxford University Press Southern Africa. 9780199042357.

Levin, M. and Weinberg, E.G. 2012. Childhood asthma. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 420-435, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Levin, M. 2012. Inhalation devices and techniques in asthma treatment. In A.A. Awotedu and E.M. Irusen (eds), Asthma in Africa, pp. 353-364. Nigeria: University of Ibadan, Nigeria. ISBN 9789788414957.

Meiring, M. and Roux, P. 2012. Death, dying and palliative care. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp.514-522, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Molteno, C.D. and Donald, K.A. 2012. The child with a disability. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 493-500, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Motala, C. 2012. Environmental control of asthma. In A.A. Awotedu and E.M. Irusen (eds), Asthma in Africa, pp. 333-352 Nigeria: University of Ibadan, Nigeria. ISBN 9789788414957.

Nuttall, J. 2012. Immune reconstitution inflammatory syndrome in children. In M.M. Lala and R.H. Merchant (eds), Principles of Perinatal and Pediatric HIV/AIDS, pp. 278-291. India: Jaypee Brothers Medical Publishers. ISBN 9789350251973.

Proudlock, P.M. 2012. Children's rights and health. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 14-21, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Reynolds, L.G.V.B. and Jamieson, L. 2012. Consent and capacity in paediatrics. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 523-527, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Shea, J. 2012. Child health promotion. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, 84-90. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Westwood, A.T.R. 2012. Child healthy policy. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 162-167, 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Westwood, A.T.R. and Philotheou, A. 2012. Health services for adolescents. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, 250-256. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Westwood, A.T.R. and Power, D.J. 2012. Levels of health care with special reference to children. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 212-221. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Westwood, A.T.R. 2012. Making healthy adults. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 154-159. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Westwood, A.T.R. 2012. School and creche health. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 242-249. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Westwood, A.T.R. and Robertson, A. 2012. The child with a long-term health condition. In M. Kibel H. Saloojee and T. Westwood (eds), Child Health for All, pp. 501-505. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Woods, D.L. 2012. Continuing education and training of nurses. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for, pp. 207-209. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Zar, H.J. and Kibel, M.A. 2012. Acute respiratory infections. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 349-356. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Articles in peer-reviewed Journals

Abdur-Rahman, L.O., Van As, A.B. and Rode, H. 2012. Pediatric trauma care in Africa: the evolution and challenges. Seminars in Pediatric Surgery, 21: 111-115.

Ackermann, S. and van Toorn, R. 2012. Managing first-time seizures and epilepsy in children. CME-Continuing Medical Education, 30(1): 16-20.

Ademuyiwa, A.O., Usang, U.E., Oluwadiya, K.S., Ogunlana, D.I., Glover-Addy, H., Bode, C.O. and Van As, A.B. 2012. Pediatric trauma in sub-Saharan Africa: challenges in overcoming the scourge. Journal of Emergencies, Trauma and Shock, 5(1): 55-61.

Albertyn, R., Rode, H., Millar, A.J.W. and Peck, M.D. 2012. The domestication of fire: the relationship between biomass fuel, fossil fuel and burns. Burns, 38: 790-795.

Asher, MI., Stewart, A.W., Wong, G., Strachan, D., Garcia-Marcos, L., Anderson, H.R., Ait-Khaled, N., Beasley, R., Bjorksten, B., Brunekreef, B., Crane, J., Ellwood, P., Flohr, C., Foliaki, S. and Zar, H.J. 2012. Changes over time in the relationship between symptoms of asthma, rhinoconjunctivitis and eczema: a global perspective from the international study of asthma and allergies in childhood. Allergologia Et Immunopathologia, 40(5): 267-274.

Argent, A.C. and Morrow, B. 2012. Chest physiotherapy: how does it work (if it does)? Pediatric Critical Care Medicine, 13(2): 238-239.

Argent, A.C. and Morrow, B. 2012. Infants with human immunodeficiency virus exposure or infection in the pediatric intensive care unit. Pediatric Critical Care Medicine, 13(5): 597-598.

Baker, A.R., Qiu, F., Randhawa, A., Horne, D.J., Adams, M.D., Shey, M., Barnholtz-Sloan, J., Mayanja-Kizza, H., Kaplan, G., Hanekom, W.A., Boom, W.H., Hawn, T., Stein, C.M. and for the Tuberculosis Research Unit (TBRU) and SATVI, 2012. Genetic variation in TLR Genes in Ugandan and South African populations and comparison with HapMap Data. PLoS One, 7(10): e47597.

Balme, K.H., Roberts, C., Glasstone, M., Curling, L. and Mann, M.D. 2012. The changing trends of childhood poisoning at a tertiary children's hospital in South Africa. SAMJ South African Medical Journal, 102(3): 142-146.

Bandika, V., Goddard, E., De Lacy, R.J. and Brown, R. 2012. Endoscopic injection sclerotherapy for bleeding varices in children with intrahepatic and extrahepatic portal venous obstruction: benefit of injection tract embolisation. SAMJ South African Medical Journal, 102(11): 884-887.

Bhat, N., O'Brien, K.L., Karron, R.A., Driscoll, A.J., Murdoch, D.R., the Pneumonia Methods Working Group, and Zar, H.J. 2012. Use and evaluation of molecular diagnostics for pneumonia etiology studies. Clinical Infectious Diseases, 54 (Suppl 2): S153-S158.

Bhengu, L., Davidson, A., du Toit, P., Gerntholtz, T., Govendrageloo, K., Heitner, R., Henderson, B., Mubaiwa, L. and Varughese, S. 2012. South African guidelines for the management of Gaucher disease, 2011. SAMJ South African Medical Journal, 102(8): 697-702.

Boshoff, L. and Tooke, L. 2012. Congenital rubella: is it nearly time to take action? South African Journal of Child Health, 6(4): 106-108.

Bousquet, J., Anto, J.M., Demoly, P., … Bateman, E.D.,... Zar, H.J. *et al*. 2012. Severe Chronic Allergic (and Related) Diseases: A Uniform Approach - A MeDALL - GA LEN - ARIA Position Paper. International Archives of Allergy and Immunology, 158: 216-231.
Bousquet, J., Schunemann, H.J., Samolinski, B.,… Potter, P.C.,… Bateman, E.D.,… Zar, H.J. *et al* 2012. Allergic Rhinitis and its Impact on Asthma (ARIA): Achievements in 10 years and future needs. Journal of Allergy and Clinical Immunology, 130: 1049-1062

Brink, A., Samal, M. and Mann, M.D. 2012. The reproducibility of measurements of differential renal function in paediatric 99m -Tc-MAG3 renography. Nuclear Medicine Communications, 33: 824-831.

Brooks, A., Geldenhuys, A., Zuhlke, L., Human, P.A. and Zilla, P. 2012. Pulmonary artery banding: still a valuable option in developing countries? European Journal of Cardio-Thoracic Surgery, 41: 272-276.

Brown, J.S., Lipman, M.C.I. and Zar, H.J. 2012. What's new in respiratory infections and tuberculosis 2008-2010. Thorax, 67: 350-354.

Brunekreef, B., Von Mutius, E., Wong, G., Odhiambo, J., Garcia-Marcos, L., Foliaki, S., Ait-Khaled, N., Anderson, H.R., Asher, M.I., Beasley, R., Bjorksten, B., Crane, J., Ellwood, P., Forastiere, F. and Zar, H.J. 2012. Exposure to cats and dogs, and symptoms of asthma, rhinoconjunctivitis, and eczema. Epidemiology, 23(5): 742-750.

Coetzee, E., Whitelaw, A.C., Kahn, D. and Rode, H. 2012. The use of topical, un-buffered sodium hypochloride in the management of burn wound infection. Burns, 38: 529-533.

Cornell, M., Schomaker, M., Garone, D., Giddy, J., Hoffmann, C.J., Lessells, R., Maskew, M., Prozesky, H., Wood, R., Johnson, L.F., Egger, M., Boulle, A.M. and Myer, L. 2012. Gender differences in survival among adult patients starting antiretroviral therapy in South Africa: a multicentre cohort study. Plos Medicine, 9(9): e1001304.

Cotton, M., Marais, B., Andersson, M.I., Eley, B.S., Rabie, H., Slogrove, A.L., Dramowski, A., Schaaf, H. and Mehtar, S. 2012. Commentary: minimizing the risk of non-vertical, non-sexual HIV infection in children - beyond mother to child transmission. Journal of the International AIDS Society, 15: 17377.

Dandara, C., Scott, C., Urban, M., Fieggen, K., Arendse, R. and Beighton, P. 2012. Confirmation of the recurrent ACVRI 617G> a mutation in South Africans with fibrodysplasia ossificans progressiva. SAMJ South African Medical Journal, 102(7): 631-633.

Davidson, A. and Novitzky, N. 2012. Stem cell transplantation for primary immunodeficiency. Current Allergy & Clinical Immunology, 25(4): 205-208.

Davies, M., Boulle, A.M., Technau, K., Eley, B.S., Moultrie, H., Rabie, H., Garone, D., Giddy, J., Wood, R., Egger, M. and Keiser, O. 2012. The role of targeted viral load testing in diagnosing virological failure in children on antiretroviral therapy with immunological failure. Tropical Medicine & International Health, 17(11): 1386-1390.

Deloria-Knoll, M., Feikin, D.R., Scott, J.A.G., O'Brien, K.L., DeLuca, A., Driscoll, A.J., Levine, O.S., the Pneumonia Methods Working Group, and Zar, H.J. 2012. Identification and selection of cases and controls in the pneumonia etiology research for child health project. Clinical Infectious Diseases, 54(Suppl 2): S117-S123.

Douglas, T.S., Gresak, L., Koen, N., Fenton-Muir, N., Van As, A.B. and Pitcher, R.D. 2012. Measurement of prevertebral cervical soft tissue thickness on lateral digital radiographs. Journal of Pediatric Orthopaedics, 32(3): 249-252.

Du Plessis, J., Dix-Peek, S.I., Hoffman, E.B., Wieselthaler, N. and Dunn, R.N. 2012. Pediatric atlanto-occipital dissociation: radiographic findings and clinical outcome. Clinical Evidence, 3(1): 19-26.

Elhalaby, E.A., Uba, F.A., Borgstein, E., Rode, H. and Millar, A.J.W. 2012. Training and practice of pediatric surgery in Africa: past, present, and future. Seminars in Pediatric Surgery, 21: 103-110.

Ellwood, P., Innes Asher, M., Stewart, A.W., Ait-Khaled, N., Mallol, J., Strachan, D., Anderson, H.R., Beasley, R., Bjorksten, B., Brunekreef, B., Crane, J., Flohr, C., Foliaki, S. and Zar, H.J. 2012. The challenges of replicating the methodology between phases I and III of the ISAAC programme. International Journal of Tuberculosis and Lung Disease, 16(5): 687-693.

England, R.J., Pillay, K., Davidson, A., Numanoglu, A. and Millar, A.J.W. 2012. Intussusception as a presenting feature of Burkitt lymphoma: implications for management and outcome. Pediatric Surgery International, 28: 267-270.

England, R.J., Warren, S., Bezuidenhout, L., Numanoglu, A. and Millar, A.J.W. 2012. Laparoscopic repair of anorectal malformations at the Red Cross War Memorial Children's Hospital: taking stock. Journal of Pediatric Surgery, 47: 565-570.

English, R., Perry, M., Lee, M.M., Hoffman, E., Delport, S.V. and Dalvie, M.A. 2012. Farm residence and reproductive health among boys in rural South Africa. Environment International, 47: 73-79.

Ernst, J., Hanekom, W.A., Hawn, T., Kampmann, B. and Rengarajan, J. 2012. Meeting report: the international conference on human immunity to tuberculosis. Tuberculosis, 92: 440-444.

Esezobor, C.I., Nourse, P.J. and Gajjar, P. 2012. Urinary tract infection following kidney transplantation: frequency, risk factors and graft function. Pediatric Nephrology, 27: 651-657.

Fatti, G., Meintjies, G., Shea, J., Eley, B.S. and Grimwood, A. 2012. Improved survival and antiretroviral treatment outcomes in adults receiving community-based adherence support: 5-year results from a multicentre cohort study in South Africa. Jaids-Journal of Acquired Immune Deficiency Syndromes, 61(4): e50-e58.

Foltran, F., Berchialla, P., Gregori, D., Pitkaranta, A., Slapak, I., Jakubikova, J., Bellussi, L., Passali, D., the Susy Safe Working Group, and Van As, A.B. 2012. Stationery injuries in the upper aerodigestive system: results from the susy safe project. International Journal of Pediatric Otorhinolaryngology, 76S: S67-S72.

Foltran, F., Passali, F.M., Berchialla, P., Gregori, D., Pitkaranta, A., Slapak, I., Jakubikova, J., Franchin, L., Ballali, S., Passali, G.C., Bellussi, L., Passali, D., the Susy Safe Working Group and Van As, A.B. 2012. Toys in the upper aerodigestive tract: new evidence on their risk as emerging from the Susy Safe study. International Journal of Pediatric Otorhinolaryngology, 76S: S61-S66.

Geldenhuys, H.D., Kleynhans, W., Buckerfield, N., Tameris, M.D., Gonzalez-Angulo, Y., Mahomed, H., Hussey, G.D., Hanekom, W.A. and Hatherill, M. 2012. Safety and tolerability of sputum induction in adolescents and adults with suspected pulmonary tuberculosis. European Journal of Clinical Microbiology & Infectious Diseases, 31: 529-537.

Geldenhuys, H.D., Waggie, Z., Jacks, M.E., Geldenhuys, M., Traut, L., Tameris, M.D., Hatherill, M., Hanekom, W.A., Sutter, R.W., Hussey, G.D. and Mahomed, H. 2012. Vaccine trials in the developing world: operational lessons learnt from a phase IV poliomyelitis vaccine trial in South Africa. Vaccine, 30: 5839-5843.

Gevers, A., Jewkes, R., Mathews, C. and Fisher, A. 2012. I think it's about experiencing, like, life': a qualitative exploration of contemporary adolescent intimate relationships in South Africa. Culture Health & Sexuality, 14(10): 1125-1137.

Ghani, A.S.A., Morrow, B., Hardie, D.R. and Argent, A.C. 2012. An investigation into the prevalence and outcome of patients admitted to a pediatric intensive care unit with viral respiratory tract infections in Cape Town, South Africa. Pediatric Critical Care Medicine, 13(5): e275-e281.

Gonzalez-Angulo, Y., Wiysonge, C.S., Geldenhuys, H.D., Hanekom, W.A., Mahomed, H., Hussey, G.D. and Hatherill, M. 2012. Sputum induction for the diagnosis of pulmonary tuberculosis: a systematic review and meta-analysis. European Journal of Clinical Microbiology & Infectious Diseases, 31: 1619-1630.

Graham, S.M., Ahmed, T., Amanullah, F., Browning, R., Cardenas, V., Casenghi, M., Cuevas, L.E., Gale, M., Gie, R., Grzemska, M., Handelsman, E., Hatherill, M., Hesseling, A.C., Jean-Philippe, P., Kampmann, B., Kabra, S.K., Lienhardt, C., Lighter-Fisher, J., Madhi, S., Makhene, M., Marais, B.J., McNeeley, D.F., Menzies, H., Mitchell, C.D., Modi, S., mofenson, L., Musoke, P., Nachman, S., Powell, C., Rigaud, M., Rouzier, V., Starke, J.R., Swaminathan, S. and Wingfield, C. 2012. Evaluation of tuberculosis diagnostics in children: 1. proposed clinical case definitions for classification of intrathoracic tuberculosis disease. Consensus from an expert panel. Journal of Infectious Diseases, 205(Suppl 2): S199-S208.

Gray, C.L. 2012. A guide to open oral food challenges in children. South African Paediatric Review, 8(3): 18-29.

Gray, C.L. 2012. Severe food allergies. Current Allergy & Clinical Immunology, 25(3): 124-130.

Gray, C.L. and Kung, S.-J. 2012. Food allergy in South Africa: joining the food allergy epidemic? Current Allergy & Clinical Immunology, 25(1): 24-29.

Green, R., Halkas, A. and Weinberg, E.G. 2012. The "Ten Commandments" of treating preschool children who wheeze. South African Family Practice, 54(4): 316-318.

Gregori, D., Foltran, F., Ballali, S., Berchialla, P., Rodriguez, H., Zaupa, P., Spitzer, P., Demetriades, C. and Van As, A.B. 2012. The Susy Safe project overview after the first four years of activity. International Journal of Pediatric Otorhinolaryngology, 76S: S3-S11.

Grimwood, A., Fatti, G., Mothibi, E., Eley, B.S. and Jackson, D. 2012. Progress of preventing mother-to-child transmission of HIV at primary healthcare facilities and district hospitals in three South African provinces. SAMJ South African Medical Journal, 102(2): 81-83.

Grimwood, A., Fatti, G., Mothibi, E., Malahlela, M., Shea, J. and Eley, B.S. 2012. Community adherence support improves programme retention in children on antiretroviral treatment: a multicentre cohort study in South Africa. Journal of the International AIDS Society, 15: 17381.

Gsponer, T., Weigel, R., Davies, M., Bolton, C., Moultrie, H., Vaz, P., Rabie, H., Technau, K., Ndirangu, J., Eley, B.S., Garone, D., Wellington, M., Giddy, J., Ehmer, J., Egger, M. and Keiser, O. 2012. Variability of growth in children starting antiretroviral treatment in Southern Africa. Pediatrics, 130(4): e966-e977.

Hall, S. 2012. Consumer information about the nontherapeutic use of aspirin in South African children: a public health challenge. South African Pharmaceutical Journal, 79(10): 35-42.

Hammitt, L.L., Murdoch, D.R., Scott, J.A.G., Driscoll, A.J., Karron, R.A., Levine, O.S., O'Brien, K.L., the Pneumonia Methods Working Group, and Zar, H.J. 2012. Specimen collection for the diagnosis of pediatric pneumonia. Clinical Infectious Diseases, 54(Suppl 2): S132 - S139.

Hanekom, W.A., Hawkridge, A.J., Mahomed, H., Scriba, T.J., Tameris, M.D., Hughes, J., Hatherill, M., Day, C. and Hussey, G.D. 2012. SATVI - after 10 years closing in on a new and better vaccine to prevent tuberculosis. SAMJ South African Medical Journal, 102(6): 438-441.

Hatherill, M., Verver, S., Mahomed, H. and the Taskforce on Clinical Research Issues, Stop TB Partnership Working Group, 2012. Consensus statement on diagnostic end points for infant tuberculosis vaccine trials. Clinical Infectious Diseases, 54(4): 493-501.

Hawarden, D. and Karabus, S. 2012. Egg allergy and immunisation in children. CME-Continuing Medical Education, 30(1): 30.

Heckmann, J.M., Hansen, P., van Toorn, R., Lubbe, E., van Rensburg, E.J. and Wilmshurst, J. 2012. The characteristics of juvenile myasthenia gravis among South Africans. SAMJ South African Medical Journal, 102(6): 532-536.

Heller, S., Buse, J., Fisher, M., Garg, S., Marre, M., Merker, L., Renard, E., Russel-Jones, D., Philotheou, A., Fransisco, A.O., Pei, H. and Bode, B. 2012. Insulin degludec, an ultra- longacting basal insulin, versus insulin glargine in basal-bolus treatment with mealtime insulen aspart in type 1 diabetes (begin basal-bolus Type 1): a phase 3, randomised, open-label, treat-to-target non inferiority trial. Lancet, 379: 1489-1497.

Herbert, H.K., Van As, A.B., Bachani, A.M., Mtambeka, P., Stevens, K.A., Millar, A.J.W. and Hyder, A.A. 2012. Patterns of pediatric injury in South Africa: an analysis of hospital data between 1997 and 2006. Journal of Trauma and Acute Care Surgery, 73(1): 168-174.

Hoare, J., Fouche, J., Spottiswoode, B., Donald, K.A., Phillips, N., Bezuidenhout, H., Mulligan, C., Webster, V., Oduro, C., Schrieff, L.E., Paul, R., Zar, H.J., Thomas, K. and Stein, D.J. 2012. A diffusion tensor imaging and neurocognitive study of HIV-positive children who are HAART-naive "slow progressors". Journal of Neurovirology, 18: 205-212.

Holmes, W.J.M., Price, C., Dill, T. and Rode, H. 2012. A reliable technique for securing grafts in paediatric hand burns. Burns, 38: 301-305.

Holmes, W.J.M., Keane, B. and Rode, H. 2012. The severity of kettle burns and the dangers of the dangling cord. Burns, 38: 453-458.

Horn, A., Joolay, Y., Tooke, L. and Harrison, M. 2012. A servo-assisted gel-pack cooling method for newborn infants with hypoxic-ischemic encephalopathy. Journal of Tropical Pediatrics, 58(3): 236-238.

Jacob, R., Abrahams, F., Tongo Passo, A., Schomaker, M., Roux, P., Mpoudi Ngole, E., Burgers, W. and Dorfman, J. 2012. Refined identification of neutralization-resistant HIV-1 CRF02_AG viruses. Journal of Virology, 86(14): 7699-7703.

Jehle, K.S., Lazarus, J. and Raad, J. 2012. Neurogenic lower urinary tract dysfunction: the role of urodynamics. CME-Continuing Medical Education, 30(5): 166-170.

Jelsma, J.M., Burgess, T.L. and Henley, L.D. 2012. Does the requirement of getting active consent from parents in school-based research result in biased sample? An empirical study. Journal of Empirical Research on Human Research Ethics, 7(5): 56-62.

Joolay, Y., Rhoda, N.R., Tooke, L., Horn, A. and Harrison, M. 2011. A reduction of necrotising enterocolitis at Groote Schuur Hospital nursery. SAMJ South African Medical Journal, 101(11): 806.

Joolay, Y., Harrison, M. and Horn, A. 2012. Therapeutic hypothermia and hypoxic ischemic encephalopathy: opinion and practice of pediatricians in South Africa. Journal of Perinatal Medicine, 40: 447-453.

Jumbo-Lucioni, P.P., Garber, K., Kiel, J., Baric, I., Berry, G.T., Bosch, A., Burlina, A., Chiesa, A., Pico, M.L.C., Estrada, S.C., Henderson, H.E., Leslie, N., Longo, N., Morris, A.A.M., Ramirez-Farias, C., Scheweitzer-Krantz, S., Silao, C.L.T., Vela-Amieva, M., Waisbren, S. and Fridovich-Keil, J.L. 2012. Diversity of approaches to classic galactosemia around the world: a comparison of diagnosis, intervention and outcomes. Journal of Inherited Metabolic Disease, 35(6): 1037-1049.

Kander, V., Riordan, G.T.M., Donald, K.A. and Wilmshurst, J. 2012. The usefulness of electroencephalograms in a survey of children from the Western Cape of South Africa. Journal of Child Neurology, 27(5): 625-631.

Karabus, S. 2012. An update on adverse drug reactions and drug allergy. South African Paediatric Review, 9(2): 36-43.

Karabus, S. 2012. Hypersensitivity to stinging insects. Current Allergy & Clinical Immunology, 25(3): 132-138.

Karabus, S. and du Toit, G. 2012. IgE-mediated cow's milk protein allergy. Current Allergy & Clinical Immunology, 25(1): 4-8.

Karpelowsky, J. and Millar, A.J.W. 2012. Surgical implications of human immunodeficiency virus infections. Seminars in Pediatric Surgery, 21: 125-135.

Karpelowsky, J.S., Millar, A.J.W., Van Der Graaf, N., Van Bogerijen, G. and Zar, H.J. 2012. Comparison of in-hospital morbidity and mortality in HIV-infected and uninfected children after surgery. Pediatric Surgery International, 28: 1007-1014.

Karthikeyan, G., Zuhlke, L., Engel, M.E., Rangarajan, S., Yusuf, S., Teo, K. and Mayosi, B.M. 2012. Rationale and design of a global rheumatic heart disease registry: the remedy study. American Heart Journal, 163: 535-540.

Kennedy, D., Fawcus, S. and Kroon, M. 2012. The effect of maternal HIV status on perinatal outcome at Mowbray Maternity Hospital and referring midwife obstetric units, Cape Town. SAJOG-South African Journal Of Obstetrics And Gynaecology, 18(1): 6-10.

Kerbelker, T. and Levin, M. 2012. Difficult asthma – 3 case reports. Current Allergy & Clinical Immunology, 25(3): 152-154.

Lazarus, J., Van Den Heever, A., Kortekaas, B. and Alexander, A. 2012. Female epispadias managed by bladder neck plication via a perineal approach. Journal of Pediatric Urology, 8: 244-248.

Le Roux, D. 2012. Approach to a child with recurrent infections. South African Paediatric Review, 9(2): 24-35.

Le Roux, D., Le Roux, S., Nuttall, J. and Eley, B.S. 2012. South African measles outbreak 2009 – 2010 as experienced by a paediatric hospital. SAMJ South African Medical Journal, 102(9): 760-764.

Le Roux, D., Pillay, K., Nourse, P., Gajjar, P., Nuttall, J. and Eley, B.S. 2012. Systemic amyloidosis complicating multidrug-resistant tuberculosis in childhood. Pediatric Infectious Disease Journal, 31(9): 994-997.

Le Roux, S., Cotton, M., Myers, L., Le Roux, D., Schaaf, H., Lombard, C. and Zar, H.J. 2012. Safety of long-term isoniazid preventive therapy in children with HIV: a comparison of two dosing schedules. International Journal of Tuberculosis and Lung Disease, 17(1): 26-31.

Levin, M., Muloiwa, R., Le Souef, P.N. and Motala, C. 2012. *Ascaris* sensitization is associated with aeroallergen sensitization and airway hyperresponsiveness but not allergic disease in urban Africa. Journal of Allergy and Clinical Immunology, 130(1): 265-267.

Levin, M., Mathema, H., Stinson, K. and Jennings, K. 2012. Acceptability, feasibility and impact of routine screening to detect undiagnosed HIV infection in 17-24-month-old children in the western sub-district of Cape Town. SAMJ South African Medical Journal, 102: 253-256.

Levin, M. and Weinberg, E.G. 2012. Acute severe childhood asthma. South African Family Practice, 54(1): 42-45.

Levin, M. 2012. Adrenaline for anaphylaxis – what is the evidence? Current Allergy & Clinical Immunology, 25(3): 117-123.

Levin, M., Chambers, K. and Brice, N. 2012. Case report: peanut aspiration masquerading as an asthma exacerbation. Current Allergy & Clinical Immunology, 25(1): 38-40.

Levin, M. 2012. Combination of inhaled steroid and long-acting beta-2-agonist therapy - use and limitations. Current Allergy & Clinical Immunology, 25(2): 72-75.

Levin, M. and Weinberg, E. 2011. Treating childhood asthma. South African Family Practice, 53(6): 545-547.

Loveland, J., Numanoglu, A. and Hay, S.A. 2012. Pediatric minimally invasive surgery in Africa: limitations and current situation. Seminars in Pediatric Surgery, 21: 160-163.

Luabeya, K.K.A., Mulenga, H., Moyo, S., Tameris, M.D., Sikhondze, W., Geldenhuys, H.D., Mahomed, H., Hanekom, W.A., Hussey, G.D. and Hatherill, M. 2012. Diagnostic features associated with culture of mycobacterium tuberculosis among young children in a vaccine trial setting. Pediatric Infectious Disease Journal, 31: 42-46.

Luque-Fernandez, M., Schomaker, M., Mason, P.R., Fesselet, J.F., Baudot, Y., Boulle, A.M. and Maes, P. 2012. Elevation and cholera: an epidemiological spatial analysis of the cholera epidemic in Harare, Zimbabwe, 2008-2009. BMC Public Health, 12: 442.

Lutge, E.E., Wiysonge, C.S., Knight, S.E. and Volmink, J. 2012. Material incentives and enablers in the management of tuberculosis. Cochrane Database of Systematic Reviews, Issue 1.Art. No.: CD007952.

Machingaidze, S., Verver, S., Mulenga, H., Abrahams, D.A., Hatherill, M., Hanekom, W.A., Hussey, G.D. and Mahomed, H. 2012. Predictive value of recent quantiferon conversion for tuberculosis disease in adolescents. American Journal of Respiratory and Critical Care Medicine, 186(10): 1051-1056.

Manson, J., Ameh, E.A., Canvassar, N., Chen, T., Van Den Heever, A., Lever, F., Millar, A.J.W., Emil, S. and Ade-Ajayi, N. 2012. Gastroschisis: a multi-centre comparison of management and outcome. African Journal of Paediatric Surgery, 9(1): 17-21.

Martin, W.G., Jelsma, J.M. and Rogers, C. 2012. Motor proficiency and dynamic visual acuity in children with bilateral sensorineural hearing loss. International Journal of Pediatric Otorhinolaryngology, 76: 1520-1525.

Matthews, K., Ntsekhe, M., Syed, F., Scriba, T.J., Russell, J.B.W., Tibazarwa, K., Deffur, A., Hanekom, W.A., Mayosi, B.M., Wilkinson, R.J. and Wilkinson, K. 2012. HIV-1 infection alters CD4+ memory T-cell phenotype at the site of disease in extrapulmonary tuberculosis. European Journal of Immunology, 42: 147-157.

Millar, A.J.W. and Hamza, A.F. 2012. Liver transplantation in an African setting. Seminars in Pediatric Surgery, 21: 164-171.

Millar, A.J.W. 2012. Solving difficult hepatobiliary problems in children. SAMJ South African Medical Journal, 102(11): 872-875.

Mitchell, E., Beasley, R., Keil, U., Montefort, S., Odhiambo, J., Zar, H.J. and ISAAC Phase III Study Group and 2012. The association between tobacco and the risk of asthma, rhinoconjunctivitis and eczema in children and adolescents: analyses from phase hree of the ISAAC programme. Thorax, 67: 941-949.

Moore, E.R., Anderson, G.C., Bergman, N. and Dowsell, T. 2012. Early skin-to-skin contact for mothers and their healthy newborn infants. Cochrane Database of Systematic Reviews, Issue 5. Art. No.: CD003519.

Moorthy, L.N., Weiss, E., Peterson, M.G.E., Hassett, A.L., Lehman, T.J.A., members of the International SMILEY Collaborative Group and Scott, C. 2012. An update on cross-cultural adaptation of US English SMILEY. Lupus, 21: 1450-1454.

Morrow, B., Mowzer, R., Pitcher, R. and Argent, A.C. 2012. Investigation into the effect of closed-system suctioning on the frequency of pediatric ventilator-associated pneumonia in a developing country. Pediatric Critical Care Medicine, 13(1): e25-e32.

Morrow, B., Zampoli, M., van Aswegen, H. and Argent, A.C. 2012. Mechanical insufflation-exsufflation for people with neuromuscular disorders. Cochrane Database of Systematic Reviews, Issue 8. Art. No.: CD010044.

Moyo, S., Verver, S., Hawkridge, A.J., Geiter, L., Hatherill, M., Workman, L.J., Ontong, C., Msemburi, W., Tameris, M.D., Geldenhuys, H.D., Mulenga, H., Snowden, M.A., Hanekom, W.A., Hussey, G.D., Mahomed, H. and the South African Tuberculosis Vaccine Initiative Neonatal Study Team, 2012. Tuberculosis case finding for vaccine trials in young children in high-incidence settings: a randomised trial. International Journal of Tuberculosis and Lung Disease, 16(2): 185-191.

Murdoch, D.R., O'Brien, K.L., Driscoll, A.J., Karron, R.A., Bhat, N., the Pneumonia Methods Working Group, the PERCH Core Team, and Zar, H.J. 2012. Laboratory methods for determining pneumonia etiology in children. Clinical Infectious Diseases, 54(Suppl 2): S146 - S152.

Nieuwenhuizen, N., Kirstein, F., Jayakumar, J., Emedi, B., Hurdayal, R., Horsnell, W., Lopata, A.L. and Brombacher, F. 2012. Allergic airway disease is unaffected by the absence of IL-4-dependent alternatively activated macrophages. Journal of Allergy and Clinical Immunology, 130: 743-750.

Ntsekhe, M., Wiysonge, C.S., Commerford, P.J. and Mayosi, B.M. 2012. The prevalence and outcome of effusive constrictive pericarditis: a sysematic review of the literature. Cardiovascular Journal of Africa, 23: 281-285.

O'Flaherty, L.-A., van Dijk, M., Albertyn, R., Millar, A.J.W. and Rode, H. 2012. Aromatherapy massage seems to enhance relaxation in children with burns: an observational pilot study. Burns, 38: 840-845.

Olusanya, B., Tinley, C. and Grotte, R.H. 2012. Paralytic strabismus in South African black and mixed race children – a 15 year clinic-based review. Ophthalmic Epidemiology, 19(6): 396-400.

Oni, T., Gideon, H., Bangani, N.M., Tsekela, R., Seldon, R.R., Wood, K.A., Wilkinson, K., Goliath, R., Ottenhoff, T.H.M. and Wilkinson, R.J. 2012. Risk factors associated with indeterminate gamma interferon responses in the assessment of latent tuberculosis infection in a high incidence environment. Clinical and Vaccine Immunology, 19(8): 1243-1247.

Oni, T., Gideon, H., Bangani, N.M., Tsekela, R., Seldon, R.R., Wood, K.A., Wilkinson, K., Goliath, R., Ottenhoff, T.H.M. and Wilkinson, R.J. 2012. Smoking, BCG and employment and the risk of tuberculosis infection in HIV-infected persons in South Africa. PLoS One, 7(10): e47072.

Padayachy, L., Rohlwink, R., Zwane, E., Fieggen, A.G., Peter, J.C. and Figaji, A. 2012. The frequency of cerebral ischemia/hypoxia in pediatric severe traumatic brain injury. Childs Nervous System, 28(11): 1911-1918.

Papadopoulos, N., Arakawa, H., Carlsen, K.-H., Custovic, A., Gern, J., Lemanske Jr, R.F., Le Souef, P.N., Makela, M., Roberts, G., Wong, G., Zar, H.J., Akdis, C.A., Bacharier, L.B., Baraldi, E., van Bever, H.P., de Blic, J., Boner, A., Burks, W., Casale, T., Castro-Rodriguez, J.A., Chen, Y., El-Gamal, Y.M., Everard, M.L., Frischer, T., Geller, M., Gereda, J., Goh, D.Y., Guilbert, T.W., Hedlin, G., Heymann, P.W., Hong, S.J., Hossny, E.M., Huang, J.L., Jackson, D.J., de Jongste, J.C., Kalayci, O., Ait-Khaled, N., Kling, S., Kuna, P., Lau, S., Ledford, D.K., Lee, S.I., Liu, A.H., Lockey, R., Lodrup-Carlsen, K., Lotvall, J., Morikawa, A., Nieto, A., Paramesh, H., Pawankar, R., Pohunek, P., Pongracic, J., Price, D., Robertson, C., Rosario, N., Rossenwasser, L.J., Sly, P.D., Stein, R., Stick, S., Szefler, S., Taussig, L.M., Valovirta, E., Vichyanond, P., Wallace, D., Weinberg, E.G., Wennergren, G., Wildhaber, J. and Zeiger, R.S. 2012. International consensus on (ICON) pediatric asthma. Allergy, 67: 976-997.

Peacocke, J., Lotz, Z., De Beer, C., Roux, P. and Mall, A.S. 2012. The role of crude saliva and purified salivary mucins in the inhibition of the human immunodeficiency Virus type 1. Virology Journal, 9: 177.

Pick, W., Claassen, J.W.B., Le Grange, C. and Hussey, G.D. 2012. Health activism in Cape Town: a case study of the health workers society. SAMJ South African Medical Journal, 102(6): 403-405.

Remenyi, B., Wilson, N., Steer, A., Ferreira, B., Kado, J., Kumar, K., Lawrenson, J., Maguire, G., Marijon, E., Mirabel, M., Mocumbi, A.O., Mota, C., Paar, J., Saxena, A., Scheel, J., Stirling, J., Viali, S., Balekundri, V.I., Wheaton, G., Zuhlke, L. and Carapetis, J. 2012. World Heart Federation criteria for echocardiographic diagnosis of rheumatic heart disease – an evidence-based guideline. Nature Reviews Cardiology, 9: 297-309.

Ritz, N., Strach, M., Yau, C., Dutta, B., Tebruegge, M., Connell, T., Hanekom, W.A., Britton, W.J., Robins-Browne, R. and Curtis, N. 2012. A comparative analysis of polyfunctional T cells and secreted cytokines induced by bacille calmette-guerin immunisation in children and adults. PLoS One, 7(7): e37535.

Ritz, N., Dutta, B., Donath, S., Casalaz, D., Connell, T., Tebruegge, M., Robins-Browne, R., Hanekom, W.A., Britton, W.J. and Curtis, N. 2012. The influence of bacille calmette-guerin vaccine strain on the immune response against tuberculosis: a randomized trial. American Journal of Respiratory and Critical Care Medicine, 185(2): 213-222.

Robertson, B.D., Altmann, D., Barry 3rd, C.E., Bishai, B., Cole, S., Dick, T., Duncan, K., Dye, C., Ehrt, S., Esmail, H., Flynn, J., Hafner, R., Handley, G., Hanekom, W.A., Van Helden, P., Kaplan, G., Kaufmann, S.H.E., Kim, P., Lienhardt, C., Mizrahi, V., Rubin, E., Schnappinger, D., Sherman, D.R., Thole, J., Vandal, O., Walzl, G., Warner, D., Wilkinson, R.J. and Young, D.B. 2012. Detection and treatment of subclinical tuberculosis. Tuberculosis, 92: 447-452.

Rode, H. and Millar, A.J.W. 2012. Our surgical heritage: the role of the department of paediatric surgery in the development of paediatric surgery in Cape Town, in Africa, and around the world. SAMJ South African Medical Journal, 102(6): 409-411.

Rogers, A.D., Argent, A.C. and Rode, H. 2012. Review Article Ventilator-associated pneumonia in major burns. Annals of Burns and Fire Disasters, 3: 135-139.

Rohlwink, R., Zwane, E., Fieggen, A.G., Argent, A.C., Le Roux, P.D. and Figaji, A.A. 2012. The relationship between intracranial pressure and brain oxygenation in children with severe traumatic brain injury. Neurosurgery, 70(5): 1220-1231.

Rustomjee, r., Mcleod, R., Hanekom, W.A., Steel, G., Mahomed, H., Hawkridge, A.J., Welte, A., Sinanovic, E., Loots, G., Grobler, A.C., Mvusi, L., Gray, G., Hesseling, A.C., Ginsberg, A.M., Lienhardt, C., Shea, J., Tong, X., Lockhart, S. and Churchyard, G.J. 2012. Key issues in the clinical development and implementation of TB vaccines in South Africa. Tuberculosis, 92(5): 359-364.

Schapkaitz, E., Sherman, G., Jacobson, B., Haas, S., Buller, H.R., Davies, V., Diar, H., Peters, M., Shuttleworth, M.H.G. and Velaphi, S. 2012. Paediatric anticoagulation guidelines. SAMJ South African Medical Journal, 102(3): 171-175.

Schomaker, M. 2012. Shrinkage averaging estimation. Statistical Papers, 53(4): 1015-1034.

Scott, J.A.G., Wonodi, C.B., Moisi, J.C., Deloria-Knoll, M., DeLuca, A., Karron, R.A., Bhat, N., Murdoch, D.R., Crawley, J., Levine, O.S., O'Brien, K.L., Feikin, D.R., the Pneumonia Methods Working Group and Zar, H.J. 2012. The definition of pneumonia, the assessment of severity, and clinical standardization in the pneumonia etiology research for child health study. Clinical Infectious Diseases, 54(S2): S109-S116.

Scriba, T.J., Tameris, M.D., Smit, E., Van der Merwe, L., Hughes, J., Kadira, B., Mauff, K.A.L., Moyo, S., Brittain, N., Lawrie, A., Mulenga, H., de Kock, M., Makhethe, L., Janse Van Rensburg, E., Gelderbloem, S., Veldsman, A., Hatherill, M., Geldenhuys, H.D., Hill, A.V.S., Hawkridge, A.J., Hussey, G.D., Hanekom, W.A., McShane, H. and Mahomed, H. 2012. A phase IIa trial of the new tuberculosis vaccine, MVA85A, in HIV- and/or mycobacterium tuberculosis-infected adults. American Journal of Respiratory and Critical Care Medicine, 185(7): 769-778.

Sheth, J., Sharif, K., Lloyd, C., Gupte, G., Kelly, D., de Ville de Goyet, J., Millar, A.J.W., Mirza, D. and Chardot, C. 2012. Staged abdominal closure after small bowel or multivisceral transplantation. Pediatric Transplantation, 16: 36-40.

Shey, M., Hughes, J., de Kock, M., Barnard, C., Stone, L., Kollmann, T.R., Hanekom, W.A. and Scriba, T.J. 2012. Optimization of a whole blood intracellular cytokine assay for measuring innate cell responses to mycobacteria. Journal of Immunological Methods, 376: 79-88.

Slapak, I., Passali, F.M., Gulati, A., the Susy Safe Working Group and Van As, A.B. 2012. Non food foreign body injuries. International Journal of Pediatric Otorhinolaryngology, 76S: S26-S32.

Snoek, K., Jacobsohn, M. and Van As, A.B. 2012. Bifocal spinal cord injury without radiographic abnormalities in a 5-year old boy: a case report. Case Reports in Pediatrics, 2012: 351319.

Sobnach, S., Borkum, M., Millar, A.J.W., Hoffman, R., Muller, E., Mccurdie, F. and Kahn, D. 2012. Attitudes and beliefs of South African medical students toward organ transplantation. Clinical Transplantation, 26: 192-198.

Stewart, C., Constantatos, S., Joolay, Y. and Muller, L. 2012. In utero treatment of fetal goitrous hypothyroidism in a euthyroid mother: a case report. Journal of Clinical Ultrasound, 40: 603-606.

Stupar, D., Eide, W.B., Bourne, L., Hendricks, M.K., Iversen, P.O. and Wandel, M. 2012. The nutrition transition and the human right to adequate food for adolescents in the Cape Town metropolitan area: implications for nutrition policy. Food Policy, 37: 199-206.

Swartz, s., Harding, J.H. and De Lannoy, A.M.F.A. 2012. Ikasi style and the quiet violence of dreams: a critique of youth belonging in post-apartheid South Africa. Comparative Education, 48(1): 27-40.

Swingler, G., Hendricks, M.K., Hall, D., Hall, S., Sanders, D., McKerrow, N.X., Saloojee, H. and Reid, S. 2012. Issues in child health. Can a new paediatric sub-speciality improve child health in South Africa? SAMJ South African Medical Journal, 102(9): 738-739.

Switala, J.R., Hendricks, M. and Davidson, A. 2012. Serum ferritin is a cost-effective laboratory marker for hemophagocytic lymphohistiocytosis in the developing world. Journal of Pediatric Hematology Oncology, 34(3): e89-e92.

Tan, W.C., Vollmer, W.M., Lamprecht, B., Mannino, D.M., Nizankowska-Mogilnicka, E., Mejza, F., Gislason, T., Burney, P.G.J., Buist, S.A., Bateman, E.D., Jithoo, A. and Johannisen, C.F. 2012. Worldwide patterns of bronchodilator respnsiveness: results from the burden of obstructive lung disease study. Thorax, 67: 718-726.

Teo, A.I.C., Van As, A.B. and Cooper, J. 2012. A comparison of the epidemiology of paediatric burns in Scotland and South Africa. Burns, 38: 802-806.

Thomson, W., Wood, R.J. and Millar, A.J.W. 2012. A literature review of spontaneous evisceration in paediatric umbilical hernias. Pediatric Surgery International, 28: 467-470.

Timmers, M., Snoek, K., Gregori, D., Felix, J.F., van Dijk, M. and Van As, A.B. 2012. Foreign bodies in a pediatric emergency department in South Africa. Pediatric Emergency Care, 28(12): 1348-1352.

Tinley, C. and Grotte, R.H. 2012. Comitant horizontal strabismus in South African black and mixed race children – a clinic-based study. Ophthalmic Epidemiology, 19(2): 89-94.

Tinley, C., Van Zyl, L. and Grotte, R.H. 2012. Poststreptococcal syndrome uneitis in southern African children. British Journal of Ophthalmology, 96(1): 87-89.

Tod, B., Carrara, H., Levin, M. and Todd, G. 2012. Dermatological manifestations of measles infection in hospitalised paediatric patients observed in the 2009 – 2011 Western Cape epidemic. SAMJ South African Medical Journal, 102(6): 356-359.

Tooke, L., Alexander, A. and Horn, A. 2012. Extensive portal venous gas without obvious pneumatosis intestinalis in a preterm infant with necrotizing enterocolitis. Journal of Pediatric Surgery, 47: 1463-1465.

Tsui, A., Lazarus, J. and Van As, A.B. 2012. Non-operative management of renal trauma in very young children: experiences from a dedicated South African paediatric trauma unit. Injury-International Journal of the Care of the Injured, 43: 1476-1481.

Van As, A.B., Yusof, A.M., Millar, A.J.W., the Susy Safe Working Group, Gregori, D. and Foltran, F. 2012. Food foreign body injuries. International Journal of Pediatric Otorhinolaryngology, 76S: S20-S25.

Van As, A.B. and Millar, A.J.W. 2012. From the pursuit of excellence to the quest for significance: promotion of a childsafe South Africa. SAMJ South African Medical Journal, 102(6): 427-428.

Van Den Akker, T., Bemelmans, M., Ford, N., Jemu, M., Diggle, E., Scheffer, S., Zulu, I., Akesson, A. and Shea, J. 2012. HIV care need not hamper maternity care: a descriptive analysis of integration of services in rural Malawi. BJOG-An International Journal of Obstetrics and Gynaecology, 119: 431-438.

Van Dijk, M., Timmers, M., Snoek, K., Scholten, W.K. and Albertyn, R. 2012. How health professionals rate painfulness of childhood injuries and illnesses: a survey study. Journal of Pain & Palliative Care Pharmacotherapy, 26: 105-110.

Van Eyssen, A.L. and Hendricks, M. 2012. Haemophagocytic lymphohistiocytosis following culture-proven pneumococcal infective endocarditis of the tricuspid valve. South African Journal of Child Health, 6(3): 85-87.

Velaphi, S. and Rhoda, N.R. 2012. Reducing neonatal deaths in South Africa – are we there yet, and what can be done? South African Journal of Child Health, 6(3): 67-71.

Visser, M.M.E., Stead, M., Walzl, G., Warren, R.M., Schomaker, M., Grewal, H.M.S., Swart, E.C. and Maartens, G. 2012. Baseline predictors of sputum culture conversion in pulmonary tuberculosis: importance of cavities, smoking, time to detection and w-veijing genotype. PLoS One, 7(1): e29588.

Waggie, Z., Geldenhuys, H.D., Sutter, R.W., Jacks, M.E., Mulenga, H., Mahomed, H., de Kock, M., Hanekom, W.A., Pallansch, M.A., Kahn, A.-L., Burton, A.H., Sreevatsava, M. and Hussey, G.D. 2012. Randomized trial of type 1 and type 3 oral monovalent poliovirus vaccines in newborns in africa. Journal of Infectious Diseases, 205: 228-236.

Walker, A.S., Prendergast, A.J., Mugyenyi, P., Munderi, P., Hakim, J., Kekitiinwa, A., Katabira, E., Gilks, C.F., Kityo, C., Nahirya-Ntege, P., Nathoo, K., Gibb, D.M., for the Dart and Arrow trial teams, , Roux, P., Eley, B.S. and Zar, H.J. 2012. Mortality in the year following antiretroviral therapy initiation in HIV-Infected adults and children in uganda and zimbabwe. Clinical Infectious Diseases, 55(12): 1707-1718.

Walker, K.G., Brink, A., Lawrenson, J., Mathiassen, W.E. and Wilmshurst, J. 2012. Treatment of sydenham chorea with intravenous immunoglobulin. Journal of Child Neurology, 27(2): 147-155.

Walker, L.J., Kang, Y.-H., Smith, M.O., Tharmalingham, H., Ramamurthy, N., Fleming, V.M., Sahgal, N., Leslie, A., Oo, Y., Geremia, A., Scriba, T.J., Hanekom, W.A., Lauer, G.M., Lantz, O., Adams, D.H., Powrie, F., Barnes, E. and Klenerman, P. 2012. Human MAIT and CD8αα cells develop from a pool of type-17 precommitted CD8+ T cells. Blood, 119(2): 422-433.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Watkins, M., Benjamin, R., Kotze, E. and Hawarden, D. 2012. Reference range for specific igg antibodies to aspergillus fumigatus in the South African adult population. Current Allergy & Clinical Immunology, 25(4): 212-214.

Webb (Weakley), K., Esser, M. and Scott, C. 2012. Juvenile idiopathic arthritis in two tertiary centres in the Western Cape, South Africa. Pediatric Rheumatology, 10:35.

Westwood, A.T.R., Moller, G.H., Levin, M., Richards, M., Jacobs, K. and Mahomed, S. 2012. Millennial trends in inpatient paediatric care at new Somerset Hospital, Cape Town. South African Journal of Child Health, 6(2): 62-63.

Westwood, A.T.R., Levin, M. and Hageman, J. 2012. Paediatric admissions to hospitals in the Cape Town Metro district: a survey. South African Journal of Child Health, 6(2): 31-37.

Whittaker, E. and Zar, H.J. 2012. Promising directions in the diagnosis of childhood tuberculosis. Expert Review of Respiratory Medicine, 6(4): 385-395.

Wonkam, A., Ponde, C., Nicholson, N., Fieggen, K., Ramesar, R.S. and Davidson, A. 2012. The burden of sickle cell disease in Cape Town. SAMJ South African Medical Journal, 102(9): 752-754.

Wonodi, C.B., Deloria-Knoll, M., Feikin, D.R., DeLuca, A., Driscoll, A.J., Moisi, J.C., Johnson, H.L., Murdoch, D.R., O'Brien, K.L., Levine, O.S., Scott, J.A.G., the Pneumonia Methods Working Group, Perch Site Investigators, and Zar, H.J. 2012. Evaluation of risk factors for severe pneumonia in children: the pneumonia etiology research for child health study. Clinical Infectious Diseases, 54(Suppl 2): S124-S131.

Wood, R.J., Lazarus, J., Davidson, A., Alexander, A., Numanoglu, A. and Millar, A.J.W. 2012. Genitourinary rhabdomyosarcoma: lessons from a developing-world series. Journal of Pediatric Surgery, 47: 2083-2086.

Woods, D.L. and Theron, G.B. 2012. Addressing poor maternal and perinatal outcomes. SAMJ South African Medical Journal, 102(10): 786.

Woolner, A.F., Davidson, A., Skinner, R. and King, D. 2012. Evaluation of infection control advice for patients at risk of chemotherapy-induced neutropenia in 2 pediatric oncology centers: Cape Town, South Africa, and Newcastle-Upon-Tyne, UK. Pediatric Hematology and Oncology, 29: 73-84.

Zar, H.J. and Levin, M. 2012. Challenges in Treating Pediatric Asthma in Developing Countries. Pediatric Drugs, 14(6): 353-359.

Zar, H.J., Workman, L.J., Isaacs Dollie, W., Munro, J., Black, F., Eley, B.S., Allen, V., Boehme, C., Zemanay, W. and Nicol, M.P. 2012. Rapid molecular diagnosis of pulmonary tuberculosis in children using nasopharyngeal specimens. Clinical Infectious Diseases, 55(8): 1088-1095.

Zar, H.J., Eley, B.S., Nicol, M.P., Figaji, A.A. and Hawkridge, A.J. 2012. Advances in childhood tuberculosis - contributions from the University of Cape Town. SAMJ South African Medical Journal, 102(6): 518-521.

Zollner, E., Lombard, C., Galal, U., Hough, S., Irusen, E. and Weinberg, E.G. 2012. Hypothalamic-pituitary-adrenal axis suppression in asthmatic school children. Pediatrics, 130(6): e1512-e1519.

Zuch, M., Mason-Jones, A.J., Mathews, C. and Henley, L.D. 2012. Changes to the law on consent in South Africa: implications for school-based adolescent sexual and reproductive health research. BMC International Health and Human Rights, 12:3. [Online] http://www.biomedcentral.com/1472-698X/12/3.

Zuhlke, L., Myer, L. and Mayosi, B.M. 2012. The promise of computer-assisted auscultation in screening for structural heart disease and clinical teaching. Cardiovascular Journal of Africa, 23(7): 405-408.

Zvada, S.P., Denti, P., Geldenhuys, H.D., Meredith, S.A., Van As, D., Hatherill, M., Hanekom, W.A., Wiesner, L., Simonsson, U., Jindani, A., Harrison, T. and McIlleron, H. 2012. Moxifloxacin population pharmacokinetics in patients with pulmonary tuberculosis and the effect of intermittent high-dose rifapentine. Antimicrobial Agents and Chemotherapy, 56(8): 4471-4473.

Primary Health Care Directorate

DIRECTOR/CHAIR: PROFESSOR STEVE REID

Vision

A Health Science Faculty that promotes equity and quality in health care, guided by the Primary Health Care Approach

Aim

To promote the primary health care approach in teaching, research, policy, health services and community engagement by the Faculty of Health Sciences

Objectives

- To integrate a Primary Health Care Approach into the Faculty of Health Sciences undergraduate and postgraduate curriculae
- To extend and develop the Faculty of Health Sciences clinical teaching platform in rural and primary care sites
- To deepen community engagement within the health service and the Faculty of Health Sciences curriculae
- To enhance the recruitment and support of students of rural origin in the Faculty of Health Sciences
- To increase inter-disciplinary research in health sciences

Mission

To promote equitable, comprehensive, compassionate and quality care at all levels of the health system by means of:

- the recognition of diversity and culture
- evidence-based practice and policy
- active health promotion
- community-based education
- strategic partnerships

Directorate Statistics

Permanent and long-term contract staff

Professors	1
Senior Lecturers	2
Lecturers	3
Honorary Lecturers	3
Junior Research Officer	1
Recruitment Officer: Rural Students	1
Health Teaching Platform Coordinator	1
Site Facilitators	3
NGO Facilitators	2
Site Coordinators	4
Facility Manager	1
Admin Staff	2
Total	24

Research and Teaching Focus of Academic Staff

PROFESSOR STEVE REID

Chair & Director: primary health care; Collaboration for Health Equity through Education and Research; compulsory community service; family medicine; rural health; district health systems; community based services support & intermediate care policy; community oriented primary care; population based approaches to health; community based education; medical education; human resources for health; global consensus on social accountability; creativity and health; arts and healthcare

MR JAMES IRLAM

Senior Lecturer: primary health care; evidence-based practice; climate change and health

DR LAURAINE VIVIAN
Senior Lecturer: primary health care; medical anthropology; culture, psyche and illness; medical education; electromagnetic radiation health implications from cell phone technology

MRS JOHANNAH KEIKELAME
Lecturer: primary health care; health promotion; community needs assessment; patient and carers perspectives on epilepsy

MRS SARAH CRAWFORD-BROWNE
Lecturer: primary health care; culture, psyche and illness; psychological trauma; community based mental health programming

DR DES MICHAELS
Lecturer: primary health care; health promotion; integrated clinical practice; Collaboration for Health Equity through Education and Research; social accountability

MRS CLAUDIA NAIDU
Junior Research Officer: Collaboration for Health Equity through Education and Research; social accountability

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Research output

Chapters in books

Favish, J., Ross, D.A., Inggs, S.C., Kathard, H., Clarkson, C.P., Case, J.M., Collier-Reed, B.I. and Reid, S. 2012. Reflections on developing distinctive University of Cape Town graduate attributes. In M. Coetzee, et al. (eds), Developing Student Graduateness and Employability, pp. 207-225. Randburg: Knowres Publishing. ISBN 9781869221898.

Irlam, J.H. 2012. Evidence-based paediatric practice. In M. Kibel , H. Saloojee and T. Westwood (eds), Child Health for All, pp. 560-565. 5th Edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Crawford-Browne, S., Benjamin, L. et al. 2012. More than a drop in the ocean: Breaking the cycle of violence. A reflection on the theory and practice of Community Action towards a Safer Environment. Chapter 2: The context of continuous trauma in South Africa, 5-6, Community Action Towards A Safer Environment (CASE), Cape Town. ISBN 978-1-86922-189-8

Articles in peer-reviewed Journals

Baum, R. 2012. Stretching the limits of cognitively disabled performers through dance/ movement therapy. Academic Journal of Creative Arts Therapies, 2(2): 201-211.

Crawford-Browne, S.H. and Kaminer, D.B. 2012. The use of concept mapping in engaging women to identify the factors that influence violence. Journal of Psychology in Africa, 22(4): 529-538.

Diab, P.N., Flack, P.S., Mabuza, L.H. and Reid, S.J.Y. 2012. Qualitative exploration of the career aspirations of rural origin health science students in South Africa. Rural and Remote Health: The International Electronic Journal of Rural and Remote Health Research, Education Practice & Policy, 12(2251):1-11.

Solomon, G.A.E., Greenberg, J., Futter, M.J., Vivian, L.M.H. and Penn, C. 2012. Understanding of genetic inheritance among Xhosa-speaking caretakers of children with hemophilia. Journal of Genetic Counseling, 21: 726-740.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: a story of Transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Keikelame, M.J., Hills, R.M., Naidu, C., De Sa, A.M.R. and Zweigenthal, V. 2012. General practitioners perceptions on management of epilepsy in primary care settings in Cape Town, South Africa: an exploratory pilot study. Epilepsy & Behavior, 25: 105-109.

Naidu, C., Zweigenthal, V., Irlam, J.H., London, L. and Keikelame, M.J. 2012. An evaluation of University of Cape Town medical student's community placements in South Africa. African Journal of Primary Health Care & Family Medicine, 4(1): 1-7.

Naidu, C. and Irlam, J.H. 2012. Evaluating the rural health placements of the rural support network at the Faculty of Health Sciences, University of Cape Town. South African Family Practice, 54(4): 352-357.

Nash, J., Rapatsa, A., Reid, S. and Gaunt, B. 2012. Reflections: a rural perspective: four stories. SAMJ South African Medical Journal, 102(6): 433-435.

Siegfried, N., Irlam, J.H., Visser, M.E. and Rollins, N.N. 2012. Micronutrient supplementation in pregnant woman with HIV infection. Cochrane Database of Systematic Reviews, 3: 1-86.

Swingler, G., Hendricks, M.K., Hall, D., Hall, S., Sanders, D., McKerrow, N.X., Saloojee, H. and Reid, S. 2012. Issues in child health. Can a new paediatric sub-speciality improve child health in South Africa? SAMJ South African Medical Journal, 102(9): 738-739.

Vivian, L.M.H. 2012. We didn't do anything wrong, we tried our best, but they just died… we tried, we really tried: child deaths in the paediatric intensive care unit, Red Cross Children's Hospital, Cape Town, South Africa. African Studies, 71(2): 287-303.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Department of Psychiatry and Mental Health

HEAD OF DEPARTMENT: PROFESSOR DAN J. STEIN

Departmental Profile

The Department of Psychiatry and Mental Health is strongly committed to strengthening the integration between services, teaching, and research. Clinicians in each of the Divisions of the Department (addiction psychiatry/psychology, child and adolescent psychiatry/psychology, consultation-liaison psychiatry/psychology, forensic psychiatry/psychology, general hospital psychiatry/psychiatric intensive care, intellectual disability, psychotherapy/neuroclinic, neuropsychiatry, psychopharmacology, and public and community mental health) are active in research in their particular areas. Thus clinical research in the Department covers key clinical problems that are relevant in the South African context, including behavioural and neuropsychiatric aspects of HIV/AIDS, substance use disorders (including fetal alcohol spectrum disorder), adolescent risk-taking behaviour, posttraumatic stress disorder, and mental health policy and services.

In addition, the Department plays a key role in several cross-departmental and cross-institutional research initiatives:

- The Brain-Behaviour Initiative (BBI) is one of UCT's signature themes. The initial focus of the BBI was on trauma, but it has extended to include neuroHIV and substance use disorders. More details of the aims, methods, and partners, are available at - http://www.health.uct.ac.za/research/groupings/bbi/overview/
- The Adolescent Health Research Unit is examining adolescent risk-taking behaviour, predictors of school dropout, and violence in intimate adolescent relationships. Data analysis is in progress for two large school-based cluster randomised control trials of AIDS prevention.
- The Alan J Flisher Centre for Public Mental Health addresses a range of questions in mental health policy and implementation science, and offers advanced training in public mental health. The Centre currently conducts research in 8 low and middle-income countries in Africa and south Asia, including the Programme for Improving Mental health care (PRIME) (www.prime.uct.ac.za) and the Africa Focus on Intervention Research for Mental health (AFFIRM) (www.affirm.uct.ac.za) research and capacity building initiatives. Within the Centre, The Perinatal Mental Health Project (PMHP) contributes research on maternal mental health from its own service and training initiatives as well as in collaboration with other partners.

Departmental Statistics

Permanent and long-term contract staff

Professors	3
Emeritus Professors	5
Associate Professors	4
Senior Lecturers	35
Lecturers	9
Research Staff	35
Administrative and Clerical Staff	5
Total	96

Honorary Staff

Lecturers	8
Senior Lecturers	2
Professors	4
Total	14

Students

Postdoctoral / Clinical Research Fellows	6
Doctoral	11
Master's	33
Total	50

Research Fields and Staff

Addiction Psychiatry/Psychology

Substance use in psychosis (Henk Temmingh), Substance use and anxiety disorders (Don Wilson); Interventions (Katherine Sorsdahl)

Child and Adolescent Psychiatry/Psychology Adolescent risk behaviour (Cathy Mathews), infant mental health (Astrid Berg), evaluation of peer education interventions among adolescents (Sandra de Jager, Kathryn Pahl), partner violence prevention among adolescents (Chantel LeFleur-Bellerose, Anik Gevers), autism and pervasive development disorders (Petrus de Vries).

Consultation-Liaison Psychiatry/Psychology Women's mental health, stress and pregnancy (Bavanisha Vythilingum), liaison psychiatry and HIV (Jackie Hoare and Kerry Louw)

Forensic Psychiatry/Psychology Mentally ill offenders and femicide (Sean Kaliski and Tania Swart).

General Psychiatry / Psychiatricl Intensive Care Social inclusion (Pete Milligan), bipolar disorder (Neil Horn), phenomenology of psychosis ((Henk Temmingh).

Intellectual Disability Fetal alcohol spectrum disorder (FASD) neurobehaviour and brain imaging (Colleen Adnams) Psychotherapy Intimate partner violence (Adele Marais)

Neuropsychiatry Neurocognitive disorders and neuropsychiatry of HIV, brain imaging and HIV (John Joska; Carla Freeman), ARV initiation and adherence (John Joska and Kevin Stoloff)

Psychopharmacology Pharmacological MRI, Evidence-based psychopharmacology (Dan Stein, Taryn Amos)

Public and Community Mental Health Mental health policy and services (Crick Lund), Green psychiatry (John Parker)

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UCT web: http://www.uct.ac.za

Research output

Authored books

Berg, A. 2012. Connecting with South Africa. Cultural Communication & Understanding. USA: Texas A&M Univ, Dept of English. ISBN 9781603444309.

Edited books

Ellis, G.F.R., Stein, D.J., Thomas, K. and Meintjes, E.M. (eds) 2012. Substance Use and Abuse in South Africa. 394 pp. Cape Town: UCT press. ISBN 9781919895291.

Chapters in books

Adnams, C.M. 2012. Developmental consequences of prenatal drug and alcohol exposure. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 55-69. Cape Town: UCT Press. ISBN 9781919895291.

Dalvie, S. and Howells, F.M. 2012. Genetics and molecular biology. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 95-127. Cape Town: UCT Press. ISBN 9781919895291.

Flisher, A.J. and Protogerou, C. 2012. Bullying in schools. In A. van Niekerk, S. Suffla and M. Seedat (eds), Crime, Violence and Injury in South Africa: 21st Century solutions for Child safety, pp. 119-133. Houghton: Psychological Society of South Africa. ISBN 9781920014865.

Flisher, A.J. and Lund, C.A. 2011. Resources for mental health services in Africa: a situation analysis. In D.M. Ndetei and C.P. Szabo (eds), Contemporary Psychiatry in Africa: A Review of Theory, Practice and Research, pp. 1-24. Nairobi, Kenya: Acrodile Publishing Limited. ISBN 9966724990.

Gevers, A. and Flisher, A.J. 2012. School-based youth violence prevention interventions. In C. Ward, C. van der Merwe and A. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 175-211. Cape Town: UCT Press. ISBN 97819198 95871.

Hawkridge, S.M. 2012. Mental health services for children and adolescents. In M. Kibel, H. Saloojee and T. Westwood (eds), Child Health for All, pp. 257-263. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Joska, J. and Oosthuizen, P. 2011. Neuropsychiatry: a discipline for a developing continent. In D.M. Ndetei and C.P. Szabo (eds), Contemporary Psychiatry in Africa: A Review of Theory, Practice and Research, pp. 337-

356. Nairobi, Kenya: Acrodile Publishing Limited. ISBN 9966724990.

Kaliski, S.Z. 2011. General principles of forensic mental health. In D.M. Ndetei and C.P. Szabo (eds), Contemporary Psychiatry in Africa: A Review of Theory, Practice and Research, pp. 357-374. Nairobi, Kenya: Acrodile Publishing Limited. ISBN 9966724990.

Kibel, D.A. and Stein, D.J. 2012. Addiction as virtual seeking: evolutionary insights into addiction. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 89-94. Cape Town: UCT Press. ISBN 9781919895291.

Lund, C. and Hewana, N. 2012. Substance abuse policy in South Africa. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa,pp.367-379. Cape Town: UCT press. ISBN 9781919895291.

Malcolm-Smith, S.M., Uhlmann, A., Hodge, A. and Ipser, J. 2012. Affective neuroscience of methamphetamine users. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa: 143-155. Cape Town: UCT press. 978-1-91989-529-1.

Meintjes, E.M., Uhlmann, A. and Carey, P. 2012. Brain imaging and neural circuitry in methamphetamine users. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 129-141. Cape Town: UCT press. ISBN 9781919895291.

Molteno, C.D. and Donald, K.A. 2012. The child with a disability. In M. Kibel, H. Saloojee and T Westwood (eds), Child Health for All, pp. 493-500. 5th edition. Cape Town: Oxford University Press Southern Africa. ISBN 9780199042357.

Morojele, N., Rich, E., Flisher, A.J. and Myers, B.J. 2012. Youth and substances. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 231-256. Cape Town: UCT Press. ISBN 9781919895291.

Myers, B.J. and Vythilingum, B. 2012. Women and alcohol. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 71-86. Cape Town: UCT Press. ISBN 9781919895291.

Protogerou, C., Flisher, A.J. and Morojele, N. 2012. Evaluated interventions to prevent substance abuse among young South Africans. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 257-280. Cape Town: UCT Press. ISBN 9781919895291.

Sorsdahl, K. and Stein, D.J. 2012. Substance use, stigma and health literacy: a conceptual framework. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 299-307. Cape Town: UCT Press. ISBN 9781919895291.

Sorsdahl, K. and Stein, D.J. 2011. Traditional healers and mental health. In D.M. Ndetei and C.P. Szabo (eds), Contemporary Psychiatry in Africa: A Review of Theory, Practice and Research, pp. 89-114. Nairobi, Kenya: Acrodile Publishing Limited. ISBN 9966724990.

Stein, D.J., Ellis, G.F.R., Thomas, K. and Meintjes, E.M. 2012. Introduction: substance use and abuse in South Africa. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 1-9. Cape Town: UCT Press. ISBN 9781919895291.

Subramaney, U. and Stein, D.J. 2011. Anxiety and PTSD. In D.M. Ndetei and C.P. Szabo (eds), Contemporary Psychiatry in Africa: A Review of Theory, Practice and Research, pp. 205-238. Nairobi, Kenya: Acrodile Publishing Limited. ISBN 9966724990.

Temmingh, H.S. and Myers, B.J. 2012. Clinical treatment of substance use disorders in South Africa. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 329-366. Cape Town: UCT Press. ISBN 9781919895291.

Tomlinson, M., Dawes, A.R.L. and Flisher, A.J. 2012. Preventing the development of youth violence in the early years: implications for South African practice. In C. Ward, C. van der Merwe and A. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp. 141-174. Cape Town: UCT Press. ISBN 9781919895871.

van't Hof, E. and Stein, D.J. 2011. Psychotherapy in Africa. In D.M. Ndetei and C.P. Szabo (eds), Contemporary Psychiatry in Africa: A Review of Theory, Practice and Research, pp. 397-422. Nairobi, Kenya: Acrodile Publishing Limited. ISBN 9966724990.

Wilson, D.A.B., Temmingh, H.S. and Wilson, A. 2012. The clinical presentation of substance related disorders in South Africa. In G.F.R. Ellis, D.J. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 31-54. Cape Town: UCT Press. ISBN 9781919895291.

Articles in peer-reviewed Journals

Ahmed, F., Spottiswoode, B., Carey, P., Stein, D.J. and Seedat, S. 2012. Relationship between neurocognition and regional brain volumes in traumatized adolescents with and without posttraumatic stress disorder. Neuropsychobiology, 66: 174-184.

Akena, D., Joska, J., Obuku, E.A., Amos, T., Musisi, S. and Stein, D.J. 2012. Comparing the accuracy of brief versus long depression screening instruments which have been validated in low and middle income countries: a systematic review. BMC Psychiatry, 12:187.

Akena, D., Joska, J., Musisi, S. and Stein, D.J. 2012. Sensitivity and specificity of a visual depression screening instrument among HIV-positive individuals in Uganda, an area with low literacy.Aids and Behavior, 16: 2399-2406.

Akena, D., Musisi, S., Joska, J. and Stein, D.J. 2012. The association between Aids related stigma and major depressive disorder among HIV-positive individuals in Uganda. PLoS One, 7(11): e48671.

Ayling, E., Aghajani, M., Fouche, J. and van der Wee, N. 2012. Diffusion tensor imaging in anxiety disorders. Current Psychiatry Reports, 14: 197-202.

Baldwin, D.S. and Stein, D.J. 2012. A joint European and South African research network in anxiety disorders. Human Psychopharmacology-Clinical and Experimental, 27: 4-5.

Bastien, S., Mason-Jones, A.J., De Koker, P., Mmbaga, E.J., Ross, D.A. and Mathews, C. 2012. Herpes simplex virus type 2 infection as a biomarker for sexual debut among young people in sub-Saharan Africa: a literature review. International Journal of Std & Aids, 23(11): 761-766.

Benjet, C., Borges, G.L.G.B., Stein, D.J., Mndez, E. and Medina-Mora, M.E. 2012. Epidemiology of fears and specific phobia in adolescence: results from the Mexican adolescent mental health survey. Journal of Clinical Psychiatry, 73(2): 152-158.

Berg, A. 2012. Infant-parent psychotherapy at primary care level: establishment of a service. SAMJ South African Medical Journal, 102(6): 582-584.

Bos, P., Panksepp, J., Bluth, R. and van Honk, J. 2012. Acute effects of steroid hormones and neuropeptides on human social emotional behavior: a review of single administration studies. Frontiers in Neuroendocrinology, 33: 17-35.

Bos, P.A., Hermans, E.J., Ramsey, N.F. and van Honk, J. 2012. The neural mechanisms by which testosterone acts on interpersonal trust. Neuroimage, 61: 730-737.

Boyes, M., Cluver, L. and Gardner, F. 2012. Psychometric properties of the child PTSD checklist in a community sample of South African children and adolescents. PLoS One, 7(10): e46905.

Breuer, E., Stoloff, K., Myer, L., Seedat, S., Stein, D.J. and Joska, J. 2012. Reliability of the lay adherence counsellor administered substance abuse and mental illness symptoms screener (SAMISS) and the International HIV dementia scale (IHDS) in a primary care HIV clinic in Cape Town, South Africa. Aids and Behavior, 16: 1464-1471.

Carey, P., Suliman, S., Ganesan, K., Seedat, S. and Stein, D.J. 2012. Olanzapine monotherapy in posttraumatic stress disorder: efficacy in a randomized, double-blind, placebo-controlled study. Human Psychopharmacology-Clinical and Experimental, 27: 386-391.

Carey, P., Lochner, C., Kidd, M., Van Ameringen, M., Stein, D.J. and Denys, D. 2012. Quetiapine augmentation of serotonin reuptake inhibitors in treatment-refractory obsessive compulsive disorder: is response to treatment predictable? International Clinical Psychopharmacology, 27: 321-325.

Carney, T. and Myers, B.J. 2012. Effectiveness of early interventions for substance using adolescents: findings from a systematic review and meta-analysis. Substance Abuse Treatment Prevention and Policy, 7:25.

Carter, R.C., Jacobson, J.L., Molteno, C.D., Jiang, H., Meintjes, E.M., Jacobson, S.W. and Duggan, C. 2012. Effects of heavy prenatal alcohol exposure and iron deficiency anaemia on child growth and body composition through age 9 years. Alcoholism-Clinical and Experimental Research, 36(11): 1973-1982.

Cluver, L., Operario, D., Lane, T. and Kganakga, M. 2012. "I can't go to school and leave her in so much pain": educational shortfalls among adolescent 'young carers" in the South African AIDS epidemic. Journal of Adolescent Research, 27(5): 581-605.

Cluver, L., Orkin, M., Boyes, M., Gardner, F. and Nikelo, J. 2012. AIDS-orphanhood and caregiver HIV/AIDS sickness status: effects on psychological symptoms in South African Youth. Journal of Pediatric Psychology, 37(8): 857-867.

Cluver, L., Orkin, M., Gardner, F. and Boyes, M. 2012. Persisting mental health problems among AIDS-orphaned

children in South Africa. Journal of Child Psychology and Psychiatry, 53(4): 363-370.

Cooper, S., Lund, C. and Kakuma, R. 2012. The measurement of poverty in psychiatric epidemiology in LMICs: critical review and recommendations. Social Psychiatry and Psychiatric Epidemiology, 47: 1499-1516.

Daniels, W.M.U., Marais, L., Stein, D.J. and Russell, V.A. 2012. Exercise normalizes altered expression of proteins in the ventral hippocampus of rats subjected to maternal separation. Experimental Physiology, 97(2): 239-274.

Davidson, J., Stein, D.J., Rothbaum, B.O., Pedersen, R., Szumski, A. and Baldwin, D.S. 2012. Resilience as a predictor of treatment response in patients with posttraumatic stress disorder treated with venlafaxine extended release or placebo. Journal of Psychopharmacology, 26(6): 778-783.

De Guio, F., Jacobson, S.W., Molteno, C.D., Jacobson, J.L. and Meintjes, E.M. 2012. Functional magnetic resonance imaging study comparing rhythmic finger tapping in children and adults. Pediatric Neurology, 46: 94-100.

Dimatelis, J., Pillay, N., Mutyaba, A., Russell, V.A., Daniels, W.M.U. and Stein, D.J. 2012. Early maternal separation leads to down-regulation of cytokine gene expression. Metabolic Brain Disease, 27: 393-397.

Dimatelis, J., Russell, V.A., Stein, D.J. and Daniels, W.M. 2012. Effects of maternal separation and methamphetamine exposure on protein expression in the nucleus accumbens shell and core. Metabolic Brain Disease, 27: 363-375.

Dimatelis, J., Russell, V.A., Stein, D.J. and Daniels, W.M. 2012. The effects of lobeline and naltrexone on methamphetamine-induced place preference and striatal dopamine and serotonin levels in adolescent rats with a history of maternal separation. Metabolic Brain Disease, 27: 351-361.

Dimatelis, J., Stein, D.J. and Russell, V.A. 2012. Behavioral changes after maternal separation are reversed by chronic constant light treatment. Brain Research, 1480: 61-71.

Douglas, T.S., Gresak, L., Koen, N., Fenton-Muir, N., Van As, A.B. and Pitcher, R.D. 2012. Measurement of prevertebral cervical soft tissue thickness on lateral digital radiographs. Journal of Pediatric Orthopaedics, 32(3): 249-252.

Ehrlich, R.I., Woolf, D.C. and Kibel, D.A. 2012. Disulfiram reaction in an artist exposed to solvents. Occupational Medicine-Oxford, 62: 64-66.

Eicher, A., Marais, P.C., Warton, C.M.R., Jacobson, S.W., Jacobson, J.L., Molteno, C.D. and Meintjes, E.M. 2012. A heuristic image search algorithm for active shape model segmentation of the caudate nucleus and hippocampus in brain MR images of children with FASD. South African Computer Journal, 49: 35-53.

Flisher, A.J., Dawes, A.R.L., Kafaar, Z., Lund, C., Sorsdahl, K., Myers, B.J., Thom, R. and Seedat, S. 2012. Child and adolescent mental health in South Africa. Journal of Child and Adolescent Mental Health, 24(2): 149-161.

Flisher, A.J., Sorsdahl, K. and Joska, J. 2012. Reliability of the Camberwell assessment of need for South African mental health service users. International Journal of Social Psychiatry, 58(1): 47-54.

Flisher, A.J., Sorsdahl, K. and Lund, C.A. 2012. Test-retest reliability of the Xhosa version of the diagnostic interview schedule for children. Child Care Health and Development, 38(2): 261-265.

Foroud, T., Wetherill, L., Vinci-Booher, S., Moore, E.S., Ward, R.E., Hoyme, H.E., Robinson, L.K., Rogers, J., Meintjes, E.M., Molteno, C.D., Jacobson, J.L. and Jacobson, S.W. 2012. Relation over time between facial measurements and cognitive outcomes in fetal alcohol-exposed children. Alcoholism-Clinical and Experimental Research, 36(9): 1634-1646.

Gevers, A., Jewkes, R., Mathews, C. and Fisher, A. 2012. I think it's about experiencing, like, life': a qualitative exploration of contemporary adolescent intimate relationships in South Africa. Culture Health & Sexuality, 14(10): 1125-1137.

Gillis, L., Robertson, B.A., Zabow, T. and Stein, D.J. 2012. No health without mental health: establishing psychiatry as a major discipline in an African Faculty of Health Sciences. SAMJ South African Medical Journal, 102(6): 449-451.

Gillis, L. 2012. The historical development of psychiatry in South Africa since 1652. South African Journal of Psychiatry, 18(3): 78-82.

Gilreath, T.D., Chaix, B., King, G., Matthews, S. and Flisher, A.J. 2012. Multi-level influence of school norms on tobacco use in South Africa: an ecometric consideration of group differences. Cancer Causes & Control, 23: 27-36.

Grant, J.E., Odlaug, B.L., Chamberlain, S.R., Keuthen, N.J., Lochner, C. and Stein, D.J. 2012. Treatment in psychiatry skin picking disorder. American Journal of Psychiatry, 169: 1143-1149.

Gregorio, G., Tomlinson, M., Gerolin, J., Kieling, C., Moreira, G.C., Razzouk, D. and de Jesus Mari, J. 2012. Setting priorities for mental health research in Brazil. Revista Brasileira de Psiquiatria, 34: 434-439.

Gupta, J., Reed, E., Kelly, J., Stein, D.J. and Williams, D.R. 2012. Mens exposure to human rights violations and relations with perpetration of intimate partner violence in South Africa. Journal of Epidemiology and Community Health, 66(e2): 1-6.

Gureje, O. and Stein, D.J. 2012. Classification of mental disorders: the importance of inclusive decision-making. International Review of Psychiatry, 24(6): 606-612.

Harker Burnhams, N., Dada, S. and Myers, B.J. 2012. Social service offices as a point of entry into substance abuse treatment for poor South Africans. Substance Abuse Treatment Prevention and Policy, 7(22):

Heaps, J.M., Joska, J., Hoare, J., Ortega, M., Agrawal, A., Seedat, S., Ances, B.M., Stein, D.J. and Paul, R. 2012. Neuroimaging markers of human immunodeficiency virus infection in South Africa. Journal of Neurovirology, 18: 151-156.

Henderson, T. 2012. Managing insomnia in the primary care setting. CME-Continuing Medical Education, 30(4): 134-137.

Hoare, J., Fouche, J., Spottiswoode, B., Donald, K.A., Phillips, N., Bezuidenhout, H., Mulligan, C., Webster, V., Oduro, C., Schrieff, L.E., Paul, R., Zar, H.J., Thomas, K. and Stein, D.J. 2012. A diffusion tensor imaging and neurocognitive study of HIV-positive children who are HAART-naive "slow progressors". Journal of Neurovirology, 18: 205-212.

Hoare, J., Westgarth-Taylor, J., Fouche, J., Spottiswoode, B., Paul, R., Thomas, K., Stein, D.J. and Joska, J. 2012. A diffusion tensor imaging and neuropsychological study of prospective memory impairment in South African HIV positive individuals. Metabolic Brain Disease, 27: 289-297.

Hofman, D., Bos, P.A., Schutter, D. and van Honk, J. 2012. Fairness modulates non-conscious facial mimicry in women. Proceedings of the Royal Society B-Biological Sciences, 279: 3535-3539.

Honikman, S., van Heyningen, T., Field, S., Baron, E.C. and Tomlinson, M. 2012. Stepped care for maternal mental health: a case study of the perinatal mental health project in South Africa. Plos Medicine, 9(5): e1001222.

Howells, F., Stein, D.J. and Russell, V.A. 2012. Synergistic tonic and phasic activity of the locus coeruleus norepinephrine (LC-NE) arousal system is required for optimal attentional performance. Metabolic Brain Disease, 27: 267-274.

Howells, F.M., Ives-Deliperi, V.L., Horn, N. and Stein, D.J. 2012. Mindfulness based cognitive therapy improves frontal control in bipolar disorder: a pilot EEG study. BMC Psychiatry, 12:15.

Howells, F.M., Stein, D.J. and Russell, V.A. 2012. Childhood trauma is associated with altered cortical arousal: insights from an EEG study. Frontiers in Integrative Neuroscience 6:120.

Ipser, J.C., Syal, S., Bentley, J.M., Adnams, C.M., Steyn, B. and Stein, D.J. 2012. 1H-MRS in autism spectrum disorders: a systematic meta-analysis. Metabolic Brain Disease, 27: 275-287.

Ipser, J.C. and Stein, D.J. 2012. Evidence-based pharmacotherapy of post-traumatic stress disorder (PTSD). International Journal of Neuropsychopharmacology, 15: 825-840.

Joska, J. and Sorsdahl, K. 2012. Integrating mental health into general health care: lessons from HIV. African Journal of Psychiatry, 15: 420-423.

Joska, J., Westgarth-Taylor, J., Hoare, J., Thomas, K., Paul, R., Myer, L. and Stein, D.J. 2012. Neuropsychological outcomes in adults commencing highly active anti-retroviral treatment in South Africa: a prospective study. BMC Infectious Diseases, 12(39): 12:39.

Kagee, A. and Lund, C. 2012. Psychology training directors reflections on evidence-based practice in South Africa. South African Journal of Psychology, 42(1): 103-113.

Kaliski, S.Z. 2012. Does the insanity defence lead to an abuse of human rights? African Journal of Psychiatry, 15: 83-87.

Kaliski, S.Z. 2012. The prostitution of psychiatry: some are shameless, others are just easy. African Journal of Psychiatry, 15: 317-321.

Kaliski, S.Z. and De Clercq, H.G. 2012. When coercion meets hope: can forensic psychiatry adopt the recovery model? African Journal of Psychiatry, 15: 162-166.

Kaliski, S.Z. 2012. Will forensic psychiatry survive DSM-5? African Journal of Psychiatry, 15: 13-15.

Kareithi, R. and Lund, C. 2012. Review of NGO performance research published in academic journals between 1996 and 2008. South African Journal of Science, 108(11/12): 1-8.

Kessler, R.C., McLaughlin, K.A., Koenen, K.C., Petukhova, M., Hill, E.D., The WHO World Mental Health Survey Consortium, , Aguilar-Gaxiola, S., Alonso, J., Andrade, L.H.S.G., Bromet, E., Bunting, B., Chatterji, S., de Girolamo, G., Demyttenaere, K., Florescu, S., Gureje, O., Karam, E.G. and Stein, D.J. 2012. The importance of secondary trauma exposure for post-disaster mental disorder. Epidemiology and Psychiatric Sciences, 21: 35-45.

Kleintjes, S.R., Lund, C. and Swartz, L. 2012. South African mental health care service user views on priorities for supporting recovery: implications for policy and service development. Disability and Rehabilitation, 34(26): 2272-2280.

Kock, E., Molteno, C.D., Mfiki, N., Kidd, M., Ali, A., King, M. and Strydom, A. 2012. Cross-cultural validation of a measure of felt stigma in people with intellectual disabilities. Journal of Applied Research in Intellectual Disabilities, 25: 11-19.

Koen, N. and Stein, D.J. 2012. The assessment and treatment of panic disorder in general practice. South African Family Practice, 54(6): 472-477.

Kuo, C., Operario, D. and Cluver, L. 2012. Depression among carers of AIDS-orphaned and other-orphaned children in Umlazi township, South Africa. Global public health, 7(3): 253-269.

Lebel, C., Mattson, S.N., Riley, E., Jones, K.L., Adnams, C.M., May, P.A., Bookheimer, S.Y., O'Connor, M.J., Narr, K.L., Kan, E., Abaryan, Z. and Sowell, E.R. 2012. A longitudinal study of the long-term consequences of drinking during pregnancy: heavy in utero alcohol exposure disrupts the normal processes of brain development. Journal of Neuroscience, 32(44): 15243-15251.

Lochner, C., Simmons, C., Kidd, M., Chamberlain, S.R., Fineberg, N.A., van Honk, J., Ipser, J.C. and Stein, D.J. 2012. Differential effects of escitalopram challenge on disgust processing in obsessive compulsive disorder. Behavioural Brain Research, 226: 274-280.

Lochner, C., Grant, J.E., Odlaug, B.L., Woods, D., Keuthen, N.J. and Stein, D.J. 2012. dsm-5 field survey: hair-pulling disorder (Trichotillomania). Depression and Anxiety, 29: 1025-1031.

Lochner, C., Fouche, J.-P., du Plessis, S., Spottiswoode, B., Seedat, S., Fineberg, N.A., Chamberlain, S.R. and Stein, D.J. 2012. Evidence for fractional anisotropy and mean diffusivity white matter abnormalities in the internal capsule and cingulum in patients with obsessive-compulsive disorder. Journal of Psychiatry & Neuroscience, 37(3): 193-199.

Lovato, L., Ferro, Y.A., Stein, D.J., Shavitt, R.G., Fontenelle, L.F., Vivan, A., Miguel, E. and Cordioli, A.V. 2012. Skin picking and trichotillomania in adults with obsessive-compulsive disorder. Comprehensive Psychiatry, 53: 562-568.

Lund, C., Petersen, I., Kleintjes, S.R. and Bhana, A. 2012. Mental Health Services in South Africa: taking stock. African Journal of Psychiatry, 15: 402-405.

Lund, C. 2012. Poverty and mental health: a review of practice and policies. Neuropsychiatry, 2(3): 213-219.

Lund, C., Tomlinson, M., De Silva, M.J., Fekadu, A., Shidhaye, R., Jordans, M., Petersen, I., Bhana, A., Kigozi, F., Prince, M., Thornicroft, G., Hanlon, C., Kakuma, R., McDaid, D., Saxena, S., Chisholm, D., Raja, S., Kippen-Wood, S., Honikman, S., Fairall, L. and Patel, V. 2012. PRIME: a programme to reduce the treatment gap for mental disorders in five low- and middle-income countries. Plos Medicine, 9(12): e1001359.

Mall, S., Sorsdahl, K., Swartz, l. and Joska, J. 2012. I understand just a little. Perspectives of HIV/AIDS service providers in South Africa of providing mental health care for people living with HIV/AIDS. Aids Care, 24(3): 319-323.

Mars, M., Ramlall, S. and Kaliski, S.Z. 2012. Forensic telepsychiatry : a possible solution for South Africa? African Journal of Psychiatry, 15: 244-247.

Mathews, C., Aaro, L., Grimsrud, A.T., Flisher, A.J., Kaaya, S., Onya, H., Schaalma, H., Wubs, A.G., Mukoma, W. and Klepp, K. 2012. Effects of the SATZ teacher-led school HIV prevention programmes on adolescent sexual behaviour: cluster randomised controlled trials in three sub-Saharan African sites. International Health, 4: 111-122.

Mbwambo, J., McCurdy, S.A., Myers, B.J., Lambdin, B., Kilonzo, G.P. and Kaduri, P. 2012. Drug trafficking, use, and HIV risk: the need for comprehensive interventions. Sahara: Journal of Social Aspects of HIV/AIDS, 9(3): 154-159.

Mirzoev, T.N., Omar, M., Green, A., Bird, P., Lund, C., Ofori-Atta, A. and Doku, V. 2012. Research-policy partnerships - experiences of the mental health and poverty project in Ghana, South Africa, Uganda and Zambia. Health Research policy and Systems, 10:30.

Montoya, E.R., Terburg, D., Bos, P.A. and van Honk, J. 2012. Testosterone, cortisol, and serotonin as key regulators of social aggression: a review and theoretical perspective. Motivation and Emotion, 36: 65-73.

Morgan, B.E., Terburg, D., Thornton, H.B., Stein, D.J. and van Honk, J. 2012. Paradoxical facilitation of working memory after basolateral amygdala damage. PLoS One, 7(6): e38116.

Myers, B.J., Petersen, Z., Kader, R. and Parry, C.D.H. 2012. Moving beyond access: towards a quality-orientated substance abuse treatment system in South Africa. SAMJ South African Medical Journal, 102(8): 667-668.

Myers, B.J. 2012. Primary health care for people who inject drugs in low and middle income countries. International Journal of Drug Policy, 23: 103-110.

Nesse, M. and Stein, D.J. 2012. Towards a genuinely medical model for psychiatric nosology. BMC Medicine, 10:5.

Ogunlesi, A.O., Ogunwale, A., De Wet, P., Roos, L. and Kaliski, S.Z. 2012. Forensic psychiatry in Africa: prospects and challenges. African Journal of Psychiatry, 15: 3-7.

Onya, H., Tessera, A., Myers, B. and Flisher, A.J. 2012. Adolescent alcohol use in rural South African high schools. African Journal of Psychiatry, 15: 352-357.

Parker, J.S. 2012. Developing the philosophy of recovery in South African mental health services. African Journal of Psychiatry, 15: 417-419.

Pasche, S.C. and Stein, D.J. 2012. Dealing with substance use disorders in general practice. South African Family Practice, 54(5): 404-407.

Pasche, S.C. 2012. Exploring the comorbidity of anxiety and substance use disorders. Current Psychiatry Reports, 14: 176-181.

Pasche, S.C. and Myers, B.J. 2012. Substance misuse trends in South Africa. Human Psychopharmacology-Clinical and Experimental, 27: 338-341.

Peer, N., Steyn, K., Lombard, C., Lambert, E.V., Vythilingum, B. and Levitt, N. 2012. Rising diabetes prevalence among urban-dwelling black South Africans. PLoS One, 7(9): e43336.

Petersen, I., Lund, C., Bhana, A., Flisher, A.J. and Mental Health and Poverty Research Programme Consortium, 2012. A task shifting approach to primary mental health care for adults in South Africa: human resource requirements and costs for rural settings. Health Policy and Planning, 27: 42-51.

Pinkham, S., Stoicescu, C. and Myers, B.J. 2012. Developing effective health interventions for women who inject drugs: key areas and recommendations for program development and policy. Advances in Preventive Medicine, 2012: 1-10.

Protogerou, C., Flisher, A.J., Aaro, L. and Mathews, C. 2012. The theory of planned behaviour as a framework for predicting sexual risk behaviour in sub-Saharan African youth: a critical review. Journal of Child and Adolescent Mental Health, 24(1): 15-35.

Reid, E., Orrell, C., Stoloff, K. and Joska, J. 2012. Psychotropic prescribing in HIV. Southern African Journal of HIV medicine, 13(4): 188-194.

Roffey, M. and Kaliski, S.Z. 2012. To predict or not to predict that is the question an exploration of risk assessment in the context of South African forensic psychiatry. African Journal of Psychiatry, 15: 227-233.

Roos, A., Lochner, C., Kidd, M., van Honk, J., Vythilingum, B. and Stein, D.J. 2012. Selective attention to fearful faces during pregnancy. Progress in Neuro-Psychopharmacology & Biological Psychiatry, 37: 76-80.

Roussotte, F., Sulik, K.K., Mattson, S.N., Riley, E., Jones, K.L., Adnams, C.M., May, P.A., OConnor, M.J., Narr, K.L. and Sowell, E.R. 2012. Regional brain volume reductions relate to facial dysmorphology and neurocognitive function infetal alcohol spectrum disorders. Human Brain Mapping, 33: 920-937.

Saxena, S. and Skeen, S. 2012. "No Health without mental health": Challenges and opportunities in global mental health. African Journal of Psychiatry, 15: 397-400.

Siegfried, N. and Hughes, G. 2012. Herbal medicine, randomised controlled trials and global core competencies. SAMJ South African Medical Journal, 102(12): 912-913.

Siegfried, N., Irlam, J.H., Visser, M.E. and Rollins, N.N. 2012. Micronutrient supplementation in pregnant woman with HIV infection. Cochrane Database of Systematic Reviews, 3: 1-86.

Sorsdahl, K., Vythilingum, B. and Stein, D.J. 2012. A screening tool for social anxiety disorder in primary care data from South Africa. Journal of Nervous and Mental Disease, 200(2): 163-166.

Sorsdahl, K., Stein, D.J. and Lund, C.A. 2012. Mental health services in South Africa: scaling up and future directions. African Journal of Psychiatry, 15: 168-171.

Sorsdahl, K., Stein, D.J. and Myers, B.J. 2012. Negative attributions towards people with substance use disorders in South Africa: variation across substances and by gender. BMC Psychiatry, 12:101.

Sorsdahl, K., Stein, D.J., Weich, L., Fourie, D. and Myers, B.J. 2012. The effectiveness of a hospital-based intervention for patients with substance-use problems in the Western Cape. SAMJ South African Medical Journal, 102(7): 634-635.

Sorsdahl, K., Kakuma, R., Wilson, Z. and Stein, D.J. 2012. The internalized stigma experienced by members of a mental health advocacy group in South Africa. International Journal of Social Psychiatry, 58(1): 55-61.

Stein, D.J., Koen, N., Fineberg, N.A., Fontenelle, L.F., Matsunaga, H., Osser, D. and Simpson, H.B. 2012. A 2012 evidence-based algorithm for the pharmacotherapy for obsessive-compulsive disorder. Current Psychiatry Reports, 14: 211-219.

Stein, D.J., Ahokas, A., Albarran, C., Olivier, V. and Allgulander, C. 2012. Agomelatine prevents relapse in generalized anxiety disorder: A 6-month randomized, double-blind, placebo-controlled discontinuation study. Journal of Clinical Psychiatry, 73(7): 1002-1008.

Stein, D.J. 2012. Positive mental health: a note of caution. World Psychiatry, 11(2): 107-109.

Stein, D.J. 2012. Psychiatric Contributions from South Africa: ex Africa semper aliquid novi. African Journal of Psychiatry, 15: 323-328.

Stein, D.J. 2012. Psychiatry and mental health research in South Africa: national priorities in a low and middle income context. African Journal of Psychiatry, 15: 427-431.

Suliman, S. and Stein, D.J. 2012. Dealing with post-traumatic stress disorder in general practice. South African Family Practice, 54(4): 308-311.

Syal, S., Hattingh, C., Fouche, J., Spottiswoode, B., Carey, P., Lochner, C. and Stein, D.J. 2012. Grey matter abnormalities in social anxiety disorder: a pilot study. Metabolic Brain Disease, 27: 299-309.

Terburg, D., Morgan, B.E., Montoya, E.R., Hooge, I.T., Thornton, H.B., Hariri, A.R., Panksepp, J., Stein, D.J. and van Honk, J. 2012. Hypervigilance for fear after basolateral amygdala damage in humans. Translational Psychiatry, 2: e115.

Terburg, D., Aarts, H., Putman, P. and van Honk, J. 2012. In the eye of the beholder: reduced threat-bias and increased gaze-imitation towards reward in relation to trait anger. PLoS One, 7(2): e31373.

Terburg, D., Aarts, H. and van Honk, J. 2012. Memory and attention for social threat: anxious hypercoding-avoidance and submissive gaze aversion. Emotion, 12(4): 666-672.

Terburg, D., Aarts, H. and van Honk, J. 2012. Testosterone affects gaze aversion from angry faces outside of conscious awareness. Psychological Science, 23(5): 459-463.

Thelingwani, R.S., Dhansay, K., Smith, P., Chibale, K. and Masimirembwa, C.M. 2012. Potent inhibition of CYP1A2 by frutinone A, an active ingredient of the broad spectrum antimicrobial herbal extract from P.fruticosa. Xenobiotica, 42(10): 989-1000.

Thornicroft, G., Cooper, S., Van Bortel, T., Kakuma, R. and Lund, C. 2012. Capacity building in global mental health research. Harvard Review of Psychiatry, 20(1): 13-24.

Tomlinson, M. and Lund, C. 2012. Why does mental health not get the attention it deserves? An application of the Shiffman and Smith framework. Plos Medicine, 9(2): e1001178.

Vally, Z. 2012. Dialogic reading and child language growth-combating development risk in South Africa. South African Journal of Psychology, 42(4): 617-627.

Van Honk, J., Montoya, E.R., Bos, P., van Vugt, M. and Terburg, D. 2012. New evidence on testosterone and cooperation. Nature, 485: E4-E6.

Van Pletzen, E., Stein, D.J., Seedat, S., Williams, D.R. and Myer, L. 2012. Recall of early non-fatal suicidality in a nationally representative sample of South Africans. Ethnicity & Health, 17(1-2): 149-159.

Vogel, W. 2012. Depression in children and adolescents. CME-Continuing Medical Education, 30(4): 114-117.

Vythilingum, B., Roos, A., Faure, S.C., Geerts, L. and Stein, D.J. 2012. Risk factors for substance use in pregnant women in South Africa. SAMJ South African Medical Journal, 102(11): 851-854.

Williams, D.R., Haile, R., Mohammed, S.A., Herman, A., Sonnega, J., Jackson, J.S. and Stein, D.J. 2012. Perceived

discrimination and psychological well-being in the USA and South Africa. Ethnicity and Health, 17(1-2): 111-133.

Yang, Y., Roussotte, F., Kan, E., Sulik, K.K., Mattson, S.N., Riley, E., Jones, K.L., Adnams, C.M., May, P.A., OConnor, M.J., Narr, K.L. and Sowell, E.R. 2012. Abnormal cortical thickness alterations in fetal alcohol spectrum disorders and their relationships with facial dysmorphology. Cerebral Cortex, 22: 1170-1179.

Yang, Y., Phillips, O.R., Kan, E., Sulik, K.K., Mattson, S.N., Riley, E., Jones, K.L., Adnams, C.M., May, P.A., OConnor, M.J., Narr, K.L. and Sowell, E.R. 2012. Callosal thickness reductions relate to facial dysmorphology in fetal alcohol spectrum disorders. Alcoholism-Clinical and Experimental Research, 36(5): 798-806.

Peer-reviewed published conference proceedings

Narayanan, P., Warton, C.M.R., Jacobson, S.W., Jacobson, J.L., Molteno, C.D. and Meintjes, E.M. 2012. Comparison of volumes of cerebellar lobules on structural MRI using manual and automatic segmentation in normal and alcohol-exposed children. Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM), 20th Annual Meeting & Exhibition (2012), 5-11 May 2012, Melbourne, Australia. USA: ISMRM International Society for Magnetic Resonance in Medicine. ISSN 15454428.

School of Public Health and Family Medicine

Director

Professor Leslie London (until September 2012)
Professor Mohamed Jeebhay (incoming since October 2012)

Deputy Director: Associate Professor Derek Hellenberg (until September 2012)
Deputy Head for Public Health: Professor Mohamed Jeebhay (until September 2012)

School Profile

The School of Public Health and Family Medicine is a strong multidisciplinary department in the Faculty of Health Sciences. Its teaching, research and service extend to a wide range of settings and content areas consistent with the evolving disciplines of Public Health and Family Medicine.

The School celebrated its 40th birthday since the creation and filling of an Inaugural Chair in what was then called the Unit for "Comprehensive and Community Medicine" in the Department of Medicine in 1972, with a handful of staff complement compared to its growing staff complement currently standing at 186

The School is currently comprised of two Divisions – the Division of Public Health and the Division of Family Medicine, but initiatives are underway following a response to its 2009 departmental review to re-align its organisational design to encompass the broadening scope of its teaching and research activities

The Division of Public Health has a wide variety of service, policy, research and training activities. A focus continues to be the training of master's and doctoral students in public health, as well as public health medicine and occupational medicine specialists. Along with a postgraduate diploma in health management, and postgraduate qualifications in Health Economics, these programmes train a wide range of public health professionals for leadership roles in the public sector. For example, Public Health Medicine registrars are placed at the Provincial Health Department Head Office, in its programmes directorate and in the various districts as well as providing support to the Chief Directorate for Strategy and Health Support, while Occupational Medicine registrars provide services in a range of tertiary clinics. The Occupational Medicine Clinic at GSH is the only public sector occupational diseases referral clinic in the Western Cape and one of three in the country.

The Division of Family Medicine has as its focus the training of primary level medical practitioners (family physicians) for the public sector. It also houses the pioneering South African programme in Palliative Medicine.The Division has staff on the joint establishment (with the PGWC Health Department) who have clinical, teaching and clinical governance responsibilities at a number of Community Health Centres and District Hospitals around the city. The Division began training Family Medicine registrars in February 2008 after family medicine was recognized as a specialty by the Health Professions Council of South Africa (HPCSA) in August 2007.

Teaching

The School runs a large postgraduate programme, including 7 postgraduate diplomas, 6 Master's programmes, 3 professional Master's programmes and a PhD programme. In 2012, there were 347 postgraduate students in the School including 27 PhD students. A total of 129 postgraduate students graduated in 2012, including 4 PhDs, 37 Master's and 88 postgraduate diploma students. The Master's in Public Health (MPH) is the School's flagship public health

programme and the largest taught master's in the Faculty, with 171 students graduated over the past decade.

The MPH continues to attract widespread interest from potential applicants, particularly from other African countries. There were 237 applicants for 70 places in 2012, of which 71 were accepted. A record number of 30 students graduated in 2012 out of a total registration of 141. With appropriate resourcing, there is scope for an increased intake and increased throughput on this flagship programme. The Diploma in Health Management, also known as the Oliver Tambo Fellowship Programme, continued to graduate senior health managers from around the country under its new configuration as a joint programme offered with the Graduate School of Business. As the only Master programme in palliative medicine in Africa, the MPhil Palliative Medicine continues to attract students from South Africa and other countries in Africa.

The School is also playing an increasing role in the new undergraduate medical curriculum with the aim of producing medical professionals able to function effectively at the primary care level and imbued with an understanding of public health. Public Health and Health Promotion training to undergraduates take place in community-based settings and has been instrumental in pioneering community-placements for MBChB students at UCT. A number of initiatives are underway to develop off-campus teaching sites linked to Community Health Centres and district hospitals. The Family Medicine division has been closely involved in developing and supporting the new student learning centre at Vanguard Community Health Centre and the rural teaching venue at Vrendenburg.

Research – overview

There are four URC-accredited research entities within the School, residing under the Public Health Division: Health Economics, Infectious Disease Epidemiology, Women's Health Research and Occupational and Environmental Health Research, as well as growing activities in Health Policy and Health Systems Studies and in Health and Human Rights. Research outputs in 2012 included 179 peer-reviewed journal publications (a 25% increase from 2011) and 10 book chapters. Total research grant and contract income to the School was R38 997 179 in 2012, a 40% increase from 2011 research income.

Furthermore, in addition to subsidy-attracting publications, academic staff participate in a range of provincial, national and international policy and produce a number of technical and policy papers. These contributions do not always find their way into peer-reviewed scientific journals, but which are integral to the department's service mission, reflecting the School's strong social responsiveness profile in applying research and scholarly activity as part of advocacy to promote the public's health.

The School's research mission is reflected in the wide range of research activities and the associated research outputs are notable for their multidisciplinary perspective. In infectious diseases and women's health, publications cover childhood and adult tuberculosis prevention, diagnosis and treatment; HIV epidemiology, transmission and treatment (including treatment outcomes, adherence and mortality); adolescent risk-taking behaviour and educational interventions; prevention of mother-to-child transmission of HIV infection; contraceptive services and women's reproductive health more broadly; economic analyses of tuberculosis and HIV services; HPV vaccination and cervical cancer prevention and health systems aspects of care related to TB and HIV. The integration of human rights considerations into public health policy and health systems practice receives attention in a number of publications. The department continues its role as a national leader in occupational and environmental health research with investigations into occupational allergy, pesticides, hazardous metals and lung disease due to mineral dust. Finally, the question of equity of resource allocation in health, and particularly in primary health care, continues to occupy researchers in health economics, who remain the leading South African source of peer-reviewed publications in this field.

The School has six NRF-rated researchers, including Dr Chris Colvin (Promising Young Researcher), Professor Aqiel Dalvie (Established Researcher), Professor Lucy Gilson (Internationally Acclaimed Researcher), Professor Mohamed Jeebhay (Internationally Acclaimed Researcher), Professor Leslie London (Internationally Acclaimed Researcher) and Professor Di McIntyre (Internationally Acclaimed Researcher).

Associate Professor Landon Myer was awarded the Southern African Association for the Advancement of Science (52A3) British Association Silver Medal for 2012. The School also made its second award of the David Bourne prize for the best student in the MPH programme to Brian Allwood. The prize commemorates David Bourne, a demographer in the School who died in 2009, and whose death left a huge gap in the HIV research world. Henk Temmingh was awarded the Ethne Jacka prize for the top MPH dissertation by a graduating candidate in 2012. Dr Brynt Cloete was awarded the Geoff Campbell award for best DOH student passing with distinction. Dr Amy Burdzik was awarded the SASOM medal of excellence for obtaining a distinction in her dissertation and the CMSA national specialist examinations in occupational medicine.

Centre for Occupational and Environmental Health Research (COEHR)

The Centre's aim is to be a principal centre of OEH research, teaching and training, occupational medical clinical services, policy advisory, technical consultancy services, advocacy and a source of supportive outreach activities in South Africa, in the Southern and Eastern regions of Africa, Africa more generally, and internationally.

The major objectives of the Centre are firstly, to conduct multidisciplinary research, teaching and service provision of high priority in Southern Africa. Integrating laboratory, clinical, epidemiological and policy skills. Another key objective is to explore and develop means of maintaining the health of workers and environmentally exposed communities. A third objective is to conduct policy research into issues ranging from toxic or injurious exposures through to health surveillance. Fostering inter-institutional research, teaching and service (including outreach) collaboration and capacity development constitutes another major objective. Finally, another aim is to foster local and global networks for occupational and environmental health promotion through collaboration with United Nations and other agencies.

Key research projects

Key research areas for the Centre currently include the identification of risk factors and evaluating preventive approaches for allergens and asthma in the workplace, health hazards of chemicals (such as pesticides and endocrine disruptors) and silicosis elimination in gold miners. Workforces that are of particular relevance for the Centre's work include health care workers, with a specific focus on studying the determinants of TB infection and diagnostic approaches in order to prevent the spread of TB related to the HIV epidemic. Other vulnerable groups include agricultural workers (for whom injuries and pesticide-related asthma and neurotoxicity are a problem) and mine worker's (at high risk of developing pneumoconioses and TB). Environmental risks for workers and communities exposed to metals, such as manganese and arsenic, and other chemicals in the working and residential environments are assessed and monitored. Climate change and its impact on occupational and general health has become a focus linked to the UCT African Climate and Development Initiative. These areas are supplemented by a broader focus on research to address occupational and environmental health systems and worker's compensation, as well as developing programmes to build OHS capacity through research and training in the SADC region. Through the Fogarty International Centre International Training and Research in Environmental and Occupational Health (ITREOH) and the Millemium Promise Programme (MPP) for non communicable chronic diseases.

Major highlights for 2012 included the following

- Professor Aqiel Dalvie was appointed Director of Centre for the period 2013-2015.

- Professor Mohamed Jeebhay was elected as a fellow of the Collegium Ramazzini, an international academy of 180 fellows whose mission is to advance the study of occupational and environmental health issues. He was honoured by the Allergy Society of South Africa (ALLSA) on receiving the distinguished service award for his efforts over a decade in promoting allergy research in his capacity as head of the research portfolio on the ALLSA executive for the period 2003-2012.

- Professor Leslie London was appointed to an Advisory Committee for a Wellcome Trust-funded cluster randomised controlled trial to determine whether safe storage containers can reduce the incidence of intentional and unintentional pesticide poisoning in rural Sri Lanka, 2010-2015. He served as a member of a Technical workgroup providing technical support to the UN Special Rapporteur on the Right to Health for the report on Occupational Health as a Human Right. He convened an Africa Workgroup for the International Commission on Occupational Health (ICOH) contributing to a revision of the ICOH Ethical Guideline. Professor London's NRF rating was upgraded to B3.

- Dr. Hanna-Andrea Rother represented the COEHR at the third session of the International Conference on Chemicals Management (ICCM3) in Nairobi, Kenya. She was elected to UCT Senate by UCT's academic staff and appointed a member of the editorial board for the Journal of Public Health and Health Policy. Dr Rother was awarded the Green Campus Initiative Backsberg Sustainability Award for her contribution to pesticide policy and management on UCT campuses. Finally, she was awarded a Visiting Scholars Fund Award to host Professor Thomas Arcury and Professor Sara Quandt from Wake Forest University School of Medicine, USA.

- Professor Rodney Ehrlich and Dr Jim te Water Naude joined the newly formed South Africa-Yale University Collaboration, a network of health science, social science and legal researchers and practitioners. The Collaboration is aimed at documenting the health burden among current

and former workers on South African mines, with an emphasis on silicosis, HIV and tuberculosis, and promoting an appropriate health systems response in Southern Africa.

Health Risk Management Programme

The Health Risk Management Programme conducts research, capacity building (teaching and networking), social responsiveness, policy analysis and develops interventions/ risk communication materials in the area of environmental health, public health, pesticides and chemical, health and safety, and risk reduction. Research in 2012 focused on the silent public and environmental health problem of informal vendors selling agricultural pesticides for domestic use in low-socio economic communities of Cape Town; child poisonings from street pesticides; occupational herbicide exposures of community workers removing alien vegetation in the Working for Water programme. These research projects involve engagement with NGOs, community leaders/members, national, provincial and municipal government departments (health, agriculture and water affairs). Capacity building is through information sharing of research findings and policy information through UCT established electronic list servers, an on-line discussion forums with African Pesticide regulators, and a the Post Graduate Diploma in Pesticide Risk Management (DPRM). An innovative bi-monthly discussion forum is conducted as a virtual semiar through vula for students with global experts in the field of pesticides and health. The Post Graduate Diploma in Pesticide Risk Management (DPRM) is structured around the United Nations Code of Conduct on the Distribution and Use of Pesticides and has been developed in conjunction with the United Nations Food and Agricultural Organization (FAO), and the Swedish Chemical Agency (KemI). In 2012 the first 15 DPRM students graduated, two with distinctions.There are currently 19 students registered in the programme.

A broad range of students have actively participated in research projects in the Health Risk Management Programme both MPH students and anthropology students (undergraduate, honours and master's). Students have conducted household survey, case reviews and interviews, as well as developed risk communication tools, presented findings at conferences and to health professionals (e.g., Environmental Health Professionals and Community Health Promoters), and participated in training for workers.

The Health Risk Management programme also develops a range of risk communication materials and health interventions, algorithm, and policy briefs based on research findings.These mediums are used in order to disseminate and translate research findings for a broad range of stakeholders and continue to be widely distributed in printed form and as Creative Commons licensed electronic material posted on UCTs Open UCT site. The programme also conducts policy analysis and inputs to national, regional and international policies on chemical risk management and environmental health.

Industrial Health Resource Group (IHRG)

Within the COEHR, the Industrial Health Resource Group (IHRG) operates as an action research and socially responsive development group, providing occupational health and safety research, curriculum development, training, advice, and resource development services for trade unions and their members. The work of IHRG is guided by a vision of building the capacity of trade unions and their members to independently monitor, enforce, defend and advance the workplace health and safety rights of workers.

IHRG does representation, investigative and advocacy work for workers and trade unions in relation to workplace health and safety incidents and cases of work-related injury and disease. During 2012 IHRG had a higher degree of engagement than previously with the Department of Labour's (DoL) Compensation Commissioner and Health and Safety Inspectorate, with the Public Protector and with the National Prosecuting Authority (NPA) to address the issues arising from its experience of assisting workers with occupational injury and diseases.

IHRG assisted with 75 cases of occupational injury and disease involving more than 250 workers in 2012. Most of the cases were individual workers from breweries, retail, manufacturing, clothing, communications, engineering, motor, municipal, road freight transport, public health, printing, prisons, public transport, farming, furniture making and security sectors. There were also two large groups of organised unemployed workers –ex-Everite workers and ex-mine mine workers. Two of the cases involved groups of workers from single workplaces – the family members of the 13 workers killed in a fire at Paarl Print, and three labour broker workers who were injured in a fire at the Engen petrochemical plant in Cape Town.

In December 2012 IHRG convened a discussion with a group of trade unionists and occupational medicine specialists to discuss IHRG's first draft of its forthcoming revised Pilot COIDA booklet. The group included representatives from COSATU, NUM, NUMSA, SAMWU and Solidarity, occupational medicine specialists from the University of Cape Town, as well as Dr. Sophia Kisting, former Director of the ILO HIV/AIDS Program. IHRG intends consulting with this Reference Group during 2013 on the further development of training material around case management and compensation.

IHRG also plays an advocacy role within a national, regional and global context of deregulation, outsourcing and casualisation of labour - trends which enable public and private sector employers to shed responsibility for workplace health and safety. In this regard, IHRG is collaborating with the Federatie Nederlandse Vakbeweging and its South African partners in a campaign for decent work that is directed particularly at vulnerable workers. Our work with vulnerable workers includes contract cleaning workers, community care workers, labour broker workers and farm workers. Our advocacy work included issues relating to the administration, enforcement and the amendment of the health and safety legislation.

In November 2012 IHRG convened an indaba for 43 community health care workers from four provinces. The group included home-based carers, HIV/AIDS counsellors and Patient Care Assistants. The objective of the gathering was to convene a networking forum where these workers could share their experiences of work, conditions of employment and health and safety concerns.

IHRG works in partnership with trade unions in a variety of programmes. During 2012 IHRG was involved with Naledi and Satawu in a project that looks at the working conditions, organisational rights and health and safety issues in the contract cleaning sector. Training workshops and participatory action research projects have been carried out with contract cleaning workers at OR Tambo airport. IHRG is also involved in a programme with Numsa and the German trade union confederation DGB, to build the capacity of Numsa shop stewards and organisers to engage with German multi-national companies in the negotiation of workplace level agreements.

IHRG collaborates locally, nationally, regionally and globally with other labour service organisations, non-governmental organisations, adult educationists, occupational health experts, various academic programmes, and health research institutions. During 2012, IHRG collaborated with - amongst others – Hesperian Foundation, Federatie Nederlandse Beweging, Deutscher Gewerkschaftsbund, Naledi, Ditsela, Workers World Media Productions, Legal Resources Centre, Labour and Enterprise Policy Research Group and the Department of Occupational and Environmental Health at UKZN. IHRG attended a health and safety conference convened by the Department of Labour in March 2012. IHRG attended the NUMSA National Congress in June and the COSATU Provincial Congress in the Western Cape in September 2012. IHRG also began networking with organisations and institutions conducting research into climate change and its impact on health.

Research activity of IHRG contributes towards the production and distribution of a variety of popular and accessible resources (including posters, newsletters, research reports, workshop materials, and handbooks) for trade unions and their members on issues of occupational health and safety. It also produced Edition 2 of Organising for Health and Safety – A guide for trade unions. In 2012 IHRG produced issue 8 of the Health and Safety Networker and drafts of two DVD's. IHRG further developed its website www.ihrg@org.za (established in 2011) and contributed to labour shows on community radio and television.

Centre for Infectious Disease Epidemiology and Research (CIDER)

The Centre for Infectious Disease Epidemiology and Research (CIDER) is a multi-disciplinary research group with the following objectives:

- To conduct public health research integrating laboratory, clinical, epidemiological, social science and health systems research into infectious diseases that have high priority in southern Africa (in particular HIV, tuberculosis and sexually transmitted infections) in order to improve the prevention and management of these diseases.
- To be a service-led research entity, maintaining very strong links with health services at all levels, and to assist policy makers, programme and services managers with the implementation of the results of research.
- To be a centre of expertise in the surveillance and monitoring of infectious diseases and infectious disease programmes and services, and in the conduct of robust observational research based on routine data sources.
- To provide postgraduate teaching and supervision in epidemiology.

The Centre has a strong track record in researching strategies for HIV prevention. Historically the Centre ran field sites for two large multicentre HIV prevention trials, one for a candidate vaginal microbicide, and the other testing the efficacy of twice daily acyclovir suppressive therapy in preventing HIV transmission among heterosexual HIV-discordant couples in which the HIV-infected partner is Herpes Simplex Virus-2 seropositive. Furthering the focus on HIV prevention the Centre is developing tools and indicators for measuring and evaluating PMTCT programmes in resource limited settings, and is testing novel service strategies for further improving the effectiveness of PMTCT interventions.

A further focus of the work of the Centre is in the area of treatment and service delivery for HIV and tuberculosis. This encompasses an expanding portfolio of health systems research as well as the clinical epidemiology of treatment

interventions in individual cohorts. Health system projects have focussed on the use of lay health workers and community-based care, and the integration of TB and HIV services in the Western Cape, Free State and Gauteng. A major strength of the Centre is cohort studies of patients receiving antiretroviral therapy. This includes work with individual cohorts in Khayelitsha and Gugulethu, through to running an NIH-funded data centre for collaborative cohort research combining data from 14 cohorts in South Africa.

The Centre has an excellent working relationship with the Provincial Department of Health, with staff supporting the conduct and analysis of the annual antenatal HIV seroprevalence survey, the development and maintenance of information systems to monitor HIV programmes, and assistance with infectious disease surveillance and outbreak investigations. The work on context-appropriate information systems for HIV programmes has led to further collaborations nationally, regionally and with the World Health Organization.

The Centre has a strong multidisciplinary team of PhD scientists and continues to be a significant resource for epidemiology, biostatistics, infectious disease modelling and qualitative research support within the Faculty. There are active collaborations with a range of clinical and laboratory departments, including with the Departments of Psychiatry and Mental Health, Virology, Obstetrics and Gynaecology, Child and Adolescent Health, and Medicine.

The major highlights for 2012 include:

- Associate Professor Landon Myer received the British Association Medal (Silver). This medal is awarded to a scientist, under the age of 40 years, who has displayed "outstanding capability and achievements by way of publications, discoveries or special skills".
- Morna Cornell and Anna Grimsrud received PhD Bursary awards from SACEMA
- Dr Leigh Johnson received 3 awards at the Actuarial Society Conference: best presentation on risk, best overall presentation and with together with Rob Dorrington, the award for the best actuarial paper published in a peer review journal. In addition he received the South African Black Actuarial Professionals award for contribution towards AIDS research in South Africa
- A number of staff were invited to participate in policy and scientific committees:
    - WHO Guidelines Committee for paediatric HIV treatment (Davies/Schomaker)
    - Review of EMOD, an infectious disease modelling tool funded by the Gates Foundation (Johnson)
    - South African National AIDS Council HIV Prevention Technical Task Team and the Costing, Budgeting and Health Financing Technical Task Team (Johnson/Boulle)
    - WHO consultation on hormonal contraception (Myer)
    - PMTCT Technical Working Group & National Steering Committee, National Department of Health (Myer)
    - National PMTCT guidelines review committee, 2012-present (Myer)
    - Board of the Centre for Medical Ethics & Law at the University of Stellenbosch (Myer)
    - Organizing committee for the HIV Prevention and Epidemiology Track of the 2013 South African AIDS Conference (Johnson)
    - Chair of the 16th International Workshop on HIV Observational Databases in Athens (Boulle)
    - Organising committee for the 1st SA HIV Clinicians Society Conference in Cape Town (Boulle)
    - Working group on the Methodological Investigation of Cochrane reviews of Complex Interventions (MICCI) Project (Colvin)

Health Economics Unit

The Health Economics Unit (HEU) conducts research in health economics and health system issues. The HEU maintains a balance between conceptual and applied research as well as between topics of local and international relevance and focuses on three thematic areas of research, namely health systems and health equity research; health financing and the economic evaluation of disease-priority areas.

There are currently a number of projects relating to issues of health financing and the achievement of universal coverage. In addition to this research work, the HEU is active in knowledge translation through the provision of input into the Ministerial Advisory Committee on National Health Insurance and its various sub-committees in South Africa. Other key policy work includes participation in the Economics and Financing Group for the government's new "National Strategic Plan for HIV and AIDS, STIs and TB" and the provision of scientific advice to the World Health Organisation to look at health economics issues related to vaccines in low- and middle-income countries.

A five-year research project (UNITAS – Universal coverage in Tanzania and South Africa: Monitoring and evaluating progress) entered its second year of operation in 2012. The UNITAS project will focus on monitoring and evaluating policy formulation and implementation processes aimed

at achieving universal health coverage in South Africa and Tanzania. The project will undertake monitoring mainly at the district level, with some monitoring and evaluation at the national level. It aims to support implementation processes and will establish an 'early warning system' of implementation difficulties. It is a collaborative, EU-funded project with 2 other South African institutions, a Tanzanian institution and 2 European institutions.

The Global Network for Health Equity (GHNE) continued in 2012 and will enable comparative and collaborative work across three continents to advance equitable universal health coverage. It draws on 3 existing networks: EQUITAP (Equity in Asia-Pacific Health systems, an Asia-Pacific Research Partnership); LANET (The Latin American and Caribbean Research Network on Financial Protection and Health Observatory); SHIELD (Strategies for Health Insurance for Equity in Less Developed Countries, an African network that the HEU co-ordinates). It is funded by the IDRC.

The HEU completed work undertaken in Kenya, Uganda and Zambia that critically evaluated patterns of health care financing and benefits from the use of health services, to provide an evidence base for promoting equitable health systems in these countries. The project was funded by the International Development Research Centre (IDRC) for Uganda and Zambia; and funding for Kenya came from the Wellcome Trust. The HEU worked with the following partners on this project: the Kenyan Medical Research Institute, HealthNet Consult in Uganda and the Department of Economics at the University of Zambia. The main role of the HEU ~~is~~ was to provide research and technical support.

The DST/National Research Foundation South African Research Chairholder in Health and Wealth focuses on the inter-play of health and wealth in the South African context and the impact of a range of government policies on health. Researchers contextualised the social determinants of health within an African context to increase awareness about this issue and to take into account health equity issues to address the root causes of socioeconomic health inequalities. Another key area of research relates to providing a strong evidence base to contribute to current policy debates on health care financing reform.

The Researching Equity in Access to Health Care (REACH) project ended in 2012. It focused ~~s~~ on how health systems could contribute more effectively to achieving development goals by actively promoting equitable access to health care. This was explored through the case of South Africa's health system, focusing on three tracer health interventions of particular relevance to the Millennium Development Goals (MDGs) and which were crucial to addressing the burden of ill-health in South Africa. The tracers were maternal health services, tuberculosis and HIV care. The HEU collaborated with the Centre for Health Policy at the University of Witwatersrand, the Africa Centre at the University of KwaZulu-Natal and McMaster University in Canada.

The XTEND study evaluates the impact and cost-effectiveness of Xpert MTB/RIF in the investigation of TB and its impact on patient and programme outcomes and transmission at a population level, and thus informs policy on the scale up of Xpert MTB/RIF in low- and middle-income countries. The XPHACTOR project focuses on the Xpert MTB/RIF for people attending HIV clinics. It will identify an evidence-based algorithm, which is feasible to implement within HIV clinics, to guide the utilisation of TB investigations. The results will complement the XTEND study, and provide evidence to guide the rational use of Xpert MTB/RIF in national roll-out in South Africa and other settings where HIV and TB are both prevalent. The project runs until 2014 and the HEU is partnering with the London School of Hygiene and Tropical Medicine, the Aurum Institute, the World Health Organisation, and the National Health Laboratory Services. The Gates Foundation is funding this project.

The HEU also worked on four short-term research projects in 2012. First, a cost-effectiveness analysis of the MVA85A vaccine. This project focuses on estimating the potential cost-effectiveness of adding the MVA85A vaccine to the BCG vaccine in HIV negative children from the perspective of the South African government. It is funded by the Oxford-Emergent Tuberculosis Consortium (OETC). Second, a cost analysis of an integrated community-based approach for drug-resistant tuberculosis care. This study aims to estimate the cost of decentralized drug-resistant TB management model developed by the MSF in partnership with the City of Cape Town and the Provincial Government of the Western Cape. Costs will be estimated from both the health services perspective and a societal perspective. The study is funded by the MSF. Third, an implementing and scaling up a community health policy in Kenya project focuses on community health policy in Kenya; the HEU is working with Japanese Aid and the Kenyan Ministry of Health to analyse issues related to implementing a health promotion programme with Community Health Workers. The project will run until the end of January 2014. Finally, the retaining health professionals in Mozambique's public health sector project. The HEU is working on a multi-partner project funded by the EU that is using Discrete Choice Experiment methodologies to elicit health professionals' preferences for staying on in the public health sector of Mozambique. The project runs until the end of March 2013.

Resilient and Responsive Health Systems (RESYST) is a consortium that is undertaking health policy and systems research (with a focus on financing, health workers and governance) in a set of African and Asian settings, including India, Kenya, Nigeria, South Africa, Thailand, Tanzania and Vietnam. Funded by DfID, the consortium began in 2011 and will run until 2016.

Coordination work for EQUINET (Regional Network for Equity in Health in East and Southern Africa) continued in 2012 around equitable financing of health systems and equitable allocation of health care resources in a range of East and Southern African countries.

During this year, Dr Edina Sinanovic was appointed Director of the Unit. John Ataguba won the Young Investigators Best Publication Award 2011 for Public Health and Rehabilitation Sciences. Professor Di McIntyre attained an NRF B–rating and was elected as a foreign associate to the National Academy of Sciences' Institute of Medicine (IOM) in Washington. Marsha Orgill and Judy Daire were selected to attend the Emerging Voices 2012 venture in Beijing.

Women's Health Research Unit (WHRU)

The WHRU enjoys local, national and international research standing especially in the areas of sexual and reproductive health and gender issues. The Unit is involved in research, teaching, technical health service support, and advocacy in the area of women's health. It is made up of a multidisciplinary team of researchers with expertise in public health, epidemiology, psychology, sociology and anthropology. Focus on women's health and on gender and health is aligned with local and global challenges in addressing the health needs of women.

The Unit's research focus can be summarised into three thematic areas: Socio- behavioural research; health services operational research and quantitative/epidemiological research.

The major highlights for 2012 include:

- The WHRU implemented its Mellon award to mentor staff towards completion of their PhDs in 2010 and has continued the mentorship process with another PhD mentorship continuing for 2012 and 2013. Deborah Constant was awarded a Harry Crossley bursary from the Health Sciences Faculty to enable her to progress with her PhD.

- A wide range of research collaborators and other visitors visited the Unit and included, Dr Grossman from Ibis Reproductive Health, USA , Dr My Huong Nguyen from the WHO Geneva, Dr Joanne Mantell, HIV Center, Columbia University, USA, Professor Kathleen Goggin, Director, HIV Research Unit, Department of Psychology, University of Missouri, USA and Mary Fjerstad Director of WomanHealth Global.

- The Unit also continued to host a study abroad programme from New York University in collaboration with Professor Sally Guttmacher, Professor of Public Health and Director of Master's in Public Health Program in Community Health, New York University

- WHRU hosted Dr Rachelle Chadwick in the second year of a 2 year postdoctoral fellowship

- Unit members received numerous awards which included: a 2- month visiting fellowship at the Population Training and Study Centre at Brown University in the U.S.

- UCT PERC Africa Knowledge grant to set up a network of research collaborations with University of Namibia, University of Lesotho and Eduardo Mondlane University in Mozambique

- The Unit co-hosted and taught on Men Engage Africa Training course with Sonke Gender Justice and on the Stanford University Bing Overseas Study Program: Public and Community Health in Sub-Saharan Africa and a MACAIDS course run by the HSRC, UCLA and UKZN.

- Dr Jennifer Moodley was appointed as a member of the Ministerial Committee on the prevention and control of cancer.

- The Unit continues to disseminate our research at International Meetings including the FIGO conference in Rome, October 2012.

Health Policy and Systems Programme

The Health Policy and Systems Programme encompasses a range of activities aiming to build this area of work through research, teaching, and networking within and outside the SOPHFM. The particular focus of our work is health policy analysis and health systems research.
In 2012, work continued under the umbrella of the *Consortium for Health Policy and Systems Analysis* (CHEPSAA) an 11-partner consortium funded by the European Commission (see www.hpsa-africa.org). This

work built on the initial assets and needs assessment of health policy and systems research in UCT and South Africa – for example, by organizing a networking workshop on HPSR in South Africa at the Public Health Association Conference (PHASA), by developing teaching curriculae for relevant courses, and supporting skills development of staff. Dissemination of the initial needs assessment was also undertaken, including through writing a chapter for the annual Health Systems' Trust Annual Health Review.

Continued implementation of work within the *District Innovation, Action and Learning for Health Systems development* (DIALHS) project. This project is being implemented in collaboration with the SOPH at UWC, and colleagues from the Western Cape health department and City of Cape Town, within the Mitchell's Plain sub-district of the Metro District Health System. In 2012 a set of processes of action learning were implemented in collaboration with local officials focused on: following up a community profiling activity bringing together a range of local actors from local communities and different government sectors better to understand the locally available health assets and needs; better understanding the challenges and support needs of those working as primary health care facility managers; and better understanding the roles of sub-district managers. A series of presentations were made on this work at the South African Public Health Association Conference, and the second international Health Systems Symposium, Beijing. Funding is sourced from Atlantic Philanthropies.

The *Collaboration for Health Systems Analysis and Innovation* (CHESAI) was significantly strengthened during 2012. CHESAI is a collaborative of health policy and systems researchers based in the Western Cape, South Africa—with a focus on strengthening the health policy and systems research field through conceptual and methodological development, as well as interdisciplinary and multi- sectoral engagement. CHESAI aims to contribute to expanding and strengthening the health policy and systems knowledge base in Africa: building an intellectual hub for HPSR in Cape Town South Africa; creating spaces for practice-research engagement; supporting African HSPR capacity development; sharing and disseminating HPSR conceptual and methodological innovations. CHESAI is a four year collaborative running from 2012 to 2015. The main partners are The University of Cape Town and The University of the Western Cape, Schools of Public Health — supported by a grant from the International Development Research Centre, Canada.

The *International Religious Health Assets Programme* (IRHAP), formerly based in UCT's Faculty of Humanities has settled into the SOPHFM. International collaborative work continues, including writing and research projects. Several new empirical research projects under the IRHAP banner began in 2012, including a three country-study on maternal health service provision.

The HPSP also works with HEU within the RESYST consortium, a UK DfID funded international health systems research consortium (HPSP leads the governance work of RESYST); and in the UNITAS project.

Resilient and Responsive Health Systems (RESYST) is a Consortium that is undertaking health policy and systems research (with a focus on financing, health workers and governance) in a set of African and Asian settings, including India, Kenya, Nigeria, South Africa, Thailand, Tanzania and Vietnam. Funded by DfID, the consortium began in 2011 and will run until 2016. The Health Policy and Systems Division has a particular focus on the governance agenda within the RESYST programme of work. The *UNITAS* project focuses on monitoring and evaluating policy formulation and implementation processes aimed at achieving universal health coverage in South Africa and Tanzania. The project undertakes monitoring mainly at the district level, with some monitoring and evaluation at the national level. It aims to support implementation processes and will establish an 'early warning system' of implementation difficulties. The project runs from 2011 to 2015 and is funded by the European Union. It is a collaborative project with partners from the London School of Hygiene and Tropical Medicine, Ifakara Health Institute (in Tanzania), Institute of Tropical Medicine Antwerp (in Belgium), Centre for Health Policy, University of Witwatersrand and the Africa Centre in South Africa.

Health and Human Rights

Programme

The Health and Human Rights Programme undertakes a range of teaching, research and advocacy aimed at helping to build a culture of human rights in South Africa. Its work extends into East and Southern Africa. Research areas include the role of civil society organisations (CSOs) in the realisation of the right to health, community participation in the right to health, the rights of the Deaf in the health care system and how health care providers can be involved in the realisation of the right to health.

The Learning Network for Health & Human Rights (LN) with 6 Western Cape CSOs in partnership with Universities of Maastricht, Warwick and Western Cape continues to provide opportunities to identify best practice for realising health rights. This network draws on a multidisciplinary team of researchers in partnership with CSOs to develop

best practice for realising the right to health. CSOs in the Learning Network have been utilising a toolkit for training on the Right to Health to raise awareness and to empower community members to claim their health rights.

A key part of the programme in 2012 focused on community participation as a strategy for the realisation of the right to health. This work followed the release of the results of a two year research project by the Learning Network in the Cape Town Metropole focusing on the challenges faced by health committees as the formal structures for community participation in health. The project secured two large grants for continued work with Health Committees to enhance community participation as a vehicle for the realization of the Right to Health. One grant was secured from the European Union as part of a call for projects that support primary health care and aims to look at health care users experiences as a focus for unlocking opportunities to access quality health services in the Eastern and Western Cape. An additional grant was secured from the International Development Research Centre in Canada to work with collaborators in Uganda on governance in the health system, specifically focusing on community participation as a key strategy for the realisation of the right to health

Family Medicine Division

The mission of the Division of Family Medicine is to graduate doctors who are able to enter their internship and community service years with the appropriate level of confidence and competence when diagnosing and managing common primary care problems. They are able to function fully in the PHC team, and are able to take the lead in district-based health care, teaching and research in any community setting in South and Southern Africa.

Our postgraduate students enrolled for the M Fam Med, M Med (Fam Med), and M Phil (Pall Med) degrees are all required to complete a research dissertation.

Research highlights for 2012 included the following:

- The Division of Family Medicine partnered with Professor Leslie London in the Public Health Division and the Learning Network to successfully apply for an EU funded grant for the strengthening of primary health care services, to the value of around 1 million EURO. Family Medicine has 5 packages in this project to the approximate value of over R5 million over a period of 30 months, viz
  (a) 17: Extension of undergraduate student language learning into the 5th and 6th years of the MBChB curriculum
  (b) 18: Providing language instruction in isiXhosa and Afrikaans for service personnel at two sites
  (c) 19: PROMS (Patient Related Outcome Measures) being conducted by Palliative Medicine in association with King's College, London
  (d) 20: PCAT (Primary Care Assessment Tool)
  (e) 21: Chronic Disease Audit
- Professor Derek Hellenberg is the PI for packages 17 and 18 and Dr Liz Gwyther is the PI for package 19 of the EU project
- Dr Nayna Manga appointed as Research Project co-ordinator for the Family Medicine Packages for the EU Grant.
- Dr Liz Gwyther is the PI for the IMPAQT study for the EU grant: Measuring and Improving Outcomes for Patients with Progressive Chronic Disease: a Palliative Care Audit in two Western Cape sites
- Dr Elma De Vries leads the annual audit of chronic diseases of lifestyle for the Western Cape Department of Health. This project has now added a new dimension to the audit tool (that of patient perceptions of the management they receive for chronic diseases at CHC's) which forms part of an EU Grant.
- Dr Graham Bresick is the PI for the PCAT study that started in 2011 and was completed in 2012. This study has been extended to include a rural and a few more urban sites and forms part of the EU Grant.
- Dr Abdul Isaacs is the PI for the Prescription costs study which was started in 2012 and compared medicine costs for chronic diseases at a few CHC's in the Metro District. The first article from this study was accepted for publication in the SAFPJ in 2013.
- Professor D A Hellenberg is the PI of a survey initiated in 2009 of the first graduates of the new curriculum (2007) to assess the usefulness of language learning during the BaDr course in the work environment. Surveys and focus group interviews will be done annually until 2013 to record the effects of innovations in the course structure and content on the outcomes.
- Dr Tsepo Motsohi started a research project on staff absenteeism in the CHC's on the Metro West platform
- The database of 6th year family medicine student CHC-based projects is continuously updated on our database. The database serves as a useful guide for district management, the family physicians and family medicine registrars at the CHCs when deciding on research priorities and interventions to improve delivery of primary health care services
- Meetings with MDHS senior management and staff continued in 2012, to develop a common research agenda, prioritise key research questions and commission research. Date: 4th October 2012 which now involves the office of Dr Tracey Naledi assisted by Dr George Petros.

School Statistics

Permanent and long-term contract staff

Professors	5
Associate Professors	8
Emeritus Associate Professor	1
Senior Lecturers	8
Lecturers (including part-time)	13
Chief Research Officer	2
Clinical Senior Research Officer	1
Senior Research Officer	5
Research Officer	11
Research Assistant	9
Research Project Management Staff	8
Data Management staff	9
Facilitators	32
Admin and Clerical Staff	24
Total	136

Honorary Staff

Honorary Professor	7
Honorary Associate Professor	2
Honorary Senior Lecturer	6
Honorary Lecturer	17
Honorary Research Associates	11
Visiting Lecturers	11
Total	54

Students

Doctoral	27
Master's	212
PG Diploma	108
Undergraduate	1625
Total	1972

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Research output

Edited books

Gilson, L. (ed.). 2012. Health Policy and Systems Research: A Methodology Reader. Geneva: Alliance for Health Policy and Systems Research/ World Health Organization.

Chapters in books

Colvin, C.J. 2012. True believers or modern believers: HIV science and the work of the Dr Rath Foundation. In S. Levine (ed.), Medicine and the Politics of Knowledge, pp. 33-53. Cape Town: HSRC Press. ISBN 9780796923929.

Flisher, A.J. and Lund, C.A. 2011. Resources for mental health services in Africa: a situation analysis. In D.M. Ndetei and C.P. Szabo (eds), Contemporary Psychiatry in Africa: A Review of Theory, Practice and Research, pp. 1-24. Nairobi, Kenya: Acrodile Publishing Limited. ISBN 9966724990.

Jeebhay, M.F. and Lopata, A.L. 2012. Occupational allergies in seafood-processing workers. In J. Henry (ed.), Advances in Food and Nutrition Research, pp. 47-73. USA: Elsevier. ISBN 9780123945976.

Jeebhay, M.F. and Adewole, O.O. 2012. Work-related asthma. In A.A. Awotedu and E.M. Irusen (eds), Asthma in Africa, pp. 185-211. Nigeria: University of Ibadan. ISBN 9789788414957.

McIntyre, D.E., Doherty, J. and Ataguba, J.E. 2012. Health care financing and expenditure: post-1994 progress and remaining challenges. In H.C.J. van Rensburg (ed.), Health and Health Care in South Africa, pp. 433-482. 2nd edition. Pretoria: Van Schaik Publishers. ISBN 9780627030130.

McIntyre, D.E. 2012. Lessons from international experience for national health insurance in South Africa. In R. de Villiers (ed.), Universal Health Care in Southern Africa. Policy Contestation in Health System Reform in South Africa and Zimbabwe, pp. 177-185. KwaZulu-Natal: University of KwaZulu-Natal. ISBN 9781869142360.

McIntyre, D.E. 2012. Proposals and prospects for national health insurance in South Africa. In R. de Villiers (ed.), Universal Health Care in Southern Africa. Policy Contestation in Health System Reform in South Africa and Zimbabwe, pp. 165-176. KwaZulu-Natal: University of KwaZulu-Natal. ISBN 9781869142360.

McIntyre, D.E. 2012. The political economy of the health industry and the private health funding crisis. In R. de Villiers (ed.), Universal Health Care in Southern Africa. Policy contestation in Health System Reform in South Africa and Zimbabwe, pp. 137-161. KwaZulu-Natal: University of KwaZulu-Natal. ISBN 9781869142360.

Muller, A. 2012. Adherence to long-term therapy – a model of assessment into primary care. In O. Capelli (ed.), Primary Care At a Glance – Hot Topics and Insights, pp. 339-352. Intech. [Online] ISBN 9789535105398.

Rahman, A.M.A., Helleur, R.J., Jeebhay, M.F. and Lopata, A.L. 2012. Characterization of seafood proteins causing allergic diseases. In C. Pereira (ed.), Allergic Diseases – Highlights in the Clinic, Mechanisms and Treatment, pp. 107-140. Europe: Intech. ISBN 9789535102274.

Ruiters, G., Shamu, S., van Niekerk, R. and McIntyre, D.E. 2012. Competing policy choices and the debate on national health insurance in South Africa. In Riaan de Villiers(eds), Universal Health Care in Southern Africa. Policy Contestation in Health System Reform in South Africa and Zimbabwe: 21-40. KwaZulu-Natal: Univeristy of Kwazulu-Natal. ISBN 9781869142360.

Ruiters, G., McIntyre, D.E., Loewensen, R. and van Niekerk, R. 2012. Towards universal health coverage in southern Africa. In R. de Villiers (ed.), Universal Health Care in Southern Africa. Policy Contestation in Health System Reform in South Africa and Zimbabwe, pp. 186-202. KwaZulu-Natal: University of KwaZulu-Natal. ISBN 9781869142360.

Ward, C.L., Dawes, A.R.L. and Matzopoulos, R. 2012. Youth violence in South Africa: setting the scene. In C. Ward, C. Van der Merwe and A. Dawes (eds), Youth Violence: Sources and Solutions in South Africa, pp.1-20. Cape Town: UCT Press. ISBN 9781919895871.

Articles in peer-reviewed Journals

Abiiro, G. and McIntyre, D.E. 2012. Achieving universal health care coverage: current debates in Ghana on covering those outside the formal sector. BMC International Health and Human Rights, 12:25. [Online] http://www.biomedcentral.com/1472-698X/12/25.

Ajose, O., Mookerjee, S., Mills, E., Boulle, A.M. and Ford, N. 2012. Treatment outcomes of patients on second-line antiretroviral therapy in resource-limited settings: a systematic review and meta-analysis. AIDS, 26(8): 929-938.

Akazili, J., Garshong, B., Aikins, M., Gyapong, J. and McIntyre, D.E. 2012. Progressivity of health care financing and incidence of service benefits in Ghana. Health Policy and Planning, 27: i13-i22.

Alaba, O. and McIntyre, D.E. 2012. What do we know about health service utilisation in South Africa? Development Southern Africa, 29(5): 704-724.

Andersson, K.M., Vardas, E., Niccolai, L.M., Van Niekerk, R.M., Mogale, M.M., Holdsworth, I.M., Bogoshi, M., McIntyre, J.A. and Gray, G.E. 2012. Anticipated changes in sexual risk behaviour following vaccination with a low-efficacy HIV vaccine: survey results from a South African township. International Journal of STD & AIDS, 23(10):736-741.

Ataguba, J.E. 2012. Alcohol policy and taxation in South Africa. Applied Health Economics and Health Policy, 10(1): 65-76.

Ataguba, J.E. 2012. Reassessing catastrophic health-care payments with a Nigerian case study. Health Economics Policy and Law, 7: 309-326.

Ataguba, J.E. and Alaba, O. 2012. Explaining health inequalities in South Africa: a political economy perspective. Development Southern Africa, 29(5): 756-764.

Ataguba, J.E. and Goudge, J. 2012. The impact of health insurance on health-care utilisation and out-of-pocket payments in South Africa. Geneva Papers on Risk and Insurance-Issues and Practice, 37: 633-654.

Ataguba, J.E. and McIntyre, D.E. 2012. Paying for and receiving benefits from health services in South Africa: is the health system equitable? Health Policy and Planning, 27: i35-i45.

Ataguba, J.E. and McIntyre, D.E. 2012. Who benefits from health services in South Africa? Health Economics Policy and Law, 8(1): 21-46.

Barasa, E., Ayieko, P., Cleary, S. and English, M. 2012. A multifaceted intervention to improve the quality of care of children in district hospitals in Kenya: a cost-effectiveness analysis. PloS Medicine, 9(6): e1001238.

Barasa, E.W., Ayieko, P., Cleary, S. and English, M. 2012. Out-of-pocket costs for paediatric admissions in district hospitals in Kenya. Tropical Medicine & International Health, 17(8): 958-961.

Baumgartner, J., Morroni, C., Mlobeli, R., Otterness, C., Buga, G. and Chen, M. 2012. Impact of a provider job aid intervention on injectable contraceptive continuation in South Africa. Studies in Family Planning, 43(4): 305-314.

Becker, J., Dell, A., Jenkins, L. and Sayed, R. 2012. Reasons why patients with primary health care problems access a secondary hospital emergency centre. SAMJ South African Medical Journal, 102(10): 800-801.

Bendavid, E., Ford, N. and Mills, E. 2012. HIV and Africa's elderly: the problems and possibilities. AIDS, 26: S85-S91.

Besada, D., Van Cutsem, G., Goemaere, D., Ford, N., Bygrave, H. and Lynch, S. 2012. The case for Option B and Optional B+: ensuring that South Africa's commitment to eliminating mother-to-child transmission of HIV becomes a reality. Southern African Journal of HIV medicine, 13(4): 178-181.

Blencowe, H., Cousens, S., Oestergaard, M., Chou, D., Moller, A.B., Narwal, R., Adler, A., Garcia, C.V., Rohde, S., Say, L. and Lawn, J.E.L. 2012. National, regional and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. Lancet, 379: 2162-2172.

Bosch-Capblanch, X., Lavis, J.N., Lewin, S., Atun, R., Rottingden, J.A., Droschel, D., Beck, L., Abalos, E., El-Jardali, F., Gilson, L., Oliver, S., Wyss, K., Tugwell, P., Kulier, R., Pang, T. and Haines, A. 2012. Guidance for evidence-informed policies about health systems: rationale for and challenges of guidance development. PloS Medicine, 9(3): e1001185.

Brehm, J.H., Koontz, D.L., Wallis, C.L., Shutt, K.A., Sanne, I., Wood, R., McIntyre, J.A., Stevens, W.S., Sluis-Cremer, N. and Mellors, J.W. 2012. Frequent emergence of N348I in HIV-1 subtype C reverse transcriptase with failure of initial therapy reduces susceptibility to reverse-transcriptase inhibitors. Clinical infectious diseases: an official publication of the Infectious Diseases Society of America, 55(5):737-745.

Breuer, E., Stoloff, K., Myer, L., Seedat, S., Stein, D.J. and Joska, J. 2012. Reliability of the lay adherence counsellor administered substance abuse and mental illness symptoms screener (SAMISS) and the international HIV dementia scale (IHDS) in a primary care HIV clinic in Cape Town, South Africa. AIDS and Behavior, 16: 1464-1471.

Burchette, H.E.D., Mounier-Jack, S., Griffiths, U.K., Biellik, R., Ongolo-Zogo, P., Chavez, E., Sarma, H., Uddin, J., Konate, M., Kitaw, Y., Molla, M., Wakasiaka, S., Gilson, L. and Mills, A. 2012. New vaccine adoption: qualitative study of national decision-making processes in seven low- and middle-income countries. Health Policy and Planning, 27(2): ii5-ii16.

Burdzik, A., Jeebhay, M.F. and Todd, G. 2012. Occupational dermatitis in food processing workers with a special focus on the seafood processing industry - a review. Current Allergy & Clinical Immunology, 25(2): 88-93.

Bygrave, H., Mtangirwa, J., Ncube, K., Ford, N., Kranzer, K. and Munyaradzi, D. 2012. Antiretroviral therapy outcomes among adolescents and youth in rural Zimbabwe. PLoS One, 7(12): e52856.

Bygrave, H., Saranchuk, P., Makakole, L. and Ford, N. 2012. Feasibility and benefits of scaling up antiretroviral treatment provision with the 2010 WHO antiretroviral therapy guidelines in rural Lesotho. International Health.4: 170-175.

Caldwell, L.L., Smith, E., Collins, L.M., Graham, J.W., LAI, M., Wegner, L., Vergnani, T., Mathews, C. and Jacobs, J. 2012. Translational research in South Africa: evaluating implementation quality using a factorial design. Child & Youth Care Forum, 41(2): 119-136.

Calmy, A., Balestre, E., Bonnet, F., Boulle, A.M., Sprinz, E., Wood, R., Delaporte, E., Messou, E., McIntyre, J., El Filaili, K.M., Schechter, M., Kumarasamy, N., Bangsberg, D., Mcphail, P., van der Borght, S., Zala, Z., Egger, M., Thiebaut, R. and Dabis, F. 2012. Mean CD4 cell count changes in patients failing a first-line antiretroviral therapy in resource-limited settings. BMC Infectious Diseases, 12:147. [Online]. http://www.biomedcentral.com/1471-2334/12/147.

Chacko, L., Ford, N., Sbaiti, M. and Siddiqui, R. 2012. Adherence to HIV post-exposure prophylaxis in victims of sexual assault: a systematic review and meta -analysis. Sexually Transmitted Infections, 88: 335-341.

Chokotho, C.L., Matzopoulos, R. and Myers, J.E. 2012. Driver's risk profile indicates the need for a graduated driving licence in South Africa. SAMJ South African Medical Journal, 102(9): 749-751.

Chu, K., Cortier, H., Maldonado, F., Mashant, T., Ford, N. and Trelles, M. 2012. Cesarean section rates and indications in sub-Saharan Africa: a multi-country study from Medecins sans Frontieres. PLoS One, 7(9): e44484.

Chu, K.M., Manzi, M., Zuniga, I., Biot, M., Ford, N.P., Rasschaert, F. and Zachariah, R. 2012. Nevirapine- and efavirenz-associated hepatotoxicity under programmatic conditions in Kenya and Mozambique. International Journal of STD & AIDS, 23(6): 403-407.

Chuma, J., Maina, T. and Ataguba, J.E. 2012. Does the distribution of health care benefits in Kenya meet the principles of universal coverage? BMC Public Health, 12:20. [Online] http://www.biomedcentral.com/1471-2458/12/20.

Cleary, S., Birch, S., Moshabela, M. and Schneider, H. 2012. Unequal access to ART: exploratory results from rural and urban cases studies of ART use. Sexually Transmitted Infections, 88: 141-146.

Cook, C.D., Carrara, H. and Myers, L. 2012. Phaco-emulsification versus manual small-incision cataract surgery in South Africa. SAMJ South African Medical Journal, 102(6): 537-540.

Cornell, M., Schomaker, M., Garone, D., Giddy, J., Hoffman, C.J., Lessells, R., Maskew, M., Prozesky, H., Wood, R., Johnson, L.F., Egger, M., Boulle, A.M. and Myer, L. 2012. Gender differences in survival among adult patients starting antiretroviral therapy in South Africa: amulticentre cohort study. Plos Medicine, 9(9): e1001304.

Couper, I., Mash, B., Smith, S. and Schweitzer, B.R. 2012. Outcomes for family medicine postgraduate training in South Africa. South African Family Practice, 54(6): 501-506.

Cox, H. and Ford, N. 2012. Linezolid for the treatment of complicated drug-resistant tuberculosis: a systematic review and meta-analysis. International Journal of Tuberculosis and Lung Disease, 16(4): 447-454.

Cox, H.S., Escombe, R., McDermid, C., Mtshemla, Y., Spelman, T., Azevedo, V. and London, L. 2012. Wind-driven roof turbines: a novel way to improve ventilation for TB infection control in health facilities. PLoS One, 7(1): e29589.

Craven, S. 2012. Henry Paul William Lyster Jameson, MA, DSc, PhD (1875-1922) - a polymath: zoologist, Transvaal educationist, entrepreneur, civil servant and marxist. Transactions of The Royal Society of South Africa, 67(3): 127-134.

Crede, S., Hoke, T., Constant, D.A., Green, M., Moodley, J.R. and Harries, J. 2012. Factors impacting knowledge and use of long acting and permanent contraceptive methods by postpartum HIV positive and negative women in Cape Town, South Africa: a cross-sectional study. BMC Public Health, 12:197.

Davies, M., Boulle, A.M., Technau, K., Eley, B.S., Moultrie, H., Rabie, H., Garone, D., Giddy, J., Wood, R., Egger, M. and Keiser, O. 2012. The role of targeted viral load testing in diagnosing virological failure in children on antiretroviral therapy with immunological failure. Tropical Medicine & International Health, 17(11): 1386-1390.

Demers, A.-M., Verver, S., Boulle, A.M., Warren, R.M., Van Helden, P., Behr, M. and Coetzee, D.J. 2012. High yield of culture-based diagnosis in a TB-endemic setting. BMC Infectious Diseases, 12: 218.

Dewing, S., Mathews, C., Schaay, N., Cloete, A., Louw, J. and Simbayi, L.C. 2012. Behaviour change counselling for ARV adherence support within primary health care facilities in the Western Cape, South Africa. AIDS and Behavior, 16: 1286-1294

Dworkin, S.L., Colvin, C.J., Hatcher, A. and Peacock, D. 2012. Men's perceptions of women's rights and changing ender relations in South Africa: lessons for working with men and boys in HIV and antiviolence programs. Gender and Society, 26(1): 97-120.

Eaton, J.W., Johnson, L.F., Salomon, J.A., Barnighausen, T., Bendavid, E., Bershteyn, A., Bloom, D.E., Cambiano, V., Fraser, C., Hontelez, J.A.C., Humair, S., Klein, D.J., Long, E.F., Phillips, A.N., Pretorius, C., Stover, J., Wenger, E.A., Williams, B. and Hallett, T.B. 2012. HIV treatment as prevention: systematic comparison of mathematical models of the potential impact of antiretroviral therapy on HIV incidence in South Africa. Plos Medicine, 9(7): e1001245.

Egger, M., Ekouevi, D.K., Williams, C., Lyamuya, R., Mukumbi, H., Braitstein, P., Hartwell, T., Graber, C., Chi, B., Boulle, A.M., Dabis, F. and Wools-Kaloustian, K. 2012. Cohort profile: the international epidemiological databases to evaluate AIDS (LEDEA) in sub-Saharan Africa. International Journal of Epidemiology, 41: 1256-1264.

Ehrlich, R.I. 2012. A century of miners' compensation in South Africa. American Journal of Industrial Medicine, 55(6): 560-569.

Ehrlich, R.I., Woolf, D.C. and Kibel, D.A. 2012. Disulfiram reaction in an artist exposed to solvents. Occupational Medicine-Oxford, 62: 64-66.

Ehrlich, R.I. 2012. Persistent failure of the COIDA system to compensate occupational disease in South Africa. SAMJ South African Medical Journal, 102(2): 95-97.

Ekouevi, D.K., Stringer, E.M., Coetzee, D.J., Tih, P., Creek, T.L., Stinson, K., Andrew, A.O., Welty, T.K., Chintu, N., Chi, B.H., Wilfert, C.M., Shaffer, N., Stringer, J.S.A. and Dabis, F. 2012. Health facility characteristics and their relationship to coverage of PMTCT of HIV services across four African countries: the pearl study. PLoS One, 7(1): e29823.

Ekouevi, D.K., Abrams, E., Schlesinger, M., Myer, L., Phanuphak, N. and Carter, R.J. 2012. Maternal CD4+cell count decline after interruption of antiretroviral prophylaxis for the prevention of mother-to child transmission of HIV. PLoS One, 7(8): e43750.

English, R., Perry, M., Lee, M.M., Hoffman, E., Delport, S.V. and Dalvie, M.A. 2012. Farm residence and reproductive health among boys in rural South Africa. Environment International, 47: 73-79.

Estill, J., Aubriere, C., Egger, M., Johnson, L.F., Wood, R., Garone, D., Gsponer, T., Wanderler, G., Boulle, A.M.,

Davies, M., Hallett, T.B. and Keiser, O. 2012. Viral load monitoring of antiretroviral therapy, cohort viral load and HIV transmission in southern Africa: a mathematical modelling analysis. AIDS, 26: 1403-1413.

Ettehad, D., Schaaf, H., Seddon, J.A., Cooke, G. and Ford, N. 2012. Treatment outcomes for children with multidrug-resistant tuberculosis: a systematic review and meta-analysis. Lancet Infectious Diseases, 12: 449-56.

Evans, N., Meaca, A., Andrew, E.V.W., Koffman, J., Harding, R., Higginson, I., Pool, P. and Gysels, M. 2012. Systematic review of the primary research on minority ethnic groups and end-of-life care from the United Kingdom. Journal of Pain and Symptom Management, 43(2): 261-286.

Fairall, L., Bachmann, M.O., Lombard, C., Timmerman, V., Uebel, K., Zwarenstein, M., Boulle, A.M., Georgeu, D., Colvin, C., Lewin, S.A., Faris, G.F., Cornick, R.V., Draper, B., Tshabalala, M., Kotze, E., Van Vuuren, C., Steyn, D., Chapman, R. and Bateman, E.D. 2012. Task shifting of antiretroviral treatment from doctors to primary-care nurses in South Africa (STRETCH): a pragmatic, parallel, cluster-randomised trial. Lancet, 380: 889-898.

Farrant, L., Gwyther, E., Dinat, N., Mmoledi, K., Ntombi , N. and Harding, R. 2012. The prevalence and burden of pain and other symptoms among South Africans attending HAART clinics. SAMJ South African Medical Journal, 102(6): 499-500.

Flisher, A.J., Dawes, A.R.L., Kafaar, Z., Lund, C., Sorsdahl, K., Myers, B.J., Thom, R. and Seedat, S. 2012. Child and adolescent mental health in South Africa. Journal of Child and Adolescent Mental Health, 24(2): 149-161.

Ford, N., SIngh, K., Cooke, G., Mills, E., von Schoen-Angerer, T., Kamarulzaman, A. and du Cros, P. 2012. Expanding access to treatment for hepatitis C in resource-limited settings: lessons from HIV/AIDS. Clinical Infectious Diseases, 54(10): 1465-1472.

Ford, N., Hargreaves, S. and Shanks, L. 2012. Mortality after fluid bolus in children with shock due to severe infection: a systematic review and meta-analysis. PLoS One, 7(8): e43953.

Ford, N., Chu, K. and Mills, E. 2012. Safety of task-shifting for male medical circumcision: a systematic review and meta-analysis. AIDS, 26(5): 559-566.

Ford, N., Kirby, C., Singh, K., Mills, E.J., Cooke, G., Kamarulzaman, A. and Ducros, P. 2012. Chronic hepatitis C treatment outcomes in low- and middle-income countries: a systematic review and meta-analysis. Bulletin of the World Health Organization, 90(7): 540-550.

Fox, M.P., Van Custem, G., Giddy, J., Maskew, M., Keiser, O., Prozesky, H., Wood, R., Hernan, M., Sterne, J.A.C., Egger, M. and Boulle, A.M. 2012. Rates and predictors of failure of first-line antiretroviral therapy and switch to second-line ART in South Africa. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60(4): 428-437.

Freercks, R., Swanepoel, C.R., Carrara, H., Moosa, S.E., Lachman, A. and Rayner, B.L. 2012. Vascular calcification in South African dialysis patients: Ethnic variation, prevalence, detection and haemodynamic correlates. Nephrology, 17: 607-615.

Georgeu, D., Colvin, C.J., Lewin, S., Fairall, L., Bachmann, M.O., Uebel, K., Zwarenstein, M., Draper, B. and Bateman, E.D. 2012. Implementing nurse-initiated and managed antiretroviral treament (NIMART) in South Africa: a qualitative process evaluation of the STRETCH trial. Implementation Science, 7:66.

Gilson, L., Erasmus, E., Borghi, J., Macha, J., Kamuzora, P. and Mtei, G. 2012. Using stakeholder analysis to support moves towards universal coverage: lessons from the SHIELD project. Health Policy and Planning, 27(1): i64-i76.

Goudge, J., Akazili, J., Ataguba, J.E., Kuwawenaruwa, A., Borghi, J., Harris, B. and Mills, A. 2012. Social solidarity and willingness to tolerate risk- and income-related cross-subsidies within health insurance: experiences from Ghana, Tanzania and South Africa. Health Policy and Planning, 27: i55-i63.

Govender, I., Ehrlich, R.I., Van Vuuren, U., de Vries, E., Namane, M., de S, A., Murie, K., Schlemmer, A., Govender, S., Isaacs, A. and Martell, R. 2012. Clinical audit of diabetes management can improve the quality of care in the resource-limited primary care setting. International Journal for Quality in Health Care, 24(6): 612-618.

Govender, I., Matzopoulos, R.G., makanga, P. and Corrigall, J. 2012. Piloting a trauma surveillance tool for primary healthcare emergency centres. SAMJ South African Medical Journal, 102(5): 303-306.

Govender, M. and Mooney, G. 2012. People's policies for the health of the poor globally. International Journal of Health Planning and Management, 27: e92-e103.

Govindasamy, D., Ford, N. and Kranzer, K. 2012. Risk factors, barriers and facilitators for linkage to antiretroviral therapy care: a systematic review. AIDS, 26(16): 2059-2067.

Greig, J., Casas, E., O' Brien, D., Mills, E. and Ford, N. 2012. Association between older age and adverse outcomes on antiretroviral therapy: a cohort analysis of programme data from nine countries. AIDS, 26: S31-S37.

Greig, J., O'Brien, D.P., Ford, N., Spelman, T., Sabapathy, K. and Shanks, L. 2012. Similar mortality and reduced loss to follow-up in integrated compared with vertical programs providing antiretroviral treatment in sub-saharan Africa. Journal of Acquired Immune Deficiency Syndromes, 59(5): e92-98.

Gsponer, T., Petersen, M., Egger, M., Phiri, , Maathuis, M., Boulle, A.M., Musondad, P., Tweya, H., Peter, K., Chi, B.H. and Keiser, O. 2012. The causal effect of switching to second-line ART in programmes without access to routine viral load monitoring. AIDS, 26(1): 57-65.

Gsponer, T., Weigel, R., Davies, M., Bolton, C., Moultrie, H., Vaz, P., Rabie, H., Technau, K., Ndirangu, J., Eley, B.S., Garone, D., Wellington, M., Giddy, J., Ehmer, J., Egger, M. and Keiser, O. 2012. Variability of growth in children starting antiretroviral treatment in southern Africa. Pediatrics, 130(4): e966-e977.

Gysels, M., Evans, N., Meaca, A., Andrew, E.V.W., Bausewein, C., Gastmans, C., Batiste, G., Gunaratnam, Y., Husebo, S., Higginson, I., Harding, R. and Pool, P. 2012. Contraceptive method and pregnancy incidence among women in HIV-1-serodiscordant partnerships. Journal of Pain and Symptom Management, 44(2): 285-294.

Gysels, M., EVANS, N., Menaca, A., Andrew, E.V.W., Bausewein, C., Gastmans, C., Gomez-Batiste, X., Gunaratnam, Y., Husebo, S., Toscani, F., Higginson, I., Harding, R. and Pool, P. 2012. Culture is a priority for research in end-of-life care in Europe: a research agenda. Journal of Pain and Symptom Management, 44(2): 285-293.

Harding, R., Selman, L., Agupio, G., Dinat, N., Downing, J., Gao, W., Gwyther, L., Mashao, T., Mmoledi, K., Moll, A.P., Mpanga Sebuyira, L., Ikin, B. and Higginson, I. 2012. Intensity and correlates of multidimensional problems in HIV patients receiving integrated palliative care in sub-Saharan Africa. Sexually Transmitted Infections, 88: 607-611.

Harding, R., Foley, K.M., Connor, S.R. and Jaramillo, E. 2012. Palliative and end-of-life care in the global response to multidrug-resistant tuberculosis. Lancet Infectious Diseases, 12: 643-646.

Harding, R., Selman, L., Agupio, G., Dinat, N., Downing, J., Gwyther, E., Mashao, T., Mmoledi, K., Moll, T., Mpanga Sebuyira, L., Ikin, B. and Higginson, I. 2012. Prevalence, burden, and correlates of physical and psychological symptoms among HIV palliative care patients in sub-Saharan Africa: an international multicenter study. Journal of Pain and Symptom Management, 44(1): 1-9.

Harries, J., Lince, N., Constant, D.A., Hargey, A. and Grossman, D. 2012. The challenges of offering public second trimester abortion services in South Africa: Health Care Providers' Perspectives. Journal of Biosocial Science, 44: 197-208.

Harrison, H.L., Raghunath, N. and Twomey, M. 2012. Emergency triage, assessment and treatment at a district hospital in Malawi. Emergency Medicine Journal, 29: 924-925.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: A story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Hennessey, C. and Osler M. 2012. How structured patient clinical records can assist nurses in the management and monitoring of patients within South Africa HIV/ART programme. HIV Nursing Matters, 3(2): 32-37.

Hepple, P., Ford, N. and McNerney, R. 2012. Microscopy compared to culture for the diagnosis of tuberculosis in induced sputum samples: a systematic review. International Journal of Tuberculosis and Lung Disease, 16(5): 579-588.

Hoffman, M., Coetzee, D.J., Hodes, R. and London, L. 2012. From comprehensive medicine to public health at the University of Cape Town: a 40-year journey SAMJ South African Medical Journal, 102(6): 442-445.

Holt, K., Lince, N., Hargey, A., Struthers, H., Nkala, B., McLntyre, J., Gray, G., Mnyani, C. and Blanchard, K. 2012. Assessment of service availability and health care workers' opinions about young women's sexual and reproductive health in Soweto, South Africa. African Journal of Reproductive Health, 16(2): 283-293.

Howitt, P., Darzi, A., Yang, G.Z., Ashrafian, H., Atun, R., Barlow, J., Blakemore, A., Bull, A.M., Car, J., Conteh, L., Cooke, G.S., Ford, N., Gregson, S.A., Kerr, K., King, D., Kulendran, M., Malkin, R.A., Majeed, A., Matlin, S., Merrifield, R., Penfold, H.A., Reid, S.D., Smith, P.C., Stevens, M.M., Templeton, M.R., Vincent, C. and Wilson E. Technologies for global health. Lancet, 380 (9840): 507-535.

Howse, D., Jeebhay, M.F. and NEIS, B. 2012. The changing political economy of occupational health and safety in fisheries: lessons from eastern Canada and South Africa. Journal of Agrarian Change, 12(2 and 3): 344-363.

Hughes, J., Baeten, J., Lingappa, J.R., Magaret, A., Wald, A., de Bruyn, G., Kiarie, J., Inambao, M., Kilembe, W., Farquhar, C., Celum, C., Coetzee, D.J., Delaney-Moretlwe, S., Rees, H., Gray, G., McIntyre, J. and Mugo, N. 2012. Determinants of per-coital act HIV-1 infectivity among African HIV-1- serodiscordant couples. Journal of Infectious Diseases, 205: 358-365.

Isaakidis, P., Varghese, B., Mansoor, H., Cox, H., Ladomirska, J., Saranchuk, P., Da Silva, E., Khan, S., Paryani, R., Udwadia, Z., Migliori, G.B., Sotgiu, G. and Reid, T. 2012. Adverse events among HIV/MDR-TB co-infected patients receiving antiretroviral and second line anti-TB treatment in Mumbai, India. PLoS One, 7(7): e40781.

Jacob, R.A., Abrahams, F., Tongo, M., Schomaker, M., Roux, P., Mpoudi Ngole, E., Burgers, W.A. and Dorfman, J.R. 2012. Refined Identification of Neutralization-Resistant HIV-1 CRF02_AG Viruses. Journal of Virology, 86(14): 7699-703.

Jeebhay, M.F. 2012. ALLSA-Supported Research - Some reflections two decades later Current Allergy & Clinical Immunology, 25(2): 97-98.

Jeebhay, M.F. 2012. An approach to work-related asthma in the South African setting. Current Allergy & Clinical Immunology, 25(3): 164-170.

Jeebhay, M.F. 2012. An approach to asthma in the workplace. Specialist Forum, 12(6): 56-65.

Johnson, L.F., Stinson, K., Newell, M., Bland, R., Moultrie, H., Davies, M., Rehle, T., Dorrington, R.E. and Sherman, G. 2012. The contribution of maternal HIV seroconversion during late pregnancy and breastfeeding to mother-to-child transmission of HIV. Jaids-Journal of Acquired Immune Deficiency Syndromes, 59(4): 417-425.

Johnson, L.F., Hallett, T.B., Rehle, T. and Dorrington, R.E. 2012. The effect of changes in condom usage and antiretroviral treatment coverage on human immunodeficiency virus incidence in South Africa: a model-based analysis. Journal of the Royal Society Interface, 9(72): 1544-1554.

Johnson, L.F., Davies, M., Moultrie, H., Sherman, G., Bland, R., Rehle, T., Dorrington, R.E. and Newell, M.-L. 2012. The effect of early initiation of antiretroviral treatment in infants on pediatric AIDS mortality in South Africa. Pediatric Infectious Disease Journal, 31(5): 474-480.

Johnson, L.F., Dorrington, R.E., Bradshaw, D. and Coetzee, D.J. 2012. The role of sexually transmitted infections in the evolution of the South African HIV epidemic. Tropical Medicine & International Health, 17(2): 161-168.

Joska, J., Westgarth-Taylor, J., Hoare, J., Thomas, K., Paul, R., Myer, L. and Stein, D.J. 2012. Neuropsychological outcomes in adults commencing highly active anti-retroviral treatment in South Africa: a prospective study. BMC Infectious Diseases, 12:39.

Kabir, F., van Gelderen, C., McIntyre, J.A., Michelow, P., Turton, D. and Adam, Y. 2012. Cervical intra-epithelial neoplasia in HIV-positive women after excision of the transformation zone – does the grade change? SAMJ South African Medical Journal, 102(9): 757-760.

Keikelame, M.J., Hills, R.M., Naidu, C., De Sa, A.M.R. and Zweigenthal, V. 2012. General practitioners perceptions on management of epilepsy in primary care settings in Cape Town, South Africa: an exploratory pilot study. Epilepsy & Behavior, 25: 105-109.

Kerschberger, B., Hilderbrand, K., Boulle, A.M., Coetzee, D.J., Goemaere, E., De Azevedo, V. and Van Cutsem, G. 2012. The effect of complete integration of HIV and TB services on time to initiation of antiretroviral therapy: a before-after study. PLoS One, 7(10): e46988.

Krige, J.E.J., Kotze, U.K., Sayed, R., Burmeister, S., Bernon, M. and Chinnery, G. 2012. Outcome in decompensated alcoholic cirrhotic patients with acute variceal bleeding. SAMJ South African Medical Journal, 102(6): 554-557.

Laughton, B., Cornell, M., Grove, D., Kidd, M., Springer, P.E., Dobbels, E., Van Rensburg, A.J., Violari, A., Babiker, A., Madhi, S., Philppe, P.J., Gibb, D.M. and Cotton, M. 2012. Early antiretroviral therapy improves neurodevelopmental outcomes in infants. AIDS, 26: 1685-1690.

Lavis, J.N., Rottingen, J.A., Bosch-Capblanch, X., Atun, R., El-Jardali, F., Gilson, L., Lewin, S., Oliver, S., Ongolo-Zogo, P. and Haines, A. 2012. Guidance for evidence-informed policies about health systems: linking guidance development to policy development. Plos Medicine, 9(3): e1001186.

Le Roux, S., Cotton, M., Myers, L., Le Roux, D., Schaaf, H., Lombard, C. and Zar, H.J. 2012. Safety of long-term isoniazid preventive therapy in children with HIV: a comparison of two dosing schedules. International Journal of Tuberculosis and Lung Disease, 17(1): 26-31.

Lee, J.S., Calmy, A., Andrieux-Meyer, I. and Ford. N. 2012. Review of the safety, efficacy, and pharmacokinetics of

elvitegravir with an emphasis on resource-limited settings. HIV/AIDS, 4: 5-15.

Levin, M., Mathema, H., Stinson, K. and Jennings, K. 2012. Acceptability, feasibility and impact of routine screening to detect undiagnosed HIV infection in 17 - 24-month-old children in the western sub-district of Cape Town. SAMJ South African Medical Journal, 102: 253-256.

Lockman, S., Hughes, M., Sawe, F., Zheng, Y., McIntyre, J., Chipato, T., Asmelash, A., Rassool, M., Kimaiyo, S., Shaffer, D., Hosseinipour, M., Mohapi, L., Ssali, F., Chibowa, M., Amod, F., Halvas, E., Hogg, E., Alston-Smith, B., Smith, L., Schooley, R., Mellors, J. and Currier J. 2012. Nevirapine-versus lopinavir/ritonavir-based initial therapy for HIV-1 infection among women in Africa: a randomized trial. PLoS Medicine, 9(6): e1001236.

London, L., Matzopoulos, R., Corrigall, J., Myers, J.E., Maker, A. and Parry, C.D.H. 2012. Conflict of interest: a tenacious ethical dilemma in public health policy, not only in clinical practice/research. South African Journal of Bioethics and Law, 5(2): 102-108.

London, L., Kagee, A., Moodley, K. and Swartz, l. 2012. Ethics, human rights and HIV vaccine trials in low-income settings. Journal of Medical Ethics, 38: 286-293.

London, L., Fick, N., Tram, K. and Stuttaford, M. 2012. Filling the gap: a learning network for health and human rights in the Western Cape, South Africa. Health and Human Rights, 14(1): 1-18.

London, L. and Schneider, H. 2012. Globalisation and health inequalities: can a human rights paradigm create space for civil society action? Social Science & Medicine, 74: 6-13.

London, L., Beseler, C., Bouchard, M.F., Bellinger, D., Colosio, C., Grandjean, P., Harari, R., Kootbodien, T., Kromhout, H., Little, F., Meijster, T., Moretto, A., Rohlman, D.S. and Stallones, L. 2012. Neurobehavioral and neurodevelopmental effects of pesticide exposures. Neurotoxicology, 33: 887-896.

Lozano, R., Naghavi, M., Foreman, K., Lim, S., Shibuya, K., Aboyans, V., Abraham, J., Adair, T., Aggarwal, R., Ahn, S., Matzopoulos, R., Mayosi, B.M., Mensah, G. and Sliwa, K. 2012. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the global burden of disease study 2010. Lancet, 380: 2095-2128.

Luque-Fernandez, M., Schomaker, M., Mason, P.R., Fesselet, J.F., Baudot, Y., Boulle, A.M. and Maes, P. 2012. Elevation and cholera: an epidemiological spatial analysis of the cholera epidemic in Harare, Zimbabwe, 2008-2009. BMC Public Health, 12:442.

Luque-Fernandez, M., Lone, N.I., Garitano, I.G. and Bueno-Cavanillas, A. 2012. Stillbirth risk by maternal socio-economic status and country of origin: a population-based observational study in Spain, 2007-8. European Journal of Public Health, 22(4): 524-529.

Macha, J., Harris, B., Garshong, B., Ataguba, J.E., Akazili, J., Kuwawenaruwa, A. and Borghi, J. 2012. Factors influencing the burden of health care financing and the distribution of health care benefits in Ghana, Tanzania and South Africa. Health Policy and Planning, 27: i46-i54.

Maher, D. and Ford, N. 2011. Action on noncommunicable diseases: balancing priorities for prevention and care. Bulletin of the World Health Organization, 89: 547-547A.

Maher, D., Ford, N. and Unwin N. 2012. Priorities for developing countries in the global response to non-communicable diseases. Globalization and Health, 8:14.

Marian, A. 2012. Severe allergies and the law - the case of anaphylaxis. Current Allergy & Clinical Immunology, 25(3): 156-160.

Mathews, C., Aaro, L., Grimsrud, A.T., Flisher, A.J., Kaaya, S., Onya, H., Schaalma, H., Wubs, A.G., Mukoma, W. and Klepp, K. 2012. Effects of the SATZ teacher-led school HIV prevention programmes on adolescent sexual behaviour: cluster randomised controlled trials in three sub-Saharan African sites. International Health, 4: 111-122.

Mathews, C. and Vu, L. 2012. Test of HIV. AIDS and Behavior, 16: 132-138.

Matzopoulos, R., Parry, C., Corrigall, J., Myers, J.E., Goldstein, S. and London, L. 2012. Global fund collusion with liquor giant is a clear conflict of interest. Bulletin of the World Health Organization, 90(1): 67-69.

Mbulawa, Z., Marais, D.J., Johnson, L., Coetzee, D.J. and Williamson, A.-L. 2012. Impact of human immunodeficiency virus on the natural history of human papillomavirus genital infection in South African men and women. Journal of Infectious Diseases, 206: 15-27.

McIntyre, D.E. and Foster, N. 2012. Economic evaluation of task shifting approaches to the dispensing of anti-retroviral therapy. Human Resources for Health, 10:32.

McIntyre, D.E. and Borghi, J. 2012. Inside the black box: modelling health care financing reform in data-poor contexts. Health Policy and Planning, 27: i77-i87.

McIntyre, D.E. and Ataguba, J.E. 2012. Modelling the affordability and distributional implications of future health care financing options in South Africa. Health Policy and Planning, 27: i101-i112.

McIntyre, D.E. and Mills, A. 2012. Research to support universal coverage reforms in Africa: the SHIELD Project. Health Policy and Planning, 27: i1-i3.

McIntyre, D.E. 2012. What healthcare financing changes are needed to reach universal coverage in South Africa. SAMJ South African Medical Journal, 102(6): 489-490.

McNerney, R., Maeurer, M., Abubakar, I., Marais, B., McHugh, T., Ford, N., Weyer, K., Lawn, S.D., Grobusch, M.P., Memish, Z., B Squire, B., Pantaleo, G., Chakaya, J., Casenghi, M., Migliori, G.B., Mwaba, P., Zijenah, L., Hoelscher, M., Cox, H., Swaminathan, S., Kim, P., Schito, M., Harari, A., Bates, M., Schwank, S., O'Grady, J., Pletschette, M., Ditui, L., Atun, R. and Zumla, A. 2012. Tuberculosis diagnostics and biomarkers: needs, challenges, recent advances, and opportunities. Journal of Infectious Diseases, 205: S147-158.

Meier, B.M., Pardue, C. and London, L. 2012. Implementing community participation through legislative reform: a study of the policy framework for community participation in the Western Cape province of South Africa. BMC International Health and Human Rights, 12:15.

Meintjes, G. and Boulle, A. 2012. Immune reconstitution inflammatory syndrome in a large multicenter cohort study: case definition and comparability. Expert Review of Anti-Infective Therapy, 10(7): 737-741.

Meintjes, G., Skolimowska, K., Wilkinson, K., Matthews, K., Tadokera, R., Conesa-Botella, A., Seldon, R.R., Rangaka, M.X., Rebe, K.B., Pepper, D.J., Morroni, C., Colebunders, R., Maartens, G. and Wilkinson, R.J. 2012. Corticosteroid-modulated immune activation in the tuberculosis immune reconstitution inflammatory syndrome. American Journal of Respiratory and Critical Care Medicine, 186(4): 369-377.

Meiring, T., Salimo, A., Coetzee , B., Maree, H.J., Moodley, J.R., Hitzeroth, I.I., Freeborough, M.J., Rybicki, E.P. and Williamson, A.-L. 2012. Next-generation sequencing of cervical DNA detects human papillomavirus types not detected by commercial kits. Virology Journal, 9:164.

Mills, A., Ataguba, J.E., Ataguba, J., Akazili, J., Borghi, J., Garshong, B., Makawia, S., Mtei, G., Harris, B., Macha, J., Meheus, F. and McIntyre, D.E. 2012. Equity in financing and use of health care in Ghana, South Africa and Tanzania: implications for paths to universal coverage. Lancet, 380: 126-133.

Mills, E.J., Bakanda, C., Birungi, J., Yaya, S. and Ford, N. 2012. The prognostic value of baseline CD4+ cell count beyond 6 months of antiretroviral therapy in HIV-positive patients in a resource-limited setting. AIDS, 26(11): 1425-1429.

Mills, F.P., Ford, N., Nachega, J.B., Bansback, N., Nosyk, B., Yaya, S. and Mills, E.J. 2012. Earlier initialization of highly active antiretroviral therapy is associated with long term survival and is cost-effective: findings from a deterministic model of a 10-year Ugandan cohort. Journal of Acquired Immune Deficiency Syndromes, 61(3): 364-369.

Mnyani, C., Nicolaou, E., Bera, E., Black, V., Hull, J.C. and McIntyre, J.A. 2012. Guideline on invasive obstetric procedures in the HIV-infected pregnant woman. SAJOG-South African Journal of Obstetrics and Gynaecology, 18(1): 3-5.

Mnyani, C., McIntyre, J.A. and Myers, L. 2012. The reliability of point-of care CD4 testing in identifying HIV-infected pregnant women eligible for antiretroviral therapy. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60(3): 260-264.

Morrison, C., Skoler-Karpoff, S., Kwok, C., Chen, P.L., van de Wijgert, J., Gehret-Plagionos, M., Patel, S., Ahmed, K., Ramjee, G., Friedland, B. and Lahteenmaki, P. 2012. Hormonal contraception and the risk of HIV acquisition among women in South Africa. AIDS, 26: 497-504.

Moshabela, M., Schneider, H., Cleary, S., Pronyk, P. and Eyles, J. 2011. Does accessibility to antiretroviral care improve after down-referral of patients from hospitals to health centres in rural South Africa. African Journal of AIDS Research, 10(4): 393-401.

Moshabela, M., Schneider, H., Silal, S.P. and Cleary, S. 2012. Factors associated with patterns of plural healthcare utilization among patients taking antiretroviral therapy in rural and urban South Africa: a cross-sectional study. BMC Health Services Research, 12: 182. [Online] http://www.biomedcentral.com/1472-6963/12/182.

Mugglin, C., Estill, J., Wandeler, G., Bender, N., Egger, M., Gsponer, T. and Keiser, O. 2012. Loss to programme between HIV diagnosis and initiation of antiretroviral

therapy in sub-Saharan Africa: systematic review and meta analysis. Tropical Medicine & International Health, 17(12): 1509-1520.

Murray, C.J.L., Vos, T., Lozano, R., Naghavi, M., Flaxman, A., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J.A., Abdalla, S., Matzopoulos, R. and Mayosi, B.M. 2012. Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the global burden of disease study 2010. Lancet, 380: 2197-2223.

Myer, L., Zulliger, R. and Pienaar, D. 2012. Diversity of patient preparation activities before initiation of antiretroviral therapy in Cape Town, South Africa. Tropical Medicine & International Health, 17(8): 972-977.

Myer, L., Zulliger, R., Bekker, L. and Abrams, E. 2012. Systemic delays in the initiation of antiretroviral therapy during pregnancy do not improve outcomes of HIV-positive mothers: a cohort study. BMC Pregnancy and Childbirth, 12: 94.

Myer, L. 2012. The limits of observational epidemiology: hormonal contraception and women's risk of HIV infection. South African Journal of Science, 108(7/8): 1-2.

Myer, L., Zulliger, R., Black, S., Pienaar, D. and Bekker, L. 2012. Pilot programme for the rapid initiation of antiretroviral therapy in pregnancy in Cape Town, South Africa. Aids Care, 24(8): 986-992.

Myers, J.E. 2012. The South African burden of disease and climate change. CME-Continuing Medical Education, 30(3): 72-75.

Nachega, J., Uthman, O.A., Anderson, J., Peltzer, K., Wampold, S., Cotton, M., Mills, E., Ho, Y.S., Stringer, J.S.A., McIntyre, J.A. and Mofenson, L. 2012. Adherence to antiretroviral therapy during and after pregnancy in low-income, middle-income and high-income countries: a systematic review and meta-analysis. AIDS, 26(16): 2039-2052.

Nachega, J.B., Morroni, C., Chaisson, R., Goliath, R., Efron, A., Ram, M. and Maartens, G. 2012. Impact of Immune reconstitution inflammatory syndrome on antiretroviral therapy adherence. Patient Preference and Adherence, 6: 887-891.

Nachman, S. and McIntyre, J.A. 2012. Nevirapine-based therapy after suppression: can we switch? Lancet Infectious Diseases, 12(July): 498-499.

Naidu, C., Zweigenthal, V., Irlam, J.H., London, L. and Keikelame, M.J. 2012. An evaluation of University of Cape Town medical student's community placements in South Africa. African Journal of Primary Health Care & Family Medicine, 4(1): 1-7.

Namisango, E., Harding, R., Atuhaire, L., Ddungu, H., Katabira, E., Muwanika, F.R. and Powell, R. 2012. Pain among ambulatory HIV/AIDS Patients: multicentre study of prevalence, intensity, associated factors, and effect. Journal of Pain, 13(7): 704-713.

Needle, R., Fu, J., Beyrer, C., Loo, V., Abdul-Quader, A.S., McIntyre, J.A., Li, Z., Mbwambo, J., Muthui, M. and Pick, B. 2012. PEPFAR's evolving HIV prevention approaches for key populations - people who inject drugs, men who have sex with men, and sex workers: progress, challenges, and opportunities. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60(3): S145-S151.

Ngure, K., Heffron, R., Mugo, N., Celum, C., Cohen, C.R., Odoyo, J., Rees, H., Kiarie, J., Were, E., Baeten, J., Coetzee, D.J., Wald, A., Lingappa, J.R. and Campbell, M.S. 2012. Contraceptive method and pregnancy incidence among women in HIV-1-serodiscordant partnerships. AIDS, 26: 513-518.

Olivier, A., Liebenberg, L., Coetzee, D.J., Williamson, A.-L., Passmore, J.S. and Burgers, W. 2012. Isolation and characterization of T cells from Semen. Journal of Immunological Methods, 375: 223-231.

Olivier, J. and Wodon, Q. 2012. Playing broken telephone: assessing faith-inspired health care provision in Africa. Development in Practice, 22(5-6): 819-834.

Oni, T., Tsekela, R., Kwaza, B., Manjezi, L., Bangani, N.M., Wilkinson, K., Coetzee, D.J. and Wilkinson, R.J. 2012. A recent HIV diagnosis is associated with non-completion of isoniazid preventive therapy in an HIV-infected cohort in Cape Town. PLoS One, 7(12): e52489.

Oni, T., Gideon, H., Bangani, N.M., Tsekela, R., Seldon, R.R., Wood, K.A., Wilkinson, K., Goliath, R., Ottenhoff, T.H.M. and Wilkinson, R.J. 2012. Smoking, BCG and employment and the risk of tuberculosis infection in HIV-infected persons in South Africa. PLoS One, 7(10): e47072.

Parry, C., Harker Burnhams, N. and London, L. 2012. A total ban on alcohol advertising: presenting the public health case. SAMJ South African Medical Journal, 102(7): 602-604.

Perez, A.M., Ahmed, N. and London, L. 2012. Racial discrimination: experiences of black medical school alumni at the University of Cape Town, 1945-1994. SAMJ South African Medical Journal, 102(6): 574-577.

Pick, W., Claassen, J.W.B., Le Grange, C. and Hussey, G.D. 2012. Health activism in Cape Town: a case study of the health workers society. SAMJ South African Medical Journal, 102(6): 403-405.

Pines, A., Shapiro, S. and Suissa, S. 2012. NNT, number needed to treat: does it have any real value? Climacteric, 15(2): 139-142.

Pons, J., Mapham, W., Newsome, B., Myers, L., Anderson, R., Courtright, P. and Cook, C.D. 2012. The potential impact of a cataract surgery programme on the care of orphans and vulnerable children in Swaziland. SAMJ South African Medical Journal, 102(3): 140-141.

Protogerou, C., Flisher, A.J., Aaro, L. and Mathews, C. 2012. The theory of planned behaviour as a framework for predicting sexual risk behaviour in sub-Saharan African youth: a critical review. Journal of Child and Adolescent Mental Health, 24(1): 15-35.

Rangaka, M.X., Wilkinson, R.J., Glynn, J.R., Boulle, A.M., Van Cutsem, G., Goliath, R., Mathee, S. and Maartens, G. 2012. Effect of antiretroviral therapy on the diagnostic accuracy of symptom screening for intensified tuberculosis case finding in a South African HIV clinic. Clinical Infectious Diseases, 55(12): 1698-1706.

Rangaka, M.X., Gideon, H., Wilkinson, K., Pai, M., Mwansa-Kambafwile, J.R.M., Maartens, G., Glynn, J.R., Boulle, A.M., Fielding, K.L., Goliath, R., Mathee, S., Titus, R. and Wilkinson, R.J. 2012. Interferon release does not add discriminatory value to smear-negative HIV-tuberculosis algorithms. European Respiratory Journal, 39(1): 163-171.

Rebe, K., Semugoma, P. and McIntyre, J.A. 2012. New HIV prevention technologies and their relevance to MARPS in African epidemics. SAHARA J: Journal of Social Aspects of HIV/AIDS Research Alliance / SAHARA, 9(3): 164-166.
Roland, M., Myer, L., Martin, L.J., Maw, A., Batra, P., Arend, E., Coates, T. and Denny, L.A. 2012. Preventing Human Immunodeficiency Virus infection among sexual assault survivors in Cape Town, South Africa: an observational study. AIDS and Behavior, 16: 990-998.

Roomaney, R., Ehrlich, R.I. and Rother, H. 2012. The acceptability of rat trap use over pesticides for rodent control in two poor urban communities in South Africa. Environmental Health, 11(32): (1-6).

Rother, H. 2012. Improving poisoning diagnosis and surveillance of street pesticides. SAMJ South African Medical Journal, 102(6): 485-488.

Rustomjee, R., Mcleod, R., Hanekom, W.A., Steel, G., Mahomed, H., Hawkridge, A.J., Welte, A., Sinanovic, E., Loots, G., Grobler, A.C., Mvusi, L., Gray, G., Hesseling, A.C., Ginsberg, A.M., Lienhardt, C., Shea, J., Tong, X., Lockhart, S. and Churchyard, G.J. 2012. Key issues in the clinical development and implementation of TB vaccines in South Africa. Tuberculosis, 92(5): 359-364.

Sabapathy, K., Van den Bergh, R., Fidler, S., Hayes, R. and Ford, N. 2012. Uptake of home-based voluntary HIV testing in sub-Saharan Africa: a systematic review and meta-analysis. Plos Medicine, 9(12): e1001351.

Sabapathy, K., Ford, N., Chan, K.N., Kyaw, M.K., Elema, R., Smithuis, F. and Floyd S. 2012. Treatment outcomes from the largest antiretroviral treatment program in Myanmar (Burma): a cohort analysis of retention after scale-up. Journal of Acquired Immune Deficiency Syndromes, 60(2): e53-62.

Scheibe, A., Drame, F.M. and Shannon, K. 2012. HIV prevention among female sex workers in Africa. Sahara J-Journal of Social Aspects of HIV-AIDS, 9(3): 167-172.

Schneider, H., Govender, M., Harris, B., Cleary, S., Moshabela, M. and Birch, S. 2012. Gender differences in experiences of ART services in South Africa: a mixed methods study. Tropical Medicine & International Health, 17(7): 820-826.

Scott, V., Mathews, V. and Gilson, L. 2012. Constraints to implementing an equity-promoting staff allocation policy: understanding mid-level managers' and nurses' perspectives affecting implementation in South Africa. Health Policy and Planning, 27: 138-146.

Selman, L., Siegert, R.J., Higginson, I., Agupio, G., Dinat, N., Downing, J., Gwyther, L., Mashao, T., Mmoledi, K., Moll, A.P., Mpanga Sebuyira, L., Ikin, B. and Harding, R. 2012. The "Spirit 8" successfully captured spiritual well-being in African palliative care: factor and Rasch analysis. Journal of Clinical Epidemiology, 65(4): 434-443.

Setshedi, M., Epstein, D., Winter, T., Myer, L., Watermeyer, G. and Hift, R. 2012. Use of thiopurines in the treatment of inflammatory bowel disease is associated with an increased risk of non-melanoma skin cancer in an at-risk population: a cohort study. Journal of Gastroenterology and Hepatology, 27: 385-389.

Shapiro, S., Farmer, R.D.T., Stevenson, J.C., Burger, H. and Mueck, A.O. 2012. Does hormone replacement therapy cause breast cancer? An application of causal principles to

three studies Part 4. The million women study. Journal of Family Planning and Reproductive Health Care, 38: 102-109.

Shapiro, S. 2012. Invited commentary: immunization and Bell's palsy in children. American Journal of Epidemiology, 175(9): 886-887.

Silal, S.P., Penn-Kekana, L., Harris, B., Birch, S. and McIntyre, D.E. 2012. Exploring inequalities in access to and use of maternal health services in South Africa. BMC Health Services Research, 12:12.

Stinson, K. and Myer, L. 2012. Barriers to initiating antiretroviral therapy during pregnancy: a qualitative study of women attending services in Cape Town, South Africa. African Journal of AIDS Research, 11(1): 65-73.

Stinson, K., Boulle, A.M., Smith, P.J., Stringer, E.M., Stringer, J.S.A. and Coetzee, D.J. 2012. Coverage of the prevention of mother-to-child transmission program in the Western Cape, South Africa using cord blood surveillance. Jaids-Journal of Acquired Immune Deficiency Syndromes, 60(2): 199-204.

Sunpath, H., Edwin, C., Chelin, N., Nadesan, S., Maharaj, R., Moosa, M.-Y.S., Smeaton, L., Court, R.G., Knight, S.E., Gwyther, E. and Murphy, R. 2012. Operationalizing early antiretroviral therapy in HIV-infected in-patients with opportunistic infections including tuberculosis. International Journal of Tuberculosis and Lung Disease, 16(7): 917-923.

Toczek, A., Cox, H., du Cros, P., Cooke, G. and Ford, N. 2012. Strategies for reducing treatment default in drug-resistant tuberculosis: systematic review and meta-analysis. International Journal of Tuberculosis and Lung Disease, 17(3): 299-307.

Tod, B., Carrara, H., Levin, M. and Todd, G. 2012. Dermatological manifestations of measles infection in hospitalised paediatric patients observed in the 2009-2011 Western Cape epidemic. SAMJ South African Medical Journal, 102(6): 356-359.

Twomey, M., De Sa, A.M.R., Wallis, L.A. and Myers, J.E. 2012. Inter-rater reliability of the South African triage scale: assessing two different cadres of health care workers in a real time environment. African Journal of Emergency Medicine (AfJEM), 1(3): 113-118.

Twomey, M., Wallis, L.A., Thompson, M.L. and Myers, J.E. 2012. The South African triage scale (adult version) provides reliable acuity ratings. International Emergency Nursing, 20(3): 142-150.

Twomey, M., Wallis, L.A., Thompson, M.L. and Myers, J.E. 2012. The South African triage scale (adult version) provides valid acuity ratings when used by doctors and enrolled nursing assistants. African Journal of Emergency Medicine (AfJEM), 2: 3-12.

Van Den Akker, T., Bemelmans, M., Ford, N., Jemu, M., Diggle, E., Scheffer, S., Zulu, I., Akesson, A. and Shea, J. 2012. HIV care need not hamper maternity care: a descriptive analysis of integration of services in rural Malawi. BJOG-An International Journal of Obstetrics and Gynaecology, 119: 431-438.

Van Pletzen, E., Stein, D.J., Seedat, S., Williams, D.R. and Myer, L. 2012. Recall of early non-fatal suicidality in a nationally representative sample of South Africans. Ethnicity & Health, 17(1-2): 149-159.

Visser, M.E., Stead, M.C., Walzl, G., Warren, R., Schomaker, M., Grewal, H.M.S., Swart, E.C. and Maartens, G. 2012. Baseline Predictors of Sputum Culture Conversion in Pulmonary Tuberculosis: Importance of Cavities, Smoking, Time to Detection and W-Beijing Genotype. PLoS ONE, 7(1):e29588.

Vos, T., Flaxman, A., Naghavi, M., Lozano, R., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J.A., Abdalla, S., Aboyans, V., Matzopoulos, R. and Mayosi, B.M. 2012. Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the global burden of disease study 2010. Lancet, 380: 2163-2196.

Vu, L., Andrinopoulos, K., Mathews, C., Chopra, M., Kendall, C. and Eisele, T.P. 2012. Disclosure of HIV status to sex partners among hiv-infected men and women in Cape Town, South Africa. AIDS and Behavior, 16(1): 132-138.

Walker, N.F., O Clark, S., Oni, T., Andreu, N., Tezera, L., Singh, S., Saraiva, L., Pedersen, B., Kelly, D.L., Tree, J.A., D' Armiento, J., Meintjes, G., Mauri, M.A., Williams, A., Wilkinson, R.J., Friedland, J. and Elkington, P.T.G. 2012. Doxycycline and HIV infection suppress tuberculosis-induced matrix metalloproteinases. American Journal of Respiratory and Critical Care Medicine, 185(9): 989-997.

Wandeler, G., Keiser, O., Mulenga, L., Hoffmann, C.J., Wood, R., Chaweza, T., Brennan, A., Prozesky, H., Garone, D., Giddy, J., Chimbetete, C., Boulle, A.M. and Egger, M. 2012. Tenofovir in second-line art in Zambia and South Africa: collaborative analysis of cohort studies. Jaids-Journal of Acquired Immune Deficiency Syndromes, 61(1): 41-48.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Wearne, N., Swanepoel, C.R., Boulle, A.M., Duffield, M. and Rayner, B.L. 2012. The spectrum of renal histologies seen in HIV with outcomes prognostic indicators and clinical correlations. Nephrology Dialysis Transplantation, 27: 4109-4118.

Wettstein, C., Mugglin, C., Egger, M., Blaser, N., Vizcaya, L.S., Estill, J., Bender, N., Davies, M., Wanderler, G. and Keiser, O. 2012. Missed opportunities to prevent mother-to-child-transmission: systematic review and meta-analysis. AIDS, 26: 2361-2373.

Wheeler, S.B., Zullig, L.L., Reeve, B.B., Buga, G. and Morroni, C. 2012. Attitudes and Intentions regarding Abortion Provision among Medical School Students in South Africa. International Perspectives on Sexual and Reproductive Health, 38(3): 154-163.

Yiannoutsos, C., Johnson, L.F., Boulle, A.M., Musick, B.S., Gsponer, T., Balestre, E., Law, M., Shepherd, B.E. and Egger, M. 2012. Estimated mortality of HIV-infected patients starting treatment with combination antiretroviral therapy. Sexually Transmitted Infections, 88(2): i33-i43.

Zachariah, R., Ford, N., Maher, D., Bissell, K., Van den Bergh, R., Van den Boogaard, W., Reid, T., Castro, K.G., Draguez, B., Von Schreeb, J., Chakaya, J., Atun, R., Lienhardt, C., Enarson, D.A. and Harries, A.D. 2012. Is operational research delivering the goods? The journey to success in low-income countries. The Lancet Infectious Diseases, 12(5): 415-421.

Zhou, J., Jaquet, A., Bissagnene, E., Musick, B.S., Wools-Kaloustian, K., Maxwell, N., Boulle, A.M., Wehbe, F., Masys, D., Iriondo-Perez, J., Hemingway-Foday, J. and Law, M. 2012. Short-term risk of anaemia following initiation of combination antiretroviral treatment in HIV-infected patients in countries in sub-Saharan Africa, Asia-Pacific, and central and South America. Journal of the International AIDS Society, 15(5): 12.

Zuch, M., Mason-Jones, A.J., Mathews, C. and Henley, L.D. 2012. Changes to the law on consent in South Africa: implications for school-based adolescent sexual and reproductive health research. BMC International Health and Human Rights, 12:3.

Zuhlke, L., Myer, L. and Mayosi, B.M. 2012. The promise of computer-assisted auscultation in screening for structural heart disease and clinical teaching. Cardiovascular Journal of Africa, 23(7): 405-408.

Zumla, A., Abubaker, I., Raviglione, M., Hoelscher, M., Ditiu, L., McHugh, T., B Squire, B., Cox, H., Ford, N., McNerney, R., Marais, B., Grobusch, M.P., Lawn, S.D., Migliori, G.B., Mwaba, P., O'Grady, J., Pletschette, M., Ramsay, A., Chakaya, J., Schito, M., Swaminathan, S., Memish, Z., Maeurer, M. and Atun, R. 2012. Drug-resistant tuberculosis-current dilemmas, unanswered questions, challenges, and priority needs. Journal of Infectious Diseases, Suppl 2(205): S228-S240.

Department Of Radiation Medicine

Division Of Medical Physics

HEAD OF DIVISION: MR JAN K HOUGH / MS H BURGER

Divisional profile

The Division of Medical Physics is responsible to Diagnostic Radiology, Nuclear Medicine and Radiation Oncology for the safe use of ionization radiation. This involves patient dosimetry and treatment, as well as the optimum use and functioning of radiation producing equipment. The Division is also directly involved in the selection and commissioning of new equipment.

Physics training and teaching of staff and postgraduate students in these divisions is undertaken. The UCT BSc (Hons) course in Medical Physics was revived in 2012 and eight students are expected to start in 2013.

The Division of Medical Physics is recognised by the HPCSA as a training centre for Medical Physicists and is currently training one intern. The Division is also involved in International Atomic Energy (IAEA) training programs.

We take part in quarterly Medical Physics Workshops for all the Medical Physicists in the Western Cape. This includes all the physicists in private practice as well as those at GSH, Tygerberg Hospital and iThemba LABS. Various papers of common interest are presented at these workshops.

Medical Physics research meetings take place every second week to create a space for open discussion and support for research projects within the Division. Several posters and papers were presented by staff at national and international level.

The Division of Medical Physics continues to provide Medical Physics services to Nuclear Medicine at Red Cross Hospital. This service has been expanded by our physicist in Nuclear Medicine to regular quality control checks.

Chris Trauernicht will do Monte Carlo simulations of the dose distributions around I-125 seed ophthalmic applicators as part of his PhD thesis.

Research Fields and Staff

Head of Department

JAN HOUGH MPHIL (UCT) (RETIRED SEPTEMBER 2012)
Radiotherapy Treatment Planning

H. BURGER MSC (MED PHYS) (UP) (APPOINTED DECEMBER 2012)

Deputy Manager

H. BURGER MSC (MED PHYS) (UP)
Modern Radiotherapy and Radiosurgery Treatments and Treatment Planning

Assistant Managers (Medical Physics):

G MAREE PHD (UCT) (RETIRED OCTOBER 2012)
Brachytherapy and Radiation Dosimetry

H MACGREGOR BSC (HONS) (STARTED NOVEMBER 2012)
Radiotherapy and IMRT QA and Treatment Planning

T KOTZE PHD (US)
Diagnostic Radiology teaching and Radiation Protection

C TRAUERNICHT MSC (MED) IN MEDICAL PHYSICS (UCT)
Nuclear Medicine and Brachytherapy

Technical Staff

CHIEF RADIOGRAPHER
K BOTHA NAT DIPL RADIOGRAPHY (THERAPY), DIPL COMPUTER SCIENCE

Mould Room

CHIEF RADIOGRAPHER
S TOVEY DIPL. RADIATION TECHNOLOGY, NAT DIPL RADIOGRAPHY (DIAGNOSTIC AND RADIOTHERAPY), BTECH (RADIOGRAPHY RADIOTHERAPY)

RADIOGRAPHER
G SIEBRITS NAT DIPL. RADIOGRAPHY (RADIOTHERAPY) (STARTED OCTOBER 2012)

INTERN RADIATION TECHNOLOGIST
M HENDRICKS NAT DIPL RADIOGRAPHY (DIAGNOSTIC)

Mechanical Workshop

CHIEF INDUSTRIAL TECHNICIAN
C THOMSON NTCII

ARTISAN
RE HISCOCK NIII

Secretarial

SENIOR ADMIN CLERK
O KWAYIBA

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Department Of Radiation Medicine

Division Of Nuclear Medicine

HEAD OF DIVISION: DR TESSA KOTZE

Divisional Profile

Nuclear medicine currently provides a wide spectrum of diagnostic procedures, in-vivo studies and therapy; all pertaining to the use of unsealed sources of radioactivity. Procedures cover the central nervous system, respiratory, cardiac, gastrointestinal, genitourinary, endocrine, lymphatic and skeletal systems. There is access to both SPECT/CT and PET/CT. All procedures are integrated into service provision, training and research. In the department is also an osteodensitometer.

Divisional Statistics

Permanent and Long Term Contract Staff

Joint Staff (UCT/PGWC)

Senior Consultant	Full time	1
Junior Consultant	Full time	1
Senior Consultant	Part time	1

Research fields and staff

Specialist Staff

DR TESSA KOTZE
Therapy; PET

DR RACHELLE STEYN
ERNA

PROFESSOR MIKE MANN
Paediatric Nuclear Medicine

Undergraduate Staff

SUPERNUMERARY REGISTRAR DR GARBA YUNUSA
Registrar Dr Nerisha Govender

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Department Of Radiation Medicine

Division Of Radiation Oncology

HEAD OF DIVISION - PROFESSOR R P ABRATT

Divisional Profile

1. The Division of Radiation Oncology provides the following services:
   - Investigation, management and treatment of all forms of malignant disease. This is co-ordinated by 23 multidisciplinary clinics, which meet weekly.
   - Participation in clinical studies, both investigator initiated and as part of co-operative groups.
2. Teaching of undergraduate medical courses and provision of postgraduate specialists training courses. Pre and post-diplomate instruction to radiographers and post-diplomate courses to nurses. Full training in Radiobiology from under-graduate to honours, master's and doctoral level.
3. Provision of a comprehensive clinical radiobiological research facility.

Divisional Statistics

Permanent and Long Term Contract Staff

JMS Staff

Professors	1

University Staff

Research Staff	6
Administrative/Clerical Staff	1
SUBTOTAL	7

Joint Staff (UCT/PAWC)

Head of Clinical Unit	1
Senior Full-time Lecturers	3
Lecturers	3
Principal Medical Officers	1
Sessional Medical Officers	3
Medical Officer	1
Medical Scientists	2
TOTAL	15

Honorary Staff

Honorary Lecturers	1
TOTAL	1

Postgraduate Students

Registrars	16
TOTAL	16

Research Fields and Staff

Permanent Staff

Specialist Staff

PROFESSOR RAYMOND ABRATT
Chief Specialist Radiation Oncology & Head of Division; NRF Rated – Category B

DR JEANETTE PARKES
Senior Specialist Radiation Oncology and Senior Lecturer; Main interests - neurological tumours, paediatric tumours, bones and sarcoma

DR SAMEERA DALVIE
Specialist Radiation Oncology Lung Cancer; Male genito-urinary tract cancer, Ear, nose and throat cancer

DR ZAINAB MOHAMED
Senior Specialist Radiation Oncology and Senior Lecturer; Main interests - Lymphoma, Myeloma, Melanoma, Hodgkin's Disease

DR BARBARA ROBERTSON
Specialist Radiation Oncology & Lecturer; Main interests - Thyroid, Oesophageal and Gastro-intestinal cancers, stomach, pancreas, liver, unknown primary cancers.

DR LEON VAN WIJK
Senior Specialist Radiation Oncology & Senior Lecturer; Main interests - Gynaecological tumours.

DR JULIE WETTER
Specialist Radiation Oncology and Lecturer; Main interests – skin cancers, melanoma, eye Head and neck.

Dr. Hannah Simonds – started 1 April 2012
Specialist Radiation Oncology and Lecturer; Main interests – breast cancer

Medical Officers

DR CINDY SHEPHERD
Principal Medical Officer Radiation Oncology; Main interests - Lung cancer, Tumours of the thyroid, Male genito-urinary tract cancer.

Scientific Staff

DR ANDRE HENDRIKSE
Senior Medical Natural Scientist & Lecturer; Main interest - Research in Medical Natural Science Radiobiology (research on tumours with experimental animals)

DR ALISTAIR HUNTER
Medical Natural Scientist; Main interest - Research in Medical Natural Science Radiobiology (research on tumours with experimental animals)

Contract Research Staff

Part-Time Clerical Research Assistants (Data Managers)

MRS GLYNIS CHILCOTT

MRS SUE GILES

MISS E NEL

MRS JEAN WILMOT

MRS RAE TAYLOR

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Department Of Radiation Medicine

Division Of Radiology

HEAD OF DIVISION: PROFESSOR STEPHEN JAMES BENINGFIELD

Divisional Profile

The Division of Radiology works closely with clinical colleagues and their patients throughout the hospital, both in service and academic capacities. This collaboration involves all major medical, surgical, therapy and women's health areas, including their subspecialties. Pending arrivals of a 256-slice CT and research 3T MRI promise interesting boosts to service and research. Red Cross is making good use of their new MRI and CT scanners. There is now improved exposure to PET-CT scanning at Tygerberg Hospital. Links to Somerset and GF Jooste Hospitals remain strong, with some teaching activity also at Victoria Hospital; However Jooste is being closed for reconstruction next year, with Mitchell's Plain Hospital standing in The experience of our post-retirement sessional staff continues to benefit the Division. The positive impact of the full conversion to digital radiology over the last year is now evident, with the next phase of electronic radiology requests partially implemented

Interest in supernumerary registrar posts from within and outside the country remains strong.

Research Fields and Staff

PROFESSOR STEPHEN BENINGFIELD
Hepatobiliary, vascular, interventive radiology, computer applications and digital radiology.

DR NAZIR AHMED
Cross-sectional imaging, colorectal imaging.

DR HELEN BALL
Ultrasound, mammography, computerised tomography and urological radiology.

DR SALLY CANDY
Neuroradiology and Magnetic Resonance Imaging.

DR DILESH CHIBA
Musculoskeletal radiology, cross-sectional imaging, interventive radiology.

DR JACQUELINE KIECK
High resolution computerized tomography and fine needle biopsies, interventional radiology.

DR QONITA SAID-HARTLEY
Chest radiology

DR PAUL SCHOLTZ
Cross-sectional, abdominal imaging and Interventive radiology

DR GARY SUDWARTS
Cross-sectional, abdominal imaging and Interventive radiology

DR TRACY KILBORN
Paediatric radiology.

DR ROBERT SEGGIE
Ultrasound, computerised tomography and general radiology.

DR NICOLE WIESELTHALER
Paediatric radiology.

DR E BANDERKER
Paediatric Radiology

Divisional Statistics

Permanent and long-term contract staff

University staff

Professor and Head of Division	1
Administrative Staff	1
Total	2

JMS Staff

Senior Lecturers	4
Lecturers	6
Total	10

Part-time JMS Staff

Emeritus Professor	1
Emeritus Associate Professors	2
Total	3

Part-time UCT Staff

Administrative Assistant	1

Students

Master's [registrars]	24

Teaching

- Postgraduate
  This major activity continues, with new inputs from the University, Colleges and the HPCSA having significant roles. More structured teaching, regular assessments and revised examination structure plus obligatory theses are now reality. The division upgraded and complete refurbishment processes to convert into a fully digital radiology unit, with the advent of a formal Picture Archival and Communication Systems (PACS) and Radiology Information System (RIS) partially done. This is having a major beneficial effect on the manner and quality of postgraduate teaching and supervision, both in radiology and other specialties.

- Undergraduate
  Regular weekly structured teaching sessions continue, together with the case-based multidisciplinary meetings in various specialties allowing both under- and postgraduate students to see the impact of imaging on clinical-decision making

Research

There are a number of collaborative and self-initiated projects running, with the recent requirement for a thesis or dissertation leading to increased interest. The consequences of digital imaging and newer modalities remain strongly felt, with diversification of interests. These continue to be largely on the basis of combined collaboration and multidisciplinary applied clinical research, together with some basic research that is also being undertaken in MRI and digital mammography. There is a good prospect of a full body 3T MRI being installed soon.

Service

The increase in service load, particularly on the multislice CT's, are placing an increased demand on reporting time. An attempt is being made to run three CT scanners during the day. The hope is that the PACS will allow more efficient distribution of the resulting reporting work. Close interaction with UCT PAH clinical service adds another aspect to the work undertaken.

Social responsiveness

There is ongoing collaboration with a number of the closer satellite hospitals, most notably GF Jooste, New Somerset and Victoria, but also II Military Hospital (with significant recent equipment upgrades), as well as with the newly-developed and refurbished regional hospitals such as George, Worcester and Paarl, Khayelitsha and Mitchells Plain, that are likewise converting to digital imaging and PACS.

Publications

These are largely on the basis of close clinical collaboration and applied research, although some more basic MRI and digital radiography research has been published

General

The refashioning of the division into a purely digital system will have a major impact on the manner of our clinical interaction within and outside the division.

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Department Of Radiation Medicine

Research output

Articles in peer-reviewed Journals

Boer, K., Lang, I., Llombart-Cussac, A., Andreasson, I., Vivanco, G.L., Sanders, N., Pover, G.M. and Murray, E.M. 2012. Vandetanib with decetaxel as second-line treatment for advanced breast cancer: a double blind, placebo controlled, randomized phase II study. Investigational New Drugs, 30: 681-687.

Botha, H., Ackermann, C., Candy, S., Carr, J.A., Griffith-Richards, S. and Bateman, K. 2012. Reliability and diagnostic performance of CT imaging criteria in the diagnosis of tuberculous meningitis. PLoS One, 7(6): e38982.

Bye, H., Prescott, N.J., Lewis, C.M., Matejcic, M., Moodley, L., Robertson, B.M., van Rensburg, C., Parker, M.I. and Mathew, C.G. 2012. Distinct genetic association at the PLCE1 locus with oesophageal squamous cell carcinoma in the South African population. Carcinogenesis, 33(11): 2155-2161.

Deetlefs, E., Epstein, D., Watermeyer, G., Seggie, R.M. and Thomson, S.R. 2012. Tuberculosis in an inflammatory bowel disease cohort from South Africa. SAMJ South African Medical Journal, 102(10): 802-804.

Du Plessis, J., Dix-Peek, S.I., Hoffman, E.B., Wieselthaler, N. and Dunn, R.N. 2012. Pediatric atlanto-occipital dissociation: radiographic findings and clinical outcome. Clinical Evidence, 3(1): 19-26.

Freercks, R., Swanepoel, C.R., Carrara, H., Moosa, S.E., Lachman, A. and Rayner, B.L. 2012. Vascular calcification in South African dialysis patients: ethnic variation, prevalence, detection and haemodynamic correlates. Nephrology, 17: 607-615.

Hunter, A.J. 2012. Radiation biology - an important science for an advanced nuclear nation like South Africa. South African Journal of Science, 108(7/8): 972.

Lawson, A.J., Rischbieter, P., Owen, J.M., Beningfield, S.J. and Peedikayil, T. 2012. Multi-detector computer tomography venography (MDCTV) as a diagnostic tool in the management of patients with atypical, complicated and/or recurrent varicose veins. SA Journal of Radiology, 16(4): 136-138.

Lawson, A.J., Beningfield, S.J., Krige, J.E.J., Rischbieter, P. and Burmeister, S. 2012. Percutaneous transhepatic self-expanding metal stents for palliation of malignant biliary obstruction. South African Journal of Surgery, 50(3): 54-60.

Le Feuvre, D.E.J., Parkes, J., Mukheiber, P., James, R. and Taylor, A.G. 2012. A late haemorrhagic complication in an arterio venour malformation cured with radiosurgery. Interventional Neuroradiology, 18: 149-152.

McGuire, D.T., Bick, S., Westgarth-Taylor, T.L. and Hoffman, E.B. 2011. Cryptococcoma of the ilium in an immuno-competent child: a case report and review of the literature. SA Orthopaedic Journal, 10(2): 74-77.

Mendelson, M., Barday, Z., Eastman, R.W., Le Feuvre, D.E.J., Candy, S., Wu, H. and Swanepoel, C.R. 2012. Rapidly progressive post-transplant lymphoproliferative disease following withdrawal of sirolimus. SAMJ South African Medical Journal, 102(12): 924-928.

Robertson, B.M., Shepherd, C., Abratt, R.P., Hunter, A.J. and Goldberg, P.A. 2012. Treatment of carcinoma of the anal canal at Groote Schuur Hospital. SAMJ South African Medical Journal, 102(6): 558-561.

Stanley, A., Candy, S., Levin, C. and Heckmann, J.M. 2012. The complexity of HIV vasculopathy. SAMJ South African Medical Journal, 102(6): 474-476.

Westgarth-Taylor, T.L. and Kilborn, T.N. 2012. Imaging findings in an infant with congenital pulmonary venolobar syndrom (scimitar syndrome). SA Journal of Radiology, February 2012: 16-18.

Department of Surgery

HEAD OF DEPARTMENT: PROFESSOR DEL KAHN

Departmental Profile

The Department of Surgery comprises the nine Divisions: General Surgery, Cardiothoracic Surgery, Emergency Medicine, Neurosurgery, Ophthalmology, Orthopaedics, Otorhinolaryngology, Plastic Surgery and Urology

Each of the Divisions functions very independently with regard to administration, clinical service, undergraduate and postgraduate teaching, and research. The Special Clinical expertise, research interests, and outstanding achievements over the last year, are documented in the individual divisional profiles.

The Department of Surgery Research Day, organised by Dr David le Feuvre, was a most successful collaboration between the Divisions. Professor Richard Barnes delivered the John Terblanche Lecture.

Department Of Surgery

Division Of General Surgery

HEAD OF DIVISION: PROFESSOR DEL KAHN

Divisional Profile

The four surgical firms within the Division of General Surgery are responsible for Hepatobiliary Surgery, Surgical Oncology/Endocrine Surgery, Colorectal Surgery, and Vascular Surgery. The Surgical Intensive Care Unit, the Trauma Unit, and the Transplant Unit are also part of the Division.

The Division prides itself on maintaining high standards of clinical service, and teaching of both undergraduates and postgraduates. The Division continues to function as a true academic unit, with its members making significant contributions at both local and international meetings, while at the same time maintaining a high research output.

Professor Jake Krige has several research projects in Portal hypertension and diseases of the liver and bile ducts. Professor Lance Michell is involved in an audit of admissions to the Surgical ICU, as well as several multi centre pharmaceutical trials using anti microbials.

The Vascular Unit under Dr Nadraj Naidoo has established a vibrant endovascular service. Genetic aspects of colorectal cancer is the main research interests of Professor Paul Goldberg in the Colorectal unit. Professor Eugenio Panieri has a special interest in sentinel lymphnode biopsy in breast cancer as well as problems related to battery acid ingestion and thyroid cancer. Professors Andrew Nicol and Pradeep Navsaria are involved in major audits of various types of trauma, as well as various prospective randomised studies including penetrating cardiac injuries. Dr Elmi Muller has embarked on a study of transplanting kidneys from HIV positive donors into HIV positive recipients.

In addition there is an Emergency Surgery Firm which managers all the non-trauma surgical emergencies.

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Department Of Surgery

Division Of Ophthalmology

HEAD OF DIVISION: PROFESSOR C. COOK

Divisional Profile

The Division of Ophthalmology combines an academic hospital service with University teaching, clinical training and research.

Specialist tertiary care clinical services are provided to patients in the Western Cape and beyond.

Teaching is provided to fifth year medical students, and specialist training of both local graduates and graduates from other countries is provided.

A postgraduate diploma course in community eye health is provided for Vision 2020 programme managers working in sub Saharan Africa.

Permanent and Long Term Contract Staff

Professors	1
Honorary professors	2
Senior Lecturers	6
Lecturers	8
Administrative Staff	2
Total	19

Students

Master's	10
Postgraduate diploma	8
Undergraduate	187
Total	205

Permanent Staff (Full-Time)

PROFESSOR C. COOK
Professor and Head, Division of Ophthalmology, UCT Faculty of Health Sciences, Groote Schuur Hospital and Red Cross Children's Hospital. Community eye health, glaucoma.

DR N. DU TOIT
Consultant Specialist, Groote Schuur Hospital. Anterior segment surgery, glaucoma, ocular trauma.

DR K. LECUONA
Consultant Specialist, Groote Schuur Hospital. Prevention of blindness in developing countries, lacrimal drainage disorders, inflammatory eye disease, ocular oncology.

DR T. POLLOCK
Consultant Specialist, Red Cross Children's Hospital. Paediatric ophthalmology.

DR J. RICE
Consultant Specialist, Groote Schuur Hospital. Vitreo-retinal disease.

DR J STEFFEN
Consultant Specialist, Groote Schuur Hospital. Vitreo-retinal disease.

DR C. TINLEY
Consultant Specialist, Red Cross Children's Hospital. Paediatric ophthalmology.

Permanent Staff (Part-Time)

DR E. ALBRECHT
Medical retina.

DR M. ATTENBOROUGH
Cornea.

DR J. DE VILLIERS
Strabismus.

DR R. GROTTE
Paediatric ophthalmology

DR D. HARRISON
Oculoplastics

DR F. KUPPER
General anterior segment

EMERITUS PROFESSOR A. MURRAY
Strabismus.

DR A. PERROTT
Glaucoma.

DR P. STEVEN
Neuro-Ophthalmology.

DR K SUTTLE
Surgical retina, oculoplastics.

DR H. VAN VELDEN
Surgical retina.

Honorary Staff

PROFESSOR P COURTRIGHT

Epidemiologist. Director of Kilimanjaro Centre for Coimmunity Ophthalmology.

PROFESSOR S LEWALLEN
Ophthalmologist. Director of Kilimanjaro Centre for Community Ophthalmology.

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Department Of Surgery

Division Of Orthopaedic Surgery

HEAD OF DIVISION - PROFESSOR ROBERT DUNN

Divisional Profile

2012 was a year of re-organisation with the retirement of Professor Walters and appointment of Professor Robert Dunn to the Pieter Moll and Nuffield Chair. This necessitated a staff reshuffle with Dr Stephen Roche being promoted to HOCU: Adult reconstructive unit and Graham McCollum to run the foot and ankle service.

Professor Hoffman's retirement as head of Paediatric Orthopaedic Surgery led to Stewart Dix Peek assuming this role supported by the newly appointed Stewart Dix Peek.

An additional post was established to strengthen General Orthopaedic management and Ian Koller appointed.

There is a renewed energy with this change. The undergraduate program has been overhauled with more student - consultant contact time, adoption of IT augmented teaching with the use of tablets and pre-loaded instruction videos filmed and edited by Nick Kruger. The exam format has been improved with collaboration with Rachel Weiss' teaching unit and multi-station double track OSCE's.

Research has been prioritised with 22 papers presented at the national Orthopaedic meeting in September. Robert Dunn was awarded the Best Orthopaedic publication by the SAOA for the paper "MRI findings of Spinal TB: Comparison of HIV positive and negative patients". Dr Roche was awarded best paper at the British Elbow and Shoulder Society meeting. Dr Maree was awarded best Hand paper at the annual Hand meeting.

The department continued to run its annual spine cadaver and porcine based live tissue courses which attract national and regional delegates. In addition, postgraduate teaching has been strengthened with regular cadaver based surgical training under the direction of Dr Roche.

The department continues to have a national impact with Robert Dunn as president of the Spine Society, Orthopaedic College and SAOA EXCO, Stewart Dix Peek president of Paediatric Orthopaedic Surgery and Steve Roche secretary of Shoulder / Elbow Society.

Our clinical units continue to flourish despite the local challenges with well established Acute Spine Injury Unit, Hand Unit, Orthopaedic Trauma unit, Paediatric Orthopaedic Unit and Adult reconstructive unit which houses upper and lower limb arthroplasty, soft tissue reconstruction, elective spine surgery and Orthopaedic oncology.

Due to these well established units, we have increasing sub-specialist fellowship training. Currently we have a Upper limb, Lower limb arthroplasty and two spine long term fellowships. In addition there are frequent visits by overseas specialists to observe our work.

Our department has been recognised by the International Society of Orthopaedic Centres (ISOC) as a full member. This is an exclusive group of 18 global centres based in 4 continents. This allows interaction on all levels including organisational and academic.

Divisional Statistics

Permanent and Long-Term Contract Staff

Professor	1
Senior Lecturers	3
Senior Lecturers – Part-time	4
Lecturers – Full-time	5
Lecturers – Part-time	6
Administrative and Clerical Staff	1
Total	20

Students

Postgraduate FCS(SA) Orth & MMed	19
Undergraduate MBChB	210
Bsc Physio/Occupational Therapy	30
Diploma in Orthopaedic Nursing Science	26
Total	260

Contact Details

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Department Of Surgery

Division Of Emergency Medicine

HEAD OF DIVISION: PROFESSOR LA WALLIS

Divisional Profile

Emergency Medicine is run as two academic Divisions (at UCT and SUN) but has a single, joint appointment, Head. The Division utilises various academic and satellite hospitals for the purposes of teaching and research; these include: Groote Schuur, Red Cross War Memorial Children's, Victoria, GF Jooste, Paarl, and New Somerset Hospital. The types of patients seen and emergencies treated vary among hospitals, allowing our MMed students to become fully competent Emergency Medicine specialists.

The Division places an emphasis on postgraduate programmes, with 15 PhD students, 5 MSc, and 20 MPhil. In 2012, the Division produced 30 publications in peer-reviewed journals and contributed to 10 book chapters. The Division's research has been focused in the following areas: emergency care systems, emergency ultrasound , pre-hospital care and disaster medicine, and mHealth.

The Division has 1 Professor, 2 Senior Lecturers, 3 Lecturers, and 1 Research Coordinator between SU and UCT. There are 9 honorary lecturers at SU and an additional 10 honorary lecturers at UCT.

Head of Division (UCT, SU & PGWC)

Professor Lee A. Wallis MBChB MD DIMC Dip Sport Med FRCSEd FCEM FCEM(SA) FIFEM

Head of Education

Heike I. Geduld MBChB FCEM(SA) MMed(EM)

MPhil Programme Coordinator
Tyson Welzel MBChB EMDM

Divisional Statistics

Permanent and Long-term Contract Staff

Professor	1
Senior Lecturers	2
Research Staff	1
Total	4

Honorary staff

Honorary Lecturers	10
Total	10

Students

PhD	14
MMed / College	16 (&16 Stellenbosch)
MMed supernumerary	6 (& 6 Stellenbosch)
MPhil	20
MSc	5
Undergraduate	3rd, 4th, 5th and 6th years

Contact Details

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Department Of Surgery

Division Of Neurosurgery

HEAD OF DIVISION: PROFESSOR GRAHAM FIEGGEN

Divisional Profile

The Division of Neurosurgery is responsible for the neurosurgical management of patients at two internationally-renowned teaching hospitals, treating patients from across the Western Cape as well as elsewhere in South Africa and abroad. This clinical platform enables us to teach students, train specialists and pursue cutting-edge research into conditions relevant to our clinical practice.

The division has a tradition of close ties with colleagues in private practice, enabling us to contribute to the care

of patients across our community and strive to contribute in all ways possible to the growth and leadership of our specialty nationally and internationally.

Neurosurgery demands the highest standards of practice, while remaining mindful of the needs and priorities of a developing country. Our training program encompasses all aspects of modern neurosurgery, exposing registrars to the full spectrum of subspecialties. During their training, registrars have numerous opportunities to pursue research and are equipped with skills for lifelong enquiry. In this way, we strive to produce neurosurgeons who have superb clinical and operative skills coupled with the intellectual rigour to cope with a career in the fast-paced and rapidly evolving field of clinical neuroscience.

Divisional Statistics

Permanent and Long Term Contract Staff

Professors	2
Associate Professor	2
Senior Lecturers	2
Lecturers	3
Registrars	5
Medical Officer	2
Supernumerary Registrars	3
Administrative & Clerical Staff	1
TOTAL	20

Students

Doctoral	1
Master's	9
TOTAL	10

Honorary Staff

Emeritus Professor	2
Honorary Professors	2
Part-time Lecturers	5

Research Fields and Staff

Permanent Staff

PROFESSOR GRAHAM FIEGGEN
Head of Division; Paediatric and Functional Neurosurgery: spasticity in cerebral palsy, epilepsy surgery; congenital anomalies including dysraphism and the tethered spinal cord, hydrocephalus and neuroendoscopy; CNS infection; neurotrauma.

PROFESSOR ANTHONY FIGAJI
Paediatric Neurosurgery, neurotrauma and neurocritical care: CNS injury and monitoring techniques including intraoperative neurophysiology; hydrocephalus and neuroendoscopy; CNS infection including TB; neurooncology.

ASSOCIATE PROFESSOR PATRICK SEMPLE
Pituitary disease and neuroendoscopy; neurocritical care, neurotrauma, neuroHIV.

ASSOCIATE PROFESSOR ALLAN TAYLOR
Neurovascular: diseases, interventions and surgery; Radiosurgery, stereotactic surgery and neuronavigation; skull base surgery.

DR DAVID LE FEUVRE, SENIOR LECTURER
Neurovascular: diseases, interventions and surgery; HIV vasculopathy, skull base surgery.

DR DAVID WELSH, SENIOR LECTURER
Neurospine: diseases and treatment, spinal trauma.

DR SALLY-JANE ROTHEMEYER, LECTURER
Functional neurosurgery: pain, epilepsy and movement disorders; neuroHIV.

DR LLEWELLYN PADAYACHY, LECTURER
Paediatric Neurosurgery: craniofacial surgery, paediatric neurovascular diseases, neurocritical care, monitoring and neuronavigation.

EMERITUS PROFESSOR JONATHAN PETER
Paediatric Neurosurgery: intraoperative neurophysiology, spasticity.

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Department Of Surgery

Division Of Urology

HEAD OF DIVISION – PROFESSOR R D BARNES

Divisional Profile

The Division of Urology renders a urological service to Groote Schuur Hospital, Red Cross War Memorial Children's

Hospital and Somerset Hospital. An operating list is done once per week at Eerste river Hospital, operating on Groote Schuur Hospital patients.

Dr John Lazarus is head of Paediatric Urology at Red Cross Hospital and Professor R D Barnes attends Somerset Hospital for ward rounds and outpatients. The operating list at Eerste River Hospital is done by a Senior Registrar assisted by Professor Johan Naudé (ex head of Division of Urology).

Undergraduate teaching is provided to 6th year medical students, who do a two week block in Urology. Postgraduate training is provided to Urology Registrars and also to supernumerary registrars. The members of our division make significant contributions at both local and international meetings. A number of our members have attended instructional courses both locally and overseas. The Division has maintained its productivity despite staff shortages and the financial crisis.

The Division is involved with two combined clinics – Urological Oncology Clinic (with Radiation Oncologists) and Female Continence Clinic (with Gynaecologists). We run a number of other specialised clinics – Adolescent Spinal Defects Clinic, Haematuria Clinic, Stricture Clinic, Erectile Dysfunction Clinic, Reconstructive Urology Clinic and Metabolic Stone Clinic.

Divisional Statistics

Permanent and Long-term Contract Staff

Principal Lecturer	1
Senior Lecturers	3
Administrative	1
Sessional Senior Lecturers	3
Total	8

Students

MMed	5
Undergraduate (6th years)	187
Total	192

Research Fields and Staff

PROFESSOR R D BARNES
Metabolic aspects of Urolithiasis, Urological Oncology

PROFESSOR A R PONTIN
Renal infections in diabetics, Female Incontinence, Urological Oncology

DR J LAZARUS
All aspects of Paediatric Urology; Surgical Treatment of Renal Calculi

DR S SINHA
Widening indications for laparoscopic surgery in urology; double J stent insertion under local anaesthetic; radical cystectomy and extended pelvic lymphadenectomy

DR L KAESTNER
Prostate cancer; Renal Transplantation; Urogynaecology

DR A VAN DEN HEEVER
Results of urethroplasty for urethral strictures

DR M KOLIA
Retrospective Review Prostatectomies done between 2005 and 2011 at Groote Schuur Hospital

DR F CASSIM
Retrospective Review of Bladder of Open versus Laparoscopic Radical Cystectomy for the Treatment of Bladder Cancer: Complications and Oncological Outcome

Divisional Contact Details

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Department Of Surgery

Division Of Otolaryngology

HEAD OF DIVISION: PROFESSOR JOHAN FAGAN

Divisional Profile

The Division of Otolaryngology combines an academic hospital service with university teaching, training and research. It provides specialist clinical services to patients in the Western Cape and beyond. Its university responsibilities include in-hospital and community-based training of 5th year medical students, teaching of dental and paramedical students, and specialist training of both local graduates and graduates from other countries. An outreach programme supplements the training of students and primary health care workers in the fundamentals of ear care. We place a strong emphasis on clinical research.

Divisional Statistics

Permanent and Long-term Contract Staff

Professors	1
Lecturers	5
Lecturers (part-time)	6
Audiologists	3
Administrative Staff	1
Total	16

Students

Master's	9
Karl Storz Fellow in Advanced Head and Neck Surgery	1

Staff and Research Fields

J.J. FAGAN
Head and Neck Cancer; Developing World ENT

D.E. LUBBE
Rhinology;Minimally invasive cranial base surgery.

G.J. COPLEY
Paediatric ENT, ENT in primary care

E. MEYER
Otology. Paediatrics; Head and Neck

T. HARRIS
Otology; Head and Neck

O. EDKINS
Sialendoscopy; General ENT

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Department Of Surgery

Chris Barnard Division Of Cardiothoracic Surgery

HEAD OF DIVISION: PROFESSOR PETER ZILLA

Divisional Profile

The Division offers the full range of adult and paediatric cardiac and thoracic surgery services, catering to all forms of congenital heart disease, myocardial revascularisation (on- and off-pump), cardiac valvular repair and replacement surgery as well as thoracic aortic surgery. The only exceptions are the use of long-term left ventricular assist devices or the use of the artificial heart, both of which are prohibitively expensive in a developing world scenario.

An envisaged 'hybrid operating theatre' has been approved in principal and nearing the end of its planning stage. While funding remains an issue, this facility will expand our repertoire to include the most recent development in heart valve replacement, namely transcatheter-delivered valve prostheses. This procedure will not only offer to reduce hospital stays but remove the costs of open heart surgery thereby bringing heart valve treatment closer to the third world where rheumatic disease remains highly prevalent. As this technology is prohibitively expensive, special training-arrangements were entered into with commercial valve providers to increase affordability under public hospital circumstances.

Moreover, the Cardiovascular Research Unit has been focusing on developing alternative transcatheter devices specifically aimed at the needs of a developing country including collaborative studies with the medical device industry and other international academic units to make newer and more cost-effective devices more readily available.

In this context, a UCT start-up company was formed around IP developed in the Cardiovascular Research Unit, receiving substantial funding – *inter alia* from the Department of Science and Technology's 'Technology Innovation Agency' (TIA).

Divisional Profile (Cardiovascular Research Unit)

2012 represented a difficult year financially where decades of reliance on industry funding was largely replaced with a dependency on institutional academic grants.

The Western Cape Heart Research Grouping of the Medical Research Council, of which the Cardiovascular Research Unit is a member, continues to support essential basic research, the foundationstone for applied research.

The Unit has in 2012, amongst other grants, been awarded three separate NRF grants totalling approximately three million Rand.

A significant breakthrough in our synthetic vascular graft research was achieved in 2012 where spontaneous endothelialization of the luminal surface across an engineered porous graft wall was demonstrated in rats and shown to be independent of transanastomotic outgrowth. An endothelial lining in small diameter vascular grafts, commonly not achievable in humans, is essential for long-term patency.
International collaboration with Gothenburg and Clemson universities continued with respect to other vascular graft technologies.

Research focusing on the cell biology of the process of neovascularisation has spear-headed our regenerative medicine approach to facilitating the body's own ability to remodel semi-synthetic prostheses. A model for assessment of the regenerative capacity of synthetic hydrogels in the treatment of myocardial infarction established in 2011 has led to published results and interest from overseas collaborators. The mechanism through which delayed delivery of hydrogel to an infarcted heart achieves greater therapeutic efficacy has been partially elucidated in 2012. The distribution of hydrogel was found to differ substantially dependent on the timing of hydrogel delivery. This is being further examined with micro computed tomography and promises to hold great significance in the field of biomaterial-based therapy for myocardial infarction.

Optimisation of treatment regimens to render animal tissue used in the construction of 'bioprosthetic' heart valves, especially transcatheter designs, more biocompatible and less immunogenic has in 2012 focused on porcine pericardium, including decellularisation and non-covalent 'tanning' thereof. Further assessment of both porcine and bovine pericardial candidates is currently in progress.

The Biomechanical Sciences group strengthened international networking through a 3-year collaboration grant from the UK Royal Society with Dr Georges Limbert from the University of Southampton, UK, on constitutive modelling of tissue-regenerative synthetic scaffolds.

Postgraduate training remained a priority in 2012. Interdigitation between our clinical staff and researchers also remains a key goal for which the Division continues to strive.

Divisional Statistics

Permanent and Long Term Contract Staff

Professor	1
Associate Professors	4
Senior Consultants	3
Senior Lecturer	2
Supernumerary Registrars	2
Surgical Registrar	6
Surgical Rotator	1
Senior Medical Officer	1
Senior Scientific Officer	1
Secretary	1
Medical Technologist Director	1
Senior Medical Technologist	2
Clinical Technologist/Perfusionist	3
TOTAL	28

Students

Doctoral	13
M.Med.	5
Master's	8
Honours	1
TOTAL	27

Research Fields and Staff

Permanent Staff

PROFESSOR PETER ZILLA
Head of Division

ASSOCIATE PROFESSOR JOHAN BRINK
Clinical Director

ASSOCIATE PROFESSOR JOHN HEWITSON
Section Head: Paediatric Surgery

ASSOCIATE PROFESSOR THOMAS FRANZ
Section Head: Biomechanics

DR PAUL HUMAN
Research Director, Section Head Pathobiology

DR LOVEN MOODLEY
Section Head: Thoracic Surgery

DR ANDRE BROOKS
Senior Consultant

DR DEON BEZUIDENHOUT
Senior Lecturer, Section Head Polymer Sciences

DR NEIL DAVIES
Senior Lecturer, Section Head Biology and Regeneration

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Department Of Surgery

Division Of Plastic Surgery

HEAD OF DIVISION: PROFESSOR DA HUDSON

Divisional Profile

The Division of Plastic Surgery combines an academic hospital service, with university teaching, clinical training and research. The division also functions at Red Cross Children's Hospital and pressures sores are dealt with at Eerste River Hospital. Specialist tertiary services are provided to patients of the Western Cape and beyond.

The Department is actively involved in a number of multidisciplinary which include:

1. head and neck cancer clinic
2. skin cancer clinic
3. melanoma clinic
4. transsexual clinic
5. combined breast clinic

Multi-disciplinary clinics at Red Cross Children Hospital include:

1. Cleft lip and palate clinic
2. Inter sex clinic
3. Cranio facial clinic
4. Congenital ear clinic
5. Congenital hand clinic

Teaching is provided to fifth year medical students PAMS, and specialist training of postgraduates is undertaken – including supernumerary registrars from other countries.

The Department is actively involved in research in all aspects of Plastic Surgery, including paediatric Plastic Surgery.

The Department enjoys a strong partnership with colleagues in private practise. These part time surgeons provide valuable input to the Department both in teaching and in clinical services.

The Division continued to conduct research in breast reconstruction, complex wounds, paediatric plastic surgery, microsurgery and buns.

Permanent and Long Term Contract Staff

Professors	1
Senior Lecturers	2
Lecturers	10
Administrative Staff	1
Total	14

Students

PhD	1
Master's	5
Undergraduate	0
Total	6

Research Fields and Staff

PROFESSOR D.A. HUDSON
Breast Reconstruction; Wound Healing; Burns.

DR K. ADAMS
Management of complex wounds, Transsexual Surgery, Burns

DR S. ADAMS
Cleft Lip Palate; Lower leg Reconstruction, Burns

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Department of Surgery

Research output

Chapters in books

Beighton, P. and Sellars, S.L. 2012. Hereditary deafness in Southern Africa. In D. Kumar (ed.), Genomics and Health in the Developing World, pp. 466-474. New York: Oxford University Press. ISBN 9780195374759.

Fagan, J.J. 2012. Management of cervical metastases. In A. Staffieri (ed.), Essentials of Head and Neck Cancer, pp. 93-102. Delhi, India: Bywood Books Private Limited. ISBN 9788181930712.

Nicol, A. and Fagan, J.J. 2012. Penetrating neck injuries. In J.C. Watkinson (ed.), Stell and Maran's Textbook of Head and Neck Surgery and Oncology, pp.295-305. 5th edition. London: Hodder Arnold. ISBN 978034092962.

Nicol, A. and Navsaria, P.H. 2012. Penetrating rectal injuries. In G.C. Velmahos (ed.), Penetrating Trauma, pp. 397-400. London: Springer. ISBN 9783642204531.

Articles in peer-reviewed Journals

Adams, S., Rogers, A.D., Pienaar, C.H., Adams, K.G. and Hudson, D.A. 2012. The crouton dressing: an alternative technique to immobilize skin grafts in difficult areas. Burns, 38: 301-305.

Alharethi, S., Bernon, M. and Krige, J.E.J. 2012. Beware the left-sided gallbladder. South African Journal of Surgery, 50(3): 88-89.

Anley, C., Brandt, A. and Dunn, R.N. 2012. Magnetic resonance imaging findings in spinal tuberculosis: comparison of HIV positive and negative patients. Indian Journal of Orthopaedics, 46(2): 186-190.

Banderker, A., Navsaria, P.H., Edu, S., Bekker, W., Nicol, A. and Naidoo, N.G. 2012. Civilian popliteal artery injuries. South African Journal of Surgery, 50(4): 119-123.

Broeders, J., Roks, D., Jamieson, G., Devitt, P., Baigrie, R.J. and Watson, D. 2012. Five-year outcome after laparoscopic anterior partial versus Nissen fundoplication: four randomized trials. Annals of Surgery, 255(4): 637-42.

Brooks, A., Geldenhuys, A., Zuhlke, L., Human, P.A. and Zilla, P. 2012. Pulmonary artery banding: still a valuable option in developing countries? European Journal of Cardio-Thoracic Surgery, 41: 272-276.

Bruijns, S. and Wallis, L.A. 2012. The rise of the frequent attender. African Journal of Emergency Medicine (AfJEM), 2: 141-142

Bruijns, S., Green, R. and Wallis, L.A. 2012. Sepsis as a cause of rising health care casualties in Africa. African Journal of Emergency Medicine (AfJEM), 2: 47-48.

Bumbacea, D., Arend, S., Eyuboglu, F., Fishman, J.A., Goletti, D., Ison, M.G., Jones, C.E., Kampmann, B., Kotton, C., Lange, C., Ljungman, p., Milburn, H., Morris, M.I., Muller, E., Munoz, P., Nellore, A., Rieder, H.L., Sester, U., Theodoropoulos, N., Wagner, D. and Sester, M. 2012. The risk of tuberculosis in transplant candidates and recipients: a TBNET consensus statement. European Respiratory Journal, 40(4): 990-1013.

Bye, H., Prescott, N.J., Lewis, C.M., Matejcic, M., Moodley, L., Robertson, B.M., van Rensburg, C., Parker, M.I. and Mathew, C.G. 2012. Distinct genetic association at the PLCE1 locus with oesophageal squamous cell carcinoma in the South African population. Carcinogenesis, 33(11): 2155-2161.

Chinnery, G., Krige, J.E.J., Kotze, U.K., Navsaria, P.H. and Nicol, A. 2012. Surgical management and outcome of civilian gunshot injuries to the pancreas. British Journal of Surgery, 99(1): 140-148.

Chirwa, N., Govender, D., Ndimba, B.K., Lotz, Z., Tyler, M., Panieri, E., Kahn, D. and Mall, A.S. 2012. A 40-50kDa glycoprotein associated with mucus is identified as -1-acid glycoprotein in carcinoma of the stomach. Journal of Cancer, 3: 83-92.

Cockburn, N., Steven, D., Lecuona, K., Joubert, F., Rogers, G., Cook, C.D. and Polack, S. 2012. Prevalence, causes and socio-economic determinants of vision loss in Cape Town, South Africa. PLoS One, 7(2): e30718.

Coetzee, E., Whitelaw, A.C., Kahn, D. and Rode, H. 2012. The use of topical, un-buffered sodium hypochloride in the management of burn wound infection. Burns, 38: 529-533.

Cook, C.D. and Foster, P. 2012. Epidemiology of glaucoma: whats new? Canadian Journal of Ophthalmology-Journal Canadien D Ophtalmologie, 47(3): 223-226.

Cook, C.D., Carrara, H. and Myers, L. 2012. Phaco-emulsification versus manual small-incision cataract surgery in South Africa. SAMJ South African Medical Journal, 102(6): 537-540.

Costamagna, G., Tringali, A., Spicak, J., Mutignani, M., Shaw, J.M., Roy, A., Johnson, E., De Moura, E.G.H., Cheng, S., Ponchon, T., Bittinger, M., Messman, H., Neahaus, H.,

Schumacher, B., Laugier, R., Saarnio, J. and Ariqueta, F.I. 2012. Treatment of malignant gastroduodenal obstruction with a nitinol self-expanding metal stent: An international prospective multicentre registry. Digestive and Liver Disease, 44: 37-43.

Davies, N.H., Schmidt, C., Bezuidenhout, D. and Zilla, P. 2012. Sustaining neovascularization of a scaffold through staged release of vascular endothelial growth factor-A and platelet-derived growth factor-BB. Tissue Engineering, 18(1&2): 26-34.

Dean, W.H., Courtright, P. and Cook, C.D. 2012. Does training clinic nurses to test pinhole visual acuity as a screen for glaucoma increase glaucoma referrals to eye care professionals? A pilot study in Malawi. Ophthalmic Epidemiology, 19(5): 293-296.

Douglas, T.S., Gresak, L., Koen, N., Fenton-Muir, N., Van As, A.B. and Pitcher, R.D. 2012. Measurement of prevertebral cervical soft tissue thickness on lateral digital radiographs. Journal of Pediatric Orthopaedics, 32(3): 249-252.

Du Plessis, J., Dix-Peek, S.I., Hoffman, E.B., Wieselthaler, N. and Dunn, R.N. 2012. Pediatric atlanto-occipital dissociation: radiographic findings and clinical outcome. Clinical Evidence, 3(1): 19-26.

Du Toit, N. 2012. The eye in rheumatoid arthritis. CME-Continuing Medical Education, 29(8): 330-331.

Du Toit, N. and Van Der Merwe, J. 2012. Herpetic ulcer of the eyelids in an immunocompromised patient. SAMJ South African Medical Journal, 102(6): 472-473.

Edkins, O., Nyamarebvu, C. and Lubbe, D.E. 2012. Cerebrospinal fluid rhinorrhoea after nasal packing for epistaxis: case report. Journal of Laryngology and Otology, 126: 421-423.

Fagan, J.J. 2012. Developing world ENT: a global responsibility. Journal of Laryngology and Otology, 126(6): 544-547.

Geldenhuys, A., Koshy, J., Human, P.A., Mtwale, J., Brink, J.G. and Zilla, P. 2012. Rheumatic mitral repair versus replacement in a threshold country: the impact of commissural fusion. Journal of Heart Valve Disease, 21: 424-432.

Gottschalk, S., Warner, C., Burch, V.C. and Wallis, L.A. 2012. Warning scores in triage-Is there any point?. African Journal of Emergency Medicine (AfJEM), 1: 103-107

Govender, C., Morris, G. and Wallis, L.A. 2012. Analysing acuity of after-hours attendees at a district hospital emergency centre in KwaZulu-Natal. African Journal of Emergency Medicine (AfJEM), 2: 67-75

Harris, T., Bardien, S., Schaaf, H., Petersen, L., de Jong, G.J. and Fagan, J.J. 2012. Aminoglycoside-induced hearing loss inHIV-positive and HIV-negative multidrug-resistant tuberculosis patients. SAMJ South African Medical Journal, 102(6): 363-366.

Harris, T., Peer, S. and Fagan, J.J. 2012. Audiological monitoring for ototoxic tuberculosis, human immunodeficiency virus and cancer therapies in a developing world setting. Journal of Laryngology and Otology, 126(6): 548-551.

Held, M., Roche, S., Vrettos, B.C., Laubscher, M. and Walters, J. 2012. Reliability of shoulder symptom recall after 1 year in a retrospective application of the Oxford Shoulder Score. Journal of the Shoulder and Elbow Surgery, 4(4): 255-258.

Hoffman, E.B. 2011. The orthopaedic management of myelomeningocoele. SA Orthopaedic Journal, 10(3): 48-55.

Hudson, D.A. 2012. Achieving an optimal cosmetic result with excision of lesions on the face. Annals of Plastic Surgery, 68(3): 320-325.

Hudson, D.A., Adams, K.G. and Adams, S. 2012. Autologous dermal graft in breast reconstruction. Annals of Plastic Surgery, 68(3): 253-256.

Ives-Deliperi, V.L. and Butler, J.T. 2012. Naming outcomes if anterior temporal lobectomy in epilepsy patients: a systematic review of the literature. Epilepsy & Behavior, 24: 194-198.

Jabar, A., Wallis, L.A., Ruter, A. and Smith, W.P. 2012. Modified Delphi study to determine optimal data elements for inclusion in an emergency management database system. African Journal of Emergency Medicine (AfJEM), 2: 13-19.

Jacquet, G., Levine, A., Bruijns, S. and Wallis, L.A. 2012. Global emergency medicine literature review, Tanzania and adopting delegates. African Journal of Emergency Medicine (AfJEM), 2: 95-96.

Jehle, K.S., Lazarus, J. and Raad, J. 2012. Neurogenic lower urinary tract dysfunction: the role of urodynamics. CME-Continuing Medical Education, 30(5): 166-170.

Kadner, K., Dobner, S., Franz, T., Bezuidenhout, D., Sirry, M.S., Zilla, P. and Davies, N.H. 2012. The beneficial effects of deferred delivery on the efficiency of hydrogel therapy post myocardial infarction. Biomaterials, 33: 2060-2066.

Krige, J.E.J. and Kahn, D. 2012. Laparoscopic vs open liver resection. Archives of Surgery, 147(1): 48.

Krige, J.E.J., Kotze, U.K., Sayed, R., Burmeister, S., Bernon, M. and Chinnery, G. 2012. Outcome in decompensated alcoholic cirrhotic patients with acute variceal bleeding. SAMJ South African Medical Journal, 102(6): 554-557.

Langerak, N., Tam, N., Vaughan, C.L., Fieggen, A.G. and Schwartz, M.H. 2012. Gait status 17-26 years after selective dorsal rhizotomy. Gait & Posture, 35: 244-249.

Lawson, A.J., Beningfield, S.J., Krige, J.E.J., Rischbieter, P. and Burmeister, S. 2012. Percutaneous transhepatic self-expanding metal stents for palliation of malignant biliary obstruction. South African Journal of Surgery, 50(3): 54-60.

Lazarus, J. 2012. The AirScope: a novel wireless laparoscope. Journal of Medical Devices-Transactions of the ASME, 6: 44501.

Lazarus, J., Van Den Heever, A., Kortekaas, B. and Alexander, A. 2012. Female epispadias managed by bladder neck plication via a perineal approach. Journal of Pediatric Urology, 8: 244-248.

Le Feuvre, D.E.J. and Taylor, A.G. 2011. The management of very small/blister internal carotoid artery aneurysms. Interventional Neuroradiology, 17: 431-434.

Le Feuvre, D.E.J., Parkes, J., Mukheiber, P., James, R. and Taylor, A.G. 2012. A late haemorrhagic complication in an arterio venour malformation cured with radiosurgery. Interventional Neuroradiology, 18: 149-152

Lubbe, D.E., Fisher-Jeffes, N.D. and Semple, P.L. 2012. Endoscopic resection of skull base tumours utilising the ultrasonic dissector. Journal of Laryngology and Otology, 126: 625-629.

Maharaj, R., Geduld, H. and Wallis, L.A. 2012. Door-to-needle time for administration of fibrinolytics in acute myocardial infarction in Cape Town. SAMJ South African Medical Journal, 102(4): 241-244.

Malan, J., Le Feuvre, D.E.J., Mngomezulu, V. and Taylor, A.G. 2012. Angioarchitecture and treatment modalities in posttraumatic carotid cavernous fistulae. Interventional Neuroradiology, 18: 178-186.

Manson, J., Ameh, E.A., Canvassar, N., Chen, T., Van Den Heever, A., Lever, F., Millar, A.J.W., Emil, S. and Ade-Ajayi, N. 2012. Gastroschisis: a multi-centre comparison of management and outcome. African Journal of Paediatric Surgery, 9(1): 17-21.

Maqungo, S., Oleksak, M., Dix-Peek, S.I. and Hoffman, E.B. 2012. Tuberculosis of the foot andankle in children. SA Orthopaedic Journal, 11(2): 23-28.

Maritz, D., Wallis, L.A., van der Merwe, E. and Nel, D. 2012. The aetiology of adult burns in the Western Cape, South Africa. Burns, 38: 120-127.

McGuire, C.I., Baigrie, R.J., Theunissen, D., Fernandes, N. and Chapman, L. 2012. Outcome of laparoscopic inguinal hernia repair in a South African private practice setting. South African Journal of Surgery, 50(4): 115-118.

McGuire, D.T., Bick, S., Westgarth-Taylor, T.L. and Hoffman, E.B. 2011. Cryptococcoma of the ilium in an immuno-competent child. A case report and review of the literature. SA Orthopaedic Journal, 10(2): 74-77.

McGuire, D.T., White, C., Carter, D.B. and Solomons and Michael, W. 2012. Pyrocarbon proximal interphalangeal joint arthroplasty: outcomes of a cohort study. Journal of Hand Surgery-European Volume, 37E(6): 490-496.

Meisner, S., Gonzalez-Huix, F., Vandervoort, J.G., Repici, A., Xinopoulos, D., Grund, K.E., Goldberg, P.A. and The WallFlex Colonic Registry Group, 2012. Self-expanding metal stenting for palliation of patients with malignant colonic obstruction: effectiveness and efficacy on 255 patients with 12-month's follow-up. Gastroenterology Research and Practice, 2012: 296347.

Mendelson, M., Barday, Z., Eastman, R.W., Le Feuvre, D.E.J., Candy, S., Wu, H. and Swanepoel, C.R. 2012. Rapidly progressive post-transplant lymphoproliferative disease following withdrawal of sirolimus. SAMJ South African Medical Journal, 102(12): 924-928.

Mendenhall, W., Ferlito, A., Takes, R.P., Bradford, C., Corry, J., Fagan, J.J., Rinaldo, A., Strojan, P. and Rodrigo, J.P. 2012. Cutaneous head and neck basal and squamous cell carcinomas with perineural invasion. Oral Oncology, 48: 918-922.

Meyer, E. and Fagan, J.J. 2012. Tonsillectomy practice in South Africa. SAMJ South African Medical Journal, 101(2): 85-86.

Meyer, E., Liebenberg, S. and Fagan, J.J. 2012. Buccal fat pad-a simple, underutilised flap. South African Journal of Surgery, 49(2): 47-49.

Moolman, C., Navsaria, P.H., Lazarus, J., Pontin, A.R. and Nicol, A. 2012. Nonoperative management of penetrating kidney injuries: a prospective audit. Journal of Urology, 188: 169-173.

Muller, E., Barday, Z., Mccurdie, F. and Kahn, D. 2012. Deceased donor organ transplantation: a single center experience from Cape Town, South Africa. African Journal of Urology, 18: 167-169.

Muller, E., Barday, Z., Mendelson, M. and Kahn, D. 2012. Renal transplantation between HIV-positive donors and recipients justified. SAMJ South African Medical Journal, 102(6): 497-498.

Ntsekhe, M., Matthews, K., Wolske, J., Badri, M., Wilkinson, K., Wilkinson, R.J., Sturrock, E.D. and Mayosi, B.M. 2012. Ac-SDKP (N-acetyl-seryl-aspartyl-lysyl-proline) and Galectin-3 levels in tuberculous pericaridal effusion: implications for pathogenesis and prevention of pericardial constriction. Heart, 98(17): 1326-1328.

Ntsekhe, M., Wiysonge, C.S., Commerford, P.J. and Mayosi, B.M. 2012. The prevalence and outcome of effusive constrictive pericarditis: a systematic review of the literature. Cardiovascular Journal of Africa, 23: 281-285.

Oliver, J.C., Bekker, W., Edu, S., Nicol, A. and Navsaria, P.H. 2012. A ten year review of civilian iliac vessel injuries from a single trauma centre. European Journal of Vascular and Endovascular Surgery, 44: 199-202.

Olusanya, B., Tinley, C. and Grotte, R.H. 2012. Paralytic strabismus in South African black and mixed race children - a 15 year clinic-based review. Ophthalmic Epidemiology, 19(6): 396-400.

Padayachy, L., Rohlwink, R., Zwane, E., Fieggen, A.G., Peter, J.C. and Figaji, A. 2012. The frequency of cerebral ischemia/hypoxia in pediatric severe traumatic brain injury. Childs Nervous System, 28(11): 1911-1918.

Panieri, E. 2012. Breast cancer screening in developing countries. Best Practice & Research in Clinical Obstetrics & Gynaecology, 26: 283-290.

Pathai, S., Weiss, H., Lawn, S.D., Peto, T., D'Costa, L.M., Cook, C.D., Wong, T.Y. and Gilbert, C.E. 2012. Retinal arterioles narrow with increasing duration of anti-retroviral therapy in HIV infection: a novel estimator of vascular risk in HIV? PLoS One, 7(12): e51405.

Peacocke, J., Lotz, Z., De Beer, C., Roux, P. and Mall, A.S. 2012. The role of crude saliva and purified salivary mucins in the inhibition of the Human Immunodeficiency Virus type 1. Virology Journal, 9: 177.

Peer, S. and Fagan, J.J. 2012. Do South African universities provide the required training platforms for otolaryngology specialist training? SAMJ South African Medical Journal, 102(8): 691-692.

Pons, J., Mapham, W., Newsome, B., Myers, L., Anderson, R., Courtright, P. and Cook, C.D. 2012. The potential impact of a cataract surgery programme on the care of orphans and vulnerable children in Swaziland. SAMJ South African Medical Journal, 102(3): 140-141.

Robertson, B.M., Shepherd, C., Abratt, R.P., Hunter, A.J. and Goldberg, P.A. 2012. Treatment of carcinoma of the anal canal at Groote Schuur Hospital. SAMJ South African Medical Journal, 102(6): 558-561.

Rogers, A.D., Argent, A.C. and Rode, H. 2012. Review Article: ventilator-associated pneumonia in major burns. Annals of Burns and Fire Disasters, 3: 135-139.

Saleh, M., Sharp, S., Alhamud, A., Spottiswoode, B., van der Kouwe, A.J., Davies, N.H., Franz, T. and Meintjes, E.M. 2012. Long-term left ventricular remodelling in rat model of nonreperfused myocardial infarction: sequential MR imaging using a 3T clinical scanner. Journal of Biomedicine and Biotechnology, 504037: 1-10.

Schaefer, H., De Villiers, J.N., Sudano, I., Dischinger, S., Theus, G., Zilla, P. and Dieterle, T. 2012. Recommendations for the treatment of hypertension in the elderly and very elderly - a scotoma within international guidelines. Swiss Medical Weekly, 142: 1-7.

Schaefer, H., Sudano, I., Theus, G., Zilla, P., Noll, G. and Burnier, M. 2012. Blood pressure target attainment in the background of guidelines: the very elderly in Swiss primary care. Family Practice, 29: 511-520.

Sliwa, K. and Zilla, P. 2012. Rheumatic heart disease: the tip of the iceberg. Circulation, 125: 3060-3062.

Snoek, K., Jacobsohn, M. and Van As, A.B. 2012. Bifocal spinal cord injury without radiographic abnormalities in a 5-year old boy: a case report. Case Reports in Pediatrics, 2012: Article ID 351319.

Sobnach, S., Borkum, M., Millar, A.J.W., Hoffman, R., Muller, E., Mccurdie, F. and Kahn, D. 2012. Attitudes and beliefs of South African medical students toward organ transplantation. Clinical Transplantation, 26: 192-198.
Sun, J.H. and Wallis, L.A. 2012. The emergency first aid responder system model: using community members to assist life-threatening emergencies in violent, developing areas of need. Emergency Medicine Journal, 29: 673-678.

Sun, J.H., Twomey, M., Tran, J. and Wallis, L.A. 2012. The need for a usable assessment tool to analyse the efficacy of emergency care systems in developing countries: proposal to use the TEWS methodology. Emergency Medicine Journal, 29: 882-886.

Tinley, C. and Grotte, R.H. 2012. Comitant horizontal strabismus in South African black and mixed race children - a clinic-based study. Ophthalmic Epidemiology, 19(2): 89-94.

Tinley, C., Van Zyl, L. and Grotte, R.H. 2012. Poststreptococcal syndrome uneitis in Southern African children. British Journal of Ophthalmology, 96(1): 87-89.

Twomey, M., De Sa, A.M.R., Wallis, L.A. and Myers, J.E. 2012. Inter-rater reliability of the South African triage scale: assessing two different cadres of health care workers in a real time environment. African Journal of Emergency Medicine (AfJEM), 1(3): 113-118

Twomey, M., Mullan, P., Torrey, S.B., Wallis, L.A. and Kestler, A. 2012. The Princess Marina Hospital accident and emergency triage scale provides highly reliable triage acuity ratings. Emergency Medicine Journal, 29: 650-653.

Twomey, M., Wallis, L.A., Thompson, M.L. and Myers, J.E. 2012. The South African triage scale (adult version) provides reliable acuity ratings. International Emergency Nursing, 20(3): 142-150.

Twomey, M., Wallis, L.A., Thompson, M.L. and Myers, J.E. 2012. The South African triage scale (adult version) provides valid acuity ratings when used by doctors and enrolled nursing assistants. African Journal of Emergency Medicine (AfJEM), 2: 3-12.

Van Den Heever, A.P., Lazarus, J. and Naude, J.H. 2012. Retrospective outcome analysis of urethroplasties performed for various etiologies in a single South African centre. African Journal of Urology, 18: 127-130.

Van der Merwe, J., Mustak, H. and Cook, C.D. 2012. Endophthalmitis prophylaxis with intracameral cefuroxime in South Africa. Journal of Cataract and Refractive Surgery, 37: 271-278.

Van Waes, O., Cheriex, K.C., Navsaria, P.H., Van Riet, P.A., Nicol, A. and Vermeulen, J. 2012. Management of penetrating neck injuries. British Journal of Surgery, 99(1): 149-154.

Wachira, B., Wallis, L. and Geduld, H. 2012. An analysis of the clinical practice of emergency medicine in public emergency departments in Kenya. Emergency Medicine Journal, 29: 473-476.

Wallis, L.A. 2012. Guest editorial: emergency medicine. CME-Continuing Medical Education, 30(11): 400-401.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Weed, B.C., Borazjani, A., Patnaik, S.S., Prabhu, R., Horstemeyer, M.F., Ryan, P.L., Franz, T., Williams, L. and Liao, J. 2012. Stress state and strain rate dependence of the human placenta. Annals of Biomedical Engineering, 40(10): 2255-2265.

Welzel, T.B. 2012. Patient safety: minimising medical error. CME-Continuing Medical Education, 30(11): 406-409.

Wen, L., Geduld, H., Nagurney, J. and Wallis, L.A. 2012. Perceptions of graduates from Africa's first emergency medicine training program at the University of Cape Town/ Stellenbosch University. Canadian Journal Of Emergency Medicine, 14(2): 97-105.

Wen, L., Nagurney, J., Geduld, H., Wen, A. and Wallis, L.A. 2012. Procedure competence versus number performed: a survey of graduate emergency medicine specialists in a developing nation. Emergency Medicine Journal, 29: 822-825.

White, C., Dix-Peek, S.I., Huyssteen, A. and Hoffman, E.B. 2012. Late-onset Blounts disease. SA Orthopaedic Journal, 11(2): 29-35.

Yokoe, M., Takada, T., Strasberg, S., Solomkin, J.S., Mayumi, T., Gomi, H., Pitt, H., Gouma, D., Garden, O., Buchler, M., Kiriyama, S., Kimura, Y., Tsuyuguchi, T., Itoi, T., Yoshida, M., Miura, F., Yamashita, Y., Okamoto, K., Gabata, T., Hata, J., Higuchi, R., Windsor, J.A., Bornman, P.C., Fan, S., Singh, H., De Santibanes, E., Kusachi, S., Murata, A., Chen, X.P., Jagannath, P., Lee, S., Padbury, R. and Chen, M.F. 2012. New diagnostic criteria and severity assessment of acute cholecystitis in reversed Tokyo guidelines. Journal of Hepato-Biliary-Pancreatic Sciences, 19: 578-585.

Zar, H.J., Eley, B.S., Nicol, M.P., Figaji, A.A. and Hawkridge, A.J. 2012. Advances in childhood tuberculosis - contributions from the University of Cape Town. SAMJ South African Medical Journal, 102(6): 518-521.

Zilla, P., Moodley, L., Scherman, J., Krynauw, H., Kortsmit, J., Human, P.A., Wolf, M. and Franz, T. 2012. Remodeling leads to distinctly more intimal hyperplasia in coronary than in infrainguinal vein grafts. Journal of Vascular Surgery, 55: 1734-1741.

Deans Office: Health Sciences

Articles in peer-reviewed Journals

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: a story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Jacobs, M. and El-Sadr, W. 2012. Health systems and health equity: the challenge of the decade. Global Public Health, 7(S1): S63 -S72.

Perez, A.M., Ahmed, N. and London, L. 2012. Racial discrimination: experiences of black medical school alumni at the University of Cape Town, 1945-1994. SAMJ South African Medical Journal, 102(6): 574-577.

Faculty of SCIENCE

Research in the Faculty of Science takes place through 13 separate departments, arranged on disciplinary grounds, and 15 affiliated formal research units and centres accredited by the University Research Committee. The vast majority of our staff are active in research and contribute to the overall research output of the faculty.

Dean's Report

Despite a climate of decreasing research income from government for fundamental research, 2012 saw a number of research successes. The cost of research continues to grow and, despite the pressure on funding, particularly from government, staff were successful in raising some R108 million from government and non-governmental sources to support the research enterprise, with income from non-governmental sources comprising some R47.6 million of this total. Income from this external funding from industry, government, public entities, and statutory bodies was essential in providing bursaries to master's and PhD students, postdoctoral fellowships, salaries of research and support staff, and project running expenses. The number of research contracts (145), and the income derived therefrom (R47.6 million), were significantly down on 2011 values (260 and R75.6 million respectively), which is a concern. Nevertheless, despite this funding pressure, the number of PhD and postdoctoral researchers continued to grow, with 124 postdoctoral fellows spread among the departments, and 376 PhD and 454 master's students registered in the faculty. The number of doctoral degrees awarded in 2012 was 62, and that of master's degrees was 137, approximately 20 percent of the latter with distinction; both PhD and master's graduate numbers reflect increases over 2011. Two students who excelled in their postgraduate studies were Ms Andrea Muller, Department of Mathematics and Applied Mathematics, who received the S2A3 Bronze Medal for her MSc dissertation, titled *Humpback whales, rock lobsters, and mathematics: Exploration of assessment models incorporating stock-structures*, and Dr Ranga Jayakodi, Department of Chemistry, who received the Faculty PhD medal for his thesis, titled *In silico investigation of the mechanism of ricin-catalysed depurination reaction and design of novel ricin inhibitors*. Research publication output from staff and postgraduate students remained high, with some 900 peer-reviewed, accredited publications appearing in 2012.

One measure of our faculty achievements, in terms of recognition and international standing in the research arena, is through the increasing number of staff receiving high NRF ratings. In this regard, the faculty is proud of the latest additions to our current 14 NRF A-rated, 66 B-rated, 44 C-rated, and six P-rated researchers. The latter, in particular, reflect the growing research strength of our younger academic staff. Associate Professor Heribert Weigert of the Department of Physics received an NRF A rating in recognition of his research in Theoretical Physics, and two young researchers, Dr Åke Fagereng (Department of Geological Sciences) and Dr Andrew Hamilton (Department of Physics), received NRF P ratings in 2012; Dr Fagereng

PROFESSOR
ANTON LE ROEX
Dean of Science

for his research work on earthquake dynamics and Dr Hamilton for his research related to the discovery of the Higgs Boson via the ATLAS consortium at the Large Hadron Collider. In total, 152 staff in the faculty are NRF-rated.

At the university level, associate professors Merle Sowman and Rachel Wynberg received the newly instituted Social Responsiveness Award for their leadership of, and research conducted through, the Environmental Evaluation Unit, aimed at uplifting poor communities in the Western Cape and further afield. Two of our younger scientists, Drs Will Horowitz (Department of Physics) and Åke Fagereng (Department of Geological Sciences), received prestigious UCT Fellows' Young Researcher Awards, Dr Horowitz for his significant contributions to the determination of the properties of matter microseconds after the Big Bang, through demonstrating the importance of novel physics mechanisms in tomographic analyses, and Dr Fagereng for his studies on faults and fractures in the Earth's crust, aimed at understanding how the Earth deforms and particularly the processes that lead to earthquakes.

The faculty was privileged to be awarded two DST/NRF SARChI Chairs in 2012, one in Environmental and Social Dimensions of the Bioeconomy, awarded to Associate Professor Rachel Wynberg (Department of Environmental and Geographical Sciences), the other in Stable Isotopes in Archaeology and Paleo-enviromental Studies, awarded to Professor Judy Sealy (Department of Archaeology). These two additions now bring the number of DST/NRF SARChI Research Chairs in the faculty to 10.

Staff of the faculty continued to garner national and international awards for their research contributions. Professor Jill Farrant of the Department of Molecular and Cell Biology received the L'Oréal-UNESCO Women in Science Award in Life Sciences (region: Africa and Arab States), at a ceremony in Paris in April 2012 for her work on desiccation tolerance in plants. Other notable achievements by staff in the faculty were the receipt of the prestigious Humboldt Foundation Georg Foster Research Award by Professor Daya Reddy (Department of Mathematics and Applied Mathematics), and the Humboldt Foundation In Memory of Neville Alexander Research Award received by Emeritus Professor Césareo Dominguez of the Physics Department. National honours went to Professor Anusuya Chinsamy-Turan (Department of Zoology), who was awarded the NRF Special Category Award for Transformation of the Science Cohort in recognition of her excellent research performance and international standing as a palaeobiologist, and Professor Kelly Chibale (Department of Chemistry), who received the NRF's Champion of Research and Capacity Development at Higher Educational Institutions in South Africa Award. Professor Ed Rybicki, Department of Molecular and Cell Biology, was successful in obtaining a prestigious Harry Oppenheimer Trust award for his work on Rift Valley fever virus and Crimean-Congo haemorrhagic fever virus proteins in plants, as reagents and potential vaccines.

The quality and research performance of the academic staff in the Science faculty is ably supported by many highly skilled and dedicated administrative and technical staff. They make an invaluable contribution to the research endeavour of the faculty and their skills are critical to the wide range of exciting research activities reported on in this 2012 Research Report.

Departments

Department of Archaeology

Department of Astronomy

Department of Botany

Department of Chemistry

Department of Computer Science

Department of Environmental and Geographical Science

Department of Geological Sciences

Department of Mathematics and Applied Mathematics

Department of Molecular and Cell Biology

Department of Oceanography

Department of Physics

Department of Statistical Sciences

Department of Zoology

DOCTORAL GRADUATIONS

M. BIRD (ZOOLOGY)
Effects of habitat transformation on temporary wetlands in the Southwestern Cape, South Africa
Supervised by Associate Professor J. Day

R. BLAMEY (OCEANOGRAPHY)
Mesoscale convective complexes over Southern Africa
Supervised by Professor C. Reason

T. BOOM (MOLECULAR AND CELL BIOLOGY)
A biological study of the cellular response to heat stress in the South African alga Gracilaria gracilis
Supervised by Associate Professor V. Coyne and Dr S. Rafudeen

N.A.K. BROWNE (ENVIRONMENTAL AND GEOGRAPHICAL SCIENCE)
Model evaluation for seasonal forecasting over Southern Africa
Supervised by Professor B. Hewitson and Dr B.J. Abiodun

L.A. CORKER (PHYSICS)
Probabilistic methods applied to fluctuating systems
Supervised by Professor D.T. Britton

V.B.G. COSTA (ZOOLOGY)
Using stable isotopes as a tool to understand the trophic relationships and movements of seabirds off Southern Africa
Supervised by Associate Professor P.G. Ryan and Dr R. Wanless (Birdlife South Africa)

K. DAVIES (CHEMISTRY)
Characterisation and topological analysis of novel metal-organic frameworks
Supervised by Professor S. Bourne

S.J. DU PLESSIS (MOLECULAR AND CELL BIOLOGY)
Molecular characterisation of selected gastrointestinal microbiota in South African HIV-positive patients during HAART
Supervised by Associate Professor V. Abratt and Associate Professor S.J. Reid

E. DU TOIT (MOLECULAR AND CELL BIOLOGY)
The development of probiotics for use in the ostrich farming industry in South Africa
Supervised by Associate Professor S.J. Reid

J.L. EWART-SMITH (ZOOLOGY)
The relationship between periphyton, flow and nutrients in foothill rivers of the south-western Cape, South Africa
Supervised by Associate Professor J. Day and Dr J.M. King

M.R. GAMIELDIEN (CHEMISTRY)
Parameterization of the Gay-Berne coarse-grained potential from atomistically detailed anisotropic free energy volumes
Supervised by Professor K.J. Naidoo

R. GAUJOUX (MOLECULAR AND CELL BIOLOGY)
Non-negative matrix factorization: tools and application to gene expression deconvolution
Supervised by Professor C. Seoighe and Professor N. Mulder

D.M. HAREBOTTLE (ZOOLOGY)
Assessing the conservation value of wetlands and waterbirds with a focus on the winter rainfall region of South Africa
Supervised by Emeritus Professor L. Underhill and Dr T. Williams (Cape Nature)

N.C.G. HART (OCEANOGRAPHY)
Synoptic-scale rainfall patterns over Southern Africa: scale interactions with large-scale modes of variability
Supervised by Professor C. Reason and Dr N. Fauchereau (CSIR)

S. HOFMEYR (ZOOLOGY)
Impacts of environmental change on large terrestrial bird species in South Africa: insights from citizen science data
Supervised by Emeritus Professor L. Underhill and Dr P. Barnard (South African National Biodiversity Institute)

S.M. HUDDY (MOLECULAR AND CELL BIOLOGY)
Development of a transformation protocol and cell culture system for the commercially important species of red macroalga Gracilaria gracilis
Supervised by Associate Professor V. Coyne

V.O. IKORO (PHYSICS)
A study of postgraduate students in an Astrophysics bridging year: identifying contradictions in a complex system
Supervised by Associate Professor S. Allie and Professor D. Demaree (Physics, Oregon State University, USA)

R. JAYAKODY (CHEMISTRY)
In silico investigation of the mechanism of ricin-catalysed depurination reaction and design of ricin inhibitors
Supervised by Professor K.J. Naidoo

G.S. JOSEPH (ZOOLOGY)
Understanding pattern-process relationships in a heterogeneous landscape: effects of large termitaria on diversity and disturbance regimes in Miombo woodlands of northern Zimbabwe
Supervised by Professor G. Cumming and Honorary Professor D.H.M. Cumming

H. KAMBAFWILE (CHEMISTRY)
Synthesis of activity-based protein profiling probes for malaria and hypertension disease models and potential novel ACE Inhibitors with an attenuated zinc binding group
Supervised by Professor K. Chibale

M.J. KOTZE (ZOOLOGY)
Olfactory responses of Dasineura dielsi Rübsaamen (Diptera: Cecidomyiidae) females to host plant volatiles
Supervised by Professor A. Chinsamy-Turan and Dr A. Jürgens (University of KwaZulu-Natal)

M.M. KOTZE (ASTRONOMY)
Exploring the super-orbital periodic behaviour of X-ray binaries
Supervised by Professor P. Charles and Professor B. Warner

L. LANGE (ZOOLOGY)
Use of demersal bycatch data to determine the distribution of soft-bottom assemblages off the West and South Coasts of South Africa
Supervised by Professor C. Griffiths

M.D. MABULA (MATHEMATICS AND APPLIED MATHEMATICS)
Compactness in asymmetrically normed lattices
Supervised by Dr J. Conradie and Professor H.-P. Künzi

B. MAKHUBELA (CHEMISTRY)
The design, synthesis and characterization of polynuclear materials for applications in catalysis
Supervised by Dr G.S. Smith

P. MALATJI (CHEMISTRY)
Studies towards degradable polymers: new zinc(II) and palladium(II) complexes as catalysts for lactide polymerization and carbon monoxide/styrene copolymerization
Supervised by Associate Professor A.T. Hutton and Professor N.J. Coville (University of the Witwatersrand)

S.M. MARR (ZOOLOGY)
Conservation of the native freshwater fishes of the Cape floristic region (South Africa): management of non-native species
Supervised by Associate Professor J. Day

E.M. MASINDE (COMPUTER SCIENCE)
ITIKI: bridge between African indigenous knowledge and modern science on drought prediction
Supervised by Dr A. Bagula and Professor N. Muthama (University of Nairobi)

M. MASUBELELE (BOTANY)
Understanding the past to conserve the future: long-term environmental and vegetation change in the Karoo Midlands, South Africa, over the 20th century
Supervised by Professor T. Hoffman and Professor W. Bond

A.L. MONJANE (MOLECULAR AND CELL BIOLOGY)
Analysis of recombination and evolution of maize streak virus
Supervised by Professor E. Rybicki, Dr D. Martin, Dr D. Shepherd and Dr A. Varsani

H.B.H. MOHAMED (MATHEMATICS AND APPLIED MATHEMATICS)
Properties of solutions of the equations for generalized Oldroyd-B fluids
Supervised by Professor B.D. Reddy

C. MOODLEY (MOLECULAR AND CELL BIOLOGY)
Molecular characterization of ABC-type multidrug efflux systems in Bifidobacterium longum subsp.longumT JCM 1217
Supervised by Associate Professor V. Abratt

J.M.W. MWICIGI (ZOOLOGY)
The distribution, formation, origins and constituents of nepheloid layers on the Agulhas bank, South Africa, and their implications for Chokka (Loligo Reynaudi) Squid
Supervised by Associate Professor M. Lucas and Dr M.J. Roberts (Oceans and Coasts, Environmental Affairs: DEA)

R.K. NAIDOO (MOLECULAR AND CELL BIOLOGY)
Investigation of the Gracilaria gracilis proteome response to nitrogen limitation
Supervised by Associate Professor V.E. Coyne

M. NDLOVU (ZOOLOGY)
Environmental influences on moult and movement strategies in Southern African waterfowl
Supervised by Professor G. Cumming and Professor P.A.R. Hockey

F.P.J. NEHAMA (OCEANOGRAPHY)
Modelling the Zambezi river plume using the regional oceanic modelling system
Supervised by Professor C. Reason

S.A. NICHOLSON (MOLECULAR AND CELL BIOLOGY)
The molecular characterisation of the recA locus in the opportunistic pathogen Bacteroides fragilis
Supervised by Associate Professor V. Abratt

P.M. NJOGU (CHEMISTRY)
Molecular hybrids of N-benzoyl-(2R, 3S)-3-phenylisoserine with antimalarial scaffolds: design, synthesis and biological evaluation for antitumoural and antiplasmodial activity
Supervised by Professor K. Chibale, Associate Professor D.T. Hendricks and Dr A. Jardine

S. NSUMIWA (CHEMISTRY)
Synthesis and investigation of quinolone based b-haematin formation inhibitors as potential antimalarials
Supervised by Professor T.J. Egan

S.S. NTSHANGASE (PHYSICS)
Development of a recoil detector and the study of exotic asymmetric shapes in nuclei
Supervised by Dr R.A. Bark (external) and Dr R. Bark (Nuclear Physics, iThemba LABS)

P.M. OKOUMA (MATHEMATICS AND APPLIED MATHEMATICS)
Aspects of dark energy and cosmic curvature
Supervised by Professor B. Bassett

O. OLELA OTAFUDU (MATHEMATICS AND APPLIED MATHEMATICS)
Convexity in quasi-metric spaces
Supervised by Professor H.-P. Kunzi

P. PILLAY (CHEMISTRY)
Antiplasmodial neolignans from Trema orientalis: identification, synthesis and analogue generation
Supervised by Professor K. Chibale and Dr V. Maharaj (CSIR)

A. POTTS (BOTANY)
Tracking thicket through space and time: insights into the evolutionary history of the Albany Subtropical Thicket from comparative phylogeography and distribution modelling
Supervised by Professor T.A. Hedderson and Professor R. Cowling (Nelson Mandela Metropolitan University)

C. POWELL (PHYSICS)
J/ψ production in heavy ion collisions at the STAR detector at RHIC
Supervised by Professor A. Peshier, Emeritus Professor J. Cleymans and Dr G. Odyniec (Lawrence Berkeley National Laboratory, USA)

R. RADEMEYER (MATHEMATICS AND APPLIED MATHEMATICS)
The evolution of management procedures for the South African hake resource in the 2000s
Supervised by Professor D. Butterworth and Dr É. Plagányi (CSIRO, Australia)

R. RAMSOUT (CHEMISTRY)
Investigation of the in vitro and in vivo effects of some herbal preparations on risk factors for calcium oxalate kidney stone disease
Supervised by Professor A.L. Rodgers

N. RAZAK (GEOLOGICAL SCIENCES)
An investigation into the effectiveness of a controlled source electromagnetic survey in locating petroleum resources offshore Equatorial Guinea
Supervised by Mr G.C. Smith

A.F. REDDY (MOLECULAR AND CELL BIOLOGY)
Characterisation of the effect of stress on nitrogen metabolism in the commercially important agarophyte Gracilaria gracilis
Supervised by Associate Professor V.E. Coyne

H.A.B. SALATA (ZOOLOGY)
Environmental factors influencing the distribution of bats (Chiroptera) in South Africa
Supervised by Professor D. Jacobs

M. SMART (MOLECULAR AND CELL BIOLOGY)
Flowering in Protea: a molecular and physiological study
Supervised by Dr L. Roden and Associate Professor M. Cramer

S. STATHOPOULOS (MOLECULAR AND CELL BIOLOGY)
The tangled history of olfaction in African mole-rats, Bathyergidae: insights from olfactory receptor genes
Supervised by Dr C. O'Ryan and Dr J.M. Bishop

T. SUINYUY (BOTANY)
The role of cone volatiles and thermogenesis in the pollination of Encephalartos cycads with particular reference to E.villosus
Supervised by Professor J.J. Midgley, Honorary Professor J. Donaldson (Botany and SANBI) and Professor S. Johnson (University of KwaZulu-Natal)

R.S. THELINGWANI (CHEMISTRY)
Integration of in silico and in vitro ADMET properties in lead identification and optimization of compounds for the treatment of parasitic diseases
Supervised by Professor K. Chibale, Honorary Professor C. Masimirembwa and Professor P. Smith

M. TUKULULA (CHEMISTRY)
The application of the Multi-Component Reaction (MCR) strategy in the design and synthesis of new antiplasmodial and antimycobacterial agents
Supervised by Professor K. Chibale

C.J. UYS (ZOOLOGY)
The impact of pine plantations and alien invertebrates on native forest and fynbos invertebrate communities in Table Mountain National Park
Supervised by Professor M. Picker and Professor C. Griffiths

C.K. WAINMAN (OCEANOGRAPHY)
Estimating the upper ocean vertical temperature structure from surface temperature as applied to the southern Benguela
Supervised by Professor F. Shillington

N.D. WATERMEYER (CHEMISTRY)
Design and synthesis of potential inhibitors of enzymes involved in thebiosynthesis and utilisation of mycothiol
Supervised by Associate Professor D.W. Gammon and Associate Professor D. Steenkamp

RESEARCH CONTRACTS
145

VALUE OF RESEARCH CONTRACTS
R47.55 million

NRF-RATED RESEARCHERS
152

SARCHI RESEARCH CHAIRS
11

ACCREDITED RESEARCH GROUPINGS
13

DOCTORAL GRADUATIONS
62

DHET-ACCREDITED JOURNALS
327.20 units

PEER-REVIEWED PUBLICATIONS
920

FILED PATENTS
28

GRANTED PATENTS
6

POSTGRADUATE STUDENTS
1015

POSTGRADUATE FUNDING
R48 million

POSTDOCTORAL RESEARCH FELLOWS
124

POSTDOCTORAL RESEARCH FUNDING
R22.2 million

F.P. WEWERS (CHEMISTRY)
Transition metal complexes of bis(diphenylphosphino) methane, dithizone and dithiolenes: structural, spectroscopic, electrochemical and computational studies
Supervised by Associate Professor A.T. Hutton

M.R. WILHELM (ZOOLOGY)
Growth and otolith band formation of Namibian hake merluccius capensis
Supervised by Associate Professor A. Jarre and Associate Professor C.L. Moloney

D.S. WORKU (PHYSICS)
Statistical models to describe nuclear matter at high temperatures and densities
Supervised by Professor J. Cleymans

F. ZHENG (CHEMISTRY)
Olefin oligomerization reactions: theoretical studies using cyclometallated palladium(II) catalysts and experimental studies on platinum(II) analogues
Supervised by Associate Professor A.T. Hutton, Professor S.F. Mapolie (Stellenbosch University) and Dr C.G.C.E. van Sittert (North-West University)

PATENTS

FILED APPLICATIONS

ARENDZE-BAILEY, B.L., ELLICK, T.N., IYER, K., IYER, R., RAFUDEEN, M.S. AND THOMSON, J.A.
Plant stress-inducible promoter.
Provisional Patent Application South Africa 2012/06750

BRITTON, D.T. AND HÄRTING, M.
A Thin Film Semiconductor Device and Method of Manufacturing a Thin Film Semiconductor Device.
Divisional Patent Application Japan 2012-015646

BRITTON, D.T. AND HÄRTING, M.
Flexible temperature and strain sensors.
Provisional Patent Application South Africa 2012/00709

BRITTON, D.T. AND HÄRTING, M.
Thermal Imaging Sensors.
Provisional Patent Application South Africa 2012/00708

BRITTON, D.T., HÄRTING, M. AND WALTON, S.D.
Current switching transistor.
Provisional Patent Application South Africa 2012/07163

BRITTON, D.T., HÄRTING, M. AND WALTON, S.D.
Large area temperature sensor.
Provisional Patent Application South Africa 2012/00771

CAIRA, M.R., DE VILLIERS, M.M., LIEBENBERG, W. AND STIEGER, N.
Injectable Formulation of a Reverse Transciptase Inhibitor for the Treatment of Cancer
National Phase Patent Application Canada 2796620

CAIRA, M.R., DE VILLIERS, M.M., LIEBENBERG, W. AND STIEGER, N.
Injectable Formulation of a Reverse Transciptase Inhibitor for the Treatment of Cancer
National Phase Patent Application Europe 11730445.1

CAIRA, M.R., DE VILLIERS, M.M., LIEBENBERG, W. AND STIEGER, N.
Injectable Formulation of a Reverse Transciptase Inhibitor for the Treatment of Cancer
National Phase Patent Application South Africa 2012/07797

CAIRA, M.R., DE VILLIERS, M.M., LIEBENBERG, W. AND STIEGER, N.
Injectable Formulation of a Reverse Transciptase Inhibitor for the Treatment of Cancer
National Phase Patent Application United States 13/696,472

CAIRA, M.R., LIEBENBERG, W. AND STIEGER, N.
Method for Producing a Composition.
National Phase Patent Application South Africa 2012/04410

CAIRA, M.R., LIEBENBERG, W. AND STIEGER, N.
Method of Producing a Polymoph Form.
National Phase Patent Application Brazil 11 2012 014762

CAIRA, M.R., LIEBENBERG, W. AND STIEGER, N.
Method of Producing a Polymoph Form.
National Phase Patent Application China 201080061226.2

CAIRA, M.R., LIEBENBERG, W. AND STIEGER, N.
Method of Producing a Polymoph Form.
National Phase Patent Application Germany 11 2010004862.2

CAIRA, M.R., LIEBENBERG, W. AND STIEGER, N.
Method of Producing a Polymoph Form.
National Phase Patent Application India 5373/DELNP/2012

CHIBALE, K., WATERSON, D., WITTY, M.J. AND YOUNIS, Y.
New Anti-Malarial Agents.
Provisional Patent Application United States 61/600,324

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
Divisional Patent Application China 201210488322.6

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
Divisional Patent Application India 9603/DELNP/2012

HITZEROTH, I.I., PINEO, C.B. AND RYBICKI, E.P.
HPV Chimaeric Particle.
PCT Patent Application PCT PCT/IB2012/056912

JACOBS, M. AND JARDINE, M.A.
Tricyclic Derivatives.
Provisional Patent Application South Africa 2012/08875

JARDINE, M.A.
Modified Chitosan for Argentation Chromatography.
Provisional Patent Application South Africa 2012/08014

JARDINE, M.A., MAKHUBELA, B.C.E. AND SMITH, G.S.
A Polymer Support.
National Phase Patent Application China 201080040614.2

JARDINE, M.A., MAKHUBELA, B.C.E. AND SMITH, G.S.
A Polymer Support.
National Phase Patent Application Europe 10842020.9

JARDINE, M.A., MAKHUBELA, B.C.E. AND SMITH, G.S.
A Polymer Support.
National Phase Patent Application India 2724/DELNP/2012

JARDINE, M.A., MAKHUBELA, B.C.E. AND SMITH, G.S.
A Polymer Support.
National Phase Patent Application South Africa 2012/02047

JARDINE, M.A., MAKHUBELA, B.C.E. AND SMITH, G.S.
A Polymer Support.
National Phase Patent Application United States 13/496,116

JAYAKODY, R.S. AND NAIDOO, K.J
Ricin transition state analogue inhibitors.
PCT Patent Application PCT PCT/IB2012/054999

LE, H.
Medium Access Control in Wireless Sensor Networks.
National Phase Patent Application South Africa 2012/06813

Granted applications

CHIBALE, K., NCHINDA, A.T. AND STURROCK, E.D.
Angiotensin I-Converting Enzyme (ACE) Inhibitors.
National Phase Patent Application Europe 06765437.6

EGAN, T.J., HUNTER, R. AND ZISHIRI, V.K.
Quinoline Antimalarial Containing a Chloroquine Resistance Reversing Dibemethin Group.
National Phase Patent Application South Africa 2011/01772

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
National Phase Patent Application Europe 06740997.9

HITZEROTH, I.I., MACLEAN, J.M., RYBICKI, E.P. AND WILLIAMSON, A-L.
Expression of Proteins in Plants.
National Phase Patent Application South Africa 2008/03486

ILLING, N., STEIN, D.J. AND VAN HEERDEN, J.H.
A Method of Diagnosing a Mental State.
National Phase Patent Application South Africa 2011/06540

RYBICKI, E.P. AND VARSANI, A.D.
Chimaeric Human Papillomavirus 16 L1 Virus Like Particles and a Method for Preparing the Particles.
Divisional Patent Application United States 12/174,104

Department of Archaeology

HEAD OF DEPARTMENT: PROFESSOR JUDITH SEALY

Departmental Profile

The Department of Archaeology is characterised by a diversity of well-established research interests. The Western Cape has a rich archaeological heritage which includes evidence of hunter-gatherer settlement, pastoralist communities and colonial settlers - all the subject of ongoing research. Further afield, the Department also has a research focus on the archaeology of early Tswana and Sotho-speaking agropastoralists, particularly in North West and the Free State. In addition, the Department is home to archaeometric and materials research, focussing on palaeoanthropology, past environments, early human diets and materials analysis. The Department of Archaeology has developed an expertise in Cultural Resource Management, working with both government and private sectors to mitigate the effects of development and widen public awareness of the importance of the past.

Departmental Statistics

Permanent and Long Term Contract Staff

Professor	1
Associate Professor	1
Senior Lecturers	2
Lecturers	3
Research Staff	5
Technical Support Staff	2
Administrative and Clerical Staff	1
Departmental Assistant	1
Lab Assistant	1
Total	17

Honorary staff

Honorary Research Associates	6
Total	6

Students

Postdoctoral	0
Doctoral	9
Master's	10
Honours	6
Undergraduates	623
Total	648

Research Fields and Staff

Permanent staff

PROFESSOR JUDITH SEALY
Head of Department. Archaeometry, stable isotopes, precolonial southern Africa
Judith.Sealy@uct.ac.za

ASSOCIATE PROFESSOR REBECCA ROGERS ACKERMANN
Hominid evolution, variation, morphometrics, visualization and modelling, quantitative methods
Becky.Ackermann@uct.ac.za

DR DAVID BRAUN
Senior lecturer, Early Stone Age in eastern and southern Africa, stone artefact technology
drbraun76@gmail.com

DR SHADRECK CHIRIKURE
Senior lecturer, Archaeometallurgy, Iron Age, heritage studies
Shadreck.Chirikure@uct.ac.za

DR SIMON HALL
Senior lecturer, hunter-gatherers and farmers, Stone/Iron Age interaction, landscape sharing
Simon.Hall@uct.ac.za

DR RIASHNA SITHALDEEN
Lecturer, Primate biogeography using genetic techniques, academic development in the geosciences
Riashna.Sithaldeen@uct.ac.za

DR DEANO STYNDER
Lecturer, African fauna, faunal analysis, ecomorphology, palaeoenvironments
Deano.Stynder@uct.ac.za

DR ALEXANDRA SUMNER
Lecturer, Lithic analysis, human cognitive evolution
Alexandra.Sumner@uct.ac.za

Contract research staff

MR DAVID HALKETT
Contract archaeology, historical archaeology, prehistory of the southwestern Cape

MR TIM HART
Contract archaeology, historical archaeology, prehistory of the southwestern Cape

MR JAYSON ORTON
Contract archaeology, historical archaeology, prehistory of the southwestern Cape

DR LITA WEBLEY
Contract archaeology, historical archaeology, prehistory of the southwestern Cape

MS LIESBET SCHIETECATTE
Contract archaeology, historical archaeology, prehistory of the southwestern Cape

Emeritus Professors

PROFESSOR NIKOLAAS J. VAN DER MERWE
Isotopes, palaeodiets, palaeoenvironments, archaeometallurgy

PROFESSOR JOHN PARKINGTON
Hunter-gatherers, palaeoenvironmental reconstruction and human ecology, prehistoric art, coastal archaeology

Emeritus Associate Professor

ASSOCIATE PROFESSOR A. SMITH
Prehistoric pastoralism, origins of food production, ethnohistory

Honorary Research Associates

DR GRAHAM. AVERY
Archaeozoology

DR KYLE BROWN
Stone artefact studies, landscape archaeology

DR PER DITLEF FREDRIKSEN
Ceramics, ethnoarchaeology, archaeology of farming communities

MR PIETER JOLLY
Contact period rock art, history of San-Nguni/Sotho interaction

PROFESSOR TIM MAGGS
Iron Age archaeology in southern Africa

DR WEBBER NDORO
Heritage Studies

PROFESSOR SUSAN PFEIFFER
Biological anthropology

PROFESSOR LARISSA SWEDELL
Primatology

Distinguished visitors

PROFESSOR JACK FISHER
Montana State University – faunal remains in archaeology

DR ALEX MACKAY
Australian National University – Pleistocene lithic technology

PROFESSOR SUSAN PFEIFFER
University of Toronto – biological anthropology

PROFESSOR PIERRE-JEAN TEXIER
CNRS-Valbonne France – prehistory

DR GUILLAUME PORRAZ
CNRS, University of Paris 10 – Stone artefact technology of the Middle Stone Age

PROFESSOR MARGOT WINER
Historical archaeology, landscape archaeology

Contact Details

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Web: http://www.uct.ac.za/depts/age/

Research output

Chapters in books

Malan, A. 2012. The cultural landscape. In N. Worden (ed.), Cape Town Between East and West: Social Identities in a Dutch Colonial Town, pp. 1-25. South Africa: Jacana Media (Pty) Ltd. ISBN 9781431402922.

Articles in Peer-reviewed Journals

Brown, K., Marean, C., Jacobs, Z., Schoville, B.J., Oestmo, S., Fisher, E., Bernatchez, J., Karkanas, P. and Matthews, T. 2012. An early and enduring advanced technology originating 71,000 years ago in South Africa. Nature, 491: 590-593.

Chirikure, S. 2012. Reverse archaeology or relevance seeking archaeology? Heritage and Society, 5(1): 116-120.

Chirikure, S., Manyanga, M. and Pollard, A. 2012. When science alone is not enough: radiocarbon timescales, history, ethnography and elite settlements in southern Africa. Journal of Social Archaeology, 12(3): 356-379.

Codron, D., Sponheimer, M., Codron, J., Newton, I., Lanham, J.L. and Clauss, M. 2012. The confounding effects of source isotopic heterogeneity on consumer-diet and tissue-tissue stable isotope relationships. Oecologia, 169: 939-953.

Codron, J., Codron, D., Sponheimer, M., Kirkman, K., Duffy, K., Raubenheimer, E.J., Melice, J., Grant, R., Clauss, M. and Lee-Thorp, J. 2012. Stable isotope series from elephant ivory reveal lifetime histories of a true dietary generalist. Proceedings of the Royal Society B-Biological Sciences, 279: 2433-2441.

Delius, P., Maggs, T. and Schoeman, M. 2012. Bokoni: old structures, new paradigms? Rethinking pre-colonial society from the perspective of the stone-walled sites in Mpumalanga. Journal of Southern African Studies, 38(2): 399-414.

Dewar, G., Reimer, P.J., Sealy, J.C. and Woodborne, S. 2012. Late-Holocene marine radiocarbon reservoir correction (ΔR) for the west coast of South Africa. Holocene, 22(12): 1481-1489.

Gossa, T., Chemere, Y.S. and Negash, A. 2012. A reassessment of the Middle and Later Stone Age lithic assemblages from Aladi Springs, Southern Afar Rift, Ethiopia. Azania: Archaeological Research in Africa, 47(2): 210-222.

Govender, R., Chinsamy-Turan, A. and Ackermann, R. 2012. Anatomical and landmark morphometric analysis of fossil phocid seal remains from Langebaanweg, West Coast of South Africa. Transactions of the Royal Society of South Africa, 67(3): 135-149.

Hall, S.L. 2012. Identity and political centralisation in the western regions of Highveld, c.1770-c.1830: an archaeological perspective. Journal of Southern African Studies, 38(2): 301-318.

Hamilton, C.A. and Hall, S.L. 2012. Reading across the divides: commentary on the political co-presence of disparate identities in two regions of South Africa in the late eighteenth and early nineteenth centuries. Journal of Southern African Studies, 38(2): 281-290.

Koleini, F., de Beer, F., Schoeman, M., Pikirayi, I., Chirikure, S., Nothnagel, G. and Redebe, J.M. 2012. Efficiency of neutron tomography in visualizing the internal structure of metal artefacts from Mapungubwe museum collection with the aim of conservation. Journal of Cultural Heritage, 13: 246-253.

Koleini, F., Schoeman, M., Pikirayi, I. and Chirikure, S. 2012. Evidence for indigenous strip-drawing in the production of wire at Mapungubwe Hill (1220-1290 AD): towards an interdisciplinary approach. Journal of Archaeological Science, 39: 757-762.

Kupczik, K. and Stynder, D.D. 2012. Tooth root morphology as an indicator for dietary specialization in carnivores (Mammalia: Carnivora). Biological Journal of the Linnean Society, 105: 456-471.

Kurki, H.K., Pfeiffer, S. and Stynder, D.D. 2012. Allometry of head and body size in Holocene foragers of the South African Cape. American Journal of Physical Anthropology, 147: 462-471.

Loftus, E. and Sealy, J.C. 2012. Interpreting stable carbon isotopes in human tooth enamel: an examination of tissue spacings from South Africa. American Journal of Physical Anthropology, 147: 499-507.

Oldfield, C.C., McHenry, C.R., Clausen, P.D., Chamoli, U., Parr, W.C.H., Stynder, D.D. and Wroe, S. 2012. Finite element analysis of ursid cranial mechanics and the prediction of feeding behaviour in the extinct giant Agriotherium africanum. Journal of Zoology, 286: 163-170.

Orton, J. 2012. Tortoise burials in Namaqualand: uncovering ritual behaviour on South Africa's west coast. Azania: Archaeological Research in Africa, 47(1): 99-114.

Parkington, J.E. 2012. Mussels and mongongo nuts: logistical visits to the Cape west coast, South Africa. Journal of Archaeological Science, 39: 1521-1530.

Pfeiffer, S. 2012. Two disparate instances of healed cranial trauma from the Later Stone Age of South Africa. South African Archaeological Bulletin, 67(196): 256-261.

Sahle Chemere, Y., Negash, A. and Braun, D.R. 2012. Variability in ethnographic hidescraper use among the Hadiya of Ethiopia: implications for reduction analysis. African Archaeological Review, 29: 383-397.

Steele, T., Mackay, A., Orton, J. and Schwortz, S. 2012. Varsche Rivier 003, a new Middle Stone Age site in southern Namaqualand, South Africa. South African Archaeological Bulletin, 67(195): 108-119.

Stynder, D.D., Ungar, P., Scott, J.R. and Schubert, B.W. 2012. A dental microwear texture analysis of the Mio-Pliocene hyaenids from Langebaanweg, South Africa. Acta Palaeontologica Polonica, 57(3): 485-496.

Sumner, T.A. 2012. The comparative study of scraper retouch patterns from the Levantine Mousterian: a pilot project. Journal of the Israel Prehistoric Society, 42: 1-28.

Wilkins, J., Schoville, B.J., Brown, K. and Chazan, M. 2012. Evidence for early hafted hunting technology. Science, 338: 942-946.

Williams, F., Schroeder, L. and Ackermann, R.R. 2012. The mid-face of lower Pleistocene hominins and its bearing on the attribution of SK 847 and StW 53. Homo-Journal of Comparative Human Biology, 63(4): 245-257.

Master's degrees (by research)

Kramer, P. 2012. The history, form and context of the 19th century corbelled buildings of the Great Karoo. MPhil. 265pp. Supervised by Hall, S.

Mathoho, N.E. 2012. Indigenous iron production south of the Luvuvhu River, Limpopo Province, South Africa. MPhil. 125pp. Supervised by Chirikure, S. and Hall, S.

Smuts, K. 2012. An archaeology of the eighteenth and nineteenth century Cape wine economy from the perspective of Solms Delta and Babylonstoren. MSc. 265pp. Supervised by Hall, S.

Smuts, T. 2012. An archaeological perspective on the 19th century development of land, landscape and sheep farming in the Karoo. MSc. 160pp. Supervised by Hall, S.

Department of Astronomy

HEAD OF DEPARTMENT: PROFESSOR RENÉE C. KRAAN-KORTEWEG

Departmental Profile

The Astronomy department has a strong focus on multi-wavelength (X-ray, optical, infrared, radio) observational astronomy with strengths in extragalactic astronomy (large-scale structures of galaxies, cosmic flows, galaxy evolution and star formation, galaxy clusters, galaxy dynamics and dark matter), stellar astrophysics (Cataclysmic variables, X-ray binaries, accretion disks in compact binaries, supernova remnants, stellar pulsations and stellar evolution) and astronomical instrumentation (high-speed CCD detectors).

The Department hosts two SARChI chairs, one in Astrophysics and Space Science (DST/NRF) and one in Extragalactic Multi-wavelength Astronomy (SKA). Staff in the Astronomy department lead four of the ten MeerKAT Large (legacy) Survey Projects, focussing on the study of explosive radio transients in our Galaxy and the nearby Universe (ThunderKAT), to the study of the gas dynamics in nearby galaxies (Mhongoose) and the evolution of galaxies and their gas content over cosmic time scales (MIGHTEE and Laduma).

The Astronomy department is part of the Research Centre for Astrophysics, Cosmology and Gravitation (ACGC) at UCT (http://www.acgc.uct.ac.za), established in 2009, and is an active participant of the National Astrophysics and Space Science Programme – hosted at UCT – which offers Honours and Master's degrees. Strong links have been established with the South African Astronomical Observatory (SAAO) and the SKA South Africa project through joint staffing positions and postgraduate student supervision. The Department also enjoys active research collaborations with a range of national and international groups.

In 2012 the Astronomy department has welcomed Professor Thomas Jarrett, a new DST/NRF SARChI Chair in Astrophysics and Space Science, whilst Professor Erwin de Blok, DST/NRF SARChI Chair from 2007-2012 left the department in January 2012 to join ASTRON in the Netherlands. He was appointed Honorary Professor to the Department from July 2012, and is still active in research and student supervision. Our postdoctoral cohort has continued to grow from eight in 2011 to twelve in 2012.

Departmental Statistics

Permanent and long-term contract staff

Professors	3.5
Associate Professor	1
Senior Scholar/Emeritus Professor	1
Senior Lecturer	1
Lecturer	1.5
Visiting SKA Professor	0.1
Administrative Staff	3
Total	11.1

Honorary & Emeritus Staff

Honorary Professor	1
Total	1

Affiliated Researchers

Honorary Professors	2
Honorary Academic	1
Total	3
Postdoctoral Fellows	12
Total	12

Students

Doctoral	16
Master's (Research)	2
Master's (NASSP Dissertation)	16
Master's (NASSP Coursework)	19
Honours (NASSP)	20
Undergraduate	129
Total	202

Research Fields and Staff

Permanent Staff

PROFESSOR RENÉE C. KRAAN-KORTEWEG (HEAD OF DEPARTMENT), CO-DIRECTOR ACGC
Large-scale structures and streaming motions in the nearby Universe, the Zone of Avoidance, systematic HI-surveys, evolution and transformation of galaxies.

PROFESSOR CLAUDE CARIGNAN (SKA SARCHI CHAIR)
Galaxy dynamics and dark matter; astronomical instrumentation and techniques.

PROFESSOR THOMAS JARRETT (DST/NRF SARCHI CHAIR)
Galaxy evolution and star formation, large-scale structure and bulk-flow motions in the local Universe, astrophysical databases and large data sets.

PROFESSOR PATRICIA WHITELOCK (JOINT SAAO/UCT POSITION)
Galactic structure, stellar evolution, Local Group galaxies, long period variable and symbiotic stars.

EMERITUS DISTINGUISHED PROFESSOR BRIAN WARNER (SENIOR SCHOLAR)
Cataclysmic variable stars, white dwarf stars, history of astronomy.

ASSOCIATE PROFESSOR PATRICK A. WOUDT
Cataclysmic variable stars, ultra-compact binaries, high time domain astrophysics.

DR KURT VAN DER HEYDEN (SENIOR LECTURER)
Supernovae and Supernova remnants, systematic HI surveys, clusters of galaxies, X-ray spectroscopy.

DR SARAH BLYTH (LECTURER)
Large-scale structure, galaxy evolution and galaxy clusters, HI-surveys.

DR VANESSA MCBRIDE (LECTURER, JOINT SAAO/UCT POSITION)
X-ray binaries, Magellanic Clouds.

PROFESSOR ROB FENDER (VISITING SKA PROFESSOR)
X-ray binaries, neutron stars, black holes, accretion disks, radio transient surveys.

Honorary Staff in the Department

HONORARY PROFESSOR MICHAEL W. FEAST & HONORARY RESEARCH ASSOCIATE
Stellar evolution, Galactic structure, long-period variable stars, distance scale.

Honorary Staff Associated with the Department

HONORARY PROFESSOR PHIL A. CHARLES (UNIVERSITY OF SOUTHAMPTON)

Cataclysmic variables, X-ray binaries, neutron stars, black holes, accretion disks.

HONORARY PROFESSOR ERWIN DE BLOK (ASTRON, NL)
Dark matter in disk galaxies, low-surface brightness galaxies, HI surveys, the interstellar medium in nearby galaxies, evolution of dark galaxies.

PROFESSOR PETER DUNSBY
Honorary Academic, Director NASSP, Co-director ACGC
Theoretical cosmology and gravity.

Postdoctoral Fellows

DR GARRY ANGUS
Cosmological simulations with modified Newtonian Dynamics.

DR RICHARD ARMSTRONG
Radio transients, radio interferometric techniques.

DR MACIEJ BILICKI
Cosmology, large-scale structure of the Universe, cosmic density and velocity fields, redshift and peculiar velocity surveys, cosmic flows.

DR MICHAEL CORIAT
Accretion, jets, black hole and neutron star X-ray binaries.

DR ED ELSON
Dynamical and star formation studies of nearby galaxies. simulations of HI data sets.

DR ROGER DEANE
High redshift astrophysics with SKA Pathfinders and the effect of massive black holes on their host galaxies.

DR KELLEY HESS
Neutral hydrogen in nearby galaxies, galaxy groups and clusters.

DR DANIELLE LUCERO
Cold gas and star formation in early-type galaxies.

DR NATASHA MADDOX
Quasars and multi-wavelength observations of galaxies.

DR DAVID PUGLIELLI
Galaxy dynamics.

DR VALERIO RIBEIRO
Cataclysmic variables, novae, radio transients.

DR MATTHEW SCHURCH
Cataclysmic variables and X-ray binaries.

Contact Details

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Research output

Articles in Peer-reviewed Journals

Angus, G., Van der Heyden, K.J., Famaey, B., Gentile, G., McGaugh, S.S. and De Blok, W.J.G. 2012. A QUMOND galactic N-body code - I. Poisson solver and rotation curve fitting. Monthly Notices of the Royal Astronomical Society, 421(3): 2598-2609.

Angus, G., Van Der Heyden, K. and Diaferio, A. 2012. The dynamics of the bulge dominated galaxy NGC 7814 in MOND. Astronomy & Astrophysics, 543: A76.

Bilicki, M. and Seikel, M. 2012. We do not live in the Rh = ct universe. Monthly Notices of the Royal Astronomical Society, 425(3): 1664-1668.

Cannon, J.M., O'Leary, E.M., Weisz, D.R., Skillman, E.D., Dolphin, A.E., Bigiel, F., Cole, A.A., De Blok, W.J.G. and Walter, F. 2012. On the origin of the supergiant HI shell and putative companion in NGC 6822. Astrophysical Journal, 747(2): 122.

Darnley, M.J., Ribeiro, V., Bode, M.F., Hounsell, R.A. and Williams, R.P. 2012. On the progenitors of galactic novae. Astrophysical Journal, 746(1): 61.

Drave, S.P., Bird, A.J., Townsend, L., Hill, A.B., McBride, V., Sguera, V., Bazzano, A. and Clark, D.J. 2012. X-ray pulsations from the region of the supergiant fast X-ray transient IGR J17544-2619. Astronomy & Astrophysics, 539: A21.

Elson, E., De Blok, W.J.G. and Kraan-Korteweg, R.C. 2012. Star formation models for the dwarf galaxies NGC 2915 and NGC 1705. Astronomical Journal, 143(1): 1.

Feast, M.W., Whitelock, P., Menzies, J.W. and Matsunaga, N. 2012. The cepheid distance to the local group galaxy NGC 6822. Monthly Notices of the Royal Astronomical Society, 421: 2998-3003.

Gentile, G., Angus, G., Famaey, B., Oh, S.-H. and de Blok, W.J.G. 2012. Isolated and non-isolated dwarfs in terms of modified Newtonian dynamics. Astronomy & Astrophysics, 543: A47.

Hess, K., Wilcots, E.M. and Hartwick, V.L. 2012. Fresh activity in old systems: radio AGNs in fossil groups of galaxies. Astronomical Journal, 144(2):48.

Hodge, J.A., Carilli, C.L., Walter, F., De Blok, W.J.G., Riechers, D., Daddi, E. and Lentati, L. 2012. Evidence for a clumpy, rotating gas disk in a submillimeter galaxy at z = 4. Astrophysical Journal, 760 (1): 11.

Ianjamasimanana, R., De Blok, W.J.G., Walter, F. and Heald, G.H. 2012. The shapes of the HI velocity profiles of the THINGS Galaxies. Astronomical Journal, 144: 96.

Jurdana-Sepic, R., Ribeiro, V., Darnley, M.J. and Bode, M.F. 2012. Historical light curve and search for previous outbursts of Nova KT Eridani (2009). Astronomy & Astrophysics, 537: A34.

Kotze, M. and Charles, P. 2012. Characterizing X-ray binary long-term variability. Monthly Notices of the Royal Astronomical Society, 420: 1575-1589.

Leroy, A., Bigiel, F., De Blok, W.J.G., Boissier, S., Bolatto, A., Brinks, E., Madore, B.F., Munoz-Mateos, J.-C., Murphy, E., Sandstrom, K., Schruba, A. and Walter, F. 2012. Estimating the star formation rate at 1kpc scales in nearby galaxies. Astronomical Journal, 144(3): 1-31.

Li, K.L., Kong, A.K.H., Charles, P.A., Lu, T.-N., Bartlett, E.S., Coe, M.J., McBride, V., Rajoelimanana, A., Udalski, A., Masetti, N. and Franzen, T. 2012. A luminous Be+white dwarf supersoft source in the wing of the SMC: Maxi J0158-744. Astrophysical Journal, 761: 99-111.

Maddox, N., Hewett, P.C., Peroux, C. and Nestor, D.B. 2012. The large area KX quasar catalogue - I. Analysis of the photometric redshift selection and the complete quasar catalogue. Monthly Notices of The Royal Astronomical Society, 424: 2876-2895.

McBride, V., Bird, A.J., Coe, M.J. and Udalski, A. 2012. On the periodicities present in the optical light curves of Small Magellanic Cloud (SMC) Be/X-ray binaries. Monthly Notices of the Royal Astronomical Society, 423: 3663-3678.

Parisi, P., Masetti, N., Jimnez-Bailn, E., Chavushyan, V., Palazzi, E., Landi, R., Malizia, A., Bassani, L., Bazzano, A., Bird, A.J., Charles, P.A., Galaz, G., Mason, E., McBride, V., Minniti, D., Morelli, L., Schiavone, F. and Ubertini, P. 2012. Accurate classification of 29 objects detected in the 39 month Palermo Swift/BAT hard X-ray catalogue. Astronomy & Astrophysics, 545: A101.

Pawlowski, M.S., Kroupa, P., Angus, G., de Boer, K.S., Famaey, B. and Hensler, G. 2012. Filamentary accretion cannot explain the orbital poles of the Milky Way satellites. Monthly Notices of the Royal Astronomical Society, 424(1): 80-92.

Pepper, J., Kuhn, R., Siverd, R., James, D. and Stassun, K. 2012. The KELT-south telescope. Publications of the Astronomical Society of the Pacific, 124(913): 230-241.

Potter, S., Romero-Colmenero, E., Kotze, M., Zietsman, E., Butters, O.W., Pekeur, N. and Buckley, D.A.H. 2012. On the spin modulated circular polarization from the intermediate polars NY Lup and IGR J15094-6649. Monthly Notices of the Royal Astronomical Society, 420: 2596-2602.

Rajpaul, V. 2012. Evolutionary-algorithm-based analysis of gravitational microlensing light curves. Monthly Notices of the Royal Astronomical Society, 427: 1755-1768.

Rajpaul, V. and Veller, C. 2012. Purely competitive evolutionary dynamics for games. Physical Review E, 86: 041907.

Schechtman-Rook, A. and Hess, K. 2012. NGC 4656UV: A UV-selected tidal dwarf galaxy candidate. Astrophysical Journal, 750(2): 171.

Schruba, A., Leroy, A., Walter, F., Bigiel, F., Brinks, E., De Blok, W.J.G., Kramer, C., Rosolowsky, E., Sandstrom, K., Schuster, K., Usero, A., Weiss, A. and Wiesemeyer, H.W. 2012. Low CO luminosities in dwarf galaxies. Astronomical Journal, 143(6): 138.

Seward, F.D., Charles, P., Foster, D.L., Dickel, J.R., Romero, P.S., Edwards, Z., Perry, M. and William, R.M. 2012. Dem L241, a supernova remnant containing a high-mass x-ray binary. Astrophysical Journal, 759(2): 123.

Smolders, K., Neyskens, P., Blommaert, J.A.D.L., Hony, S., Van Winckel, H., Decin, L., van Eck, S., Sloan, G., Cami, J., Uttenthaler, S., Degroote, P., Barry, D., Feast, M.W., Groenewegen, M., Matsuura, M., Menzies, J.W., Sahai, R., van Loon, J.T.h., Zijlstra, A., Acke, B., Bloemen, S., Cox, N., de Cat, P., Desmet, M., Exter, K., Ladjal, D., Ostensen, R., Saesen, S., van Wyk, F., Verhoelst, T. and Zima, W. 2012. The spitzer spectroscopic survey of s-type stars. Astronomy & Astrophysics, 540: A72.

Somero, A., Hakala, P., Muhli, P., Charles, P. and Vilhu, O. 2012. Phase-resolved optical and x-ray spectroscopy of low-mass x-ray binary X1822-371. Astronomy & Astrophysics, 539: A111.

Stewart, R. and Warner, B. 2012. William John Burchell: The multi-skilled polymath. South African Journal of Science, 108(11/12): 45-53.

Tekola, A., Visnen, P. and Berlind, A. 2012. The environments of local luminous infrared galaxies: star formation rates increase with density. Monthly Notices of the Royal Astronomical Society, 419: 1176-1186.

Vaisanen, P., Rajpaul, V., Zijlstra, A., Reunanen, J. and Kotilainen, J. 2012. The nuclear polycyclic aromatic hydrocarbon emission of merger system NGC 1614: rings within rings. Monthly Notices of the Royal Astronomical Society, 420: 2209-2220.

Van Heerden, H., Martinez, P. and Kilkenny, D. 2012. Determination of the rotation periods for the roAp stars HD 9289 and HD 190290 and non-detection of rotational amplitude modulation in the roAp stars HD 75425 and HD 217522. Monthly Notices of the Royal Astronomical Society, 426: 969-974.

Whitelock, P. 2012. Asymptotic giant branch variables in the galaxy and the local group. Astrophysics and Space Science, 341(1): 123-129.

Williams, P.M., van der Hucht, K.A., van Wyk, F., Marang, F., Whitelock, P., Bouchet, P. and Setia Gunawan, D.Y.A. 2012.

Recurrent dust formation by WR 48a on a 30-year time-scale. Monthly Notices of the Royal Astronomical Society, 420: 2526-2538.

Woudt, P.A., Warner, B., Gulbis, A., Coppejans, R., Hambsch, F.-J., Beardmore, A.P., Evans, P.A., Osborne, J., Page, K., Wynn, G.A. and Van Der Heyden, K. 2012. CC sculptoris: a superhumping intermediate polar. Monthly Notices of the Royal Astronomical Society, 427: 1004-1013.

Woudt, P.A., Warner, B., De Bude, D., MacFarlane, S., Schurch, M. and Zietsman, E. 2012. High-speed photometry of faint cataclysmic variables - VII. Targets selected from the Sloan digital sky survey and the Catalina real-time transient survey. Monthly Notices of the Royal Astronomical Society, 421: 2414-2429.

Woudt, P.A., Warner, B. and Zietsman, E. 2012. SDSS J0349-0059 is a GW virginis star. Monthly Notices of the Royal Astronomical Society, 426: 2137-2141.

Peer-reviewed published conference proceedings

Bagetakos, I., Brinks, E., Walter, F., De Blok, W.J.G., Usero, A., Leroy, A., Rich, J.W. and Kennicutt, R.C. 2011. The porosity of the neutral ISM in 20 THINGS galaxies. In J.P. Zahn (ed.), Proceedings of EAS Publications Series, January 2011, Switzerland. Cambridge, UK: Cambridge University Press. ISSN 1152015.

Carignan, C. 2012. Astrophysics in Burkina Faso. In P. Martinez and P. Charles (eds), Proceedings of the Second Middle East-Africa Regional IAU Meeting (MEARIM-II), 10-15 April 2011, Cape Town, South Africa. Observatory, South Africa: South African Astronomical Observatory (SAAO). ISSN 10278389.

Catala, L., Crawford, S.M., Buckley, D.A.H. and Pickering, T. 2012. Atmospheric turbulence characterization at the Sutherland site: implications for the future SALT adaptive optics system. In P. Martinez and P. Charles (eds), Proceedings of the Second Middle East-Africa Regional IAU Meeting (MEARIM-II), 10-15 April 2011, Cape Town, South Africa. Observatory, South Africa: South African Astronomical Observatory (SAAO). ISSN 10278389.

De Bude, D., Woudt, P.A., Warner, B. and MacFarlane, S. 2012. Ultra-compact binaries in the galaxy. In P. Martinez and P.Charles (eds), Proceedings of the Second Middle East-Africa Regional IAU Meeting (MEARIM-II), 10-15 April 2011, Cape Town, South Africa. Observatory, South Africa: South African Astronomical Observatory (SAAO). ISSN 10278389.

Kraan-Korteweg, R.C. and Cluver, M.E. 2012. The SED of the nearby HI-massive LIRG HIZOA J0836-43: from the NIR to the radio domain. In R.J. Tuffs (ed.), Proceedings of The Spectral Energy Distribution of Galaxies, 5-9 September 2011, University of Central Lancashire, Preston, UK. UK: Cambridge University Press. ISBN 9781107019843.

Portas, A., Brinks, E., Usero, A., Walter, F., De Blok, W.J.G. and Kennicutt, R.C. 2012. The edges of things. In J.P. Zahn (ed.), Proceedings of EAS Publications Series, January 2011, Switzerland. Cambridge, UK: Cambridge University Press. ISSN 1152015.

Rajoelimanana, A. and Charles, P.A. 2012. Long-term Properties of HMXBs in the SMC. In P. Martinez and P.Charles (eds), Proceedings of the Second Middle East-Africa Regional IAU Meeting (MEARIM-II), 10-15 April 2011, Cape Town, South Africa. Observatory, South Africa: South African Astronomical Observatory (SAAO). ISSN 10278389.

Ribeiro, V. 2012. The multifrequency behaviour of the recurrent nova RS ophiuchi. In F. Giovannelli and L. Sabau-Graziati (eds), Proceedings of Workshop on the Golden Age of Cataclysmic Variables and Related Objects. Memorie Della Societa Astronomica Italiana, 12-17 September 2011, Palermo, Italy. Trieste, Italy: Istituto Nazionale di Astrofisica. ISSN 1824016X.

Schurch, M. 2012. Quasi Periodic variations in long period Be x-ray binaries. In P. Martinez and P. Charles (eds), Proceedings of the Second Middle East-Africa Regional IAU Meeting (MEARIM-II), 10-15 April 2011, Cape Town, South Africa. Observatory, South Africa: South African Astronomical Observatory (SAAO). ISSN 10278389.

Vaisanen, P., Escala, A., Kankare, E., Kotilainen, J., Mattila, S., Rajpaul, V., Randriamanakoto, R., Reunanen, J., Ryder, S. and Zijlstra, A. 2012. Central regions of LIRGs: rings, hidden starbursts, supernovae and star clusters. In C. Iserlohe, V. Karas, M. Krips, A. Eckart, S. Britzen and S. Fischer (eds), Proceedings of Astronomy at High Angular Resolution 2011 (Journal of Physics: Conference Series), 28 August - 2 September 2011, Bad Honnef, Germany. Germany: IOP Publishing. ISSN 17426596.

Woudt, P.A., Warner, B. and De Bude, D. 2012. Orbital period distribution of cataclysmic variables in the Catalina real-time transient survey. In P. Martinez and P. Charles (eds), Proceedings of the Second Middle East-Africa Regional IAU Meeting (MEARIM-II), 10-15 April 2011, Cape Town, South Africa. Observatory, South Africa: South African Astronomical Observatory (SAAO). ISSN 10278389.

Department of Botany

(Including the Bolus Herbarium and the Plant Conservation Unit)

HEAD OF DEPARTMENT: PROFESSOR JEREMY J. MIDGLEY

Departmental Profile

Botany is a vibrant department, which strives towards the development of a centre of excellence for research and teaching of the ecology, evolution, physiological ecology and systematics of marine and terrestrial plants of southern Africa. The department includes two research units, the Bolus Herbarium and the Plant Conservation Unit, and is also home to the Department of Environmental Affairs & Tourism Chief Directorate: Marine & Coastal Management. Research thrusts include plant population, community and reproductive ecology, systematics, floristics, biogeography and evolutionary biology of the unique Cape Floral Kingdom and its response to different land use practices, ecology and economics of marine and freshwater algae, the ecophysiology of plant responses to pollution and global change, the physiology of plant nitrogen-fixing symbioses and dendrochronology and palaeoecology. The Plant Conservation Unit focuses on sustainable land use, restoration and palaeoecology/environmental history with an emphasis on the conservation of the vegetation of the winter rainfall region of South Africa, while the Bolus Herbarium is researching the taxonomy of and curating a specimen collection of over a third of a million southern African species. The staff are also active on Research Councils, policy-making forums and advisory committees.

Departmental Statistics

Permanent and long-term contract staff

Professors	5
Associate Professors	3
Senior Lecturers	2
Lecturers	2
Scientific Staff	2
Technical Support Staff	6
Administrative and Clerical Staff	3
Total	23

Honorary Staff

Honorary Professors	3
Honorary Assoc. Professors	1
Honorary Research Associates	10
Total	14

Students

Postdoctoral	8
Doctoral	23
Master's	24
Honours	11
Undergraduate	486
Total	480

Research Fields and Staff

Permanent staff

PROFESSOR JEREMY MIDGLEY
Head of Department; plant ecology; evolutionary biology; forest ecosystem dynamics.

PROFESSOR JOHN J. BOLTON
Phycology; marine and freshwater biology; mariculture.

PROFESSOR WILLIAM J. BOND
Plant ecology; evolutionary biology; conservation biology; fire and community dynamics.

DR SAMSON B. CHIMPHANGO
Physiology; nitrogen fixation.

ASSOCIATE PROFESSOR MICHAEL D. CRAMER
Physiology; ecophysiology; plant nutrition.

DR EDMUND FEBRUARY
Senior Lecturer: palaeoecology; ecophysiology.

DR LINDSEY GILLSON
Deputy Director of the Plant Conservation Unit: conservation ecology; palaeoecology; theoretical ecology; landscape history.

PROFESSOR TERRY HEDDERSON
Plant systematics; bryology; molecular systematics; life history traits.

PROFESSOR M. TIMM HOFFMAN
Director of the Plant Conservation Unit: plant ecology; conservation biology; community ecology; biodiversity.

DR A. MUTHAMA MUASYA
Senior Lecturer: plant systematics; molecular systematics; biogeography.

DR ANTHONY G. VERBOOM
Senior Lecturer: Plant systematics, ecophysiology, biogeography.

Honorary Professors

PROFESSOR RICHARD COWLING
Plant ecology; conservation biology; community ecology; biodiversity.

PROFESSOR JOHN S. DONALDSON
Biodiversity.

PROFESSOR PETER LINDER
Systematics; taxonomy; evolutionary biology.

Honorary Associate Professors
ASSOCIATE PROFESSOR ROBERT J. ANDERSON
Phycology.

Honorary Research Associates
DR N. ALLSOPP
Ecophysiology

DR N. BERGH
Systematics

DR P. CARRICK
Restoration ecology

DR B HARDING
Phycology

DR S. HIGGINS
Ecosystems Ecology.

DR A.G. REBELO
Ecology.

DR R. ROHDE
Environmental Historian.

DR G. SCOTT
Systematics.

DR A. SEYDACK
Forest Ecology.

PROFESSOR C. STIRTON
Plant Systematics.

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Research output

Chapters in books

Boardman, J., Hoffman, M.T., Holmes, P.J. and Wiggs, G. 2012. Soil erosion and land degradation. In P. Holmes and M. Meadows (eds), Southern African Geomorphology: Recent Trends and New Directions. Bloemfontein: Sun Press. ISBN 9781 920382025.

Articles in Peer-reviewed Journals

Ah-Peng, C., Wilding, N., Kluge, J., Descamps-Julien, B., Bardat, J., Chuah-Petiot, M., Strasberg, D. and Hedderson, T.A. 2012. Bryophyte diversity and range size distribution along two altitudinal gradients: continent vs. island. Acta Oecologica-International Journal of Ecology, 42: 58-65.

Ah-Peng, C., Bardat, J., Pocs, T., Soderstrom, L., Stamenoff, P. and Strasberg, D. 2012. Red list of liverworts and hornworts for Réunion (mascarene archipelago). Phytotaxa, 68: 1-23.

Anderson, R.J., Bolton, J.J., Smit, A.J. and Da Silva Neto, D. 2012. The seaweeds of Angola: the transition between tropical and temperate marine floras on the west coast of southern Africa. African Journal of Marine Science, 34: 1-13.

Bolton, J.J., Anderson, R.J., Smit, A.J. and Rothman, M. 2012. South African kelp moving eastwards: the discovery of Ecklonia maxima (Osbeck) Papenfuss at De Hoop Nature Reserve on the south coast of South Africa. African Journal of Marine Science, 34(1): 147-151.

Bond, W.J. and Midgley, G.F. 2012. Carbon dioxide and the uneasy interactions of trees and savannah grasses. Philosophical Transactions of the Royal Society B-Biological Sciences, 367: 601-612.

Bond, W.J. and Vetter, S. 2012. Changing predictors of spatial and temporal variability in stocking rates in a severely degraded communal rangeland. Land Degradation & Development, 23: 190-199.

Bond, W.J. and Midgley, J.J. 2012. Fire and the angiosperm revolutions. International Journal of Plant Sciences, 173(6): 569-583.

Bond, W.J., Cook, G.D. and Williams, S. 2012. Which trees dominate in savannas? The escape hypothesis and eucalypts in northern Australia. Austral Ecology, 37: 678-685.

Breman, E., Gillson, L. and Willis, K.J. 2012. How fire and climate shaped grass-dominated vegetation and forest mosaics in northern South Africa during past millennia. Holocene, 22(12): 1427-1439.

Buitenwerf, R., Bond, W.J., Stevens, N. and Trollope, W.S.W. 2012. Increased tree densities in South African savannas: >50 years of data suggests CO2 as a driver. Global Change Biology, 18: 675-684.

Chimphango, S.B., Musil, C.F. and Dakora, F.D. 2012. Alteration in the mineral nutrition of purely symbiotic and nitrate-fed nodulated legumes exposed to elevated UV-B radiation. Journal of Plant Nutrition, 35: 1-20.

Cho, S., Lee, S.M., Ko, Y.D., Mattio, L. and Boo, S.M. 2012. Molecular systematic reassessment of Sargassum (fucales, phaeophyceae) in Korea using four gene regions. Botanica Marina, 55(5): 473-484.

Cohen, C., Wakeling, J., Mandiwana-Neudani, T., Sande, E., Dranzoa, C., Crowe, T. and Bowie, R.C.K. 2012. Phylogenetic affinities of evolutionarily enigmaticAfrican galliforms: the Stone Partridge Ptilopachuspetrosus and Nahans Francolin Francolinus nahani, and support for their sister relationship with NewWorld quails. Ibis, 154: 768780.

Cramer, M.D., Wakeling, J. and Bond, W.J. 2012. Belowground competitive suppression of seedling growth by grass in an African savanna. Plant Ecology, 213: 1655-1666.

Cramer, M.D., Innes, S.N. and Midgley, J.J. 2012. Hard evidence that heuweltjieearth mounds are relictual features produced by differential erosion. Palaeogeography Palaeoclimatology Palaeoecology, 350-352: 189-197.

Cramer, M.D. 2012. Unravelling the limits to tree height: a major role for water and nutrient trade-offs. Oecologia, 169: 61-72.

Cyrus, M., Bolton, J.J., De Wet, L. and Macey, B.M. 2012. The development of a formulated feed containing Ulva (Chlorophyta) to promote rapid growth and enhanced production of high quality roe in the sea urchin Tripneustes gratilla (Linnaeus). Aquaculture Research, 2012: 1-18.

Da Silva, J., Donaldson, J., Reeves, G. and Hedderson, T.A. 2012. Population genetics and conservation of critically small cycad populations: a case study of the Albany cycad, Encephalartos latifrons (Lehmann). Biological Journal of the Linnean Society, 105: 293308.

Dijoux, L., Verbruggen, H., Mattio, L., Duong, N. and Payri, C. 2012. Diversity of Halimeda (Bryopsidales, Chlorophyta) in New Caledonia: a combined morphological and molecular study. Journal of Phycology, 48: 1465-1481.

Ekblom, A., Gillson, L., Risberg, J., Holmgren, K. and Chidoub, Z. 2012. Rainfall variability and vegetation dynamics of the lower Limpopo valley, Southern Africa, 500 AD to present. Palaeogeography Palaeoclimatology Palaeoecology, 363-364: 69-78.

Ellis, L.T., Alegro, A., Bansal, P., Cykowska, B., Bednarek-Ochyra, H., Ochyra, R., Dulin, M.V., Erzberger, P., Garcia, C., Sergio, C., Claro, D., Stow, S., Hodgetts, N., Hugonnot, V. and Hedderson, T.A. 2012. New national and regional bryophyte records, 32. Journal of Bryology, 34(3): 231-246.

Gehrke, B., Vrijdaghs, A., Smets, E. and Muasya, A.M. 2012. Unisexual flowers as a robust synapomorphy in Cariceae (Cyperaceae)? Evidence for bisexual flowers in Schoenoxiphium. South African Journal of Botany, 78: 150-158.

Gillson, L., Midgley, G.F. and Wakeling, J. 2012. Exploring the significance of land-cover change in South Africa. South African Journal of Science, 108(5/6): 1-3.

Haiden, S.A., Hoffmann, J.H. and Cramer, M.D. 2012. Benefits of photosynthesis for insects in galls. Oecologia, 170: 987-997.

Hattas, D. and Julkunen-Titto, R. 2012. The quantification of condensed tannins in African savanna tree species. Phytochemistry Letters, 5: 329-334.

Hedderson, T.A. 2012. Bryobartramia schelpei T.A.Hedderson, a new species to accommodate the South African populations of the genus. Journal of Bryology, 34: 257-263.

Higgins, S.I., O'Hara, R., Bykova, O., Cramer, M.D., Chuine, I., Gerstner, E., Hickler, T., Morin, X., Kearney, M., Midgley, G.F. and Scheiter, S. 2012. A physiological analogy of the niche for projecting the potential distribution of plants. Journal of Biogeography, 39: 2132-2145.

Higgins, S.I., Bond, W.J., Combrink, H.J., Craine, J.M., February, E.C., Govender, N., Lannas, K., Moncreiff, G. and Trollope, W. 2012. Which traits determine shifts in the abundance of tree species in a fire-prone savanna? Journal of Ecology, 100: 1400-1410.

Hubbart, B., Pitcher, G.C., Krock, B. and Cembella, A.D. 2012. Toxigenic phytoplankton and concomitant toxicity in the mussel Choromytilus meridionalis off the west coast of South Africa. Harmful Algae, 20: 30-41.

Jimenez, H., Bigot, L., Bourmaud, C., Chabanet, P., Gravier-Bonnet, N., Hamel, M.A., Payri, C., Mattio, L., Menou, J.L., Naeem, S., Rilwan, Y., Sattar, S., Scott, L., Shiham, A., Vigliola, L. and Andrefouet, S. 2012. Multi-taxa coral reef community structure in relation to habitats in the Baa Atoll Man and Biosphere UNESCO Reserve (Maldives), and implications for its conservation. Journal of Sea Research, 72: 77-86.

Joubert, D.F., Smit, G.N. and Hoffman, M.T. 2012. The role of fire in preventing transitions from a grass dominated state to a bush thickened state in arid savannas. Journal of Arid Environments, 87: 1-7.

Klak, C. and Bruyns, P.V. 2012. Phylogeny of the Dorotheantheae (Aizoaceae), a tribe of succulent annuals. Taxon, 61(2): 293-307.

Klak, C. 2012. Two new species of Cleretum (Ruschioideae-Dorotheantheae, Alzoaceae) from the northern Cape, South Africa. Haseltonia, 18: 27-33.

Kunz, N.S., Hoffman, M.T. and Weber, B. 2012. Effects of heuweltjies and utilization on vegetation patterns in the Succulent Karoo, South Africa. Journal of Arid Environments, 87: 198-205.

Malan, H.L., Mesjasz-Przybylowicz, J., Przybylowicz, W., Farrant, J.M. and Linder, P.W. 2012. Distribution patterns of the metal pollutants Cd and Ni in soybean seeds. Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms, 273: 157-160.

Marline, L., Andriamiarisoa, R.L., Bardat, J., Chuah-Petiot, M., Hedderson, T.A., Reeb, C., Strasberg, D., Wilding, N. and Ah-Peng, C. 2012. Checklist of the bryophytes of Madagascar. Cryptogamie Bryologie, 33(3): 199-255.

Matimati, I., Musil, C.F., Raitt, L. and February, E.C. 2012. Diurnal stem diameter variations show CAM and C3 photosynthetic modes and CAM-C3switches in arid South African succulent shrubs. Agricultural and Forest Meteorology, 161: 72-79.

Midgley, J.J., Gallaher, K. and Kruger, L.M. 2012. The role of the elephant (Loxodonta africana) and the tree squirrel (Paraxerus cepapi) in marula (Sclerocarya birrea) seed predation, dispersal and germination. Journal of Tropical Ecology, 28: 227-231.

Milandri, S., Winter, K.J., Chimphango, S.B., Armitage, N.P., Mbui, D.N., Jackson, G.E. and Liebau, V. 2012. The performance of plant species in removing nutrients from stormwater in biofiltration systems in Cape Town. Water SA, 38(5): 655-662.

Muasya, A.M., Reynders, M., Goetghebeur, P., Simpson, D. and Vrijdaghs, A. 2012. Dracoscirpoides (Cyperaceae) - a new genus from southern Africa, its taxonomy and floral ontogeny. South African Journal of Botany, 78: 104-115.

Muasya, A.M., Viljoen, J.-A., Stirton, C.H. and Helme, N.A. 2012. Two new leafless species of Ficinia (Cypereae, Cyperaceae) from the Greater Cape Floristic Region of South Africa. South African Journal of Botany, 79: 96-101.

Parr, C., Gray, E. and Bond, W.J. 2012. Cascading biodiversity and functional consequences of a global change-induced biome switch. Diversity and Distributions, 18: 493-503.

Payri, C., N'Yeurt, A.D.R. and Mattio, L. 2012. Benthic algal and seagrass communities in BaaAtoll, Maldives. Atoll Research Bulletin, 590: 31-70.

Peters, D.P.C., Belnap, J., Ludwig, J.A., Collins, S.L., Paruelo, J., Hoffman, M.T. and Havstad, K.M. 2012. How can science be general, yet specific? The conundrum of rangeland science in the 21st century. Rangeland Ecology & Management, 65: 613-622.

Reynders, M., Vrijdaghs, A., Larridon, I., Huygh, W., Leroux, O., Muasya, A.M. and Goetghebeur, P. 2012. Gynoecial anatomy and development in Cyperoideae (Cyperaceae, Poales): congenital fusion of carpels facilitates evolutionary modifications in pistil structure. Plant Ecology and Evolution, 145: 96-125.

Rohde, R. and Hoffman, M.T. 2012. The historical ecology of Namibian rangelands: vegetation change since 1876 in response to local and global drivers. Science of the Total Environment, 416: 276-288.

Sirami, C. and Monadjem, A. 2012. Changes in bird communities in Swaziland savannas between 1998 and 2008 owing to shrub encroachment. Diversity and Distributions, 18: 390-400.

Skelton, R., Midgley, J.J., Nyaga, J., Johnson, S.D. and Cramer, M.D. 2012. Is leaf pubescence of Cape Proteaceae a xeromorphic or radiation-protective trait? Australian Journal of Botany, 60: 104-113.

Staver, A., Bond, W.J., Cramer, M.D. and Wakeling, J. 2012. Top-down determinants of niche structure and adaptation among African Acacias. Ecology Letters, 15: 673-679.

Stock, W.D. and Verboom, G.A. 2012. Phylogenetic ecology of foliar N and P concentrations and N:P ratios across mediterranean-type ecosystems. Global Ecology and Biogeography, 21: 1147-1156.

Suinyuy, T.N., Donaldson, J. and Johnson, S.D. 2012. Geographical variation in cone volatile composition among populations of the African cycad Encephalartos villosus. Biological Journal of the Linnean Society, 106: 514-527.

Terer, T., Triest, L. and Muasya, A.M. 2012. Effects of harvesting Cyperus papyrus in undisturbed wetland, Lake Naivasha, Kenya. Hydrobiologia, 680: 135-148.

Terer, T., Muasya, A.M., Dahdouh-Guebas, F., Ndiritu, G. and Triest, L. 2012. Integrating local ecological knowledge

and management practices of an isolated semi-arid papyrus swamp (Loboi, Kenya) into a wider conservation framework. Journal of Environmental Management, 93: 71-84.

Tonnabel, J., Van Dooren, T.J.M., Midgley, J.J., Haccou, P., Mignot, A., Ronce, O. and Olivieri, I. 2012. Optimal resource allocation in a serotinous non-resprouting plant species under different fire regimes. Journal of Ecology, 100: 1464-1474.

Turner, R.C., Midgley, J.J., Barnard, P., Simmons, R.E. and Johnson, S.D. 2012. Experimental evidence for bird pollination and corolla damage by ants in the short-tubed flowers of Erica halicacaba (Ericaceae). South African Journal of Botany, 79: 25-31.

Van der Niet, T. and Johnson, S.D. 2012. Phylogenetic evidence for pollinator-driven diversification of angiosperms. Trends in Ecology & Evolution, 27(6): 353-361.

Verboom, G.A., Moore, T., Hoffmann, V. and Cramer, M.D. 2012. The roles of climate and soil nutrients in shaping the life histories of grasses native to the Cape Floristic Region. Plant and Soil, 355: 323-340.

Wakeling, J., Cramer, M.D. and Bond, W.J. 2012. The savanna-grassland "treeline": why don't savanna trees occur in upland grasslands? Journal of Ecology, 100: 381-391.

West, A.G., Dawson, T.E., February, E.C., Midgley, G.F., Bond, W.J. and Aston, T. 2012. Diverse functional responses to drought in a Mediterranean-type shrubland in South Africa. New Phytologist, 195: 396-407.

Yano, O., Ikeda, H., Watson, M.F., Rajbhandari, K.R., Jin, X.F., Hoshino, T., Muasya, A.M. and Ohba, H. 2012. Phylogenetic position of the Himalayan genus Erioscirpus (Cyperaceae) inferred from DNA sequence data. Botanical Journal of the Linnean Society, 170: 1-11.

Doctoral dissertations

Smart, M. 2012. Flowering in Protea: a molecular and physiological study. 194pp. Supervised by Roden, L.C.

Department of Chemistry

(Including the Centre for Supramolecular Chemistry Research, the MRC/UCT Drug Discovery & Development Research Centre and the Scientific Computing Research Unit)

HEAD OF DEPARTMENT: PROFESSOR SUSAN A. BOURNE

Departmental Profile

The research activities of the department reflect the wide range and scope of the traditional sub-disciplines of inorganic, organic and physical chemistry, sustained by analytical, spectroscopic and computational methodology. The four main research focus areas are synthetic and medicinal chemistry, supramolecular chemistry, transition metal chemistry as well as biophysical and structural chemistry. Programmes are devoted to fundamental and applied chemical research, and to interdisciplinary studies in which chemistry plays a key role. Synthetic studies are carried out in organic, organometallic and co-ordination chemistry, in order to develop and apply new methodology, and to prepare biologically active compounds, novel catalysts and components of new materials. These studies also provide tools for analytical and separation science, and models for advanced structural and conformational studies. Molecular structure determination with the aid of spectroscopic and X-ray diffraction techniques are two areas of specialisation in the department. Computational chemistry is a leading area of specialization supported by several state of the art LINUX clusters. Computer code development and modelling applications of biological and industrial problems play a key role in many of the Department's research programmes. There is also an active research thrust in the area of chemistry education, with a particular focus on student learning in tertiary level chemistry courses.

The Department of Chemistry is home to three UCT-accredited research units

The Centre for Supramolecular Chemistry Research, CSCR (Dir. Prof. Mino Caira) studies the physical chemistry of supramolecular systems. Research projects include the synthesis and characterization of metal organic frameworks (MOFs) and large metal-containing supramolecular assemblies with the potential for guest uptake (gas storage, molecular sensing), the study of selectivity in organic host-guest systems, and the beneficiation of pharmaceutically relevant materials

through the investigation of their polymorphs, solvates, cyclodextrin inclusion complexes and cocrystals. Solid phases are studied using powder and single crystal X-ray diffraction, thermal analysis (including TGA and DSC) and spectroscopy (FTIR and solid-state NMR techniques). The thermodynamics of inclusion and complexation processes in solution are investigated by high-resolution NMR spectroscopy and isothermal titration calorimetry.

The MRC/UCT Drug Discovery & Development Research Centre, H3D (Dir. Prof. Kelly Chibale) aims to bridge the gap between basic and clinical studies, training a new generation of African scientists with key skills required for drug discovery and development – integrating medicinal chemistry, biology, pharmacology as well as drug metabolism and pharmacokinetics (DMPK) studies as reflected in the processes of Absorption, Distribution, Metabolism and Excretion (ADME). H3-D also focuses on beneficiation of clinically used drugs, including generic medicines. Drug beneficiation, amongst other things, involves selection of the optimum form of a solid drug candidate for pharmaceutical development and (re)formulation.

The Scientific Computing Research Unit, SCRU (Dir. Prof. Kevin J. Naidoo) develop state-of-the-art high performance computing (HPC) software as well as providing a modelling and informatics platform for applications in chemistry and chemical biology. SCRU's research activities include the development of software acceleration for life science applications. This aspect the unit's research is supported by hardware giant Nvidia Corporation. SCRU's specialised HPC facility houses the South Africa's most sophisticated scientific compute servers and GPU clusters designed for chemical and chemical biology applications. The specific objectives of the unit are to trace gene-to-glycan biochemical schemes important in glycobiology as well as model enzyme catalysed chemical reactions and ionic liquids.

The research enterprise of the Department of Chemistry is significantly enhanced by the appointment of two of its permanent staff members to DST/NRF South African National Research Chairs - Professor Kevin Naidoo in Scientific Computing and Professor Kelly Chibale in Drug Discovery. These highly prestigious appointments have raised the Department's international research profile significantly and contribute substantially to its research outputs.

Departmental Statistics

Permanent and long-term contract staff

Professors	7
Associate Professors	4
Senior Lecturers	3
Lecturers	2
Senior Scholars	2
Scientific Officers	7
Technical Officers	8
Research Staff	5
Support Staff	9
Administrative and Clerical Staff	7
Total	54

Honorary Staff

Emeritus Professors	3
Honorary Research Associates	3
Total	6

Students

Postdoctoral	26
Doctoral	51
Master's	30
Honours	17
Undergraduates	1648
Total	1772

Research Fields and Staff

Permanent and long-term contract staff

PROFESSOR SUSAN A. BOURNE
Inclusion chemistry; crystallography; thermal analysis.

PROFESSOR MINO R. CAIRA
Solid state chemistry; drug polymorphism; drug pseudopolymorphism; drug-cyclodextrin inclusion; drug complexation; co-crystallization; drug enantiomeric separation.

PROFESSOR KELLY CHIBALE
Organic synthesis; medicinal chemistry.

ASSOCIATE PROFESSOR BETTE DAVIDOWITZ
Chemical education; curriculum design; writing and communication within the discipline.

PROFESSOR TIMOTHY J. EGAN
Bioinorganic chemistry of the malaria parasite.

ASSOCIATE PROFESSOR DAVID W. GAMMON
Natural products chemistry; phytochemical studies on medicinal plants; carbohydrates; heterogeneous catalysis of organic reactions.

PROFESSOR ROGER HUNTER
Synthesis; indole alkaloids; calixarenes; p-block synthetic methodology.

ASSOCIATE PROFESSOR ALAN T. HUTTON
Organometallic chemistry; co-ordination chemistry; microwave chemistry; electrochemistry.

PROFESSOR GRAHAM E. JACKSON
Nuclear magnetic resonance; computer modelling; metal-ion equilibria; design of metal containing drugs; copper and rheumatoid arthritis.

DR ANWAR JARDINE
Senior Lecturer: medicinal chemistry; chemical biology; enzymology; natural product and organic synthesis; drug design and development.

PROFESSOR KEVIN J. NAIDOO
Computational chemistry; polymers; statistical physics; pharmaceutical drug design.

DR CLIVE OLIVER
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Physicochemical analysis of biologicals; carbohydrates; glycoconjugate and protein vaccines.

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DR GERHARD VENTER
Lecturer: computational chemistry; electronic structure calculations; free energy methods for properties of solutions; ionic liquids.

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Senior Lecturer.

Senior Scholars

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Physical chemistry; thermal analysis; kinetics; inclusion compounds.

PROFESSOR ALLEN L. RODGERS
Kidney stones; urine chemistry; calcium oxalate crystallization.

Honorary Research Associates

DR SHIRLEY C. CHURMS
Writing and communication within the discipline.

PROFESSOR RAYMOND J. HAINES
Organometallic chemistry.

DR ELIZABETH TIMME
Assessment of possible immuno-modulatory carbohydrates from local and indigenous plants and fungi.

Emeritus Professors

PROFESSOR JAMES R. BULL
Organic synthesis; steroidal hormones; 19-norsteroids; estrogens; bioactive steroids; predictive design; cycloaddition.

PROFESSOR PETER W. LINDER
Solution equilibria of cyclodextrin inclusion complexes.

PROFESSOR ALISTAIR M. STEPHEN
Carbohydrate chemistry.

Research Associate

DR GAËLLE RAMON
Supramolecular Chemistry; Inclusion Compounds; Metal Organic Frameworks; Crystal Engineering

Postdoctoral Fellows

DR YASSIR YOUNIS ADAM
Hit to Lead and Lead Optimization Medicinal Chemistry Progression of Antimalarial Hits

DR ANDREW ANDAYI
New generation of combined drugs to fight tuberculosis

DR CHRIS BARNETT
Development of High Speed Informatics and Simulation Tools for Applications in Glycobiology

DR NYARADZO CHIGORIMBO-TSIKIWA
Biocatalytic modification of natural compounds for metabolite analysis.

DR DYANNE CRUICKSHANK
Beneficiation of Bioactive Compounds via Supramolecular Chemistry

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Hybrid algorithms, Hybrid Architecture on a distributed highly available Protein Server for Structure Prediction, Functional Exploration and Gene Signatures

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DR DIEGO GONZALEZ-CABRERA
Hit to lead and lead optimization medicinal chemistry progression of antimalarial hits.

DR EMMA HAGER
The Synthesis of Water-Soluble Metallodendrimers for Use as Catalysts in Olefin Transformation Reactions

DR ZE HAN
Hit to lead and lead optimization medicinal chemistry progression of antimalarial hits.

DR AHMAD HUSAIN
Crystal engineering of large supramolecular assemblies and metal-organic frameworks

DR CLAIRE LE MANACH
Hit to lead and lead optimization medicinal chemistry progression of antimalarial hits.

DR STEFAN LOUW
Synthesis of novel artemisinin hybrid anti-malarial drugs.

DR BANOTHILE CHARITY EVENTS MAKHUBELA
Development of Water-Soluble Metallodendrimers for Biphasic Catalysis and as Novel Bioorganometallic Drugs

DR JESTIN MANDUMPAL
Development of coarse grain molecular dynamics software for protein folding

DR MAIA MEURILLON
New generation of combined drugs to fight Tuberculosis.

DR GRACE MUGUMBATE
Application of in silico Tools to the discovery of novel anti-infective agents.

DR DUBEKILE NYONI
The Design and Development of Novel Ruthenium, Rhodium and Iridium Dendritic Multinuclear Complexes for Use in Medicinal Bio- and Nanotechnology

PAQUET,TANYA
Hit to Lead and Lead Optimization Medicinal Chemistry Progression of Antimalarial Hits

DR MARIVEL SAMIPILLAI
Selectivity in Host-guest Systems

DR RAJNI SHARMA
Synthesis of N domain selective ACE inhibitors.

DR KAWALJIT SIGH
Towards the synthesis of reversed anti-tuberculosis agents and hybrid bacterial efflux pump inhibitors

DR CANDICE SOARES DE MELO
New generation of combined drugs to fight tuberculosis

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Research output

Edited books

Chibale, K., Davies-Coleman, M. and Masimirembwa, C. (eds) 2012. Drug Discovery in Africa. 429pp. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Chapters in books

Báthori, N.B. and Nassimbeni, L.R. 2012. Conformational flexibility and selectivity in host-guest systems. In E.R.T. Tiekink and J. Zukerman-Schpector (eds), The Importance of Pi-Interactions in Crystal Engineering: Frontiers in Crystal Engineering, pp. 125-141. United Kingdom: John Wiley and Sons, Ltd. ISBN 9780470688274.

Guantai, E.M. and Chibale, K. 2012. Natural product-based drug discovery in Africa: the need for integration into modern drug discovery paradigms. In K. Chibale, M. Davies-Coleman and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 101-126. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Hutton, A.T. 2011. Nomenclature of organometallic compounds. In G.J. Leigh (ed.), Principles of Chemical Nomenclature, pp. 109-132. Cambridge, UK: RCS (Royal Society of Chemistry). ISBN 9781849730075.

Nzila, A. and Chibale, K. 2012. Anticancer drug repositioning against tropical diseases: the example of methotrexate in the treatment of malaria. In K. Chibale, M. Davies-Coleman and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 293-300. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Okombo, J., Mwai, L. and Nzila, A. 2012. Tackling the problem of antimalarial resistance. In K. Chibale, M. Davies-Coleman and C. Masimirembwa (eds), Drug Discovery in Africa, pp. 301-324. Germany: Springer Heidelberg New York Dordrecht London. ISBN 9783642281747.

Rodgers, A. 2011. Pathogenesis of stones: summary of current concepts. In P. N. Rao, G.M. Preminger and J.P. Kavanagh (eds), Urinary Tract Stone Disease, pp. 151-156. London: Springer-Verlag London Limited. ISBN 9781848003613.

Articles in Peer-reviewed Journals

Ambele, M.A. and Egan, T.J. 2012. Neutral lipids associated with haemozoin mediate efficient and rapid b-haematin formation at physiological pH, temperature and ionic composition. Malaria Journal, 11: 337.

Aminake, M.N., Mahajan, A., Kumar, V., Hans, R., Wiesner, L., Taylor, D., De Kock, C., Grobler, A., Smith, P.J., Kirschner, M., Rethwilm, A., Pradel, G. and Chibale, K. 2012. Synthesis and evaluation of hybrid drugs for a potential HIV/AIDS-malaria combination therapy. Bioorganic & Medicinal Chemistry, 20: 5277-5289.

Báthori, N.B. and Oliver, C.L. 2012. Polymorphism of the β,g-hydroxylactone derived from indomethacin. CrystEngComm, 14: 8361-8364.

Báthori, N.B. and Nassimbeni, L.R. 2012. The Dutch resolution method: attempted enhanced selectivity of 2-butylamine with mixed diol hosts. Crystal Growth & Design, 12: 2501-2507.

Bersanetti, P.A., Sabatini, R.A., Matos, B.S., Douglas, R.G., Nchinda, A., Juliano, M.A., Pesquero, J.B., Sturrock, E.D. and Carmona, A.K. 2012. Characterization of angiotensin I-converting enzyme N-domain selectivity using positional-scanning combinatorial libraries of fluorescence resonance energy transfer peptides. Biological Chemistry, 393(12): 1547-1554.

Cabrera, D.G., Douelle, F., Younis, Y., Feng, T.-S., Le Manach, C., Nchinda, A.T., Street, L.J., Scheurer, C., Kamber, J., White, K.L., Montagnat, O.D., Ryan, E., Katneni, K., Zabiulla, K.M., Joseph, J.T., Bashyam, S., Waterson, D., Witty, M.J., Charman, S.A., Wittlin, S. and Chibale, K. 2012. Structure-activity relationship studies of orally active antimalarial 3,5-substituted 2-aminopyridines. Journal of Medicinal Chemistry, 55: 11022-11030.

Caira, M.R. 2012. Thermal analysis in the characterization of pharmaceutically relevant supramolecular systems. American Pharmaceutical Review, 15(1): 102-106.

Caira, M.R., Bourne, S.A., Samsodien, H., Engel, E., Liebenberg, W., Stieger, N. and Aucamp, M. 2012. Co-crystals of the antiretroviral nevirapine: crystal structures, thermal analysis and dissolution behaviour. CrystEngComm, 14: 2541-2551.

Chellan, P., Land, K.M., Shokar, A., Au, A., An, S.H., Clavel, C.M., Dyson, P.J., De Kock, C., Smith, P.J., Chibale, K. and Smith, G.S. 2012. Exploring the versatility of cycloplatinated thiosemicarbazones as antitumor and antiparasitic agents. Organometallics, 31: 5791-5799.

Chigorimbo-Murefu, N.T.L., Njoroge, M., Nzila, A., Louw, S., Masimirembwa, C. and Chibale, K. 2012. Biotransformation and biocatalysis: roles and applications in the discovery of antimalarials. Future Medicinal Chemistry, 4(18): 2325-2336.

Chiririwa, H. and Muller, A. 2012. Chlorido{N-[(E)-2-(diphenylphosphanyl)-benzylidene]-2-(thiophen-2-yl) ethanamine-βP}gold(I). Acta Crystallographica Section E-Structure Reports Online, 68: m49.

Chiririwa, H. and Muller, A. 2012. Dichlorido{N-[2-(diphenylphosphanyl)-benzylidene]-2-(thiophen-2-yl)ethanamine-β2P,N}platinum(II) dichloromethane hemisolvate. Acta Crystallographica Section E-Structure Reports Online, 68: m116-m117.

Chiririwa, H., Moss, J.R., Hendricks, D. and Meijboom, R. 2012. 1-(Thiophen-2-yl)-N-(4-{E)-[(thiophen-2-yl)methyl]iminomethyl} benzylidene)-methanamine. Acta Crystallographica Section E-Structure Reports Online, E68: o3137.

Cruickshank, D.L., Bourne, S.A. and Caira, M.R. 2012. A solid-state study of the inclusion of endosulfan in native and derivatised cyclodextrins using X-ray diffraction and thermoanalytical methods. New Journal of Chemistry, 36: 2007-2013.

Cruickshank, D.L., Bogdan, M., Fβrcas, S.I., Bourne, S.A. and Caira, M.R. 2012. Investigation of the inclusion of herbicide cycluron in native cyclodextrins by x-ray diffraction, nuclear

magnetic resonance spectroscopy and isothermal titration calorimetry. Supramolecular Chemistry, 24(6): 406-414.

Davies, K., Bourne, S.A. and Oliver, C.L. 2012. Solvent- and vapor-mediated solid-state transformations in 1,3,5-benzenetricarboxylate metal-organic frameworks. Crystal Growth & Design, 12: 1999-2003.

Davies, K., Bourne, S.A., Öhrström, L. and Oliver, C.L. 2012. Topological studies of three related metal-organic frameworks of GdIII and 5-nitroisophthalate. Acta Crystallographica Section B-Structural Science, 68: 528-535.

Gamieldien, M.R.,Strümpfer, J. and Naidoo, K.J. 2012. Hydration-determined orientational preferences in aromatic association from benzene dimer free energy volumes. Journal of Physical Chemistry B, 116: 324-331.

Geary, T.G., Chibale, K., Abegaz, B., Andrae-Marobela, K. and Ubalijoro, E. 2012. A new approach for anthelmintic discovery for humans. Trends in Parasitology, 28(5): 176-181.

Gopaul, K., Koorbanally, N.A., Shaikh, M.M., Su, H. and Ramjugernath, D. 2012. 3-(3,4-Dichlorobenzylidene) chroman-4-one. Acta Crystallographica Section E-Structure Reports Online, E68: o3062.

Govender, P., Therrien, B. and Smith, G.S. 2012. Bio-metallodendrimers - emerging strategies in metal-based drug design. European Journal of Inorganic Chemistry, 2853-2862.

Hager, E.B., Makhubela, B.C.E. and Smith, G.S. 2012. Aqueous-phase hydroformylation of 1-octene using hydrophilic sulfonate salicylaldimine dendrimers. Dalton Transactions, 41: 13927-13935.

Herrmann, C., Salas, P.F., Cawthray, J.F., De Kock, C., O. Patrick, B., Smith, P.J., Adam, M.J. and Orvig, C. 2012. 1,1′-Disubstituted ferrocenyl carbohydrate chloroquine conjugates as potential antimalarials. Organometallics, 31: 5736-5747.

Herrmann, C., Salas, P.F., O. Patrick, B., De Kock, C., Smith, P.J., Adam, M.J. and Orvig, C. 2012. 1,2-Disubstituted ferrocenyl carbohydrate chloroquine conjugates as potential antimalarial agents. Dalton Transactions, 41: 6431-6442.

Herrmann, C., Salas, P.F., O Patrick, B., De Kock, C., Smith, P.J., Adam, M.J. and Orvig, C. 2012. Modular synthesis of 1,2- and 1,1′-disubstituted ferrocenyl carbohydrate chloroquine and mefloquine conjugates as potential antimalarial agents. Organometallics, 31: 5748-5759.

Kaschula, C.H., Hunter, R., Stellenboom, N., Caira, M.R., Winks, S., Ogunleye, T., Richards, P., Cotton, J., Zilbeyaz, K., Wang, Y., Siyo, V., Ngarande, E. and Parker, M.I. 2012. Structure-activity studies on the anti-proliferation activity of ajoene analogues in WHCO1 oesophageal cancer cells. European Journal of Medicinal Chemistry, 50: 236-254.

Kobarfard, F., Yardley, V., Little, S., Daryaee, F. and Chibale, K. 2012. Synthesis of aminoquinoline-based aminoalcohols and oxazolidinones and their antiplasmodial activity. Chemical Biology & Drug Design, 79: 326-331.

Kukovec, B.-M., Venter, G.A. and Oliver, C.L. 2012. Structural and DFT studies on the polymorphism of a cadmium(II) dipicolinate coordination polymer. Crystal Growth & Design, 12: 456-465.

Kukovec, B.- M. and Oliver, C.L. 2012. Unique cadmium(II) dipicolinate coordination tetramers with different Cd(II) coordination environments and number of halide ions (Cl, Br). Polyhedron, 34: 46-55.

Kuter, D., Venter, G.A., Naidoo, K.J. and Egan, T.J. 2012. Experimental and time-dependent density functional theory characterization of the UV-visible spectra of monomeric and m-oxo dimeric ferriprotoporphyrin IX. Inorganic Chemistry, 51: 10233-10250.

Kuttel, M., Ravenscroft, N., Foschiatti, M., Cescutti, P. and Rizzo, R. 2012. Conformational properties of two exopolysaccharides produced by Inquilinus limosus, a cystic fibrosis lung pathogen. Carbohydrate Research, 350: 40-48.

Lamprecht, D.A., Muneri, N.O., Eastwood, H., Naidoo, K.J., Strauss, E. and Jardine, A. 2012. An enzyme-initiated Smiles rearrangement enables the development of an assay of MshB, the GlcNAc-Ins deacetylase of mycothiol biosynthesis. Organic & Biomolecular Chemistry, 10: 5278-5288.

Lemmer, H., Stieger, N., Liebenberg, W. and Caira, M.R. 2012. Solvatomorphism of the antibacterial dapsone: x-ray structures and thermal desolvation kinetics. Crystal Growth & Design, 12: 1683-1692.

Lemmerer, A. and Bourne, S.A. 2012. Benzoic acid-3,4-bis[(pyridin-3-ylmethyl)amino]cyclobut-3-ene-1,2-dione (1/2). Acta Crystallographica Section E-Structure Reports Online, E68: o384.

Lemmerer, A. 2012. Cyclopropylammonium 4-iodobenzoate. Acta Crystallographica Section E-Structure Reports Online, 68: o2096.

Lemmerer, A. 2012. Hydrogen bonding ring patterns of chiral dibenzoyltartrate in a series of hydrated ammonium carboxylate salts with chiral 1-phenylethylammonium. Journal of Chemical Crystallography, 42: 1085-1097.

Lou, S.J. and Peacock-López, E. 2012. Self-regulation in a minimal model of chemical self-replication. Journal of Biological Physics, 38: 349-364.

Louw, S., Njoroge, M., Chigorimbo-Murefu, N. and Chibale, K. 2012. Comparison of electrospray ionisation, atmospheric pressure chemical ionisation and atmospheric pressure photoionisation for the identification of metabolites from labile artemisinin-based anti-malarial drugs using a QTRAP® mass spectrometer. Rapid Communications in Mass Spectrometry, 26: 2431-2442.

Magwira, C.A, Kullin, B., Lewandowski, S., Rodgers, A., Reid, S.J. and Abratt, V.R. 2012. Diversity of faecal oxalate-degrading bacteria in black and white South African study groups: insights into understanding the rarity of urolithiasis in the black group. Journal of Applied Microbiology, 113: 418-428.

Mahamo, T., Mogorosi, M.M., Moss, J.R., Mapolie, S.F., Slootweg, J.C., Lammertsma, K. and Smith, G.S. 2012. Neutral palladium(II) complexes with P,N schiff-base ligands: synthesis, characterization and application as Suzuki-Miyaura coupling catalysts. Journal of Organometallic Chemistry, 703: 34-42.

Makhubela, B.C.E., Jardine, A.M., Westman, G. and Smith, G.S. 2012. Hydroformylation of 1-octene using low-generation Rh(I) metallodendritic catalysts based on a tris-2-(2-pyridyliminoethyl)amine scaffold. Dalton Transactions, 41: 10715-10723.

Makhubela, B.C.E., Jardine,A. and Smith, G.S. 2012. Rh(I) complexes supported on a biopolymer as recyclable and selective hydroformylation catalysts. Green Chemistry, 14: 338-347.

Malan, H.L., Mesjasz-Przybylowicz, J., Przybylowicz, W.J., Farrant, J.M. and Linder, P.W. 2012. Distribution patterns of the metal pollutants Cd and Ni in soybean seeds. Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms, 273: 157-160.

Mehlana, G., Bourne, S.A. and Ramon, G. 2012. A new class of thermo- and solvatochromic metal-organic frameworks based on 4-(pyridin-4-yl)benzoic acid. Dalton Transactions, 41: 4224-4231.

Milandri, S.G., Winter, K.J., Chimphango, S.B.M., Armitage, N.P., Mbui, D.N., Jackson, G.E. and Liebau, V. 2012. The performance of plant species in removing nutrients from stormwater in biofiltration systems in Cape Town. Water SA, 38(5): 655-662.

Moberg, V., Duquesne, R., Contaldi, S., Röhrs, O., Nachtigall, J., Damoense, L., Hutton, A.T., Green, M., Monari, M., Santelia, D., Haukka, M. and Nordlander, E. 2012. Efficient cluster-based catalysts for asymmetric hydrogenation of a-unsaturated carboxylic acids. Chemistry-A European Journal, 18: 12458-12478.

Momin, M.I.K., Pawar, S., Koorbanally, N.A., Su, H. and Ramjugernath, D. 2012. 2-acetylphenyl (2E)-3-(4-fluorophenyl)-acrylate. Acta Crystallographica Section E-Structure Reports Online, E68: o3049.

Munyololo, M., Gammon, D.W. and Mohrholz, I. 2012. Extending the scope of the Ferrier reaction: fragmentation-rearrangement reactions of selectively substituted 1,2-cyclopropanated glucose derivatives. Carbohydrate Research, 351: 49-55.

Naidoo, K.J. 2012. Multidimensional free energy volumes offer unique insights into reaction mechanisms, molecular conformation and association. Physical Chemistry Chemical Physics, 14: 9026-9036.

Nassimbeni, L.R., Báthori, N.B. and Curtin, T.-L. 2012. Ammonium salts of lithocholic acid: structures and kinetics. Crystal Growth & Design, 12: 4144-4148.

Nassimbeni, L.R., Su, H. and Curtin, T.-L. 2012. Enhanced enantioselectivity of 3-methylcyclohexanone by mixed diol host compounds. Chemical Communications, 48: 8526-8528.

Nassimbeni, L.R., Su, H. and Curtin, T.-L. 2012. Inclusion by a xanthenol host: structures, kinetics of enclathration and desorption. Supramolecular Chemistry, 24(5): 344-349.

Njuguna, N.M., Ongarora, D.S.B. and Chibale, K. 2012. Artemisinin derivatives: a patent review (2006-present). Expert Opinion on Therapeutic Patents, 22(10): 1179-1203.

Njuguna, N.M., Masimirembwa, C. and Chibale, K. 2012. Identification and characterization of reactive metabolites in natural products-driven drug discovery. Journal of Natural Products, 75: 507-513.

Nokwequ, M.G., Nkambule, C.M. and Gammon, D.W. 2012. Armed-disarmed effect on the stability of cysteine thioglucosides. Carbohydrate Research, 359: 18-23.

Nyoni, D., Lobb, K.A., Kaye, P.T. and Caira, M.R. 2012. DBU-mediated cleavage of aryl- and heteroaryl disulfides. ARKIVOC, iv: 245-252.

Ongarora, D.S.B., Gut, J., Rosenthal, P.J., Masimirembwa, C.M. and Chibale, K. 2012. Benzoheterocyclic amodiaquine analogues with potent antiplasmodial activity: synthesis and pharmacological evaluation. Bioorganic & Medicinal Chemistry Letters, 22: 5046-5050.

Paquet, T., Gordon, R., Waterson, D., Witty, M.J. and Chibale, K. 2012. Antimalarial aminothiazoles and aminopyridines from phenotypic whole-cell screening of a SoftFocus library. Future Medicinal Chemistry, 4(18): 2265-2277.

Ramon, G., Nassimbeni, L.R. and Taljaard, J.H. 2012. Guest controlled packing in inclusion compounds. Journal of Chemical Crystallography, 42: 1014-1021.

Sharma, R.K., Douglas, R.G., Louw, S., Chibale, K. and Sturrock, E.D. 2012. New ketomethylene inhibitor analogues: synthesis and assessment of structural determinants for N-domain selective inhibition of angiotensin-converting enzyme. Biological Chemistry, 393: 485-493.

Singh, K., Kaur, H., Chibale, K., Balzarini, J., Little, S. and Bharatam, P.V. 2012. 2-Aminopyrimidine based 4-aminoquinoline anti-plasmodial agents. Synthesis, biological activity, structure-activity relationship and mode of action studies. European Journal of Medicinal Chemistry, 52: 82-97.

Stringer, T., Hendricks, D.T., Guzgay, H. and Smith, G.S. 2012. Synthesis and characterization of multimeric salicylaldimine thiosemicarbazones and their Pd(II) and Pt(II) complexes. Polyhedron, 31: 486-493.

Tacon, C., Guantai, E.M., Smith, P.J. and Chibale, K. 2012. Synthesis, biological evaluation and mechanistic studies of totarol amino alcohol derivatives as potential antimalarial agents. Bioorganic & Medicinal Chemistry, 20: 893-902.

Theka, T., Rodgers, A., Lewandowski, S., Webber, D. and Allie-Hamdulay, S. 2012. Effects of vitamin E ingestion on plasma and urinary risk factors for calcium oxalate urolithiasis in two population groups having different stone-risk profiles: evidence of different physiological handling mechanisms. Urological Research, 40: 113-120.

Thelingwani, R.S., Dhansay, K., Smith, P., Chibale, K. and Masimirembwa, C.M. 2012. Potent inhibition of CYP1A2 by frutinone A, an active ingredient of the broad spectrum antimicrobial herbal extract from P.fruticosa. Xenobiotica, 42(10): 989-1000.

Tukulula, M., Little, S., Gut, J., Rosenthal, P.J., Wan, B., Franzblau, S.G. and Chibale, K. 2012. The design, synthesis, in silico ADME profiling, antiplasmodial and antimycobacterial evaluation of new arylamino quinoline derivatives. European Journal of Medicinal Chemistry, 57: 259-267.

Wang, X., Rotkina, L., Su, H. and Beckmann, P.A. 2012. Single-crystal x-ray diffraction, isolated-molecule and cluster electronic structure calculations, and scanning electron microscopy in an organic solid: models for intramolecular motion in 4,4'-dimethoxybiphenyl. Chemphyschem, 13: 2082-2089.

Younis, Y., Douelle, F., Feng, T.-S., Cabrera, D.G., Le Manach, C., Nchinda, A.T., Duffy, S., White, K.L., Shackleford, D.M., Morizzi, J., Mannila, J., Katneni, K., Bhamidipati, R., Zabiulla, K.M., Joseph, J.T., Bashyam, S., Waterson, D., Witty, M.J., Hardick, D., Wittlin, S., Avery, V., Charman, S.A. and Chibale, K. 2012. 3,5-Diaryl-2-aminopyridines as a novel class of orally active antimalarials demonstrating single dose cure in mice and clinical candidate potential. Journal of Medicinal Chemistry, 55: 3479-3487.

Doctoral dissertations

Davies, K. 2012. Metal-organic frameworks and their uses as gas sorption devices. 214pp. Supervised by Bourne, S.A.

Dhansay, K. 2012. Isolation and identification of antimicrobial compounds from South African medicinal plants. 166pp. Supervised by Smith, P.J. and Chibale, K.

Gamieldien, M.R. 2012. Parameterization of the Gay-Berne coarse-grain potential from atomistically detailed anisotropic free energy volumes. 178pp. Supervised by Naidoo, K.J.

Jayakody, R.S. 2012. In silico investigation of the mechanism of ricin-catalysed depurination reaction and design of novel ricin inhibitors. 210pp. Supervised by Naidoo, K.J.

Kambafwile, H.K. 2012. Synthesis of activity-based protein profiling probes for malaria and hypertension disease models and potential novel ACE inhibitors with an attenuated zinc binding group. 223pp. Supervised by Chibale, K. and Sturrock, E.

Makhubela, B.C.E. 2012. The design, synthesis and characterisation of polynuclear materials for applications in catalysis. 135pp. Supervised by Smith, G.S. and Jardine, A.

Malatji, P. 2012. Studies towards degradable polymers: new zinc(II) and palladium(II) complexes as catalysts for lactide polymerization and carbon monoxide/styrene

copolymerization. 188pp. Supervised by Hutton, A.T. and Coville, N.J.

Njogu, P. 2012. Molecular hybrids of N-benzol-(2R, 3S)-3-phenylisoserine with antimalarial scaffolds: design, synthesis and biological evaluation for antitumoural and antiplasmodial activity. 209pp. Supervised by Chibale, K., Hendricks,D. and Jardine, A.

Nsumiwa, S. 2012. Synthesis and investigation of quinoline based beta-haematin formation inhibitors as potential antimalarials. 180pp. Supervised by Egan, T.J. and Chibale, K.

Pillay, P. 2012. Antiplasmodial neolignans from trema orientalis-identification, synthesis and analogue generation. 228pp. Supervised by Chibale, K. and Maharaj, V.

Ramsout, R. 2012. Investigation of the in vivo and in vitro effects of some herbal preparations on risk factors for calcium oxalate stone disease. 182pp. Supervised by Rodgers, A.L.

Thelingwani, R.S. 2012. Integration of in silico and in vitro ADMET properties in lead identification and optimization of compounds for the treatment of parasitic diseases. 204pp. Supervised by Chibale, K., Masimirembwa, C. and Smith, P.

Tukulula, M. 2012. The application of the multi-component reaction (MCR) strategy in the design and synthesis of new antiplasmodial and antimycobacterial agents. 239pp. Supervised by Chibale, K.

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Wewers, F.P. 2012. Transition metal complexes of bis(diphenylphosphino)methane, dithizone and dithiolenes: structural, spectroscopic, electrochemical and computational studies. 214pp. Supervised by Hutton, A.T.

Zheng, F. 2012. Olefin oligomerization reactions: theoretical studies using cyclometallated palladium(II) catalysts and experimental studies on platinum(II) analogues. 218pp. Supervised by Moss, J.R., Hutton A.T., Mapolie, S.F. and van Sittert, C.G.C.E.

Master's degrees (by research)

Adams, M. 2012. Mono- and multinuclear PGM complexes containing thiosemicarbazones: synthesis, characterisation and antiplasmodial evaluation. MSc. 127pp. Supervised by Smith, G.S. and Chibale, K.

Bowden, G.D. 2012. Novel acyclic nucleotide phosphonates against RNA viruses. MSc. 115pp. Supervised by Hunter, R.

Matsinha, L.C. 2012. Design, synthesis and characterisation of water-soluble ruthenium arene complexes and their evaluation as aqueous biphasic hydroformylation catalysts. MSc. 98pp. Supervised by Smith, G.S. and Mapolie, S.F.

Nengwekhulu, T.M. 2012. Computer simulations of a chromatographic column used in the separation of platinum group metal chlorinated complexes. MSc. 95pp. Supervised by Naidoo, K.J. and Venter, G.A.

Department of Computer Science

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR SONIA BERMAN

Departmental Profile

The Department's main research themes are Information and Communication Technology for Development (ICT4D) and High Performance Computing(HPC). ICT4D is a multi-disciplinary field which looks at the design and creation of computer systems for the developing world. These systems could cover any sub-discipline of computing, such as the Internet of Things, virtual environments, security, interaction design, artificial intelligence and information retrieval. However they differ in that design constraints for the developing world are different: power is limited, networks scarce, users can be illiterate, etc. ICT4D deals with the creation of ICT solutions that address defined developmental and social challenges like education, medical care, identity and human dignity. High Performance Computing is an enabling technology that seeks to improve the performance of computing applications. For example, a carbohydrate simulation might be reduced from years to months, or digital 3D content produced in real time rather than requiring minutes to generate. A major theme of this HPC research is improving the speed of discipline-specific computational solutions.

The Department has two research centres and several research laboratories. The Collaborative Visual Computing Laboratory works in five main areas: procedural modelling, geometric compression, graphical simulation, virtual environments and computer games. The Digital Libraries Laboratory covers information storage and retrieval, including multilingual retrieval and cultural heritage

preservation. The High Performance Computing Laboratory applies GPU programming and high throughput computing to areas such as scientific computing, visualisation and information retrieval, particularly in the domains of cultural heritage, radio astronomy and computational chemistry. The Intelligent Systems and Advanced Telecommunications Laboratory focuses on wireless sensor networks; and the Network and Information Security Laboratory on algorithms and systems for safe and secure information access.

ICT is an enabling technology, and thus highly cross-disciplinary. The UCT Centre in ICT for Development seeks to design, create and evaluate technologies that address the needs of the developing world, and to study the impacts of existing technology. This centre also includes staff from diverse UCT departments, such as Civil Engineering and Film and Media. It is closely associated with the Hasso-Plattner Research School in ICT for Development, through which the Hasso-Plattner Institute (Germany) funds African PhD students working in ICT for Development. The Samsung Mobile Innovation Lab is a joint Information Systems – Computer Science unit. The Telkom-Siemens Centre of Excellence in ATM and Broadband Networks and their Applications includes UCT's Communications Group Laboratory in Electrical Engineering and the Departments of Computer Science at UCT and at Stellenbosch University.

Departmental Statistics

Permanent Staff

Professors	2
Associate Professors	4
Senior Lecturers	6
Administrative & Support Staff	6
Total	18

Adjunct & Honorary Staff

Adjunct Professors	1
Honorary Professors	1
Total	2

Students

Postdoctoral	1
Doctoral	24
Master's	85
Honours	40
Undergraduate	1005
Total	1155

Research Fields and Staff

Permanent Academic Staff

DR ANTOINE BAGULA
Traffic Engineering; Network Engineering; Network Security; Internet of Things

ASSOCIATE PROFESSOR SONIA BERMAN
Head of Department; Data management

PROFESSOR EDWIN BLAKE
ICT for Development; Human-Computer Interaction; User Experience in Games and Virtual Environments

ASSOCIATE PROFESSOR JAMES GAIN
Computer Graphics; High Performance Computing; Visualisation

DR ANNE KAYEM
Information Security

ASSOCIATE PROFESSOR MICHELLE KUTTEL
Computational Science; Parallel Processing; Scientific Visualisation and Design

DR HANH LE
Networks; Distributed Computing

DR PATRICK MARAIS
Computer Graphics; Image Processing, GPU Computing

PROFESSOR GARY MARSDEN
Mobile Interaction Design; ICT for Development

DR AUDREY MBOGHO
Human Language Technologies; e-Health; Intelligent Systems and User Interfaces

DR GEOFF NITSCHKE
Artificial Intelligence; Co-evolution; Robotics

ASSOCIATE PROFESSOR HUSSEIN SULEMAN
Digital Libraries; Information Retrieval; Internet technology; High Performance Computing; Computer Science Education

Administrative and Support Staff

MRS SALEGGA VALLEY
Administrative Officer

MRS EVE GILL
Administrative Assistant

MRS THELMA JENNEKER
Senior Secretary

MS BERNIE SAM
Departmental Assistant

MR ADEMOLA ADEKAYODE
Computer Systems Administrator

MR CRAIG BALFOUR
Computer Systems Administrator

Postdoctoral Fellows

DR BRUCE MERRY
Computer Graphics

Adjunct and Honorary Professors

HONORARY PROFESSOR JUDITH BISHOP
Software Engineering; Programming Languages; Distributed Systems

ADJUNCT PROFESSOR ANDREW HUTCHISON
Information Security

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Research Output

Chapters in books

Adamatzky, A., Akl, S., Alonso-Sanz, R., Van Dessel, W., Zuwairie, I., Ilachinski, A., Jones, J., Kayem, A., Martinez, G.J., de Oliveira, P.P.B., Prokopenko, M., Schubert, T., Sloot, P.M.A., Strano, E. and Yang, X. 2012. Biorationality of motorways. In A. Adamatzky (ed.), Bioevaluation of World Transport Networks. Singapore: World Scientific Publishing Co Pty Ltd. ISBN 978981440703.

Dray, S., Light, A., Dearden, A., Evers, V., Densmore, M., Ramachandran, D., Kam, M., Marsden, G., Sambasivan, N., Smyth, T., van Greunen, D. and Winters, N. 2012. Human-computer interaction for development: changing human-computer interaction to change the world. In J.A. Jacko (ed.), The Human-Computer Interaction Handbook. 3rd edition. USA: CRC Press Taylor & Francis. ISBN 9781439829431.

Kayem, A., Martin, P. and Akl, S. 2012. Self-protecting access control: on mitigating privacy violations with fault tolerance. In G.O.M. Yee (ed.), Privacy Protection Measures and Technologies in Business Organizations: Aspects and Standards. USA: IGI Global. ISBN 9781613505014.

Kayem, A. and Adamatzky, A. 2012. Trans-African highways. In A. Adamatzky (ed.), Bioevaluation of World Transport Networks. Singapore: World Scientific Publishing Co Pty Ltd. ISBN 978981440703.

Merry, B. 2012. Performance tuning for tile-based architectures. In P. Cozzi and C. Riccio (eds), OpenGL Insights. CRC Press. ISBN 9781439893760.

Articles in Peer-reviewed Journals

Bagula, A.B., Zennaro, M., Inggs, G., Scott, S. and Gascon, D. 2012. Ubiquitous sensor networking for development (USN4D): an application to pollution monitoring. Sensors, 12(1): 391-414.

Eicher, A., Marais, P.C., Warton, C.M.R., Jacobson, S.W., Jacobson, J.L., Molteno, C.D. and Meintjes, E.M. 2012. A heuristic image search algorithm for active shape model segmentation of the caudate nucleus and hippocampus in brain MR images of children with FASD. South African Computer Journal, 49: 35-53.

Kuttel, M., Ravenscroft, N., Foschiatti, M., Cescutti, P. and Rizzo, R. 2012. Conformational properties of two exopolysaccharides produced by inquilinus limosus, a cystic fibrosis lung pathogen. Carbohydrate Research, 350: 40-48.

Marais, P.C., Kenwood, J., Smith, K., Kuttel, M. and Gain, J.E. 2012. Efficient compression of molecular dynamics trajectory files. Journal of Computational Chemistry, 33: 2131-2141.

Marsden, G., Cutrell, E., Jones, M., Nanavati, A. and Rajput, N. 2012. Making technology invisible in the developing world. Computer, 45(4): 82-85.

Mugwanya, R., Marsden, G., Ng'ambi, D. and Traxler, J. 2012. Using a participatory action research approach to design a lecture podcasting system. International Journal of Mobile and Blended Learning, 4(2): 67-86.

Ponjou Tasse, F., Gain, J.E. and Marais, P.C. 2012. Enhanced texture-based terrain synthesis on graphics hardware. Computer Graphics Forum, 31(6): 1959-1972.

Winschiers, H., Bidwell, N. and Blake, E.H. 2012. Altering participation through interactions and reflections in design. CoDesign-International Journal of CoCreation in Design and the Arts, 8(2-3): 163-182.

Winschiers, H., Bidwell, N. and Blake, E.H. 2012. Community consensus: design beyond participation. Design Issues, 28(3): 89-100.

Peer-reviewed published conference proceedings

Boyinbode, O., Bagula, A.B. and Ng'ambi, D. 2012. A mobile learning application for delivering educational resources to mobile devices. In C.A. Shoniregun and G.A. Akmayeva (eds), International Conference on Information Society (i-Society 2012) Proceedings, 25-28 June 2012, London, UK. UK: Infonomics Society. ISBN 9781908320056.

Boyinbode, O., Bagula, A.B. and Ng'ambi, D. 2012. An interactive mobile learning system for enhancing learning in higher education. In I.A. Sanchez and P. Isaias (eds), Proceedings of the IADIS International Conference Mobile Learning 2012, 11-13 March 2012, Berlin, Germany. Berlin, Germany: IADIS Press. ISBN 9789728939663.

Brown, D., Marsden, G. and Rivett, U.K. 2012. Water Alert! Using mobile phones to improve community perspective on drinking water quality in South Africa. In M.L. Best and E. Zegura (eds), Proceedings of the Fifth International Conference on Information Technologies and Development (ICTD2012), 12-15 March 2012, Atlanta, USA. USA: ACM. ISBN 9781450310451.

Chepken, C., Mugwanya, R., Marsden, G. and Blake, E.H. 2012. ICTD interventions: trends over the last decade. In M.L. Best and E. Zegura (eds), Proceedings of the Fifth International Conference on Information Technologies and Development (ICTD2012), 12-15 March 2012, Atlanta, USA. USA: ACM. ISBN 9781450310451.

Crumley, Z., Marais, P.C. and Gain, J.E. 2012. Voxel-space shape grammars. Proceedings of the 20th International Conference on Computer Graphics, Visualization and Computer Vision (WSCG 2012), 26-28 June 2012, Plzen, Czech Republic. Czech Republic: Vaclav Skala - Union Agency. ISBN 9788086943794.

Evers, V., Brewster, S., Lazar, J., Liu, Z., Marsden, G., Prates, R.O. and Nijboer, F. 2012. Changing requirements to HCI funding: a global perspective. ACM Annual Conference Extended Abstracts on Human Factors in Computing Systems Extended Abstracts (CHI EA '12), 5-10 May 2012, USA. USA: The Association for Computing Machinery (ACM). ISBN 978-1-4503-1016.

Falola, O., Osunmakinde, I. and Bagula, A.B. 2012. A comparative drivability analysis for autonomous robots in underground mines using the entropy and SRM models. In H. Gelderblom and H. Lotriet (eds), Proceedings of South African Institute for Computer Scientists and Information Technologists (SAICSIT) 2012 (SAICSIT 2012), 1-3 October 2012, Centurion, South Africa. Pretoria, South Africa: ACM. ISBN 9781450313087.

Jensen, K.L., Marsden, G., Cutrell, E., Jones, M. and Morrison, A. 2012. NUIs for new worlds:new interaction forms and interfaces for mobile applications in developing countries. ACM Annual Conference Extended Abstracts on Human Factors in Computing Systems Extended Abstracts (CHI EA '12), 5-10 May 2012, USA. USA: The Association for Computing Machinery (ACM). ISBN 978145031016.

Havenga, M., Williams, K. and Suleman, H. 2012. Motivating users to build heritage collections using games on social networks. In H.-H. Chen and C.G. Chowdhury (eds), Proceedings of the 14th International Conference on Asia-Pacific Libraries, ICADL 2012. The Outreach of Digital Libraries: A Globalized Resource Network, 12-15 November 2012, Taipei, Taiwan. Taiwan: Springer. ISBN 9783642347511.

Kayem, A., Desai, A. and Hammar, S. 2012. On anonymizing social network graphs. In H.S. Venter, M. Loock and M. Coetzee (eds), Proceedings of the 2012 Information Security for South Africa (ISSA 2012) Conference, 15-17 August 2012, Johannesburg, South Africa. USA: IEEE. ISBN 978-1-4673-2159-4.

Kivaisi, A. and Mbogho, A. 2012. Web-based corpus acquisition for Swahili language modelling. In P. Nocera and E. Barnard (eds), Proceedings of the 3rd International Workshop on Spoken Language Technologies for Under-resourced Languages (SLTU'12), 7-9 May 2012, Cape Town, South Africa. SA: CSIR. ISBN 978186822615.

Machaka, P., Bagula, A.B. and de Wet, N. 2012. A highly scalable monitoring tool for wi-fi networks. Proceedings of the 2012 IEEE 1st International Symposium on Wireless Systems within the Conferences on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS-SWS'12), 20-21 September 2012, Offenburg, Germany. Germany: IEEE. ISBN 9781467346771.

Mafuta, M., Zennaro, M., Bagula, A.B., Ault, G., Gombachika, H. and Chadza, T. 2012. Successful deployment of a wireless sensor network for precision agriculture in Malawi. In J. Ueyama, D. Hughes and K. Lee (eds), Proceedings 2012 IEEE 3rd International Conference on Networked Embedded Systems for Every Application (NESEA 2012), 13-14 December 2012, Liverpool, UK. UK: IEEE. ISSN 9781467347235.

Masinde, E., Zeba, N. and Bagula, A.B. 2012. Extending the power of mobile phone using service oriented computing. In N. Venkatasubramanian, V. Getov and S. Steglich (eds), Proceedings of Mobilware Wireless Middleware, Operating Systems, and Applications. 4th International ICST Conference, Mobilware 2011, 22-24 June 2011, London, UK. UK: Springer. ISBN 9783642306068.

Masinde, E., Bagula, A.B. and Muthama, N. 2012. The role of ICTs in downscaling and up-scaling integrated weather forecasts for farmers in sub-Saharan Africa. In M.L. Best and E. Zegura (eds), Proceedings of the Fifth International Conference on Information Technologies and Development (ICTD2012), 12-15 March 2012, Atlanta, USA. USA: ACM. ISBN 9781450310451.

Mkhwanazi, X., Le, H. and Blake, E.H. 2012. Clustering between data mules for better message delivery. In L. Barolli, T. Enokido, F. Xhafa and M. Takizawa (eds), Proceedings of 26th IEEE International Conference on Advanced Information Networking and Applications Workshops (WAINA 2012), 26-29 March 2012, Fukuoka, Japan. USA: IEEE. ISBN 9780769546520.

Mohamed Nour, M., Williams, K. and Suleman, H. 2012. Evaluating simple repository deposit for open educational resources. In H.-H. Chen and G. Chowdhury (eds), Proceedings of the 14th International Conference on Asia-Pacific Libraries, ICADL 2012. The Outreach of Digital Libraries: A Globalized Resource Network, 12-15 November 2012, Taipei, Taiwan. Taiwan: Springer. ISBN 9783642347511.

Mugwanya, R., Marsden, G. and Traxler, J. 2012. Pragmatic podcasting: facilitating podcasting in developing HEIs. In I.A. Sanchez and P. Isaias (eds), Proceedings of the IADIS International Conference Mobile Learning 2012, 11-13 March 2012, Berlin, Germany. Berlin, Germany: IADIS Press. ISBN 9789728939663.

Mvumbi, T., Kundaeli, F., Manzi, Z., Williams, K. and Suleman, H. 2012. An online meeting tool for low bandwidth environments. In H. Gelderblom and H. Lotriet (eds), Proceedings of South African Institute for Computer Scientists and Information Technologists (SAICSIT) 2012 (SAICSIT 2012), 1-3 October 2012, Centurion, South Africa. Pretoria, South Africa: ACM. ISBN 9781450313087.

Nel, M., Williams, K. and Suleman, H. 2012. Evaluating large image support for DSpace. In H.-H. Chen and G. Chowdhury (eds), Proceedings of the 14th International Conference on Asia-Pacific Libraries, ICADL 2012. The Outreach of Digital Libraries: A Globalized Resource Network, 12-15 November 2012, Taipei, Taiwan. Taiwan: Springer. ISBN 9783642347511.

Paihama, J., Williams, K. and Suleman, H. 2012. Assessing the design of web interoperability protocols. In H. Gelderblom and H. Lotriet (eds), Proceedings of South African Institute for Computer Scientists and Information Technologists (SAICSIT) 2012 (SAICSIT 2012), 1-3 October 2012, Centurion, South Africa. Pretoria, South Africa: ACM. ISBN 9781450313087.

Phiri, L., Williams, K., Robinson, M., Hammar, S. and Suleman, H. 2012. Bonolo: a general digital library system for file-based collections. In H.-H. Chen and G. Chowdhury (eds), Proceedings of the 14th International Conference on Asia-Pacific Libraries, ICADL 2012. The Outreach of Digital Libraries: A Globalized Resource Network, 12-15 November 2012, Taipei, Taiwan. Taiwan: Springer. ISBN 9783642347511.

Reitmaier, T., Bidwell, N., Siya, M., Marsden, G. and Tucker, W. 2012. Communicating in designing an oral repository for rural African villages. In P. Cunningham and M. Cunningham (eds), Proceedings of IST-Africa 2012 Conference Proceedings, 9-11 May 2012, Dar es Salaam, Tanzania. Pretoria: IST-Africa 2012. ISBN 9781905824342.

Rieke, R., Coppolino, L., Hutchison, A., Prieto, E. and Gaber, C. 2012. Security and reliability requirements for advanced security event management. In I. Kotenko and V. Skormin (eds), Proceedings 6th International Conference on Mathematical Methods, Models and Architectures for Computer Network Security, MMM-ACNS 2012, 17-19 October 2012, St Petersburg, Russia. Heidelberg: Springer. ISBN 9783642337031.

Robinson, S., Vartiainen, E., Jones, M. and Marsden, G. 2012. Picotales: collaborative authoring of animated stories using handheld projectors. Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work (CSCW '12), 11-15 February 2012, Seattle, WA, USA. New York, USA: ACM. ISBN 9781450310864.

Schraefel, M.C., Rouncefield, M., Kellogg, W., Ackerman, M., Marsden, G., Bodker, S., Wyche, S. and Reddy, M. 2012. Domain crossing: how much expertise is enough? Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work (CSCW '12), 11-15 February 2012, Seattle, WA, USA. New York, USA: ACM. ISBN 9781450310864.

Sibanda, C. and Bagula, A.B. 2012. Network selection for mobile nodes in heterogeneous wireless networks using knapsack problem dynamic algorithms. Proceedings of Papers. 2012 20th Telecommunications forum (TELFOR 2012), 20-22 November 2012, Belgrade, Serbia. Belgrade: Academic Mind - Belgrade. ISBN 9781467329842.

Ssekakubo, G., Suleman, H. and Marsden, G. 2012. Learning management systems: understanding the expectations of learners in developing countries. In M.B. Nunes and M. McPherson (eds), Proceedings of the IADIS International Conference e-learning 2012, 17-20 July 2012, Lisbon, Portugal. Portugal: IADIS Press. ISBN 9789728939717.

Ssembatya, R. 2012. An access control framework for the protecting mobile health records: the case study of developing countries. In R.A. Botha, P.S. Dowland and S.M. Furnell (eds), Proceedings of the Ninth International Network Conference (INC 2012), 11-12 July 2012, Port Elizabeth. United Kingdom: Plymouth University. ISBN 9781841023151.

Walton, M.N., Hassreiter, S., Marsden, G. and Allen, S. 2012. Degrees of sharing: proximate media sharing and messaging by young people in Khayelitsha. In P. Baudisch et al. (eds), Proceedings of MobileHCI'12. Proceedings of the 14th International Conference on Human Computer Interaction with Mobile Devices and Services, 21-24 September 2012, New York. New York, USA: The Association for Computing Machinery (ACM). ISBN 9781450311052.

Zennaro, M., Bagula, A.B. and Nkoloma, M. 2012. From training to projects: wireless sensor networks in Africa. Proceedings of the 2012 IEEE Global Humanitarian Technology Conference (GHTC 2012), 21-24 October 2012, Seattle, Washington, USA. USA: IEEE Computer Society. ISBN 9780769548494.

Zennaro, M., Pietrosemoli, E., Bagula, A.B. and Nleya, S. 2012. On the relevance of using affordable tools for white spaces identification. Proceedings of 2012 IEEE 8th International Conference on Wireless and Mobile Computing, Networking and Communications (IEEE WiMob 2012), 8-10 October 2012, Barcelona, Spain. Spain: IEEE. ISBN 9781467314299.

Doctoral dissertations

Masinde, E.M.I. 2012. ITIKI: Bridge between African indigenous knowledge and modern science on drought prediction. Supervised by Bagula, A.B.

Master's degrees (by research)

Allen, S.L. 2012. Analyzing the impact of mobile technology on mobile-centric youth in South Africa. Supervised by Marsden, G.

Crumley, Z.P.W. 2012. Voxel-space shape grammars. Supervised by Marais, P.C. and Gain, J.

Erasmus, D.J. 2012. Video quality requirements for South African sign language communications over mobile phones. Supervised by Blake, E.

Fisher, M. 2012. Performance benchmarking physical and virtual linux environments. Supervised by MacGregor, K.J.

Havenga, M.B. 2012. Building heritage collections using games on social networks. Supervised by Suleman, H.

Idowu, M.F. 2012. Evaluation of the usability and usefulness of automatic speech recognition among users in South Africa. Supervised by Mbogho, A.

Isafiade, 0.E. 2012. Drivable region detection for autonomous robots applied to South African underground mining. Supervised by Bagula, A.B.

Joseph, A. 2012. Expert system adjudication of hospital data in HIV disease management. Supervised by Berman, S.

Koletka, R. 2012. An architecture for secure searchable could storage. Supervised by Hutchison, A. M.

Manchip, D.G. 2012. Computer-aided timing training system for musicians. Supervised by Mbogho, A.

Marquard, S.C. 2012. Improving seachability of automatically transcribed lectures through dynamic language modelling. Supervised by Mbogho, A.

Mehta, A. 2012. Cognitive inerference mitigation in wireless sensor networks. Supervised by Bagula, A.B.

Mohamed Nour, M. 2012. An end-to-end solution for complex open educational resources. Supervised by Suleman, H.

Omar, M.Z. 2012. Component-based digital library scalability using clusters. Supervised by Suleman, H.

Paihama, J.K. 2012. Meta-standardisation of interoperability protocols. Supervised by Suleman, H.

Saunder, I.A. 2012. Draggable tag clouds: A dynamic query interface for visual information seeking. Supervised by Marsden, G.

Sharpey-Schafer, K.P. 2012. A simulation model for evaluating national patient record networks in South Africa. Supervised by Suleman, H.

Swanepoel, A.W. 2012. The design of a mobile user interface for an interest rate calculator. Supervised by Marsden, G.

Talbot, M.J. 2012. SHOP-Net: Moving from paper to mobile. Supervised by Marsden, G.

Williams, K.M. 2012. Learning to read bushman: Automatic handwriting recognition for bushman texts. Supervised by Suleman, H.

Department of Environmental and Geographical Science

(Including the Environmental Evaluation Unit)

HEAD OF DEPARTMENT: PROFESSOR MICHAEL E. MEADOWS

Departmental Profile

Major research themes covered by staff in the department reflect the interaction between humans and their environment and the variability of this environment, and the dynamic socio-economic and political conditions affecting society as a whole. Members of staff in the department draw empirical evidence from Africa to explore and engage these themes at various scales ranging from the global to the national, while also paying attention to specific challenges of reconstruction and development in South Africa. Much of the current research is focused on climate change, adaptation and modelling; ecology and society; environmental impact assessment; Quaternary palaeoenvironments, geomorphology and remote sensing; theories, policies and practices in natural resource governance and management; biodiversity conservation and benefit sharing; and urban theory, policy and planning.

The department has ongoing research initiatives and collaboration with dozens of institutions that are spread across six continents. It has strong working relationships with institutions in five countries in Africa (Botswana, Kenya, Liberia, Mozambique, and Tanzania); five countries in Asia (China, India, Indonesia, Japan and Sri Lanka); eight countries in Europe (France, Germany, Ireland, Italy, Netherlands, Spain, Sweden and United kingdom); two countries in North America (Canada and the United States); and one country in South America (Brazil).

The Environmental Evaluation Unit was established as an independent professional consulting, research and training unit within the Department of Environmental and Geographical Science in 1985, based at the University of Cape Town. During the past 20 years, the EEU has completed over 150 consulting assignments and projects for private, institutional and government clients. The EEU has established itself as a centre of excellence in the field of environmental management, sustainable development, and natural resource management in Africa, particularly within the SADC region (projects have been completed in South Africa, Botswana, Namibia, Mozambique, Lesotho, Swaziland and the Seychelles).

Departmental Statistics

Permanent and Long-term Contract Staff

Professors	3
Associate Professors	4
Senior Lecturers	4
Lecturers	4
Research Staff	19
Research Associates	2
Administrative & Support Staff	12
Total	48

Emeritus & Honorary Staff

Honorary Professors	3
Emeritus Staff	2
Total	5

Students

Postdoctoral	7
Doctoral	39
Master's	73
Honours	22
Undergraduate	1034
Total	1175

Research Fields and Staff

Permanent Academic Staff

DR BABATUNDE ABIODUN
Lecturer; Atmospheric Science, Climatology

DR PIPPIN ANDERSON
Lecturer; Postgraduate co-ordinator

DR SHARI DAYA
Lecturer; Gender, Modernity

DR FRANK ECKARDT
Senior Lecturer; Geomorphology, Remote Sensing

PROFESSOR BRUCE HEWITSON
Chair in Climate Change
Atmospheric Science, Climatology

DR RICHARD HILL
Senior Lecturer; Environmental Assessment and Management

DR PETER JOHNSTON
Research Officer; Seasonal Forecasting Applications; Climate Change

PROFESSOR MIKE MEADOWS
Head of Department; Quaternary Environmental Change

ASSOCIATE PROFESSOR SOPHIE OLDFIELD
Political and Economic Geography

PROFESSOR SUE PARNELL
Urban Studies, Historical Geography

DR ZARINA PATEL
Senior Lecturer; Environmental governance and politics

ASSOCIATE PROFESSOR MAANO RAMUTSINDELA
Political Geography, Transnational Regionalism

ASSOCIATE PROFESSOR MERLE SOWMAN
Environmental Planning and Management, Coastal and Small-Scale Fisheries Management

DR KEVIN WINTER
Lecturer; Environmental Management, Water Resources, Monitoring and Evaluation

ASSOCIATE PROFESSOR RACHEL WYNBERG
SARChI Chair in Environmental and Social Dimensions of the Bio-economy Biodiversity and Social Justice, Commercial Use of Biodiversity, Access and Benefit Sharing; Genetic Resources for Food and Agriculture

DR GINA ZIERVOGEL
Senior Lecturer; Vulnerability and Adaptation

Long-term Contract Staff

DR MARIA HAUCK
Coastal and Small-Scale Fisheries Management

Contract Research Staff

MS LISA COOP
Research Assistant; Climate Data Analysis

MR CHIMANGO HARA
Intern; Environmental Law

MS PHILILE NONHLANHLA MBATHA
Junior Researcher; Coastal and Marine Management

DR BRADLEY RINK
Human Geography

MS KIRSTEN SCOTT
Research Assistant; EIA, Social Scoping Reports

MS ANNA STEYNOR
Research Associate; Stakeholder Engagement

MS JACKIE SUNDE
Research Assistant; Fisheries

MS KATE SUTHERLAND
Research Assistant; Climate Data Analysis

MS MATHILDA JACI VAN NIEKERK
Research Assistant; Biodiversity and Social Justice, Commercial Use of Biodiversity, Access and Benefit Sharing

MS RUWANI WALAWEGE
Research Assistant; Climate Data Analysis

DR PIOTR WOLSKI
Senior Researcher; Hydrology

Administrative and Support Staff

MRS SHARON ADAMS
Administrative Officer

MR ALDINO ARENDSE
Administrative and Financial Co-ordinator

MRS SHARON BARNARD
Administrative Assistant

MR ROGER DUFFETT
IT Manager

MR TONY GEORGE
Library Assistant

MS FAHDELAH HARTLEY
Senior Secretary

MR SAYED HESS
Laboratory Departmental Assistant

MR CHRIS JACK
Senior Scientific Technical Officer

MS VUYOKAZI MAFUNYA
Administrative Assistant

MR PHILLIP MUKWENHA
IT Assistant

MRS SHAADA REDDY
Librarian

MS SHAHIEDA SAMSODIEN
Senior Secretary

Postdoctoral Fellows

DR OLIVIER CRESPO
Agricultural and Water Research Modelling

DR JOSEPH DARON
Climate uncertainties and adaptation

DR CHRIS LENNARD
Atmospheric Science

DR NEIL MACKELLAR
Climate and Land-cover Change

DR KABIRI NGETA
Environmental Governance for Social Justice

DR KAZEEM OARE OKOSUN
Epidemiological modelling and climate impact

DR SERGE RAEMAEKERS
Small-scale Fisheries Governance

Honorary Professors

PROFESSOR JOHN BOARDMAN
Soil Erosion, Land Degradation

PROFESSOR JONATHAN CRUSH
International Migration, Transnationalism

PROFESSOR DAVE THOMAS
Arid Zone Geomorphology, Quaternary Science

Research Associates

DR LAURENCE NATHAN
DR DAVID FIG

Emeritus Staff

PROFESSOR RON DAVIES
PROFESSOR RICHARD FUGGLE

Contact Details

Postal address: Department of Environmental and Geographical Science, University of Cape Town, Private Bag X3, Rondebosch, 7701
Telephone: SA (21) 650 2873/4
Fax: SA (21) 650 3456

Research output

Edited books

Cartwright, A., Parnell, S., Oelofse, G. and Ward, S. (eds) 2012. Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town. 270pp. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Frayne, G.B., Moser, C. and Ziervogel, G. (eds) 2012. Climate Change, Assets and Food Security in Southern African Cities. 197pp. Abingdon, Oxon: Earthscan. ISBN 9780415696043.

Holmes, P.J. and Meadows, M.E. (eds) 2012. Southern African Geomorphology: Recent Trends and New Directions. 420pp. Bloemfontein: Sun Press. ISBN 9781920382025.

Chapters in books

Battersby-Lennard, J.E. 2012. Size matters: land restitution in Knysna. In R. Donaldson and L.Marais (eds), Small Town Geographies in Africa: Experiences from South Africa and Elsewhere, pp. 311-326. New York: Nova Science Publishers, Inc. U.S.A. ISBN 9781621000013.

Battersby-Lennard, J.E. 2012. Urban food security and climate change: a system of flows. In B. Frayne, C. Moser, and G. Ziervogel (eds), Climate Change, Assets and Food Security in Southern African Cities, pp. 35-56. Abingdon, Oxon: Earthscan. ISBN 9780415696043.

Cartwright, A., Oelofse, G., Parnell, S. and Ward, S. 2012. Climate at the city scale: the Cape Town climate think tank. In A. Cartwright, S. Parnell, G. Oelofse, and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 1-8. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Cartwright, A., Parnell, S. and Oelofse, G. 2012. Emerging lessons from the climate change think tank. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 263-270. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Eckardt, F., Barker, C.H. and Meadows, M.E. 2012. Landscape inventories and remote sensing. In P. Holmes, and M. Meadows (eds), Southern African Geomorphology: Recent Trends and New Directions, pp. 373-399. Bloemfontein: Sun Press. ISBN 9781 920382025.

Fig, D. 2012. Scientific, environmental and agricultural collaboration within the IBSA dialogue forum, 2003-2010. In S. Patel and T. Uys (eds), Contemporary India and South Africa: Legacies, Identities, Dilemmas, pp. 291-311. India: Routledge (Taylor & Francis Group). ISBN 9780415522991.

Frayne, G.B., Moser, C. and Ziervogel, G. 2012. Constructing the climate change-asset adaptation-food security nexus for pro-poor urban development. In B. Frayne, C. Moserand and G. Ziervogel (eds), Climate Change, Assets and Food Security in Southern African Cities, 186-197. Abingdon, Oxon: Earthscan. ISBN 9780415696043.

Frayne, G.B., Moser, C. and Ziervogel, G. 2012. Understanding the terrain: the climate change, assets and food security nexus in southern African cities. In B. Frayne, Moser, and G. Ziervogel (eds), Climate Change, Assets and Food Security in Southern African Cities, pp. 1-34. Abingdon, Oxon: Earthscan. ISBN 9780415696043.

Harris, R., Luger, S., Sutherland, C. and Tadross, M.A. 2012. Potential impact of climate change on coastal flooding: a case study of the Salt River, Cape Town. In A. Cartwright, S. Parnell, G. Oelofse, and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. pp. 38-72. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Harris, R. and Parnell, S. 2012. The turning point in urban policy for British colonial Africa, 1939-1945. In F. Demissie (ed.), Colonial Architecture and Urbanism in Africa: Intertwined and Contested Histories, pp. 127-151. Surrey, England: Ashgate Publishing. ISBN 9780754675129.

Meadows, M.E. 2012. Landscapes and environmental change. In P. Holmes and M. Meadows (eds), Southern African Geomorphology: Recent Trends and New Directions, pp. 331-350. Bloemfontein: Sun Press. ISBN 9781920382025.

Oguntunde, P.G. and Abiodun, B.J. 2012. Analysis of trend and periodicity in long-term annual rainfall time series of Nigeria. In D. Machiwal and M.K. Jha (eds), Hydrologic Time Series Analysis: Theory and Practice, pp. 249-272. Dordrecht: Springer. ISBN 9789400718609.

Tadross, M.A., Taylor, A. and Johnston, P.A. 2012. Understanding Cape Town's climate. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward S (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 9-20. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Thomas, D., Twyman, C., Osbahr, H. and Hewitson, B.C. 2011. Adaptation to climate change and variability: farmer responses to intra-seasonal precipitation trends in South Africa. In C.J.R. Williams and D.R. Kniveton (eds), African Climate And Climate Change: Physical, Social and Political Perspectives, pp. 155-178. Dordrecht: Springer Science and Business Media B.V.ISBN 9789048138418.

Ziervogel, G. and Parnell, S. 2012. South African coastal cities: governance responses to climate change adaptation. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 223-243. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Articles in Peer-reviewed Journals

Abiodun, B.J., Adeyewa, Z.D., Oguntunde, P.G., Salami, A.T. and Ajayi, V.O. 2012. Modeling the impacts of reforestation on future climate in West Africa. Theoretical and Applied Climatology, 110: 77-96.

Anderson, P.M.L. and O'Farrell, P.J. 2012. An ecological view of the history of the City of Cape Town. Ecology and Society, 17(3): 28.

Anderson, P.M.L. and Elmqvist, T. 2012. Urban ecological and social-ecological research in the City of Cape Town: insights emerging from an urban ecology city lab. Ecology and Society, 17(4): 23.

Atkinson, O.A.C., Thomas, D.S.G., Goudie, A.S. and Parker, A.G. 2012. Holocene development of multiple dune generations in the northeast Rub'al-Khali, United Arab Emirates. Holocene, 22(2): 179-189.

Baleta, H. and McDonnell, R. 2012. Water quality standards or carbon reduction: is there a balance? Area, 44(2): 217-225.

Battersby-Lennard, J.E. 2012. Beyond the food desert: finding ways to speak about urban food security in South Africa. Geografiska Annaler Series B-Human Geography, 94(2): 141-159.

Bradley, B.A., Estes, L.D., Hole, D.G., Holness, S., Oppenheimer, M., Turner, W.R., Beukes, H., Schulze, R.E., Tadross, M.A. and Wilcove, D.S. 2012. Predicting how adaptation to climate change could affect ecological conservation: secondary impacts of shifting agricultural suitability. Diversity and Distributions, 18: 425-437.

Burrough, S.L., Thomas, D.S.G., Bailey, R. and Davies, L. 2012. From landform to process: morphology and formation of lake-bed barchan dunes, Makgadikgadi, Botswana. Geomorphology, 161-162: 1-14.

Chase, B.M., Scott, L., Meadows, M.E., Gil-Romera, G., Boom, A., Carr, A.S., Reimer, P.J., Truc, L., Valsecchi, V. and Quick, L. 2012. Rock hyrax middens: a palaeoenvironmental archive for southern African drylands. Quaternary Science Reviews, 56: 107-125.

Crush, J., Chikanda, A. and Pendleton, W. 2012. The disengagement of the South African medical diaspora in Canada. Journal of Southern African Studies, 38(4): 927-949.

Daya, S. and Ramdeo Authar, R. 2012. Self, others and objects in an 'alternative economy': personal narratives from the Heiveld Rooibos Cooperative. Geoforum, 43: 885-893.

Farrell, L.A.F., Hamann, R. and Mackres, E.B.M. 2012. A clash of cultures (and lawyers): Anglo Platinum and mine-affected communities in Limpopo Province, South Africa. Resources Policy, 37: 194-204.

Favre, A., Hewitson, B.C., Tadross, M.A., Lennard, C. and Cerezo-Mota, R. 2012. Relationships between cut-off lows and the semiannual and southern oscillations. Climate Dynamics, 38: 1473-1487.

Foster, I.D.L., Rowntree, K., Boardman, J. and Mighall, T. 2012. Changing sediment yield and sediment dynamics in the Karoo uplands, South Africa: post-European impacts. Land Degradation & Development, 23: 508-522.

Halladay, K., Malhi, Y. and New, N. 2012. Cloud frequency climatology at the Andes/Amazon transition: 1. Seasonal and diurnal cycles. Journal of Geophysical Research-Atmospheres, 117: D23102.

Halladay, K., Malhi, Y. and New, N. 2012. Cloud frequency climatology at the Andes/Amazon transition: 2. Trends and variability. Journal of Geophysical Research-Atmospheres, 117: D23103.

Kaseke, K.F., Mills, A.J., Brown, R., Esler, K.J., Henschel, J. and Seely, M.K. 2012. A method for direct assessment of the 'non rainfall' atmospheric water cycle: input and evaporation from the soil. Pure and Applied Geophysics, 169: 847-857.

Kaseke, K.F., Mills, A.J., Esler, K., Henschel, J., Seely, M.K. and Brown, R. 2012. Spatial variation of "non-rainfall" water input and the effect of mechanical soil crusts on input and evaporation. Pure and Applied Geophysics, 169: 2217-2229.

Kaseke, K.F., Mills, A.J., Henschel, J., Seely, M.K., Esler, K. and Brown, R. 2012. The effects of desert pavements (gravel mulch) on soil micro-hydrology. Pure and Applied Geophysics, 169: 873-880.

Meadows, M.E. 2012. Quaternary environments: going forward, looking backwards? Progress in Physical Geography, 36(4): 539-547.

Meadows, M.E. 2012. The doctoral degree in geography: a South African perspective. Journal of Geography in Higher Education, 36(1): 49-55.

Mighall, T., Foster, I.D.L., Rowntree, K. and Boardman, J. 2012. Reconstructing recent land degradation in the semi-arid Karoo of South Africa: a palaeoecological study at Compassberg, Eastern Cape. Land Degradation & Development, 23: 523-533.

Milandri, S., Winter, K.J., Chimphango, S.B., Armitage, N.P., Mbui, D.N., Jackson, G.E. and Liebau, V. 2012. The performance of plant species in removing nutrients from stormwater in biofiltration systems in Cape Town. Water SA, 38(5): 655-662.

Mwalukomo, H. and Patel, Z. 2012. Chieftaincy and democratic local governance in rural South Africa: natural resources management in QwaQwa. Development Southern Africa, 29(2): 259-272.

Nikulin, G., Jones, C., Giorgi, F., Asrar, G., Buchner, M., Cerezo-Mota, R., Christensen, O.B., Deque, M., Fernandez, J., Hansler, A., van Meijgaard, E., Samuelsson, P., Sylla,

M.B. and Sushama, L. 2012. Precipitation climatology in an ensemble of CORDEX-Africa regional climate simulations. Journal of Climate, 25(18): 6057-6078.

O'Farrell, P.J., Anderson, P.M.L., Le Maitre, D.C. and Holmes, P.M. 2012. Insights and opportunities offered by a rapid ecosystem service assessment in promoting a conservation agenda in an urban biodiversity hotspot. Ecology and Society, 17:27.

Oguntunde, P.G., Abiodun, B.J. and Lischeid, G. 2012. Spatial and temporal temperature trends in Nigeria, 1901-2000. Meteorology and Atmospheric Physics, 118: 95-105.

Oguntunde, P.G., Abiodun, B.J., Olukunle, O.J. and Olufayo, A.A. 2012. Trends and variability in pan evaporation and other climatic variables at Ibadan, Nigeria, 1973-2008. Meteorological Applications, 19: 464-472.

Parnell, S. and Robinson, J. 2012. (Re)Theorizing cities from the global south: looking beyond neoliberalism. Urban Geography, 33(4): 593-617.

Philippon, N., Rouault, M., Richard, Y. and Favre, A. 2012. The influence of ENSO on winter rainfall in South Africa. International Journal of Climatology, 32: 2333-2347.

Rahiz, M. and New, N. 2012. Spatial coherence of meteorological droughts in the UK since 1914. Area, 44(4): 400-410.

Ramutsindela, M.F. 2012. Property rights, land tenure and the racial discourses. Geojournal, 77: 753-763.

Ramutsindela, M.F. and Noe, C. 2012. Scalar thickening: wildlife management areas and conservation scales in southeast Tanzania. Singapore Journal of Tropical Geography, 33: 137-151.

Rowlands, D.J., Frame, D.J., Ackerley, D., Aina, T., Booth, B.B.B., Christensen, C., Collins, M., Faull, N., Forest, C.E., Grandey, B.S., Gryspeerdt, E., Highwood, E.J., Ingram, W.J., Knight, S., Lopez, A., Massey, N., McNamara, F., Meinshausen, N., Piani, C., Rosier, S.M., Sanderson, B.M., Smith, L.A., Stone, D.A., Thurston, M., Yamazaki, K., Yamazaki, Y.H. and Allen, M.R. 2012. Broad range of 2050 warming from an observationally constrained large climate model ensemble. Nature Geoscience, 5: 256-260.

Siebrits, R. 2012. Swimming pools and intra-city climates: influences on residential water consumption in Cape Town. Water SA, 38(1): 133-144.

Smit, W. and Parnell, S. 2012. Urban sustainability and human health: an African perspective. Current Opinion in Environmental Sustainability, 4: 443-450.

Stager, J., Mayewski, P., White, J., Chase, B.M., Neumann, F.H., Meadows, M.E., King, C.D. and Dixon, D.A. 2012. Precipitation variability in the winter rainfall zone of South Africa during the last 1400yr linked to the austral westerlies. Climate of the Past, 8: 877-887.

Thomas, D.S.G., Burrough, S.L. and Parker, A.G. 2012. Extreme events as drivers of early human behaviour in Africa? The case for variability, not catastrophic drought. Journal of Quaternary Science, 27(1): 7-12.

Thomas, D.S.G. and Burrough, S.L. 2012. Interpreting geoproxies of late quaternary climate change in African drylands: implications for understanding environmental change and early human behaviour. Quaternary International, 253: 5-17.

Van Niekerk, J. and Wynberg, R.P. 2012. The trade in Pelargonium sidoides: rural livelihood relief or bounty for the 'bio-buccaneers'? Development Southern Africa, 29(4): 530-547.

Wiid, N.J. and Ziervogel, G. 2012. Adapting to climate change in South Africa: commercial farmers' perception of and response to changing climate. South African Geographical Journal, 94(2): 152-173.

Peer-reviewed published conference proceedings

Fisher-Jeffes, L., Carden, K., Armitage, N.P., Spiegel, A.D., Winter, K.J. and Ashley, R. 2012. Challenges facing implementation of water sensitive urban design in South Africa. In proceedings of 7th International Conference on Water Sensitive Urban Design: Building the Water Sensitive Community (WSUD Conference 2012), 21-23 February 2012, Melbourne, Australia. Melbourne: Engineers Australia. ISBN 9780858258952.

Doctoral dissertations

Browne, N. 2012. Model evaluation for seasonal forecasting over southern Africa.110pp. Supervised by Hewitson, B.C.

Master's degrees (by research)

Barrett, L. 2012. An investigation of the rainfall-related and human-induced risk drivers that contributed to acute urban water scarcity: a case study of the urban water scarcity in the George Municipality from 2009-2010. MPhil Disaster Risk Science. 97pp. Supervised by Holloway, A.

Chasi, V. 2012. Tracing the progression of measles outbreak risk: an exploratory and descriptive study of the City of Cape Town, South Africa. MPhil Disaster Risk Science. 183pp. Supervised by Coetzee, D.J. and Holloway, A.

Cooke, K. 2012. Urban food access: a study of the lived experience of food access within a low-income community in Cape Town. MSoc. 170pp. Supervised by Battersby-Lennard, J.E.

Davey, J. 2012. The effects of invasive alien plants on cultural ecosystem services: tourism and recreation. MPhil Environmental Management. 136pp. Supervised by Anderson, P.M.L. and O'Farrell, P.J.

Dhlembeu, R. 2012. Testing the use of the BASINS PLOAD model to simulate the quality of stormwater runoff from the Kuils River catchment, Cape Town. MSc. 118pp. Supervised by Winter, K.J.

Georgeades, D. 2012. Environmental impact assessment follow-up in selected Cape Town case studies as an indicator of effectiveness. MSc. 164pp. Supervised by Hill, R.C.

Greyling, S. 2012. Between the (In)formal and the (Il)legal: the 'permanent temporariness' of waiting for a house. MSocSci. 127pp. Supervised by Oldfield, S.E.

Hove, T. 2012. A survey of South African environmental impact assessment legislation: recording the precautionary principle with retrospective environmental authorisation. MPhil Environmental Management. 79pp. Supervised by Glazewski, J.I.

Hushlak, A. 2012. Integrating traditional ecological knowledge in South Africa's small-scale fisheries: the Olifants Estuary Gillnet Fishery. MPhil in Environmental Management. 133pp. Supervised by Sowman, H.

Israel, A. 2012. The landscape pattern surrounding the Venda sacred site of Thathe forest. MPhil Environmental Management. 102pp. Supervised by Wynberg, R.P.

Kinyanjui, R. 2012. Phytolith analysis as a palaeoecological tool for reconstructing mid-to late-pleistocene environments in the Olorgesailie basin, Kenya. MSc. 130pp. Supervised by Meadows, M.E.

Lowman, M. 2012. The effectiveness of access and benefit-sharing legislation in South Africa: practical considerations for national regimes. MPhil Environmental Management. Supervised by Wynberg, R.P.

Mambo, T., Holloway, A. 2012. An examination of changes in rainfall, streamflow and landcover: a case study of the Kandelaars catchment, Oudtshoorn, South Africa 1926-2008. MPhil Disaster Risk Science. 130pp. Supervised by Anderson, P.M.L.

Marshak, M. 2012. Systems in transition: from waste to resource. A study of supermarket food waste in Cape Town. MSoc. 143pp. Supervised by Battersby-Lennard, J.E.

Moreira Dias, D. 2012. 'Renewed promises: conservation for development in the KAZA, Angola'. MSc. 76pp. Supervised by Ramutsindela, M.F.

Orangio, C. 2012. Barriers to flood risk adaptation: a case study of cross-scale collaboration in the informal settlement of Graveyard pond, Philippi. MSc. 75pp. Supervised by Ziervogel, G.

Rumble, J. 2012. Collaborative environmental governance in agriculture: a case-study from the Breede Valley. MPhil Environmental Management. 120pp. Supervised by Hill, R.C.

Takalani, T.E. 2012. A spatial analysis of the alternative admissions research project at the University of Cape Town, 2000-2005. MSc. 113pp. Supervised by Meadows, M.E.

Van Breda, S. 2012. Improving partnership-based governance for special management areas: lessons from the nuwejaars wetland SMA. MPhil Environmental Management. 123pp. Supervised by Hill, R.C.

Wagsaether, K. 2012. Preparing for the future: assessing the vulnerability of small-scale farmers in Bushbuckridge. MSc. 178pp. Supervised by Ziervogel, G.

Department of Geological Sciences

HEAD OF DEPARTMENT: PROFESSOR STEPHEN RICHARDSON

Departmental Profile

Research in the Department of Geological Sciences covers a wide range of disciplines. The Department has strengths in geochemistry, structural geology and tectonics, igneous and metamorphic petrology, sedimentology, marine geology, economic geology and petroleum geophysics. General research interests include: global tectonics and geodynamics with emphasis on Gondwana geology; oceanic and continental igneous processes and the geochemical evolution of the underlying mantle; kimberlites and the genesis of diamonds; evolution of the Kaapvaal craton and gold genesis; paleoenvironments; marine geoscience and sedimentary geochemistry. Analytical facilities include X-ray fluorescence, X-ray diffraction, electron microprobe, fluid inclusion stage, stable isotope extraction lines and

access to a stable isotope mass spectrometer, quadrupole (single collector) and magnetic sector (multi-collector) inductively coupled plasma mass spectrometers (solution and laser analysis) and associated clean laboratories.

Departmental Statistics

Permanent and long-term contract staff

Professors	3
Associate Professors	2
Senior Lecturers	3
Lecturers	2
Technical Support Staff	13
Administrative & Clerical Staff	2
Total	25

Honorary staff

Honorary Research Associates	2
Emeritus Professors	1

Students

Postdoctoral	1
Doctoral	8
Master's	28
Honours	16
Undergraduate	482
Total	535

Research Fields and Staff

Permanent staff

PROFESSOR STEPHEN RICHARDSON
Head of Department; Isotope geochemistry; geochronology; diamonds; continental mantle evolution.

PROFESSOR ANTON LE ROEX
Dean of Science; Igneous geochemistry; analytical geochemistry; mantle evolution.

PROFESSOR CHRIS HARRIS
Stable isotope geochemistry; igneous petrology.

ASSOCIATE PROFESSOR JOHN COMPTON
Low-temperature and sedimentary geochemistry; marine geology.

ASSOCIATE PROFESSOR DAVID REID
Precambrian crustal evolution and metallogeny; carbonatites; isotope geochemistry.

MR GEORGE SMITH
Senior Lecturer; petroleum geophysics.

DR EMESE BORDY
Senior Lecturer: Sedimentology

DR PHIL JANNEY
Senior Lecturer: Igneous petrology; analytical geochemistry

DR JOHANN DIENER
Lecturer; Metamorphic petrology.

DR AKE FAGERENG
Lecturer; Structural geology.

Honorary staff

EMERITUS PROFESSOR JOHN GURNEY
Upper mantle research, diamonds, diamond exploration and instrumental analysis of minerals

Honorary Research Associates

PROFESSOR HARTWIG FRIMMEL
Metamorphic petrology

DR WENDY TAYLOR
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Research output

Articles in Peer-reviewed Journals

Barker, A.K., Troll, V.R., Ellam, R.M., Hansteen, T.H., Harris, C., Stillman, C.J. and Andersson, A. 2012. Magmatic evolution of the Cadamasto seamount, Cape Verde: beyond the spatial extent of EM1. Contributions to Mineralogy and Petrology, 163: 949-965.

Botha-Brink, J. and Smith, R.M.H. 2012. Paleobiology of triassic procolophonids, inferred from bone microstructure. Comptes Rendus Palevol, 11: 419-433.

Deegan, F.M., Troll, V.R., Barker, A.K., Harris, C., Chadwick, J.P., Carracedo, J.C. and Delcamp, A. 2012. Crustal versus source processes recorded in dykes from the northeast

volcanic rift zone of Tenerife, Canary Islands. Chemical Geology, 334: 324-344.

Diener, J.F.A. and Powell, R. 2012. Revised activity-composition models for clinopyroxene and amphibole. Journal of Metamorphic Geology, 30: 131-142.

Dziggel, A., Diener, J.F.A., Stoltz, N.B. and Kolb, J. 2012. Role of H2O in the formation of garnet coronas during near-isobaric cooling of mafic granulites: the Tasiusarsuaq terrane, southern west Greenland. Journal of Metamorphic Geology, 30: 957-972.

Fagereng, A. 2012. A note on folding mechanisms in the Cape fold felt, South Africa. South African Journal of Geology, 115(2): 137-144.

Grosch, E., Vidal, O., Abu-Alam, T.A. and McLoughlin, N. 2012. P-T constraints on the metamorphic evolution of the Paleoarchean Kromberg type-section, Barberton greenstone belt, South Africa. Journal of Petrology, 53(3): 513-545.

Harte, B.H. and Richardson, S.H. 2012. Mineral inclusions in diamonds track the evolution of a Mesozoic subducted slab beneath west Gondwanaland. Gondwana Research, 21: 236-245.

Le Roex, A.P., Chevallier, L., Verwoerd, W.J. and Barends, R. 2012. Petrology and geochemistry of Marion and Prince Edward islands, southern ocean: magma chamber processes and source region characteristics. Journal of Volcanology and Geothermal Research, 223-224: 11-28.

O'Connor, J.M., Jokat, W., Le Roex, A.P., Class, C., Wijbrans, J.R., Kebling, S., Kuiper, K.F. and Nebel, O. 2012. Hotspot trails in the south Atlantic controlled by plume and plate tectonic processes. Nature Geoscience, 5: 735-738.

Raimondo, T.R., Clark, C., Hand, M.H., Cliff, J.C. and Harris, C. 2012. High-resolution geochemical record of fluid-rock interaction in a mid-crustal shear zone: a comparative study of major element and oxygen isotope transport in garnet. Journal of Metamorphic Geology, 30: 255-280.

Rowe, C.D., Fagereng, A., Miller, J. and Mopani, B.M. 2012. Signature of coseismic decarbonation in dolomitic rocks of the Naukluft thrust, Namibia. Earth and Planetary Science Letters, 333: 200-210.

Saha, L., Hofmann, A.H., Jele, N. and Harris, C. 2012. Palaeoarchaean sea-floor alteration and metamorphism of pillow basalts from the Nondweni greenstone belt, south eastern Kaapvaal craton, South Africa. South African Journal of Geology, 115(3): 259-282.

Troll, V.R., Klugel, A., Longpre, M.A., Burchardt, S.B., Deegan, F.M., Carracedo, J.C., Wiesmaier, S., Kueppers, U., Dahren, B., Blythe, L.S., Hansteen, T.H., Freda, C., Budd, D.A., Jolis, E.M., Jonsson, E., Meade, F.C., Harris, C., Berg, S.E., Mancini, L., Polacci, M. and Pedroza, K. 2012. Floating stones off El Hierro, Canary Islands: xenoliths of pre-island sedimentary origin in the early products of the October 2011 eruption. Solid Earth, 3: 97-110.

Wallace, L.M.W., Fagereng, A. and Ellis, S.E. 2012. Upper plate tectonic stress state may influence interseismic coupling on subduction megathrusts. Geology, 40(10): 895-898.

Zhao, H.Z., Jiang, S.J., Frimmel, H.E., Dai, B.D. and Ma, L.M. 2012. Geochemistry, geochronology and Sr-Nd-Hf isotopes of two mesozoic granitoids in the Xiaoqinling gold district: implication for large-scale lithospheric thinning in the north China craton. Chemical Geology, 294-295: 173-189.

Doctoral dissertations

Razak, N. 2012. An investigation into the effectiveness of a controlled source electromagnetic survey in locating petroleum resources offshore Equatorial Guinea. Supervised by Smith, G.C.

Master's degrees (by research)

Backeberg, N. 2012. Petrogenesis of the False Bay Dyke Swarm, Cape Peninsula, South Africa. MSc. Supervised by Reid, D.

Bergh, E. 2012. A one-year, postfire record of element deposition and cycling in the Kogelberg sandstone fynbos mountain ecosystem of the Western Cape, South Africa. MSc. Supervised by Compton, J.

Faber, C. 2012. Insights into the processes of felsic melt migration through the mid-crust; an integrative approach from the central zone of the Damara belt, Namibia. MSc. Supervised by Diener, J.

Maake, L. 2012. Source of the suspended load, upper Orange river, South Africa. MSc. Supervised by Compton, J. and Rogers, J.

MacHutchon, M. 2012. The geological evolution and sedimentary dynamics of Hout Bay, South Africa. MSc. Supervised by Compton, J.

MacLennan, S. 2012. Structural, geophysical and geochemical characterisation of a Mesoarchean paleosuture zone, Barberton Greenstone Belt, South Africa. MSc. Supervised by de Wit, M.

Ntholi, T. 2012. In situ purification of acid mine drainage using low enthalpy geothermal energy and sulphate reducing bacteria in the abandoned deep gold mines of South Africa. MSc. Supervised by de Wit, M.

Scharf, T.2012. Denudation rates and geomorphological analysis in the Cape fold belt. MSc. Supervised by de Wit, M. and Codilean, A.

Viglietti, P. 2012. Life after extinction: palaeoenvironments of the earliest Triassic lower Katberg formation, including the origin of Lystrosaurus bonebeds from the Karoo Basin, South Africa. MSc. Supervised by Compton, J. and Smith, R.

Department of Mathematics and Applied Mathematics

(Including the Cosmology and Gravity Group, the Laboratory of Foundational Aspects of Computer Science (FACS-Lab), the Marine Resource Assessment and Management Group (MARAM), Industrial Mathematics, and the Topology Research Group)

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR VASCO BRATTKA (UP UNTIL 30 JUNE 2012)

(Acting Head of Department: Professor Hans-Peter Kunzi (as of 01 July 2012)

Departmental Profile

The Department of Mathematics and Applied Mathematics houses a number of research groups and individual activities which, in total, cover a large part of the mathematical spectrum. Examples are: cosmology and relativity, computational and applied mechanics, marine resource assessment and management, rangeland modelling, industrial mathematics, foundational aspects of computer science, topology, category theory, nonlinear mathematical physics, functional analysis, cryptography, string theory, financial mathematics and algebra. The Department has active research collaboration with other groups in the country and abroad. There is a strong postgraduate program, with M.Sc. and Ph.D. students in a variety of fields. A number of staff have NRF A-ratings and B-ratings. The Department has a good technical and administrative infrastructure, and regularly hosts visitors from abroad. More information can be found on the website www.mth.uct.ac.za.

Departmental Statistics

Permanent and long-term contract staff

Professors	8
Associate Professors	4
Senior Lecturers	10
Lecturers (full-time)	14
Senior Scholar	1
Research Staff	3
Technical Support Staff	3
Administrative and Clerical Staff	12
Total	55

Honorary staff

Emeritus Professors	5
Emeritus Associate Professor	1
Visiting Professor and Principal research officer	1
Research Associate	2
Total	9

Students

Postdoctoral	12
Doctoral	35
Master	70
Honours	13
Undergraduate	7476
Total	7606

Research Fields and Staff

Permanent and long-term contract staff

PROFESSOR IGOR BARASHENKOV
Nonlinear waves and solitons; nonlinear dynamics; mathematical physics

PROFESSOR BRUCE BASSETT
Observational and theoretical cosmology; nonlinear optimization. Research astronomer at the South African Astronomy Observatory and senior researcher, African Institute of Mathematical Sciences

PROFESSOR DOUG BUTTERWORTH
Director, Marine Resource Assessment and Management Group (MARAM); particular focus on South African fisheries, northwest Atlantic fisheries, southern bluefin tuna, Antarctic whale and krill resources

PROFESSOR KATHY DRIVER
Special functions, orthogonal polynomials and approximation theory

PROFESSOR PETER DUNSBY
Director of the National Astrophysics and Space Science Programme; Co-Director of the Astrophysics, Cosmology and Gravitation Centre; cosmological perturbations; cosmic microwave background anisotropies; gravitational lensing; inflationary cosmology; cosmological magnetic fields; on-line mathematics education

PROFESSOR GEORGE JANELIDZE
Category theory, Algebra, Topology, Sets and Logic

PROFESSOR HANS-PETER KÜNZI
Topology, orders, categories, combinatorics and their applications in analysis and algebra; particular focus being the theory of asymmetric topology; leader of topology and category theory research group

PROFESSOR DAYA REDDY
South African Research Chair in Computational Mechanics Director, UCT Centre for Research in Computational and Applied Mechanics (CERECAM); mathematical and computational aspects of continuum mechanics; the finite element method

ASSOCIATE PROFESSOR VASCO BRATTKA
Computable Analysis, Effective descriptive set Theory, Algorithmic Randomness

ASSOCIATE PROFESSOR CHRISTOPHER GILMOUR
Pointfree topology and sigma-frames; categorical topology

ASSOCIATE PROFESSOR CHARLES HELLABY
General relativity; cosmology; gravity

ASSOCIATE PROFESSOR ALEXANDAR IANOVSKY
Dynamical systems – finite and infinite dimensions; differential geometric methods in the theory of dynamical systems

DR PETER BRUYNS
Senior Lecturer; group theory; permutation groups

DR CHRISTOPHER CLARKSON
Senior Lecturer; cosmology; gravitational waves; non-linear perturbation theory; braneworlds -black holes; quasi-normal modes

DR JURIE CONRADIE
Senior Lecturer; functional analysis; vector lattices; von Neumann algebras; non-commutative function spaces; mathematics education

DR FRANCOISE EBOBISSE BILLE
Senior Lecturer, calculus of variations; PDE; mathematical and computational aspects of continuum mechanics; the finite element method

DR DAVID ERWIN
Senior Lecturer; classical, applied and algebraic graph theory

DR JOHN FRITH
Senior Lecturer; frame theory; topos theory; categorical topology; mathematical education

DR HENRI LAURIE
Senior Lecturer; mathematical biology, in particular ecology; industrial mathematics; mathematics education

DR JEFF MURUGAN
Senior Lecturer; string theory, quantum gravity, neurophysics

DR ANNELIESE SCHAUERTE
Senior Lecturer; frame and biframe theory; categorical topology; uniform and quasi-uniform structures

DR AMANDA WELTMAN
Senior Lecturer, string theory, cosmology, gravity

DR NORA ALEXEEVA
Lecturer; nonlinear dynamics and solitons; pattern formation in reaction-diffusion systems; synchronization of chaotic systems

DR MARGARET ARCHIBALD
Lecturer; analysis of algorithms and combinatorics

DR MARK BERMAN
Lecturer, group theory, universal algebra, set theory and model theory

DR TIRIVANHU CHINYOKA
Lecturer; computational fluid dynamics

DR EBRAHIM FREDERICKS
Lecturer; lie symmetries analysis of stochastic differential equations; lie symmetries analysis of partial differential equations; lie symmetries analysis of ordinary differential equations; applying lie symmetries to fluid mechanics, applying lie symmetries to mathematics of finance

DR ROBERT MARTIN
Lecturer, functional analysis; operator theory

DR ANDRIY POTOTSKYY
Lecturer; stochastic processes and equations. Applications in Biology and Physics

MR KENNETH RAFEL
Lecturer; mathematics education

DR JESSE RATZKIN
Lecturer, geometric analysis

DR NEILL ROBERTSON
Lecturer; functional analysis; locally convex spaces; descriptive set theory; infinite-dimensional holomorphy

DR DEON SOLOMONS
Lecturer; thermodynamics of spacetime; Interference and diffraction phenomena in gravitational lensing; structure formation in the universe; theories of higher order gravity

DR HOLGER SPAKOWSKI
Lecturer; theoretical computer science; computational complexity

DR CHRISTINE SWART
Lecturer; cryptography

DR VITALI VOUGALTER
Lecturer, nonlinear analysis, partial differential equations, mathematical biology

Senior Research Scholar

Emeritus Distinguished Professor George Ellis
Distinguished Professor of complex systems; cosmology and general relativity theory; emergence and functioning of complex systems, including the human brain; science policy; mathematics and science education and religion; social indicators

Research staff

DR ANABELA BRANDÃO
Senior Research Officer, MARAM; Southern Ocean toothfish assessment;SA west coast rock lobster surveys; minke whales, SA abalone assessment.

DR CARRYN DE MOOR
Senior Research Officer, MARAM; S.A. sardine and anchovy assessment and management

DR SUSAN HOLLOWAY
Senior Research Officer, MARAM; S.A. west and south coast rock lobster and horse mackerel assessment; whale management procedures

DR KENNETH HUGHES
Honorary Research Associate; number theory; algebra; algebraic geometry; topological quantum field theory; p-adic analysis, nil-theta functions

DR ÉVA PLAGÁNYI-LLOYD
Honorary Research Associate; multispecies modelling; Fisheries assessment and management ecological modeling, S.A. abalone assessment

Distinguished visitors

EMERITUS PROFESSOR BERNHARD BANASCHEWSKI
McMaster University, Hamilton, Ontario, Canada – pointfree topology; partially ordered algebraic systems; applied category theory

PROFESSOR ROY MAARTENS, Director of Institute of Cosmology and Gravitation, University of Portsmouth, UK – Relativity, Cosmology, Gravity

Honorary staff

EMERITUS PROFESSOR RONALD BECKER
Differential equations (bifurcations, abstract equations); theory of algorithms (graph partitioning, sorting networks) and Mathematical Finance

EMERITUS PROFESSOR GUILLAUME BRÜMMER
Topology and category theory group; categorical topology; asymmetric topology and uniformity

EMERITUS DISTINGUISHED PROFESSOR GEORGE ELLIS
Distinguished Professor of complex systems; cosmology and general relativity theory; emergence and functioning of complex systems, including the human brain; science policy; mathematics and science education; metaphysics of cosmology and its connections to ethics and religion; social indicators

EMERITUS PROFESSOR KEITH HARDIE
Homotopy theory; algebraic topology; digital topology; categorical topology

EMERITUS ASSOCIATE PROFESSOR RONALD CROSS
Functional analysis; unbounded linear operators; linear relations

PROFESSOR PATRICIA WHITELOCK
Visiting Professor and Principal Research Officer; SAAO

DR DAVID RICHARDSON
Research Associate; Rangeland Modelling Group; modelling grazing animal production systems; relations between complex and simple models

PROFESSOR JOHN WEBB
Mathematical competitions and Olympiads; popularisation of mathematics

Postdoctoral Fellows

DR ALVARO DE LA CRUZ
Cosmology

DR RITUPARNO GOSWAMI
Cosmology

DR NIMA KHOSRAVI
Early universe cosmology including inflation and its generalisations

DR OLAWANLE PATRICK LAYENI
CERECAM: Moving boundary problems and variational inequalities

DR PATRICE OKOUMA
Constraints on dark energy from current abd future cosmological observations including SKA

DR PRINA PATEL
Cosmology

DR ROBERT POLTIS
Works in particle physics and cosmology and in particular is studying the interface of the two looking at various tests of theoretical physics that can be done using observational cosmology

DR XAVIER ROY
Works on the averaging and backreaction problems in cosmology. This involves finding a self-consistent manner in which to smooth a spacetime, and make predictions for cosmology.

DR MARINA SEIKEL
Cosmology

DR PARAMJEET SINGH
Numerical analysis of conservation laws with fading memory in the research area of numerical analysis of partial differential equations

DR PER ERIC SUNDIN
String theory and Cosmology

DR ROCKHEE SUNG
Cosmology

Contact Details

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Research output

Authored books

Ellis, G.F.R., Maartens, R. and MacCallum, M.A.H. 2012. 622pp. Relativistic Cosmology. UK: Cambridge University Press. ISBN 9780521381154.

Edited books

Ellis, G.F.R., Stein, D.J., Thomas, K. and Meintjes, E.M. (eds) 2012. Substance Use and Abuse in South Africa. 394pp. Cape Town: UCT press. ISBN 9781919895291.

Murugan, J., Weltman, A. and Ellis, G.F.R. (eds) 2012. Foundations of Space and Time Reflections on Quantum Gravity. 437pp. USA: Cambridge University Press. ISBN 9780521114400.

Chapters in books

De Mello K.R. and Murugan, J. 2012. Emergent spacetime. In J. Murugan, A. Weltman, G.F.R. Ellis (eds), Foundations of Space and Time Reflections on Quantum Gravity, pp. 164-184. USA: Cambridge University Press. ISBN 9780521114400.

Ellis, G.F.R. 2012. Multiverses, science, and ultimate causation. In R.D. Holder and S. Mitton (eds), Georges Lematre: Life, Science and Legacy, pp. 125-144. London: Springer Heidelberg New York Dordrecht London. ISBN 9783642322549.

Kunzi, H. and Makitu Kivuvu, C. 2011. Quietness in arbitrary quasi-uniform spaces. In J. Rodriguez-Lopez and S. Romaguera (eds), Asymmetric Topology and its Application, pp. 137-178. Rome: Aracne editrice S.r.l. ISBN 9788854847521.

Murugan, J., Weltman, A. and Ellis, G.F.R. 2012. The problem with quantum gravity. In J. Murugan, A. Weltman and G.F.R. Ellis (eds), Foundations of Space and Time Reflections on Quantum Gravity, pp. 1-7. USA: Cambridge University Press. ISBN 9780521114400.

Reddy, B.D. and McBride, A.T. 2012. Introduction to finite element analysis and recent developments. In A. Patanaik (ed.), Modelling and Simulation in Fibrous Materials, pp. 1-28. New York: Nova Science Publishers, Inc. ISBN 9781621001164.

Stein, D.J., Ellis, G.F.R., Thomas, K. and Meintjes, E.M. 2012. Introduction: substance use and abuse in South Africa. In E. Stein, K. Thomas and E.M. Meintjes (eds), Substance Use and Abuse in South Africa, pp. 1-9. Cape Town: UCT press. ISBN 9781919895291.

Weltman, A., Murugan, J. and Ellis, G.F.R. 2012. Conversations in string theory. In J. Murugan, A. Weltman and G.F.R. Ellis (eds), Foundations of Space and Time Reflections on Quantum Gravity, pp. 419-434. USA: Cambridge University Press. ISBN 9780521114400.

Articles in Peer-reviewed Journals

Abbott, M.C. and Sundin, P.E. 2012. The ear-flat-space and BMN limits for strings in AdS4 X CP3 at one loop. Journal of Physics A: Mathematical and Theoretical, 45: 025401.

Abdelwahab, M., Goswami, R. and Dunsby, P.K.S. 2012. Cosmological dynamics of fourth-order gravity: a compact view. Physical Review D, 85: 083511.

Abebe, A., Abdelwahab, M., de la Cruz-Dombriz, A. and Dunsby, P.K.S. 2012. Covariant gauge-invariant perturbations in multifluid f(R) gravity. Classical and Quantum Gravity, 29: 135011.

Abou Salem, W., Chen, T. and Vougalter, V. 2012. On the well-posedness of the semi-relativistic Schrodinger-Poisson system. Dynamics of Partial Differential Equations, 9(2): 121-132.

Albareti, F.D., Cembranos, J.A.R. and de la Cruz-Dombriz, A. 2012. Focusing of geodesic congruences in an accelerated expanding universe. Journal of Cosmology and Astroparticle Physics, 12(020): 1-19.

Alexeeva, N.V., Barashenkov, I.V., Sukhorukov, A.A. and Kivshar, Y.S. 2012. Optical solitons in PT-symmetric nonlinear couplers with gain and loss. Physical Review A, 85(6): 063837.

Allender, E. and Spakowski, H. 2012. Avoiding simplicity is complex. Theory of Computing Systems, 51: 282-296.

Anchordoqui, L., Dai, D., Fairbairn, M., Landsberg, G. and Stojkovic, D. 2012. Vanishing dimensions and planar events at the LHC. Modern Physics Letters A, 27(4): 1250021.

Appadu, A. 2012. Optimised composite numerical schemes in 2-D for hyperbolic conservation laws. International Journal for Numerical Methods in Fluids, 69: 1522-1549.

Appadu, A. 2012. Some applications of the concept of minimized integrated exponential error for low dispersion and low dissipation. International Journal for Numerical Methods in Fluids, 68: 244-268.

Archibald, M.L., Knopfmacher, A. and Mansour, T. 2012. Variation statistics on compositions. Fundamenta Informaticae, 117: 1-17.

Barashenkov, I.V., Suchkov, S.V., Sukhorukov, A.A., Dmitriev, S.V. and Kivshar, Y.S. 2012. Breathers in PI-symmetric optical couplers. Physical Review A, 86: 053809(1 -12).

Bertacca, D., Maartens, R., Raccanelli, A. and Clarkson, C.A. 2012. Beyond the plane-parallel and
Newtonian approach:wide-angle redshift distortions and convergence in general relativity. Journal of Cosmology and Astroparticle Physics, 10: 025.

Bradley, M., Dunsby, P.K.S., Forsberg, M. and Keresztes, Z. 2012. Density growth in Kantowski-Sachs cosmologies with cosmological constant. Classical and Quantum Gravity, 29: 095023.

Branch, T.A. 2012. Humpback whale abundance south of 60S from three complete circumpolar sets of surveys. Journal of Cetacean Research and Management, 3: 53-69.

Brandao, A.D.G. and Butterworth, D.S. 2012. Concerning demographic limitations on the population growth rate of West Australian (breeding stock D) humpback whales. Journal of Cetacean Research and Management, 3: 201-208.

Brattka, V., de Brecht, M. and Pauly, A. 2012. Closed choice and a uniform low basis theorem. Annals of Pure and Applied Logic, 163: 986-1008.

Brattka, V., Gherardi, G. and Marcone, A. 2012. The Bolzano-Weierstrass theorem is the jump of weak König's lemma. Annals of Pure and Applied Logic, 163: 623-655.

Bruyns, P.V. 2012. Nomenclature and typification of southern African species of Euphorbia. Bothalia, 42.2: 217-245.

Butterworth, D.S., De Oliveira, J. and De Moor, C. 2012. Are South African administrative law procedures adequate for the evaluation of issues resting on scientific analyses? South African Law Journal, 129(part 3): 461-476.

Carloni, S., Goswami, R. and Dunsby, P.K.S. 2012. A new approach to reconstruction methods in f(R) gravity. Classical and Quantum Gravity, 29: 135012.

Carroll, T. and Ratzkin, J. 2012. Two isoperimetric inequalities for the Sobolev constant. Zeitschrift fur Angewandte Mathematik und Physik, 63: 855-863.

Cembranos, J.A.R., de la Cruz-Dombriz, A. and Montes Nunez, B. 2012. Gravitational collapse in f (R) theories. JournalofCosmology and Astroparticle Physics, 04(021): 1-18.

Cembranos, J.A.R., de la Cruz-Dombriz, A., Gammaldi, V. and Maroto, A.L. 2012. Detection of branon dark matter with gamma ray telescopes. Physical Review D, 85: 043505.

Chinyoka, T. and Makinde, O.D. 2012. On transient flow of a reactive variable viscosity third-grade fluid through a cylindrical pipe with convective cooling. Meccanica, 47: 667-685.

Chinyoka, T. and Makinde, O.D. 2012. Unsteady hydromagnetic flow of a reactive variable viscosity third-grade fluid in a channel with convective cooling. International Journal for Numerical Methods in Fluids, 69: 353-365.

Clarkson, C.A. 2012. Establishing homogeneity of the universe in the shadow of dark energy. Comptes Rendus Physique, 13: 682-718.

Clarkson, C.A., Clifton, T., Coley, A. and Sung, R. 2012. Observational constraints on the averaged universe. Physical Review D, 85(4): 043506.

Clarkson, C.A., Ellis, G.F.R., Faltenbacher, A., Maartens, R., Umeh, O. and Uzan, J.P. 2012. (Mis-) interpreting supernovae observations in a lumpy universe. Monthly Notices of the Royal Astronomical Society, 426(2): 1121-1136.

Clifton, T., Clarkson, C.A. and Bull, P. 2012. Isotropic blackbody cosmic microwave background radiation as evidence for a homogeneous universe. Physical Review Letters, 109(5): 051303.

Dai, D., Starkman, G.D., Stojkovic, B., Stojkovic, D. and Weltman, A. 2012. Using quasars as standard clocks for measuring cosmological redshift. Physical Review Letters, 108(23): 231302.

Dankelmann, P., Erwin, D., Goddard, W., Mukwembi, S. and Swart, H.C. 2012. Eccentric counts, connectivity and chordality. Information Processing Letters, 112: 944-947.

Dankelmann, P., Erwin, D., Mukwembi, S., Rodrigues, B.G., Mwambene, E. and Sabidussi, G. 2012. Automorphism group and diameter of a graph. Journal of Graph Theory, 70: 80-91.

De la Cruz-Dombriz, A. and Saez-Gomez, D. 2012. Black holes, cosmological solutions, future singularities and their thermodynamical properties in modified gravity theories. Entropy, 14: 1717-1770.

De la Cruz-Dombriz, A. and Saez-Gomez, D. 2012. On the stability of the cosmological solutions in f (R,G) gravity. Classical and Quantum Gravity, 29: 245014.

De Mello Koch, R., Mohammed, B.A.E., Murugan, J. and Prinsloo, A. 2012. Beyond the planar limit in ABJM. Journal of High Energy Physics, 2012(5): 037.

Djoko, J.K. and Reddy, B.D. 2012. Existence results for a polymer melt with an evolving natural configuration. Mathematical Models & Methods in Applied Sciences, 22(1): 1150004.

Driver, K.A. 2012. Interlacing of zeros of Gegenbauer polynomials of non-consecutive degree from different sequences. Numerische Mathematik, 120: 35-44.

Driver, K.A. and Jordaan, K. 2012. Bounds for extreme zeros of some classical orthogonal polynomials. Journal of Approximation Theory, 164: 1200-1204.

Ellis, G.F.R. 2012. Editorial note to: H.P. Robertson, relativistic cosmology. General Relativity and Gravitation, 44: 2099-2114.

Ellis, G.F.R. 2012. On the limits of quantum theory: contextuality and the quantum-classical cut. Annals of Physics, 327: 1890-1932.

Ellis, G.F.R. 2012. Top-down causation and emergence: some comments on mechanisms. Journal of the Royal Society Interface, 2: 126-140.

Ellis, G.F.R., Noble, D. and O'Connor, T. 2012. Top-down causation: an integrating theme within and across the sciences? Journal of the Royal Society Interface, 2: 1-3.

Foley, R.J., Filippenko, A., Kessler, R., Bassett, B.A., Friedman, J.A., Garnavich, P.M., Jha, S., Konishi, K., Lampeitl, H., Riess, A.G., Sako, M., Schneider, D., Sollerman, J. and Smith, M. 2012. A mismatch in the ultraviolet spectra between low-redshift and intermediate-redshift type Ia supernovae as a possible systematic uncertainty for supernova cosmology. Astronomical Journal, 143(5): 113.

Fredericks, E. and Mahomed, F.M. 2012. Symmetries of nth-order approximate stochastic ordinary differential equations. Journal of Applied Mathematics, 2012: 263570.

Frith, J.L. and Schauerte, A. 2012. An asymmetric approach to filters in strict extensions and quotients. Acta Mathematica Hungarica, 137(1-2): 82-103.

Frith, J.L. and Schauerte, A. 2012. Quasi-nearness biframes: unique completions and related covering properties. Quaestiones Mathematicae, 35: 35-56.

Goswami, R. and Ellis, G.F.R. 2012. Birkhoff theorem and matter. General Relativity and Gravitation, 44: 2037-2050.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A. 2012. Hunt for new phenomena using large jet multiplicities and missing transverse momentum with ATLAS in 4.7 fb-1 of sq root 8 = 7 TeV proton-proton collisions. Journal of High Energy Physics, 2012(7): 167.

Hellaby, C.W. 2012. A new type of exact arbitrarily inhomogeneous cosmology: evolution of deceleration in the flat homogeneous-on-average-case. Journal of Cosmology and Astroparticle Physics, 043: 1-15.

Hlozek, R., Kunz, M., Bassett, B.A., Smith, M., Newling, J., Varughese, M., Kessler, R., Bernstein, J.P., Campbell, H., Dilday, B., Falck, B., Frieman, J., Kuhlmann, S., Lampeitl, H., Marriner, J., Nichol, R.C., Riess, A.G., Sako, M. and Schneider, D. 2012. Photometric supernova cosmology with beams and sdss-11. Astrophysical Journal, 752: 79.

Jasinoski, S. and Reddy, B.D. 2012. Mechanics of cranial sutures during simulated cyclic loading. Journal of Biomechanics, 45: 2050-2054.

Javili, A., McBride, A., Steinmann, P. and Reddy, B.D. 2012. Relationships between the admissible range of surface material parameters and stability of linearly elastic bodies. Philosophical Magazine, 92(28-30): 3540-3563.

Johnston, S.J., Zerbini, A.N. and Butterworth, D.S. 2011. A Bayesian approach to assess the status of southern hemipshere humpback whales (Megaptera novaeangliae) with an application to breeding stock G. Journal of Cetacean Research and Management, 3: 309-317.

Kasanda, S.M., Zunckel, C., Moodley, K., Bassett, B.A. and Okouma, P. 2012. The sensitivity of BAO dark energy constraints to general isocurvature perturbations. Journal of Cosmology and Astroparticle Physics, 07(021): 1-33.

Klak, C. and Bruyns, P.V. 2012. Phylogeny of the Dorotheantheae (Aizoaceae), a tribe of succulent annuals. Taxon, 61(2): 293-307.

Kunzi, H. and Otafudu, O.O. 2012. Q-hyperconvexity in quasipseudometric spaces and fixed point theorems. Journal of Function Spaces and Applications, 2012: 765903.

Kunzi, H. and Romaguera, S. 2012. Weightable quasi-uniformities. Acta Mathematica Hungarica, 136: 107-128.

Kunzi, H. and Sanchis, M. 2012. The Katetov construction modified for a To-quasi-metric space. Topology and its Applications, 159: 711-720.

Kunzi, H., Otafudu, O.O. and Kemajou, L. 2012. The Isbell-hull of a di-space. Topology and its Applications, 159: 2463-2475.

Kunzi, H., Romaguera, S. and Snchez-Granero, M.A. 2012. To *-compactification in the hyperspace. Topology and its Applications, 159: 1815-1819.

Layeni, O.P. and Johnson, J.V. 2012. Hybrids of the heat balance integral method. Applied Mathematics and Computation, 218: 7431-7444.

Leloudas, G., Chatzopoulos, E., Dilday, B., Gorosabel, J., Vinko, J., Gallazzi, A., Wheeler, J.C., Bassett, B.A., Fischer, J.A., Frieman, J., Fynbo, J.P.U., Goobar, A., Jelinek, M., Malesani, D., Nichol, R.C., Nordin, J., Ostman, L., Sako, M., Schneider, D., Smith, M., Sollerman, J., Stritzinger, M.D., Thone, C.C. and de Ugarte Postigo, A. 2012. SN 2006oz: rise of a super-luminous supernova observed by the SDSS-II SN survey. Astronomy and Astrophysics Review, 541: A129.

Lichtner, K., Pototsky, A. and Klapp, S.H.L. 2012. Feedback-induced oscillations in one-dimensional colloidal transport. Physical Review E, 86: 051405.

Lloyd, P., Plaganyi-Lloyd, E.E., Weeks, S.J., Magno-Canto, M. and Plaganyi, G. 2012. Ocean warming alters species abundance patterns and increases species diversity in an African sub-tropical reef-fish community. Fisheries Oceanography, 21(1): 78-94.

Makinde, O.D. and Chinyoka, T. 2012. Analysis of unsteady flow of a variable viscosity reactive fluid in a slit with wall suction or injection. Journal of Petroleum Science and Engineering, 94-95: 1-11.

Mehrtens, N., Romer, A.K., Hilton, M., Lloyd-Davies, E.J., Miller, C.J., Stanford, S.A., Hosmer, M., Hoyle, B., Collins, C.A., Liddle, A.R., Viana, P.T.P., Nichol, R.,

Stott, J.P., Dubois, E.N., Kay, S.T., Sahln, M., Young, O., Short, C.J., Christodoulou, L., Watson, W.A., Davidson, M., Harrison, C.D., Baruah, L., Smith, M., Burke, C., Mayers, J.A., Deadman, P., Rooney, P.J., Edmondson, E.M., West, M., Campbell, H., Edge, A., Mann, R.G., Sabirli, K., Wake, D., Benoist, C., da Costa, L., Maia, M.A. and Ogando, R. 2012. The XMM cluster survey: optical analysis methodology and the first data release. Monthly Notices of the Royal Astronomical Society, 423: 1024-1052.

Mohammed, A., Murugan, J. and Nastase, H. 2012. Abelian-Higgs and vortices from ABJM: towards a string realization of AdS/CMT. Journal of High Energy Physics, 2012(073): 1-37.

Mohammed, A., Murugan, J. and Nastase, H. 2012. Towards a realization of the condensed-matter-gravity correspondence in string theory via consistent Abelian truncation of the Aharony-Bergman-Jafferis-Maldacena model. Physical Review Letters, 109(18): 181601.

Mongwane, B., Dunsby, P.K.S. and Osano, O. 2012. Cosmic electromagnetic fields due to perturbations in the gravitational field. Physical Review D, 86(8): 083533.

Newling, J., Bassett, B.A., Hlozek, R., Kunz, M., Smith, M. and Varughese, M. 2012. Parameter estimation with Bayesian estimation applied to multiple species in the presence of biases and correlations. Monthly Notices of the Royal Astronomical Society, 421: 913-925.

Olivier, C., Herbst, M. and Molchan, M. 2012. A numerical study of the large-period limit of a Zakharov-Shabat eigenvalue problem with periodic potentials. Journal of Physics A-Mathematical and Theoretical, 45: 255205.

Pelteret, J. and Reddy, B.D. 2012. Computational model of soft tissues in the human upper airway. International Journal for Numerical Methods in Biomedical Engineering, 28: 111-132.

Plaganyi-Lloyd, E.E. and Butterworth, D.S. 2012. The Scotia Sea krill fishery and its possible impacts on dependent predators: modeling localized depletion of prey. Ecological Applications, 22(3): 748-761.

Pototsky, A. 2012. Emergence and multistability of time-periodic states in a population of noisy passive rotators with time-lag coupling. Physical Review E, 85(3): 036219.

Pototsky, A. and Stark, H. 2012. Active Brownian particles in two-dimensional traps. EPL, 98(5): 50004-1-6.

Pototsky, A., Marchesoni, F., Kusmartsev, F.V., Hanggi, P. and Savel'ev, S.E. 2012. Relativistic Brownian motion on a graphene chip. European Physical Journal B, 85(356): 1-8.

Rajpaul, V. and Veller, C. 2012. Purely competitive evolutionary dynamics for games. Physical Review E, 86: 041907.

Reddy, B.D., Wieners, C. and Wohlmuth, B. 2012. Finite element analysis and algorithms for single-crystal strain-gradient plasticity. International Journal for Numerical Methods in Engineering, 90: 784-804.

Regis, M. and Clarkson, C.A. 2012. Do primordial lithium abundances imply there's no dark energy? General Relativity and Gravitation, 44(3): 567-579.

Reyneke, P.V., Morrison, N., Kourie, D. and de Ridder, C. 2012. Polynomial filtering: to any degree on irregularly sampled data. Automatika, 53(4): 382-397.

Roy, X. and Buchert, T. 2012. Relativistic cosmological perturbation scheme on a general background: scalar perturbations for irrotational dust. Classical and Quantum Gravity, 29: 115004.

Rughoonauth, N., Sundin, P.E. and Wulff, L. 2012. Near BMN dynamics of the AdS3 X S3 XS3 XS1 superstring. Journal of High Energy Physics, 07(159): 1-29.

Salmi, P. and Hindmarsh, M. 2012. Radiation and relaxation of oscillons. Physical Review D, 85(8): 085033.

Seikel, M., Clarkson, C.A. and Smith, M. 2012. Reconstruction of dark energy and expansion dynamics using Gaussian processes. Journal of Cosmology and Astroparticle Physics, 06(036): 1-19.

Seikel, M., Yahya, S., Maartens, R. and Clarkson, C.A. 2012. Using H(z) data as a probe of the concordance model. Physical Review D, 86: 083001.

Smith, M., Nichol, R., Dilday, B., Marriner, J., Kessler, R., Bassett, B.A., Cinabro, D., Friedman, J.A., Garnavich, P.M., Jha, S., Lampeitl, H., Sako, M., Schneider, D. and Sollerman, J. 2012. The SDSS-II supernova survey: Parameterizing the type Ia supernova rate as a function of host galaxy properties. Astrophysical Journal, 755: 61.

Sundin, P.E. and Wulff, L. 2012. Classical integrability and quantum aspects of the AdS3 X S3 XS3 X S1 superstring. Journal of High Energy Physics, 10(109): 1-31.

Szapudi, I. and Czinner, V. 2012. Cosmological perturbations from a group theoretical point of view. Classical and Quantum Gravity, 29: 015007.

Volpert, V. and Vougalter, V. 2012. On the existence of stationary solutions for some systems of non-Fredholm integro-differential equations. Discontinuity, Nonlinearity and Complexity, 1(12): 85-98.

Vougalter, V. and Volpert, V. 2012. On the sovability conditions for the diffusion equation with convection terms. Communications on Pure and Applied Analysis, 11(1): 365-373.

Vougalter, V. and Volpert, V. 2012. Solvability conditions for a linearized Cahn-Hilliard equation of sixth order. Mathematical Modelling of Natural Phenomena, 7(2): 146-154.

Vougalter, V. and Volpert, V. 2012. Solvability conditions for some linear and nonlinear non-Fredholm elliptic problems. Analysis and Mathematical Physics, 2(4): 473-496.

Walters, A. and Hellaby, C.W. 2012. Constructing realistic Szekeres models from initial and final data. Journal of Cosmology and Astroparticle Physics, 12(001): 1-40.

Yanovski, A.B. 2012. Geometry of the recursion operators for Caudrey-Beals-Coifman system in the presence of Mikhailov type Zp reductions. Journal of Geometry and Symmetry in Physics, 25: 77-97.

Yanovski, A.B. and Vilasi, G. 2012. Geometric theory of the recursion operators for the generalized Zakharov-Shabat system in pole gauge on the algebra sl(n,C) with and without reductions. Sigma, 8(087): 1-23.

Yanovski, A.B. and Vilasi, G. 2012. Geometry of the recursion operators for the GMV system. Journal of Nonlinear Mathematical Physics, 19(3): 1250023.

Zemlyanaya, E. and Alexeeva, N.V. 2012. Numerical study of stationary, time-periodic, and quasiperiodic two-soliton complexes in the damped-driven nonlinear Schrodinger equation. Lecture Notes in Computer Science, 7125(240): 240-245.

Peer-reviewed published conference proceedings

Abdelwahab, M., Goswami, R. and Dunsby, P.K.S. 2012. Cosmological dynamics of fourth order gravity: a compact view. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Abebe, A., Goswami, R. and Dunsby, P.K.S. 2012. Simultaneous expansion and rotation of shear-free universes in modified gravity. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain, 1458, 560. USA: American Institute of Physics. ISBN 9780735410602.

Bourhrous, H., de la Cruz-Dombriz, A. and Dunsby, P.K.S. 2012. CMB tensor anisotropies in metric f(R) gravity. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Brattka, V., Le Roux, S. and Pauly, A. 2012. On the computational content of the Brouwer fixed point theorem. In S.B. Cooper, A. Dawar and B. Lowe (eds), How the World Computes. Proceedings of Turing Centenary Conference and 8th Conference on Computablility in Europe (CiE 2012), 18-23 June 2012, Cambridge, UK. Berlin: Springer-Verlag Berlin Heidelberg. ISBN 9783642308697.

Brummer, G.C.L., Kunzi, H. and Sioen, M. 2012. Topological monads from functorial quasi-uniformities. In A.V. Arhangel'skii, M. Khan and L.D.R Kocinac (eds), Proceedings of the International Conference on Topology and its Applications (ICTA 2011), 4-10 July 2011, Islamabad, Pakistan. UK: Cambridge Scientific Publishers. ISBN 9781908106179

Dunsby, P.K.S. 2012. Is the concordance model the only game in town? In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain, 1458, 560. USA: American Institute of Physics. ISBN 9780735410602.

February, S., Clarkson, C.A. and Maartens, R. 2012. Baryon acoustic oscillations in a cosmic void. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Marotoa and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Gammaldi, V., Cembranos, J.A.R., de la Cruz-Dombriz, A. and Maroto, A.L. 2012. Indirect constraints to branon dark matter. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish

Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Goswami, R. and Ellis, G.F.R. 2012. Almost Birkhoff theorem. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Jimeno Romero, P., Cembranos, J.A.R. and de la Cruz-Dombriz, A. 2012. Modified spinning black holes. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Kunzi, H. and Otafudu, O.O. 2012. Injectivity in To-ultra-quasi-metric spaces. In S. Macario, A. Miralles, M. Sanchis, A. Sapena and O. Valero (eds), Proceedings of the Workshop in Applied Topology WiAT'12 - Applied Topology: Recent Progress for Computer Science, Fuzzy Mathematics and Economics, 20-22 June 2012, Castello, Spain. Spain: Publicacions de la Universitat Jaume 1. ISBN 9788480218740.

Montes Nunez, B., Cembranos, J.A.R. and de la Cruz-Dombriz, A. 2012. On the collapse in fourth order gravities. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Nzioki, A., Dunsby, P.K.S., Goswami, R. and Carloni, S. 2012. Strong gravitational lensing in f(R) gravity. In J.B. Jimenez, J.A.R. Cembranos, A. Dobado, A.L. Maroto and A. de la Cruz-Dombriz (eds), Towards New Paradigms: Proceeding of the Spanish Relativity Meeting 2011, 29 August - 2 September 2011, Madrid, Spain. USA: American Institute of Physics. ISBN 9780735410602.

Doctoral dissertations

Mabula, M. 2012. Compactness in asymmetrically normed lattices. 180pp. Supervised by Conradie, J.

Mohamed, H.B.H. 2012. Properties of solutions of the equations for generalised Oldroyd-B fluids. 200pp. Supervised by Reddy, B.

Okouma, P. 2012. Aspects of dark energy and cosmic curvature. 140pp. Supervised by Bassett, B.A.

Otafudu, O.O. 2012. Convexity in quasi-metric spaces. 140pp. Supervised by Kunzi, H.-P.

Rademeyer, R.A. 2012. The evolution of management procedures for the South African hake resource in the 2000s. 140pp. Supervised by Butterworth, D.S.

Master's degrees (by research)

Birch, T. 2012. Algorithmic randomness on computable metric spaces and hyperspaces. MSc Mathematics. 85pp. Supervised by Brattka, V.

Calder-Potts, G. 2012. Review of current radiometer technology with suggestions for future South African satellites. MSc Astrophysics & Space-Science. 160pp. Supervised by Dunsby, P. and Inggs, M.

Clarke, A. 2012. A study of distance and the baryon acoustic oscillations in curved spacetimes. MSc Astrophysics & Space Science. 80pp. Supervised by Bassett, B.A.

Conradie, P. 2012. Photon trajectories in a void dominated universe. MSc Astrophysics & Space Science. 85pp. Supervised by Dunsby, P.

Giovannoni, G. 2012. Complex projective space- the final frontier. MSc Applied Mathematics. 160pp. Supervised by Murugan, J.

Goldberg, T. 2012. Regular and chaotic dynamics of the resonantly driven wobbling kink. MSc Applied Mathematics. 85pp. Supervised by Barashenkov, I.

Lee-Thorp, J. 2012. Spectral continuation study of the temporally periodic solitons of the damped-driven nonlinear Schrodinger equations. MSc Applied Mathematics. 85pp. Supervised by Barashenkov, I.

Mbewu, J. 2012. Computational modelling of cardiac function and myocardial infarction. MSc Applied Mathematics. 80pp. Supervised by Reddy, B.D.

Njau, M. 2012. Finite activity jump models for option pricing. MSc Mathematics of Finance. 160pp. Supervised by Becker, R.

Richardson, N. J.N.2012. An investigation into aspects of rate-independent single crystal plasticity. MSc(Eng) Mechanical. Supervised by Reddy, B.D.

Sikhonde, M. 2012. A study of chameleon-photon mixing from pulsars. MSc Astrophysics & Space Science. 85pp. Supervised by Weltman, A.

Walters, A. 2012. Constructing realistic Szekeres models from initial and final data. MSc Astrophysics & Space-Science. 160pp. Supervised by Hellaby, C.

Wilson, B. 2012. Robust Bayesian portfolio optimisation: Higher moments and the distorting effects of constraints. MSc. Supervised by Witten, G.

In addition to the research outputs listed further above, contributions ranging across book reviews to popular articles were made. The Marine Research Assessment and Management Group (MARAM) provided 105 technical papers to the scientific working groups of the Fisheries Branch of the Department of Agriculture, Forestry and Fisheries related to the management of South African marine resources, and to other United States and international fisheries management organisations.

Department of Molecular And Cell Biology

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR VERNON COYNE

Departmental Profile

The Department has interests and expertise in diverse areas of biology. The problem of desiccation in plants is being tackled by a combination of physiological and molecular approaches. "Biofarming" research involves the expression of pharmaceutically-important proteins in plants and insect cells, including vaccine candidates for human and animal diseases such as bluetongue, human papillomaviruses, human rotavirus and psittacine beak and feather disease. Plant biotechnology research for plant improvement is focused on developing virus-resistant and drought-tolerant crops and the molecular basis of nickel hyperaccumulation in plants. Plant defence responses are studied in both model and crop plants. Circadian rhythms and their role in plant development and responses, as well as sports performance in humans, are studied. Eukaryotic gene expression projects include the role of chromatin modifications in regulating the rhythms of gene expression and gene expression during neuronal differentiation and stress. Basic mechanisms underlying the regulation of gene expression are studied in human cells and in Plasmodium, with a view to pinpointing Plasmodium-specific mechanisms that can be exploited to develop novel anti-malarial drugs. Misfolding of DNA sequences is being investigated as a possible cause of inheritable mental diseases. In addition, the actions of mammalian hormones, synthetic contraceptives and steroid receptors are being investigated with a view to understanding mechanisms, integration of signalling pathways and role in HIV pathogenesis. Research on viral pathogenesis includes virus-host genomic and proteomic interaction studies for Maize streak virus, and protein structure-function studies of the envelope protein and its role in HIV transmission. Evolutionary biology projects focus on mechanisms that shape both genomic and population-level diversity, as well as evolution of limb development in bats. Molecular virology studies focus on the genetic diversity and molecular biology of single-stranded DNA viruses of plants and animals, of the marine virome, and of papillomaviruses of primates and humans. Structural studies are being carried out by electron microscopy and X-ray crystallography on a number of proteins, including glutamine synthetase and members of the nitrilase superfamily, to obtain insights necessary for rational drug and industrial enzyme design. Research in marine biotechnology includes genetic and proteomic studies of the immune response of the abalone (Haliotis midae) and the stress and disease response systems of the commercially important seaweed Gracilaria gracilis. In addition, probiotics are being developed to improve the growth rate and disease resistance of farmed abalone. Research in microbiology includes molecular-genetic investigations of industrially and medically important anaerobic bacteria such as Corynebacterium, Bacteroides fragilis, Bifidobacterium and the fibre-degrading bacteria in the ostrich gut. The taxonomy of antibiotic-producing actinobacteria is being investigated. The Department also runs an analytical facility (amino acid analysis, DNA sequencing, DNA synthesis, DNA microarrays and protein identification). The instrumentation in the facility consists of HPLCs, a GC MS/MS and LC-ESI QTOF and MALDI instruments for mass spectrometry.

Departmental Statistics

Permanent and Long-Term Contract Staff

Professors	4
Associate Professors	3
Senior Lecturers	4
Lecturers	4
Research Staff	10
Technical Support Staff	7
Administrative and Clerical Staff	5
Total	37

Honorary Staff

Honorary Professors	2
Total	2

Students

Postdoctoral	13
Doctoral	43
Master's	26
Honours	22
Undergraduate	282
Total	386

Research fields and staff

Permanent Staff

ASSOCIATE PROFESSOR VERNON COYNE
Head of Department; Marine biotechnology

PROFESSOR JILL FARRANT
Desiccation tolerance; resurrection plants; seeds; plant physiology; molecular biology; systems biology

PROFESSOR JANET HAPGOOD
Molecular mechanisms of cell signalling and eukaryotic gene regulation via steroid receptors: role in HIV pathogenesis, immune and reproductive function

PROFESSOR NICOLA ILLING
Evolution of development; regulation of gene expression; limb development, comparative genomics

PROFESSOR EDWARD RYBICKI
Plant- and tissue culture-derived vaccines; oceanic viromics; Human papillomavirus (HPV); rotavirus; bluetongue virus; Beak and feather disease virus; geminivirus; Maize streak virus; molecular virology; molecular biotechnology

ASSOCIATE PROFESSOR VAL ABRATT
Bacteroides fragilis; nitrogen metabolism; virulence; metronidazole; DNA damage and repair; Bifidobacterium; Lactobacillus; probiotics

ASSOCIATE PROFESSOR SHARON REID
Gram-positive and anaerobic bacteria; Clostridium acetobutylicum; Bifidobacterium; Lactobacillus, gene regulation of nitrogen- and carbon-substrate utilisation; probiotics; molecular systematics; biofuels

DR ROBERT INGLE
Senior lecturer; interactions between plants and their environment (plant innate immunity, metal hyperaccumulating plants)

DR PAUL MEYERS
Senior lecturer; actinobacteria; family Streptosporangiaceae; Amycolatopsis; Kribbella; Streptomyces; bacterial taxonomy; bioprospecting; novel antitubercular antibiotics

DR COLLEEN O'RYAN
Senior lecturer; molecular and population genetics; genetics of neurodevelopmental disorders

DR LAURA RODEN
Senior Lecturer; flowering time and photoperiodism; plant and human circadian rhythms; regulation of plant gene expression; plant molecular biology; Arabidopsis genetics

DR THOMAS OELGESCHLÄGER
Lecturer; molecular mechanisms of RNA polymerase II transcription regulation in eukaryotes; core promoter-selective transcription regulation mechanisms; transcription regulation in Plasmodium falciparum

DR SUHAIL RAFUDEEN
Lecturer; abiotic stress tolerance in plants; signalling and regulation of plant gene expression during stress; plant molecular biology; proteomics (protein expression profiling, protein mining); Xerophyta viscosa; maize; Tef

DR JERRY RODRIGUES
Lecturer; protein chemistry; drug discovery; plant desiccation tolerance; polyphenol research

DR ZENDA WOODMAN
Lecturer; HIV: structure-function and viral fitness; biochemical analysis of envelope's role in HIV pathogenesis

Honorary Staff

EMERITUS PROFESSOR HORST KLUMP
Energy landscapes of dynamic ensembles of rolling triplet repeat bulge loops: implications for DNA expansion associated with mental-disease states

EMERITUS PROFESSOR JENNIFER THOMSON
Transgenic maize for resistance to the African Maize streak virus and tolerance to drought

Contract Research Staff

DR GARETH EVEREST
Postdoctoral fellow; antimycobacterial antibiotic drug discovery; actinobacterial characterisation; phylogeny of the family Pseudonocardiaceae; alternative taxonomic marker genes

DR BRUNA GALVÃO
Postdoctoral fellow; discovery and characterisation of novel putative virulence factors of the human opportunistic pathogen Bacteroides fragilis; membrane-associated adhesins; cell surface appendages; proteases

DR KERRY GORDON
Postdoctoral fellow; HIV-1 envelope structure and function; understanding the glycosylation requirements of HIV-1 envelope during transmission

DR INGA HITZEROTH
Senior Research Officer; plant-derived vaccines; Human Papillomaviruses (HPV), Beak and Feather disease virus (BFDV), Rotavirus and Influenza virus

DR SUZANNE HUDDY
Postdoctoral fellow; plant and algal biotechnology; plant-produced enzymes and pharmaceuticals; plant and algal tissue culture and transformation studies; Influenza

DR KERSHINI IYER
Postdoctoral fellow; plant biotechnology; promoter studies of stress-associated genes from Zea mays and Xerophyta viscosa

DR REVEL IYER
Chief Research Administrator; agricultural biotechnology; plant molecular biology; plant transgenics

DR BRIAN KULLIN
Postdoctoral fellow; Clostridium difficile (epidemiology, factors involved in host colonisation and mechanisms of antibiotic resistance); oxalate utilisation by probiotic gut bacteria (possible role in kidney stone prevention)

DR ANN MEYERS
Research Officer; plant-produced proteins, monoclonal antibodies and vaccines; bluetongue virus; Rift Valley fever virus; Crimean Congo haemorrhagic fever virus

DR SHANE MURRAY
Lecturer; crop genomics and transcriptomics; resistance in maize and grapevine to pathogens (fungi, viruses and phytoplasma)

DR CHRISTIANE M. NDAY
Postdoctoral fellow; identification of blood biomarkers for drug abusers with a history of psychosis using RNA sequencing technology

DR LYNTHIA PAUL
Research assistant; Bacteroides fragilis metronidazole resistance; mutational analysis; metronidazole uptake; flotillin; DNA recombination and repair genes

DR MAYA PFAFF
Postdoctoral fellow; marine virology; plankton ecology; metagenomics; microbial oceanography (understanding the role of viruses in the Southern Ocean carbon cycle and the formation, maintenance and termination of harmful algal blooms)

DR DIONNE SHEPHERD
Research Officer; virology and plant biotechnology; development of maize streak virusresistant maize; maize streak virus diversity; plant-virus interactions

DR MICHELE TOMASICCHIO
Postdoctoral fellow; glucocorticoid receptor (GR) transcriptional signalling; cross talk between HIV-1 Vpr and the GR in transcriptional regulation of host genes

Research Highlights

AWARDS
Professor Janet Hapgood was awarded a Grand Challenges Explorations grant by the Bill & Melinda Gates Foundation (www.uct.ac.za/mondaypaper/?id=9404).

SIGNIFICANT PUBLICATIONS
Emeritus Professor Horst Klump was a co-author on a paper in the Journal of the American Chemical Society (2011 impact factor: 9.907) that investigated the role of "bulge loops" in the generation of mutations that result in expanded stretches of repetitive DNA sequences (expansion mutations). Since expansion mutations are associated with a variety of human genetic disorders, such as Huntington's disease, knowing more about bulge-loop behaviour may help researchers to understand expansion mutations (http://www.ncbi.nlm.nih.gov/pubmed/22397401).

Contact Details

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e-mail: ethne.liebenberg@uct.ac.za
Web: http://www.mcb.uct.ac.za

Research output

Chapters in books

Farrant, J.M. and Moore, J.P. 2012. A systems-based molecular biology analysis of resurrection plants for crop and forage improvements in arid environments. In N. Tuteja, S. Gill, A.F. Tubercio and R. Tutefa (eds), Improving Crop Resistance to Abiotic Stress, pp. 399-418. Germany: Wiley-Blackwell Publishing, Inc. ISBN 9783527328406.

Farrant, J.M., Cooper, K.L. and Nell, J. 2012. Desiccation tolerance. In S. Shabala (ed.), Plant Stress Physiology, pp. 238-265. Wallingford, UK: CAB International. ISBN 9781845939953.

Articles in Peer-reviewed Journals

Abdalla, K. and Rafudeen, M.S. 2012. Analysis of nuclear proteome of the resurrection plant xerophyta viscosa in response to dehydration stress using iTRAQ with 2DLC and tandem mass spectrometry. Journal of Proteomics, 75: 2361-2374.

Agrawal, G.K., Sarkar, A., Agrawal, R., Ndimba, B.K., Tanou, G., Dunn, M.J., Kieselbach, T., Cramer, R., Wienkoop, S., Chen, S., Rafudeen, M.S., Deswal, R., Barkla, B.J., Weckwerth, W., Heazlewood, J.L., Renaut, J., Job, D., Chakraborty, N. and Rakwal, R. 2012. Boosting the globalization of plant proteomics through INPPO: current developments and future prospects. Proteomics, 12: 359-368.

Beckett, M., Loreto, F., Velikova, v., Brunetti, C., Di Ferdinando, M., Tattini, M., Calfapietra, C. and Farrant, J.M. 2012. Photosynthetic limitations and volatile and non-volatile isoprenoids in the poikilochlorophyllous resurrection plant xerophyta humilis during dehydration and rehydration. Plant Cell and Environment, 35: 2061-2074.

Botha, S., Meyers, A.E. and Coyne, V.E. 2012. Transformation of lacZ using different promoters in the commercially important red alga, Gracilaria gracilis. African Journal of Biotechnology, 11(8): 1879-1885.

Broadley, S., Gumbart, J., Weber, B.W., Marakalala, M., Steenkamp, D.J. and Sewell, B.T. 2012. A new crystal form of MshB from mycobacterium tuberculosis with glycerol and acetate in the active site suggests the catalytic mechanism. Acta Crystallographica Section D-Biological Crystallography, 68: 1450-1459.

Chopera, D., Cotton, L.A., Zawaira, A., Mann, J.K., Ngandu, N., Ntale, R., Carlson, J.M., Mlisana, K., Woodman, Z.L., de Assis Rosa, D., Martin, E., Miura, T., Pereyra, F., Walker, B.D., Gray, C., Martin, D.P., Ndungu, T., Brockman, M.A., Abdool-Karim, S., Brumme, Z.L., Williamson, C. and Caprisa 002 Acute Infection Study Team. 2012. Intersubtype differences in the effect of a rare p24 gag mutation on HIV-1 replicative fitness. Journal of Virology, 86(24): 13423-13433.

Curtis, S. and Meyers, P. 2012. Multilocus sequence analysis of the actinobacterial genus Kribbella. Systematic and Applied Microbiology, 35: 441-446.

Dayaram, A., Opong, A., Jaschke, A., Hadfield, J., Baschiera, M., Dobson, R.C.J., Offei, S.K., Shepherd, D.N., Martin, D.P. and Varsani, A. 2012. Molecular characterisation of a novel cassava associated circular ssDNA virus. Virus Research, 166: 130-135.

Ehlers, M.R.W., Gordon, K., Schwager, S. and Sturrock, E.D. 2012. Shedding the load of hypertension: the proteolytic processing of angiotensin-converting enzyme. SAMJ South African Medical Journal, 102(6): 461-464.

Kunorozva, L., Stephenson, K., Rae, D. and Roden, L.C. 2012. Chronotype and PERIOD3 variable number tandem repeat polymorphism in individual sports athletes. Chronobiology International, 29(8): 1004-1010.

Lotter-Stark, H., Rybicki, E.P. and Chikwamba, R. 2012. Plant made anti-HIV microbicides-a field of opportunity. Biotechnology Advances, 30: 1614-1626.

Lynch, A.G., Meyers, A.E., Williamson, A.-L. and Rybicki, E.P. 2012. Stability studies of HIV-1 Pr55gag virus-like particles made in insect cells after storage in various formulation media. Virology Journal, 9: 210.

Magwira, C., Kullin, B., Lewandowski, S., Rodgers, A., Reid, S.J. and Abratt, V.R. 2012. Diversity of faecal oxalate-degrading bacteria in black and white South African study groups: insights into understanding the rarity of urolithiasis in the black group. Journal of Applied Microbiology, 113: 418-428.

Malan, H.L., Mesjasz-Przybylowicz, J., Przybylowicz, W., Farrant, J.M. and Linder, P.W. 2012. Distribution patterns of the metal pollutants Cd and Ni in soybean seeds. Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms, 273: 157-160.

Meiring, T., Salimo, A., Coetzee, B., Maree, H.J., Moodley, J.R., Hitzeroth, I.I., Freeborough, M.J., Rybicki, E.P. and Williamson, A.-L. 2012. Next-generation sequencing of cervical DNA detects human papillomavirus types not detected by commercial kits. Virology Journal, 9: 164.

Moffat, C.S., Ingle, R.A., Wathugala, D.L., Saunders, N., Knight, H. and Knight, M. 2012. ERF5 and ERF6 play redundant roles as positive regulators of JA/Et-mediated defense against Botrytis cinerea in Arabidopsis. PLoS One, 7(4): e35995.

Monjane, A., Pande, D., Lakay, F., Shepherd, D.N., Van Der Walt, E., Lefeuvre, P., Lett, J.-M., Varsani, A., Rybicki, E.P. and Martin, D.P. 2012. Adaptive evolution by recombination is not associated with increased mutation rates in maize streak virus. BMC Evolutionary Biology, 12: 252.

Mortimer, E., Maclean, J., Mbewana, S., Buys, A., Williamson, A.-L., Hitzeroth, I.I. and Rybicki, E.P. 2012. Setting up a platform for plant-based influenza virus vaccine production in South Africa. BMC Biotechnology, 12:14).

Mulema, J. and Denby, K.J. 2012. Spatial and temporal transcriptomic analysis of the Arabidopsis thaliana-

Botrytis cinerea interaction. Molecular Biology Reports, 39: 4039-4049.

Nelson-Flower, M., Hockey, P.A.R., O'Ryan, C. and Ridley, M. 2012. Inbreeding avoidance mechanisms: dispersal dynamics in cooperatively breeding southern pied babblers. Journal of Animal Ecology, 81: 876-883.

Ntale, R., Chopera, D., Ngandu, N., Assis de Rosa, D., Zembe, L., Gamieldien, H., Mlotshwa, M., Werner, L., Woodman, Z.L., Mlisana, K., Abdool Karim, S., Gray, C., Williamson, C. and Caprisa 002 study team. 2012. Temporal association of HLA-B*81:01 and B*39:10 mediated HIV-1 p24 sequence evolution with disease progression. Journal of Virology, 86(22): 12013-12024.

Pande, D., Kraberger, S., Lefeuvre, P., Lett, J.-M., Shepherd, D.N., Varsani, A. and Martin, D.P. 2012. A novel maize-infecting masrevirus from La Reunion Island. Archives of Virology, 157: 1617-1621.

Rafudeen, M.S. and ElSayed, A.I. 2012. Molecular marker assisted for recognition drought tolerant in some of bread wheat genotypes. Journal of Crop Science and Biotechnology-Springer, 15: 17-23.

Ravasi, D., O'Riain, M.J., Davids, F. and Illing, N. 2012. Phylogenetic evidence that two distinct Trichuris genotypes infect both humans and non-human primates. PLoS One, 7(8): 0044187.

Roberts, L., Passmore, J., Mlisana, K., Williamson, C., Little, F., Bebell, L.M., Walzl, G., Abrahams, M.H., Woodman, Z.L., Abdool Karim, Q. and Abdool Karim, S. 2012. Genital tract inflammation during early HIV-1infection predicts higher plasma viral load setpoint in women. Journal of Infectious Diseases, 205: 194-203.

Roden, L.C., Ripamonti, U. and Renon, L.F. 2012. Osteoinductive hydroxyapatite-coated titanium implants. Biomaterials, 33: 3813.

Rybicki, E.P., Chikwamba, R., Koch, M., Rhodes, M. and Groenewald, J. 2012. Plant-made therapeutics: an emerging platform in South Africa. Biotechnology Advances, 30: 449-459.

Schlebusch, S. and Illing, N. 2012. Next generation shotgun sequencing and the challenges of de novo genome assembly. South African Journal of Science, 108(11/12): (1-8).

Volker, J., Gindikin, V., Klump, H., Plum, G.E. and Breslauer, K. 2012. Energy landscapes of dynamic ensembles of rolling triplet repeat bulge loops: implications for DNA expansion associated with disease states. Journal of the American Chemical Society, 134: 6033-6044.

Williamson, A.-L., Rybicki, E.P., Shephard, E.G., Gray, G., Bekker, L., Downing, K.J. and Williamson, C. 2012. South African HIV-1 vaccine candidates the journey from the bench to clinical trials. SAMJ South African Medical Journal, 102(6): 452-455.

Doctoral dissertations

Boom, T. 2012. A biological study of the cellular response to heat stress in the South African alga Gracilaria gracilis. 255pp. Supervised by Coyne, V.E.

Botha, S. 2012. Development of a transformation protocol and cell culture system for the commercially important species of red macraolga, Gracilaria gracilis. 272pp. Supervised by Coyne, V.E.

Du Plessis, S. 2012. Molecular characterisation of selected gastrointesinal microbiota in South Africa HIV-positive patients during HAART. 189p. Supervised by Abratt, V.R.

Du Toit, E. 2012. The development of probiotics for use in the ostrich farming industry in South Africa. 217pp. Supervised by Reid, S.J.

Monjane, A. 2012. Analysis of recombination and evolution of maize streak virus. 177pp. Supervised by Rybicki, E.P.

Moodley, C. 2012. Molecular characterization of ABC-type multi-drug efflux systems in Bifidobacterium longum subsp. Longun T JCM 1217. 122pp. Supervised by Abratt, V.R.

Naidoo, R. 2012. Investigation of the Gracilaria gracilis proteome response to nitrogen limitation. 196pp. Supervised by Coyne, V.E.

Nicholson, S. 2012. The molecular characterisation of the recA locus in the opportunistic pathogen Bacteroides fragilis. 128pp. Supervised by Abratt, V.R.

Reddy, A. 2012. Characterisation of the effect of stress on nitrogen metabolism in the commercially important agarophyte, Gracilaria gracilis. 223pp. Supervised by Coyne, V.E.

Smart, M. 2012. Flowering in protea: a molecular and physiological study. 194pp. Supervised by Roden, L.C.

Stathopoulos, S. 2012. The tangled history of olfaction in African mole-rats, Bathyergidae: insights from olfactory receptor genes. 114pp. Supervised by O'Ryan, C.

Master's degrees (by research)

Brito, D. 2012. Evolution of the ZRS and the regulation of SHH expression in the forelimbs of bats. MSc. 100pp. Supervised by Illing, N.

Diener, A. 2012. Identification of the CIR1 resistance gene in Arabidopsis thaliana. MSc. 113pp. Supervised by Ingle, R.A.

Duvenage, L. 2012. Expression and purification of beak and feather disease virus capsid protein in tobacco using elastin-like polypeptide fusions. MSc. 122pp. Supervised by Hitzeroth, I.I.

Grantham, N. 2012. Modulation of GR transcriptional signalling by HIV-1 Vpr: insights into regulation by progestins. MSc. 176pp. Supervised by Hapgood, J.

Ellick, T. 2012. Investigation of XvSap promoters from the resurrection plant, Xerophyta viscosa. MSc. 135pp. Supervised by Rafudeen, M.S.

Department of Oceanography

(Including the Nansen-Tutu Centre for Marine Environmental Research and the Research Diving Unit)

HEAD OF DEPARTMENT: PROFESSOR CHRIS REASON

Departmental Profile

The Department of Oceanography is the only such Department in sub-Saharan Africa, and is the major focus for research in physical oceanography, atmospheric science, ocean circulation, and climate in South Africa and elsewhere in Africa. The Department has research groupings in sea-going observations, satellite marine remote sensing, coastal oceanography, ocean and atmospheric modelling, marine and coastal meteorology, severe weather, the science underpinning operational oceanography, and climate variability and change. Six scientists in the Department have been favourably evaluated in the review process of the National Research Foundation. Active international associations are maintained by collaborative projects with the Netherlands, France, Germany, Spain, the UK, Australia, USA and Canada. The Department maintains close contact with marine science activities in the governmental, private and academic sectors in South Africa and into Africa. The UCT Research Diving Unit (RDU) is housed within the Department and is fully equipped with a decompression chamber and compressor. Most scientific diving at UCT is carried out in conjunction with the RDU.

Departmental Statistics

Permanent and Long-term Contract Staff

Professors	2
Senior Lecturer	2
Lecturer	1
Research Staff	2
Technical Support Staff	2
Administrative and Clerical Staff	2
Total	11

Honorary Staff

Emeritus Professor	2
Honorary Professor	1
Honorary Research Associates	13
Total	16

Students

Postdoctoral Fellows	4
Doctoral	27
Master's	35
Honours	13
Undergraduate	148
Total	227

Research Fields and Staff

Permanent Staff

PROFESSOR C.J.C. REASON
Head of Department, Southern Hemisphere climate variability and change,
Coastal and mesoscale meteorology, regional oceanography, modelling

PROFESSOR F.A. SHILLINGTON
Shelf oceanography, satellite marine remote sensing

DR I.J. ANSORGE
Senior Lecturer; Southern Ocean

DR H.N. WALDRON
Senior Lecturer; environmental oceanography

DR J. VEITCH
Lecturer; Benguela upwelling system, modelling

DR R. ROMAN
Senior Scientific Officer; satellite marine remote sensing

MR P. TRUTER
Diving Supervisor; ocean diving

ADMINISTRATIVE OFFICER
Mrs C. Khai

RESOURCE CENTRE OFFICER
Mrs N. Jabaar

Contract Research Staff

DR M. ROUAULT
Ocean-atmosphere interaction

DR BJORN BACKEBERG
Regional ocean modeling, data assimilation

Emeritus Professors

PROFESSOR G.B. BRUNDRIT
Operational oceanography

PROFESSOR J.G. FIELD
Marine Research Institute

Honorary Professors

PROFESSOR L.V. SHANNON
Benguela ecosystem

Honorary Research Associates

DR S. BERNARD
Optical oceanography

DR D. BYRNE
Agulhas Current

DR C. DUNCOMBE RAE
Coastal ocean dynamics

DR J. HERMES
Regional ocean modelling

DR P. MONTEIRO
Environmental oceanography

DR A. MAVUME
Tropical cyclones

DR M.J. KRUG
Agulhas current, remote sensing

DR K. BROWN
Marine ecologist

DR N.C. FAUCHEREAU
Climate Variability

DR K. HUTCHINGS
Fisheries specialist

DR R.W. LESLIE
Fisheries biologist

DR C. RUIZ-SEBASTIAN
Marine ecologist

DR C.J. ROY
Fisheries oceanography, upwelling systems

Postdoctoral Fellows

DR F. DUFOIS
Coastal oceanography

Dr S. Swart
Southern ocean Biogeochemistry

Dr A. Tagliabue
Southern ocean Biogeochemistry

Dr A. Treasure
Ecological modeling, Southern ocean

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Research output

Chapters in books

Ansorge, I.J., Froneman, P. and Durgadoo, J.V. 2012. The marine ecosystem of the sub-Antarctic, Prince Edward Islands. In A. Cruzado (ed.), Marine Ecosystems, 61-76. Croatia: Intech. ISBN 9789535101765.

Articles in Peer-reviewed Journals

Backeberg, B., Penven, P. and Rouault, M. 2012. Impact of intensified Indian ocean winds on mesoscale

variability in the Agulhas system. Nature Climate Change, 2(8): 608-612.

Barlow, R. and Lamont, T. 2012. Phytoplankton absorption and pigment adaptation of a red tide in the Benguela ecosystem. African Journal of Marine Science, 34(2): 241-248.

Blamey, R.C. and Reason, C.J.C. 2012. Mesoscale convective complexes over southern Africa. Journal of Climate, 25(2): 753-766

Brewin, R.J.W., Hirata, T., Hardman-Mountford, N., Lavender, S.J., Sathyendranath, S. and Barlow, R. 2012. The influence of the Indian ocean dipole on interannual variations in phytoplankton size structure as revealed by earth observation. Deep-Sea Research Part II-Topical Studies in Oceanography, 77-80: 117-127.

Burls, N., Reason, C.J.C., Penven, P. and Philander, G. 2012. Energetics of the tropical Atlantic zonal mode. Journal of Climate, 25: 7442-7466.

Cawthra, H.C., Neumann, F.H., Uken, R., Smith, A.M., Guastella, L.A. and Yates, A. 2012. Sedimentation on the narrow (8 km wide), oceanic current-influenced continental shelf off Durban, Kwazulu-Natal, South Africa. Marine Geology, 323-325: 107-122.

Collins, C., Reason, C.J.C. and Hermes, J.C. 2012. Scatterometer and reanalysis wind products over the western tropical Indian ocean. Journal of Geophysical Research-Oceans, 117: C03045.

Cretat, J., Richard, Y., Pohl, B., Rouault, M., Reason, C.J.C. and Fauchereau, N. 2012. Recurrent daily rainfall patterns over South Africa and associated dynamics during the core of the austral summer. International Journal of Climatology, 32(2): 261-273

Debreu, L., Marchesiello, P., Penven, P. and Cambon, G. 2012. Two-way nesting in split-explicit ocean models: algorithms, implementation and validation. Ocean Modelling, 49-50: 1-21.

Dufois, F., Penven, P., Whittle, C. and Veitch, J.A. 2012. On the warm nearshore bias in pathfinder monthly SST products over eastern boundary upwelling systems. Ocean Modelling, 47: 113-118.

Dufois, F. and Rouault, M. 2012. Sea surface temperature in False Bay (South Africa): towards a better understanding of its seasonal and inter-annual variability. Continental Shelf Research, 43: 24-35

Field, J.G. 2012. A strategy for UK marine science for the next 20 years. Philosophical Transactions of the Royal Society A-Mathematical Physical and Engineering Sciences, 370: 5457-5460.

Galli, S., Gaspar, P., Fossette, S., Calmettes, B., Hays, G.C., Lutjeharms, J.R.E. and Luschi, P. 2012. Orientation of migrating leatherback turtles in relation to ocean currents. Animal Behaviour, 84: 1491-1500.

Garavelli, L., Gruess, A., Grote, B., Chang, N., Smith, M.E., Verley, P., Stenevik, E.K., Kaplan, D.M. and Lett, C. 2012. Modeling the dispersal of Cape hake ichthyoplankton. Journal of Plankton Research, 34(8): 655-669.

Giddy, I., Swart, S. and Tagliabue, A. 2012. Drivers of non-Redfield nutrient utilization in the Atlantic sector of the Southern Ocean. Geophysical Research Letters, 39(17): (1-6).

Guastella, A.M. and Rossouw, M. 2012. Coastal vulnerability: what will be the impact of increasing frequency and intensity of coastal storms along the South African coast. Reef Journal, 2: 129-139.

Hart, N.C.G., Reason, C.J.C. and Fauchereau, N. 2012. Building a tropical extratropical cloud band metbot. Monthly Weather Review, 140(12): 4005-4016.

Jackson, J.M., Rainville, L., Roberts, M.J., McQuaid, C.D. and Lutjeharms, J.R.E. 2012. Mesoscale bio-physical interactions between the Agulhas current and the Agulhas bank, South Africa. Continental Shelf Research, 49: 10-24.

Jackson, J.M., Williams, W.J. and Carmack, E.C. 2012. Winter sea-ice melt in the Canada Basin, Arctic Ocean. Geophysical Research Letters, 39(3): L03603.

Kijazi, A. and Reason, C.J.C. 2012. Intra-seasonal variability over the northeastern highlands of Tanzania. International Journal of Climatology, 32(6): 874-887

Krug, M. and Tournadre, J. 2012. Satellite observations of an annual cycle in the Agulhas Current. Geophysical Research Letters, 39(15): L15607.

Kumar, M.R.R., Sankar, S. and Reason, C.J.C. 2012. Is an onset vortex important for monsoon onset over Kerala? Theoretical and Applied Climatology, 110: 209-227.

Kuyper, B., Labuschagne, C., Philibert, R., Moyo, N., Waldron, H.N., Reason, C.J.C. and Palmer, C. 2012. Development of a simplified, cost effective GC-ECD methodology for the sensitive detection of bromoform in the troposphere. Sensors, 12: 13583-13597.

Le Moigne, F.A.C., Sanders, R.J., Villa-Alfageme, M., Martin, A.P., Pabortsava, K., Planquette, H., Morris, P.J. and

Thomalla, S.J. 2012. On the proportion of ballast versus non-ballast associated carbon export in the surface ocean. Geophysical Research Letters, 39(15): L15610.

Loveday, B., Swart, S. and Storkey, D. 2012. Capturing convection in the northwest Mediterranean sea: using underwater gliders to assess the performance of regional forecast models. Underwater Technology, 30(3): 1-15.

Lutjeharms, J.R.E., Biastoch, A., Van der Werf, P.M., Ridderinkhof, H. and de Ruijter, W.P.M. 2012. On the discontinuous nature of the Mozambique current. South African Journal of Science, 108(1/2): 113-117.Manatsa, D., Reason, C.J.C. and Mukwada, G. 2012. On the decoupling of the IODZM from southern Africa summer rainfall variability. International Journal of Climatology, 32(5): 727-746.

Mariotti, V., Bopp, L., Tagliabue, A., Kageyama, M. and Swingedouw, D. 2012. Marine productivity response to Heinrich events: a model-data comparison. Climate of the Past, 8: 1581-1598.

Matthews, M., Bernard, S. and Robertson, L. 2012. An algorithm for detecting trophic status (chlorophyll-), cyanobacterial-dominance, surface scums and floating vegetation in inland and coastal waters. Remote Sensing of Environment, 124: 637-652.

McIntyre, T., Ansorge, I.J., Bornemann, H., Plotz, J., Tosh, C. and Bester, U. 2012. Elephant seal foraging dives do indeed track prey distribution, but temperature influences the distribution of prey: reply to Boersch-Supan et al. Marine Ecology-Progress Series, 461: 299-303.

Mukwada, G. and Manatsa, D. 2012. Assessment of community-based natural resource management in the savannas using the capacity continuum-multiple drivers model. Journal of Human Ecology, 40(1): 69-84.

Mullon, C., Field, J., Thbaud, O., Curry, P. and Chaboud, C. 2012. Keeping the big fish: economic and ecological tradeoffs in size-based fisheries management. Journal of Bioeconomics, 14(3): 267-285.

Philippon, N., Rouault, M., Richard, Y. and Favre, A. 2012. The influence of ENSO on winter rainfall in South Africa. International Journal of Climatology, 32: 2333-2347.

Pohl, B. and Fauchereau, N. 2012. The southern annular mode seen through weather regimes. Journal of Climate, 25(9): 3336-3354.

Richard, Y., Martiny, N., Rouault, M., Philippon, N., Tracol, Y. and Castel, T. 2012. Multi-month memory effects on early summer vegetative activity in semi-arid South Africa and their spatial heterogeneity. International Journal of Remote Sensing, 33(21): 6763-6782.

Rouault, M. 2012. Bi-annual intrusion of tropical water in the northern Benguela upwelling. Geophysical Research Letters, 39(12): L12606.

Smetacek, V., Klaas, C., Strass, V.H., Assmy, P., Montresor, M., Cisewski, B., Savoye, N., Webb, A., d'Ovidio, F., Arrieta, J.M., Bathmann, U., Bellerby, R., Berg, G.M., Croot, P., Gonzalez, S., Henjes, J., Herndl, G.J., Hoffmann, L.J., Leach, H., Losch, M., Mills, M.M., Neill, C., Peeken, I., Rottgers, R., Sachs, O., Sauter, E., Schmidt, M.M., Schwarz, J., Terbruggen, A. and Wolf-Gladrow, D. 2012. Deep carbon export from a Southern ocean iron-fertilized diatom bloom. Nature, 487(7407): 313-319.

Swart, S., Thomalla, S.J., Monteiro, P.M.S. and Ansorge, I.J. 2012. Mesoscale features and phytoplankton biomass at the GoodHope line in the Southern ocean during austral summer. African Journal of Marine Science, 34(4): 511-524.

Swart, S., Chang, N., Fauchereau, N., Joubert, W., Lucas, M.I., Mtshali, T., Roychoudhury, A., Tagliabue, A., Thomalla, S.J., Waldron, H.N. and Monteiro, P.M.S. 2012. Southern ocean seasonal cycle experiment 2012: seasonal scale climate and carbon cycle links. South African Journal of Science, 108(3/4): 1-3.

Tagliabue, A., Mtshali, T., Aumont, O., Bowie, A.R., Klunder, M.B., Roychoudhury, A.N. and Swart, S. 2012. A global compilation of dissolved iron measurements: focus on distributions and processes in the Southern ocean. Biogeosciences, 9: 2333-2349.

Peer-reviewed published conference proceedings

Atkinson, L., Jarre, A.C., Shannon, L. and Field, J. 2012. Evidence for shifts in demersal fish populations on the west coast of South Africa: 1986 to 2009. In G.H. Kruse, et al. (eds), Proceedings of the Symposium Ecosystem 2010: Global Progress on Ecosystem-Based Fisheries Management, 8-11 November 2010, Alaska. Alaska: Alaska Sea Grant. ISBN 9781566121668.

Byfield, V., Bernard, S., Dobson, M., Edwards, A.J., Louw, D.C., Oben, B.M., Robinson, I.S., Shaghude, Y. et al. 2012. Bilko and African capacity development in coastal and marine remote sensing. In: Geoscience and Remote Sensing Symposium (IGARSS), 22-27 July 2012, Munich. Munich: IEEE International. ISBN 978146731160

Dufois, F., Rouault, M. 2012. The inter-annual variability of sea surface temperature in False Bay and the southern Benguela system. In: 28th Annual SASAS Conference Proceeding 2012. Bridging the gap, 26-27 September 2012, Cape Town (South Africa). Cape Town: South African Society for Atmospheric Sciences (SASAS).

Rouault, M., Roy, S.S. and Balling, R.C. 2012. The diurnal cycle of rainfall in South Africa in the austral summer. In: 28th Annual SASAS Conference Proceeding 2012. Bridging the gap, 26-27 September 2012, Cape Town (South Africa). Cape Town: South African Society for Atmospheric Sciences (SASAS).

Doctoral dissertations

Blamey, R.C. 2012. Mesoscale Convective Complexes oversouthern Africa. 295pp. Supervised by Reason, C.J.C.

Halo, I.F.M., Penven, P. 2012. The Mozambique Channel eddies: characteristics and mechanisms of formation. 200pp. Supervised by Ansorge, I. and Penven, P.

Hart, N., 2012. Synoptic-scale rainfall patterns over southern Africa:scale-interactions with large-scale modes of variability. 92pp. Supervised by Reason, C.J.C. and Fauchereau, N.

Nehama, F. 2012. Modelling the Zambezi River plume using the Regional Oceanic Modelling System. 177pp. Supervised by Reason, C.J.C.

Wainman, C. 2012. Estimating the upper ocean vertical temperature structure from surface temperature as applied to the southern Benguela. 135pp. Supervised by Shillington, F.A.

Department of Physics

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR ANDY BUFFLER

Departmental Profile

The Department of Physics is accommodated in the R W James Building, which houses research laboratories equipped for nuclear physics, X-ray stress determination, computational physics and nanoelectronics production. Additional facilities available to the Department are provided within the building by the Electron Microscope Unit (Scanning Electron Microscope and Transmission Electron Microscope), and at iThemba LABS (200 MeV cyclotron, a 5 MeV Van de Graaff accelerator used for ion beam analysis, including a nuclear microprobe, high resolution X-ray diffraction, and PET scanners adapted for positron emission particle tracking).

Major areas of interest include:

1. Experimental nuclear physics at iThemba LABS (D G Aschman, A Buffler, R W Fearick, M R Nchodu): (a) Gamma ray spectroscopy with the AFRODITE array; (b) Giant resonance reactions with the magnetic spectrometer; (c) Fast neutron physics
2. Theoretical Physics (J W A Cleymans, C A Dominguez, W A Horowitz, A Peshier, S M Perez, H W G Weigert, S M Wheaton and R D Viollier): (a) Research within the Centre for Theoretical and Mathematical Physics; (b) Structure of elementary particles; (c) Weak interactions; (d) Quantum Electrodynamics and Chromodynamics in vacuum at extreme temperatures and densities; (e) Renormalization group equations (Color Glass Condensate); (f) Nonlinear effects in QCD at high densities; (g) Phenomenology of heavy ion reactions; (h) Quark gluon plasma; (i) Nuclear structure and models
3. Experimental high energy physics (J W A Cleymans, R W Fearick, A Hamilton): (a) Research within the UCT-CERN Research Centre; (b) Relativistic heavy ion collisions within the ALICE collaboration at CERN; (c) High energy proton-proton collisions within the ATLAS collaboration at CERN
4. Nanophysics and solid state physics (M D Blumenthal, D T Britton, C M Comrie and M Härting): (a) Research within the Nanosciences Innovation Centre; (b) Structural and electrical properties of thin films; (c) X-ray diffraction studies of strain fields and residual stress analysis; (d) Single electron transport and interactions
5. Applied Physics (A Buffler, I Govender, M R Nchodu, S W Peterson, S M Wheaton): (a) Positron Emission Particle Tracking at PEPT Cape Town, iThemba LABS; (b) Particulate flow and interaction characterization in engineering and biological systems by computational and mechanistic modelling; (c) Radiation transport modelling in industrial and medical systems; (d) Applied nuclear physics using neutrons; (e) Geo-neutrino detection (EARTH collaboration)
6. Tertiary physics education (M S Allie, A Buffler and D Taylor): (a) Curriculum design and evaluation; (b) Role of language; (c) Understanding of measurement and uncertainty; (d) Modelling and visualization

Departmental Statistics

Permanent and Long Term Contract Staff

Professor	3
Associate Professor	6
Senior Lecturer	2
Lecturer	5
Part-time Lecturer	1

Technical Staff	4
Administrative Staff	4
Departmental & Lab Assistants	4
Total	30

Research Staff

Honorary Professor	1
Emeritus Professor	5
Emeritus Associate Professor	3
Honorary Research Associate	1
Total	10

Students

Doctoral	27
Master's	15
Honours	2
Undergraduate	1540
Total	1584

Staff and Research Fields

Permanent Staff

ASSOCIATE PROFESSOR A BUFFLER, HEAD OF DEPARTMENT
Experimental Nuclear Physics, Physics Education

ASSOCIATE PROFESSOR M S ALLIE (CHED)
Physics Education

PROFESSOR D G ASCHMAN
Experimental Nuclear Physics

ASSOCIATE PROFESSOR M D BLUMENTHAL
Solid State Physics

PROFESSOR D T BRITTON
Solid State Physics

ASSOCIATE PROFESSOR R W FEARICK
Experimental Nuclear Physics

DR I GOVENDER
Senior Lecturer; Applied Physics

DR A HAMILTON
Lecturer; Experimental Particle Physics

ASSOCIATE PROFESSOR M HÄRTING
Solid State Physics

DR W A HOROWITZ
Lecturer; Theoretical Particle Physics

MR G LEIGH
Part-time Lecturer

DR M R NCHODU
Lecturer; Experimental Nuclear Physics

PROFESSOR A PESHIER
Theoretical Physics

DR S W PETERSON
Lecturer; Applied Nuclear Physics

MS D TAYLOR (CHED)
Lecturer; Physics Education

ASSOCIATE PROFESSOR H W G WEIGERT
Theoretical Physics

DR S M WHEATON
Senior Lecturer; Computational Physics

Research Staff

EMERITUS PROFESSOR F D BROOKS
Experimental Nuclear Physics

EMERITUS PROFESSOR J W A CLEYMANS
Senior Research Associate, Theoretical Physics

ASSOCIATE PROFESSOR C M COMRIE
Solid State Physics

EMERITUS PROFESSOR C A DOMINGUEZ
Theoretical Particle Physics

PROFESSOR F E LUBBEN, (HRA)
Physics Education

EMERITUS PROFESSOR S M PEREZ
Theoretical Nuclear Physics

EMERITUS ASSOCIATE PROFESSOR P SPARGO
History of Science

EMERITUS PROFESSOR R D VIOLLIER
Theoretical Particle Physics and Astrophysics

Honorary Research Associates

Dr Girma Gonfa, Haramaya University, Ethiopia
Dr Evariste Minani, Kigali Institute of Education, Rwanda
Professor Marcelo Loewe, University of Mainz, Germany
Professor Karl Schilcher, University of Mainz, Germany

Distinguished Visitors

Mr Stephan Gohl, Germany
Professor Herbert Spiesberger, University of Mainz, Germany
Professor Karl Schilcher, University of Mainz, Germany
Dr Shadrack Nsengiyumva, University of Johannesburg, SA
Dr Peter Egelhof, GSI, Germany
Dr Zvi Citron, Weizmann Institute, Israel
Dr Arnaud Ferrari, Uppsala University, Sweden
Professor Sergio Colafrancesco, Wits University, SA
Professor John Wood, Georgia Tech, USA
Dr Neven Bilic, Boskovic Institute, Croatia
Professor Daya Reddy, UCT & CERECAM
Dr Habarulema, Dr De Villiers, Dr Oyeyemi and Ms Tshisaphungo, The South African National Space Agency
Associate Professor Patrick Woudt, Astronomy Dept., UCT
Dr Jeff Murugan, UCT Applied Math
Professor Kristian Müller-Nedebock, University of Stellenbosch
Dr Danish Azmi, University of Cape Town
Dr Hugo Touchette, Queen Mary, University of London, UK
Professor Ronald Bieniek, Missouri University of Science and Technology, USA
Dr Gyorgy Wolf, KFKI Budapest, Hungary
A. Oga & F. Adam, Greenpeace Africa
Professor David Wolfe, University of New Mexico, US
Professor Ketevi Assamagan, Brookhaven Nat Lab, US
Professor Raju Venugopalan, Brookhaven Nat Lab, US
Mr Chris Powell, UCT & Lawrence Berkeley Nat Lab, US
Professor Gregory Beaucage, Director of NanoPower Africa and University of Cincinnati, USA
Dr Jan Ilavsky, Argonne National Laboratory, USA
Dr Greg Smith, Oak Ridge National Laboratory, USA
Dr Neven Bilic, Rudjer Boskovic Institute
Dr Raju Venugopalan, Brookhaven National Laboratory, USA
Dr Nirmal Weerasekara, JKMERC, University of Queensland, Australia

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Research output

Articles in Peer-reviewed Journals

Armesto, N., Horowitz, W.A., Cole, B., Jacobs, P. and Sangyong, J. 2012. Comparison of jet quenching formalisms for a quark-gluon plasma "brick". Physical Review C, 86: 064904.

Ayala, A., Loewe, M., Rojas, J.C. and Villavicencio, C. 2012. Magnetic catalysis of a charged Bose-Einstein condensate. Physical Review D, 86: 076006.

Ayala, A., Dominguez, C.A., Loewe, M. and Zhang, Y. 2012. Rho-meson resonance broadening in QCD at finite temperature. Physical Review D, 86: 114036.

Bickell, M., Buffler, A., Govender, I. and Parker, D.J. 2012. A new line density tracking algorithm for PEPT and its application to multiple tracers. Nuclear Instruments & Methods in Physics Research Section A-Accelerators Spectrometers Detectors and Associated Equipment, 682: 36-41.

Blaschke, D., Berdermann, J., Cleymans, J.W.A. and Redlich, K. 2012. Chiral condensate and Mott-Anderson freeze-out. Few-Body Systems, 53: 99-109.

Bodenstein, S., Bordes, J., Dominguez, C.A., Penarrocha, J. and Schilcher, K. 2012. Bottom-quark mass from finite energy QCD sum rules. Physical Review D, 85: 034003.

Bodenstein, S., Dominguez, C.A., Eidelman, S., Spiesberger, H. and Schilcher, K. 2012. Confronting electron-positron annihilation into hadrons with QCD: an operator product expansion analysis. Journal of High Energy Physics, 201(01): 039.

Bodenstein, S., Dominguez, C.A. and Schilcher, K. 2012. Hadronic contribution to the muon g - 2 factor: a theoretical determination. Physical Review D, 85: 014020.

Bodenstein, S., Dominguez, C.A., Schilcher, K. and Spiesberger, H. 2012. Hadronic contribution to the QED running coupling a(M2Z). Physical Review D, 86: 093013.

Bordes, J., Dominguez, C.A., Moodley, P., Penarrocha, J. and Schilcher, K. 2012. Corrections to the SU(3) x SU (3) Gell-Mann-Oakes-Renner relation and chiral couplings Lr8 and Hr2. Journal of High Energy Physics, JHEP10(2012 102).

Britton, D.T., Jonah, E., Rai, D., Beaucage, G. and Sukumaran, S. 2012. Structure and Characterization of Silicon Nanoparticles Produced Using a Vibratory Disc Mill. Journal of Chemical Physics, 137: 6.

Brooks, F.D., Drosg, M., Smit, F.D. and Wikner, C. 2012. Detection of explosive remnants of war by neutron thermalisation. Applied Radiation and Isotopes, 70: 119-127.

Buck, B., Merchant, A. and Perez, S.M. 2012. Electromagnetic transition strengths in heavy nuclei. Physical Review C, American Physica Society, 85: 054302.

Cleymans, J.W.A. 2012. Antimatter production in high energy collisions. Acta Physica Polonica B, 5(3): 7.

Cleymans, J.W.A., Abelev, B.I., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M. 2012. Inclusive J/ production in pp collisions at s^(1/2)=2.76 TeV. Physics Letters B, 718: 11.

Cleymans, J.W.A., Abelev, B., Adam, J., Adare, A.M., Adamova, D. and Aggarwal, M.M. 2012. D+ meson production at central rapidity in proton-proton collisions at s^(1/2) = TeV*. Physics Letters B, 718: 15.

Cleymans, J.W.A., Lykasov, G.I., Sorin, A.S. and Teryaev, O.V. 2012. Dynamical and thermal descriptions in parton distribution functions. Physics of Atomic Nuclei, 75: 4.

Cleymans, J.W.A., Fearick, R.W., Aamodt, K., Abrahantes Quintana, A., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2011. Femtoscopy of pp collisions at s=0.9 and 7 TeV at the LHC with two-pion Bose-Einstein correlations. Physical Review D, 84: 11-22.

Cleymans, J.W.A., Fearick, R.W., Aamodt, K., Abelev, B., Abrahantes Quintana, A., Adamova, D. and Adare, A.M., et al. 2012. Harmonic decomposition of two particle angular correlations in Pb-Pb collisions at s^(1/2)_NN = 2.76 TeV. Physics Letters B, 708.

Cleymans, J.W.A. and Fearick, R.W. 2012. Heavy flavour decay muon production at forward rapidity in proton-proton collisions at s^(1/2)= 7 TeV. Physics Letters B, 708: 10.

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Abrahantes Quintana, A., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. J / polarization in pp collisions at s^(1/2) = 7 TeV. Physical Review Letters, PRL 108: (082001).

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Adam, J., Adamova, D., Aggarwal, M.M. and Aglieri Rinella, G., et al. 2012. J / suppression at forward rapidity in Pb-Pb collisions at s_NN = 2.76 TeV. Physical Review Letters, PRL 109: (072301).

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. J / production as a function of charged particle multiplicity in pp collisions at s^(1/2) = 7 TeV. Physics Letters B, 712(0370-2693): 10.

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Adam, J., Adare, A.M., Aggarwal, M.M., Aglieri Rinella, G. and Vilakazi, Z.Z. 2012. K0sK0s correlations in pp collisons at s^(1/2) = 7 TeV fromthe LHC ALICE experiment. Physics Letters B, 717: 151-161.

Cleymans, J.W.A., Abelev, B.I., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. KoKo correlations in pp colllisions at s^(1/2)=7 TeV from the LHC ALICE experiment. Physics Letters B, 717: 10.

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Abrahantes Quintana, A., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. Light vector meson production in pp collisions at s^(1/2)=7 TeV. Physics Letters B, 710: 11.

Cleymans, J.W.A., Fearick, R.W., Dainese, A., Abelev, B., Abrahantes Quintana, A., Adamova, D. and Adare, A.M. 2012. Measurement of charm production at central rapidity in proton-proton collisions at 8-7 TeV. Journal of High Energy Physics, 2012(1): 29.

Cleymans, J.W.A., Abelev, B., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M. 2012. Measurement of electrons from semileptonic heavy flavor hadron decays in pp collisions at s^(1/2) = 7 TeV. Physical Review D, 86(112007): 26.

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M. 2012. Measurement of event background fluctuations for charged particle jet reconstruction in Pb-Pb collisions at 8_NN = 2.76 TeV. Journal of High Energy Physics, 03(053): 25.

Cleymans, J.W.A., Abelev, B., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M. 2012. Measurement of prompt J/ and beauty hadron production cross sections at mid-rapidity in pp collisions at 8 = 7 TeV. Journal of High Energy Physics, 11(065): 30.

Cleymans, J.W.A., Abelev, B., Adam, J., Adare, A.M., Adamova, D. and Aggarwal, M.M. 2012. Measurement of the cross section for electromagnetic dissociation with neutron emission in Pb-Pb collisions at s^(1/2)_NN=2.76 TeV. Physical Review Letters, 109(252302): 10.

Cleymans, J.W.A., Fearick, R.W., Abelev, B.I., Adam, J., Adare, A.M., Aggarwal, M.M. and Aglieri Rinella, G., et al. 2012. Multi-strange baryon production in pp collisions at s^(1/2) = 7 TeV with ALICE. Physics Letters B, 712(0370-2693): 9.

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Abrahantes Quintana, A., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. Neutral pion and n meson production in proton-proton collisions at s^(1/2)= 0.9 TeV and s^(1/2) = 7 TeV. Modern Physics Letters B, 717: 10.

Cleymans, J.W.A., Anchishkin, D. and Naboka, V., et al. 2012. Nonequilibrium distribution functions of nucleons in relativisitic nucleus-nucleus colllisions. Condensed Matter Physics, 16(4): 10.

Cleymans, J.W.A., Fearick, R.W., Aamodt, K., Abelev, B., Abrahantes Quintana, A., Adare, A.M. and Aggarwal, M.M., et al. 2012. Particle-yield modification in jetline azimuthal dihadron correlations in Pb-Pb collisions at s^(1/2)_NN = 2.76 TeV. Physical Review Letters, PRL 108(092301): 11.

Cleymans, J.W.A., Abelev, B., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. Pion, kaon, and proton production in central Pb-Pb collisions at s^(1/2)_NN = 2.76 TeV. Physical Review Letters, PRL109: 11.

Cleymans, J.W.A., Abelev, B., Adam, J., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. Production of K*(892)0 and 0(1020) in pp collisions at s^(1/2) = 7 TeV. European Physical Journal C, 2012(72-2183): 17.

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Adam, J., Adare, A.M., Agarwal, M. and Aglieri Rinella, G., et al. 2012. Production of muons from heaby flavor decays at forward rapidity in pp and Pb-Pb Collisions at s^(1/2)_NN = 2.76 TeV. Physical Review Letters, PRL 109(112301): 11.

Cleymans, J.W.A., Aamodt, K., Quintana, A., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2011. Rapidity and transverse momentum dependence of inclusive J/ production in pp collisions at s^(1/2) = 7 TeV. Physics Letters B, 704: 33.

Cleymans, J.W.A. and Worku, D. 2012. Relatavistic thermodynamics: transverse momentum distributions in high-energy physics. European Journal of Physics, A48(160): 810.

Cleymans, J.W.A. 2012. The thermal model at the large hadron collider. Acta Physica Polonica B, 43(4): 563-570.

Cleymans, J.W.A. and Worku, D. 2012. The Tsallis distribution in proton-proton collisions at s = 0.9 TeV at the LHC. Journal of Physics G-Nuclear and Particle Physics, 39: 025006.

Cleymans, J.W.A., Fearick, R.W., Abelev, B., Abrahantes Quintana, A., Adamova, D., Adare, A.M. and Aggarwal, M.M., et al. 2012. Underlying event measurements in pp collisions at s^(1/2)= 0.9 and 7 TeV withthe ALICE experiment at the LHC. Journal of High Energy Physics, JHEP07(116): 42.

Cole, K.E., Buffler, A., van der Meulen, N.P., Cilliers, J.J., Franzidis, J.-P., Govender, I., Liu, C. and van Heerden, M.R. 2012. Positron emission particle tracking measurements with 50 micron tracers. Chemical Engineering Science, 75: 235-242.

Comrie, C.M., Smeets, D., Pondo, J., Van Der Walt., C., Demeulemeester, J., Knaepen, W., Detavernier, C., Habanyama, A. and Vantomme, A. 2012. Determination of the dominant diffusing species during nickel and palladium germanide formation. Thin Solid Films, 526: 261-268.

Demeulemeester, J., knaepen, w., Smeets, D., Schrauwen, A., Barradas, N.P., Comrie, C.M., Vieira, A., Detavernier, C., Temst, K. and Vantomme, A. 2012. In situ study of the growth properties of Ni-rare earch silicides for interlayer and alloy systems on Si(100). Journal of Applied Physics, III(043511).

Dominguez, C.A., Loewe, M. and Zhang, Y. 2012. Chiral symmetry restoration and deconfinement in QCD at finite temperature. Physical Review D, 86(034030): 034030.

Falomir, H., Gamboa, J., Loewe, M. and Nieto, M. 2012. Graphene and non-Abelian quantization. Journal of Physics A: Mathematical and Theoretical, 45: 135308.

Falomir, H., Gamboa, J., Loewe, M., Fernandez-Mendez, F. and Rojas, J. 2012. Spin noncommutativity and the three-dimensional harmonic oscillator. Physical Review D, 85: 1-5.

Fearick, R.W., Perez, S.M., Freer, M., Itoh, M., Kawabata, T., Fujita, H. and Buthelezi, E.Z. 2012. Consistent analysis of the 2+ excitation of the 12C Hoyle state populated in proton and a-particle inelastic scattering. Physical Review C, 86(034320): 5.

Fearick, R.W., Nemulodi, F., Smit, F.D., Buthelezi, E.Z., Carter, J., Fortsch, S. and Freer, M. 2012. No evidence of an 11.16 MeV 2+ state in 12C. Physical Review C, 86(037301): 3.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. A measurement of the ratio of the W and Z cross sections with exactly one associated jet in pp collisions at s^(1/2) = 7 TeV with ATLAS. Physics Letters B, 708: 19.

Hamilton, A., AAD, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al.2012. A search for tt resonances inlepton+jets events with highly boosted top quarks collected in pp collisions at s^(1/2)= 8 TeV withthe ATLAS detector. Journal of High Energy Physics, 09(041): 44.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. ATLAS search for a heavy gauge boson decaying to charged lepton and a neutrino in pp collisions at s^(1/2) = 7 TeV. European Physical Journal C, 72: 23.

Hamilton, A., AAD, G., Abdallah, J., Abbott, B., Abdelalim, A.A. and Abdel Khalek, S.A.K., et al. 2012. Combined search for the standard model Higgs boson in pp collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 86: 31.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Combined search for the Standard Model Higgs boson usig up to 4.9 fb-1 of pp colllision data at s^(1/2) = 7 TeV with the ATLAS detector at the LHC. Physics Letters B, 710: 17.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Electron performance measurements with the ATLAS detector using the 2012 LHC proton-proton collision data. European Physical Journal C, 72: 46.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Evidence for the associated production of a W boson and a top quark in ATLAS at s^(1/2) = 7 TeV. Physics Letters B, 716: 17.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Forward-backward correlations and charged-particle azimuthal distributions in pp interaction using the ATLAS detector. Journal of High Energy Physics, 07(019): 45.

Hamilton, A., AAD, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Further search for supersymmetry at s^(1/2) = 7 TeV in final states with jets, missing transcerse momentum and isolated leptons with the ATLAS detector. Physical Review D, 86(092002): 35.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdelalim, A.A., et al. 2012. K(0,s) and production in pp interaction at(s^(1/2)0.9 and 7 TeV measured with the ATLAS detector at the LHC. Physical Review D, 85: 28.

Hamilton, A., AAD, G., Abdallah, J., Abbott, B., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of (tao) polarization in W~ (tao)v decays with the ATLAS detector pp collisions at s^(1/2) = 7 TeV. European Physical Journal C, 72: 21.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of D*+/- meson production in jets from pp collisions at s = 7 TeV with the ATLAS detector. Physical Review D, 85: 22.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of event shapes at large momentum transfer with the ATLAS detector in pp collisions at s^(1/2) = 7 TeV. European Physical Journal C, 72: 22.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdelalim, A.A., et al. 2012. Measurement of inclusive jet and digit production in pp collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 86: 38.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdelalim, A.A., et al. 2012. Measurement of isolated diphoton cross section in pp collision at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 85: 28.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Measurement of the azimuthal anisotropy for charged particle production in s^(1/2)_nn = 2.76 TeV lead-lead collisions with the ATLAS detector. Physical Review C, 86: 41.

Hamilton, A. and AAD, G., et al. 2012. Measurement of the azimuthal ordering of charged hadrons with the ATLAS detector. Physical Review D, 86: 25.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdellasam, A., et al. 2012. Measurement of the azimuthal ordering of charged hadrons with the ATLAS detector. Physical Review D, 86: 25.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Measurement of the b-hadron production cross section using decays to D*+ u-X final states in pp collisions at s^(1/2) =7 TeV with the ATLAS detector. Nuclear Physics B, 864: 40.

Hamilton, A., AAD, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the centrality dependence of the charged particle pseudorapidity distribution in lead-lead collisions at s^(1/2)_NN = 2.76 TeV with the ATLAS detector. Modern Physics Letters B, 710: 9.

Hamilton, A., Addy, T.N.A., Adelman, J.A., Adomeit, S.A., Adye, T.A. and Aderholz, M.A., et al. 2012. Measurement of the charge asymmetry in top quark pair production in pp collisions at s^(1/2) = 7 TeV using the ATLAS detector. European Physical Journal C, 72: 27.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement

of the cross section for the production of a W bosun in association with b-jets in pp collisions at s^(1/2) =7 TeV with the ATLAS detector. Physics Letters B, 707: 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the cross-section for b-jets produced in association with a Z boson at s^(1/2) =7 TeV with the ATLAS detector. Physics Letters B, 706: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the inclusive and dijit cross - section of b-jets inpp collision at s^(1/2) = 7Tev with the ATLAS detector. Physical Review C, 71: 22.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the inclusive W+- and Z/gamma cross sections in the electron and muon decay channels in pp collisions at s = 7 TeV with the ATLAS detector. Physical Review D, 85: 39.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the polarisation of W bosons produced with large transverse momentum in pp collisions at s^(1/2) = 7 TeV with the ATLAS experiment. European Physical Journal C, 72(72:2001): 30.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the production cross section for Z/gamma* in association with jets in pp collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 85: 41.

Hamilton, A., Aad, G., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the production cross section of an isolated photon associated with jets in proton-proton collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 85(092014): 28.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the pseudorapidity and transverse momentum dependence of the elliptic flow of charged particles in lead-lead collisions at s^(1/2) = 2.76 TeV with the ATLAS detector. Physics Letters B, 707: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Measurement of the t-channel single top-quark production cross section in pp collisions at s = 7 TeV with the ATLAS detector. Physics Letters B, 717: 20.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the top quark mass with the template method in the tt - lepton + jets channel using ATLAS data. European Physical Journal C, 72: 30

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Measurement of the top quark pair cross section with ATLAS in pp collisions at s = 7 TeV using final states with an electron or a muon and a hadronically decaying tau lepton. Physics Letters B, 717: 19.

Hamilton, A., Aad, G., Abbott, B., Abdel Khalek, S.A.K. and Abdallah, J., et al. 2012. Measurement of the top quark pair production cross-section with ATLAS in the single lepton channel. Physics Letters B, 717: 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the top quark pair production cross section in pp collisions at s^(1/2) = 7 TeV in delepton final states with ATLAS. Physics Letters B, 707: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of the W+-Z production cross section and limits on anomalous triple gauge couplings in proton-ptroton collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physics Letters B, 709: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdinov, O., et al. 2012. Measurement of the ZZ production cross section and limits on anomalous neutral triple gauge couplines in proton-proton collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review Letters, 108(041804): 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdelalim, A.A., et al. 2012. Measurement of transverse momentum distribution of W bosons in pp collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 85: 30.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of tt^ production with a veto on additional central jets in pp collision at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review C, 72: 24.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J. and Abdesselam, A.A.A., et al. 2012. Measurement of W - tvt cross section in pp collisons at s^(1/2) = 7TeV with the ATLAS experiment. Physics Letters B, 706: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Measurement of W gamma and Z gamma production cross sections in pp collisions at s = 7 TeV and limits on anomalous triple gauge couplings with the ATLAS detector. Physics Letters B, 717: 20.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Measurement of W(gamma) and Z(gamma) production cross section in pp collisions at s^(1/2) = 7 TeV and limits on anomalous triple gauge couplings with the ATLAS detector. Physics Letters B, 717: 20.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Mesurement of the top quark pair production cross-section with ATLAS in the single lepton channel. Physics Letters B, 711: 19.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Obervation of a new particle in the search for the standard model Higgs boson with the ATLAS detector at the LHC. Physics Letters B, 716: 29.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Observation of a new xb state in radiative transitions to Y(1S) and Y (2S) at ATLAS. Physical Review Letters, 108(152001): 17.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K. 2012., et al. Observation of anew particle in the search for the standard model Higgs boson with the ATLAS detector at the LHC. Physics Letters B, 716: 29.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Observation of spin corrrelation in tt- events from pp collisions at s^(1/2) = 7 TeV using the ATLAS detector. Physical Review Letters, 108(212001): 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Performance of the ATLAS trigger system in 2010. European Physical Journal C, 72: 61.

Hamilton, A., Aad, G., Abdallah, J., Abdelalim, A.A., Abbott, B. and Abdesselam, A.A.A., et al. 2012. Rapidity gap cross section measured with the ATLAS detector in pp collisions at s^(1/2) = 7 TeV. European Physical Journal C, 72: 31.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Khalek, S. and Abdelalim, A.A., et al. 2012. Search for a fermiophobic Higgs boson in the diphoton decay channel with the ATLAS detector. European Physical Journal C, 72-2157: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for a heavy standard model Higgs boson in the channel H - ZZ - l+l-qq using the ATLAS detector. Physics Letters B, 707: 18.

Hamilton, A., Aad, G., Abbott, B., Abdelalim, A.A., Abdel Khalek, S.A.K. and Abdallah, J., et al. 2012. Search for a heavy top-quark partner in final states with two leptons with the ATLAS detector at the LHC. Springer Tracts in Modern Physics, 094: 34.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for a light Higgs boson decaying to long-lived weakly interacting particles in proton-proton collision at s^(1/2) = 7TeV with ATLAS detector. Physical Review C, 86: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for a standard model Higgs boson in the H~ZZ~ +l-l v-v decay using 4.7 fb^-1 of s^(1/2) = 7 TeV data with ATLAS detector. Physics Letters B, 717: 20.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for a strong gravity signatures in same-sign dimuon final states using the ATLAS detector at the LHC. Physics Letters B, 709: 18.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for a supersymmetric partner to the top quark in final states with jets and missing transverse momentum at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review Letters, 109(211802): 18.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K. 2012., et al. Search for anomalous production of prompt like-sign lepton pairs at s^(1/2) = 7 TeV with the ATLAS detector. Journal of High Energy Physics, 12(007): 40.

Hamilton, A., Aad, G., Abbott, B., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for anomalous production of prompt like-sign muon pairs and constraints on physics beyond the standard model with the ATLAS detector. Physical Review D, 85: 23.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for anomaly-mediated supersymmetry breaking with the ATLAS detector based on a disappearing-track signature in

pp collisions at s^(1/2) = 7 TeV. European Physical Journal C, 72:1993: 20.

Hamilton, A., Abdesselam, A.A.A., Aad, G., Abbott, B., Abdallah, J. and Abdelalim, A.A., et al. 2012. Search for contact interactions in delepton events from pp collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physics Letters B, 712: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for decays of stopped, long-lived particles from 7 TeV pp collisions with the ATLAS detector. European Physical Journal C, 72(1965): 21.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for diphoton events with large missing transverse momentum in 1 fb-1 of 7 TeV proton-proton collision data with the ATLAS detector. Physics Letters B, 710: 18.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for diphoton events with large missing transverse momentum in 5 fb-1 of 7 TeV proton-proton collision data with the ATLAS detector. Physics Letters B, 718: 18.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for direct top squark pair production in final states with one isolated lepton, jets and missing transverse momentum in s^(1/2) = 7 TeV pp collisions using 4.7 fb-1 of ATLAS data. Physical Review Letters, 109(211803): 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdelalim, A.A., et al. 2012. Search for displaced vertices arising from decays of new heavy particles in 7 TeV pp collisions at ATLAS. Physics Letters B, 707: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Search for events with large missing transverse momentum, jets, and at least two tau leptons in 7 TeV proton-proton collision data with the ATLAS detector. Physics Letters B, 714: 16.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdinov, O., et al. 2012. Search for excited leptons in proton-proton collisions at s = 7 TeV with the ATLAS detector. Physical Review D, 85: 23.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for extra dimensions using diphoton events in 7 TeV proton-proton collisions with the ATLAS detector. Physics Letters B, 710: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for extra dimensions using diphoton events in 7 TeV proton-proton collisions with the ATLAS detector. Physics Letters B, 710: 18

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for fermiophobic Higgs boson in the diphoton decay channel with the ATLAS detector. European Physical Journal C, 72: 24.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for first generation scalarleptoquarks in pp collisons at s^(1/2) = 7 TeV with the ATLAS detector. Physics Letters B, 709: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for gluinos in events with two same-sign leptons, jets and missing transverse momentum with the ATLAS detectorin pp collisions at s^(1/2) = 7 TeV. Physical Review Letters, 108(241802): 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for heavy neutrinos and right-handed W bosons in events with two leptons and jets in pp collisions at s^(1/2) = 7 TeV with the ATLAS detector. European Physical Journal C, 72: 22.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Search for heavy vector-like quarks coupling to light quarks in proton-proton collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physics Letters B, 712: 17.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdel Khalek, S.A.K., et al. 2012. Search for high-mass resonances decaying to dilepton final states in pp collisions at s^(1/2)with the ATLAS detector. Springer Tracts in Modern Physics, 138: 45.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for lepton flavour violation in the em continuum of with the ATLAS detector in s^(1/2) = 7 Tev pp collision at LHC. Physical Review C, 72: 19.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for light scalar top-quark pair production in final states with two leptons with the ATLAS detector in s^(1/2) = 7 TeV proton-proton collisions. European Physical Journal C, 72: 20.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for magnetic

monopoles in s^(1/2) = 7 TeV pp collisions with the ATLAS detector. Physical Review Letters, 109(261803): 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for new phenomena in tt events with large missing transverse momentum in proton-proton collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review Letters, 108(041805): 18.

Hamilton, A., Aad, G.A., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for pair production of heavy up-type quark decaying to a W boson and a b quark in the lepton + jets channel with the ATLAS detector. Physical Review C, 108: 18

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for pair production of massive particles decaying into three quarks with the ATLAS detector in s^(1/2) =7 TeV pp collisions at the LHC. Journal of High Energy Physics, 12(086): 41.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for pair-product heavy quarks decaying to Wq in the two-Lepton channel at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 86: 24.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdinov, O., et al. 2012. Search for production of resonant states in the photon-jet mass distribution using pp collisions at s^(1/2) = 7 TeV collected by the ATLAS detector. Physical Review Letters, 108(211802): 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for resonant WZ production in the WZ~lvVV channel in s^(1/2) = 7 TeV pp collision with ATLAS detector. Physical Review D, 85: 21.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for scalar bottom quark pair production with the ATLAS detector in pp collisions at s^(1/2) = TeV. Physical Review Letters, PRL 108(181802): 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for scalar top quark pair production in natural gauge mediated supersymmetry model with the ATLAS detector in pp collisions at s^(1/2) = 7 TeV. Physics Letters B, 715: 16.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdelalim, A.A., et al. 2012. Search for second generation scaler leptoquarks in pp collision at s^(1/2) = 7TeV with the ATLAS detector. Physical Review C, 72: 21.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for squarks and gluinos using final states with jets and missing transverse momentum with the ATLAS detector in s^(1/2) = 7 TeV proton-proton collisions. Physics Letters B, 710: 18.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdel Khalek, S.A.K., et al. 2012. Search for standard model Higgs Boson in the mass range 200-600GeV in the H~ZZ~ +l-l q-q decay with the ATLAS detector. Physics Letters B, 717: 20.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for supersymmetry in final states with jets, missing transverse momentum and one isolated lepton in s^(1/2) = 7 TeV pp collision using1 fb^-1 of ATLAS data. Physical Review D, 85: 30.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Search for supersymmetry with jets, missing transverse momentum and at least on hadronically decay t lepton in proton-proton collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physics Letters B, 714: 17.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Search for supersymmetry in pp collisions at s^(1/2) = 7 TeV in final states with missing transverse momentum and b-jets with the ATLAS detector. Physics Letters B, 85: 29.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for the doubly charged Higgs bosons in like-sign dilepton final state at s^(1/2) = 7 Tev with the ATLAS detector. Physical Review C, 72: 18.

Hamilton, A., Aad, G., Abdallah, J., Abdelalim, A.A., Abdesselam, A.A.A. and Abdinov, O., et al. 2012. Search for the Higgs boson in the H - WW (*) l+ vl-vdevay channel in pp Collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review Letters, PRL 108(111802): 19.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for the Higgs boson in the H->WW->lnujj decay channel at s = 7 TeV with the ATLAS detector. Physics Letters B, 718: 19.

Hamilton, A., Aad, G., Abajyan, T., Abbott, B., Abdallah, J. and Abdel Khalek, S.A.K., et al. 2012. Search for the Higgs boson in the H->WW->lnujj decay channel at s = 7 TeV with the ATLAS detector. Physics Letters B, 718: 20.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A. 2012. Search for the standard model Higgs boson in the decay channel H - ZZ (*) - 4l with 4.8fb-1 of pp collision data at s^(1/2) = 7 TeV with ATLAS. Physics Letters B, 710: 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Search for the standard model Higgs boson in the diphoton decay channel with 4.9 fb-1 of pp collision data at s^(1/2) = 7 TeV with ATLAS. Physical Review Letters, prl 108(111803): 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for the standard model Higgs boson in the H~ WW^* ~ lvlv decay with 4.7fb^-1 of ATLAS data at s^(1/2) = 7 TeV. Physics Letters B, 716: 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdel Khalek, S.A.K., et al. 2012. Search for the standard model Higgs boson produced in association with a vector boson and decaying to a b-quark pair with the ATLAS detector. Physics Letters B, 718: 21.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Search for the standard model Higgs boson produced in association with a vector boson and decaying to b-quark pair with the ATLAS detector. Physics Letters B, 718: 21.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdel Khalek, S.A.K., et al. 2012. Search for top and bottom squarks from gluino pair production to final states with missing transverse energy and at least three b-jets with the ATLAS detector. European Physical Journal C, 72: 19.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdelalim, A.A. and Abdesselam, A.A.A., et al. 2012. Searches for supersymmetry with the ATLAS detector using fina states with two leptons and missing transverse momentum in s^(1/2) = 7 TeV proton-proton collisions. Physics Letters B, 709: 20.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdesselam, A.A.A. and Abdelalim, A.A., et al. 2012. Study of jets produced in association with a W boson in pp collisions at s = 7 TeV with the ATLAS detector. Physical Review D, 85: 40.

Hamilton, A., Aad, G., Abbott, B., Abdallah, J., Abdel Khalek, S.A.K. and Abdelalim, A.A., et al. 2012. Underlying even characteristics and their dependence on jet size of charged-particle jet events in pp collisions at s^(1/2) = 7 TeV with the ATLAS detector. Physical Review D, 86: 34.

Ibrahim, T.T., Perez, S.M., Wyngaardt, S.M., Buck, B. and Merchant, A, et al. 2012. Hybrid potential analysis of exotic clustering in heavy nuclei. Physical Review C, 85:044313.

Jonah, E., Britton, D.T., Beaucage, G., Rai, D., Beaucage, G., Magunje, B., Ilavsky, J., Scriba, M.R. and Harting, M., et al. 2012. Topological investigation of electronic silicon nanoparticulate aggregates using ultra-small-angle x-ray scattering. Journal of Nanoparticle Research, 14(1249): 10.

Loewe, M., Falomir, H., Gamboa, J., Fernandez-Mendez, F. and Vega, J., et al. 2012. Noncommutativity in (2+1)-dimensions and the Lorentz group. Physical Review D, 86: 105035.

Mackin, D., Peterson, S., Beddar, S. and Polf, J.C., et al. 2012. Evaluation of a stochastic reconstruction algorithm for use in Compton camera imaging and beam range verification from secondary gamma emission during proton therapy. Physics in Medicine and Biology, 57: 3537-3553.

Msimanga, M., Pineda-Vargas, C.A., Comrie, C.M. and Murray, S., et al. 2012. Heavy ion energy loss straggling data from time of flight stopping force measurements. Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms, B(273): 4.

Peshier, A. 2012. Turning on the charm. Nuclear Physics A, 888: 7-22.

Rai, D.K., Beaucage, G., Jonah, E., Britton, D.T., Sukumaran, S., Chopra, S., Gonfa, G. and Harting, M., et al. 2012. Quantitative investigations of aggregate systems. Journal of Chemical Physics, 137: 044311.

Roux, D.G., Henninger, K.R., Bark, R.A., Bvumbi, S., Gueorguieva-Lawrie, E., Lawrie, J., Mullins, S., Murray, S., Ntshangase, S., Masiteng, L. and Shirinda, O., et al. 2012. In-beam spectroscopy of 72Ge. European Physical Journal A, 48(7): 1-14.

Weigert, H.W.G., Kuokkanen, J. and Rummukainen, K. et al. 2012. HERA-data in the light of small x evolution with state of the art NLO input. Nuclear Physics A, 875: 64.

Wootton, L.S., Polf, J.C., Peterson, S., Wilkinson, J., Rozner, M.A., Balter, P.A. and Beddar, S. et al. 2012. Proton dose perturbations caused by high-voltage leads from implanted cardioverter defibrillators. Journal of Applied Clinical Medical Physics, 13(4): 13-21.

Zimmer, O., Dominguez, C.A., Falomir, H. and Loewe, M., et al. 2012. Observability of an induced electric dipole moment of the neutron from nonlinear QED. Physical Review D, 85(013004): 12.

Peer-reviewed published conference proceedings

Bbosa, L.S., Govender, I., Mainza, A.N., Powell, M.S. and Plint, N. 2012. Comparing power draw predictions in experimental scale tumbling mills using PEPT and DEM. Conference Proceedings XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Bickell, M., Buffler, A. and Govender, I. 2012. A fully 4D mesh parameterisation PET image reconstruction algorithm for list-mode data. In M.G Bickell, A. Buffler and I. Govender (eds), Proceedings of Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2011, IEEE, 23-19 October, Valencia, Spain. IEEE Xplore. ISSN 10823654.

Govender, I., Richter, M., Tupper, G.B. and Mainza, A.N. 2012. Granular flow modelling in tumbling mills. Conference Proceedings XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Horowitz, W.A. 2012. Testing pQCD and AdS/CFT energy loss at RHIC and LHC. In SG Steadman, G.S.F. Stephans and F.E. Taylor (eds), 19th Particles and Nuclei International Conference (PANIC11). AIP Conference Proceedings, 24-29 July 2011, MIT, Cambridge, US. US: American Institute of Physics. ISBN 9780735410367.

Mannl, U., Magunje, B., van den Berg, C., Britton, D.T. and Harting, M. 2012. Electronic devices based on printed silicon nanoparticles. Proceedings of the International Conference Nanomaterials: Applications and Properties (NAP-2012), 17-22 September 2012, Alushta, the Crimea, Ukraine. Ukraine: Sumy State University. ISSN 23041862.

Ngoepe, N., Mainza, A., Govender, I., Bradshaw, D.J., Morrison, A. and Parker, D.I. 2012. Tracking the motion of particle-bubble aggregates in flotation using pept. Conference Proceedings XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Scriba, M.R., Britton, D.T. and Harting, M. 2012. Hot wire and spark pyrolysis as simple new routes to silicon nanoparticle synthesis. In S. Mathur and S.S. Ray (eds), Proceedings of Nanostructured Materials and Nanotechnology VI. 36th International Conference on Advanced Ceramics and Composites, 22-27 January 2012, Daytone Beach, Florida, USA. USA: John Wiley & Sons Inc. ISBN 9781118205976.

Patents

Britton, D.T. and Haerting, M. 2012. Assembling and Packaging a Discrete Electronic Component. Registered in: Cape Town. WIPO. Date registered: 22/03/2012. WO 2012/035493 A1.

Britton, D.T. and Haerting, M. 2012. Inkjet Printing of Nanoparticulate Functional Inks. Registered in: Cape Town. European Patent Office. Date registered: 08/08/2012. EP 2 285 574 B1.

Britton, D.T. and Haerting, M. 2012. Method of \Producing Stable Oxygen Terminated Semiconduction Nanoparticles. Registered in: Cape Town. United States Patent. Date registered: 26/01/2012. US 2012/0018551 A1.

Britton, D.T. and Haerting, M. 2012. Printed Temperature Sensor. Registered in: Cape Town. WIPO. Date registered: 22/03/2012. WO 2012/035494 A1.

Britton, D.T. and Haerting, M. 2012. Semiconducting Nanoparticles with Surface Modification. Registered in: Cape Town. United States Patent. Date registered: 15/01/2013. US 8 354 662 B2.

Britton, D.T. and Harting, M. 2012. Thick Film Semi-Conducting Inks. Registered in: Cape Town. Chinese Patent Office. Date registered: 18/04/2012. CN101346441 B.

Britton, D.T. and Harting, M. 2012. Thin Film Semi-Conducting Device. Registered in: Cape Town. Japanese Patent Office. Date registered: 09/08/2012. P2012-151480A.

Department of Statistical Sciences

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR CHRISTIEN THIART

Departmental Profile

Statistical sciences are defined to include the traditional concepts of statistics as well as allied areas such as operation management research and decision modeling. The department is located academically in both the Faculties of Science and Commerce. Research within the department covers econometrics and financial modeling, biodiversity modelling, mathematical and theoretical statistics, operational research, reliability and geostatistics.

Departmental Statistics

Permanent and long-term contract staff

Professors	3
Associate Professors	3
Senior Lecturers	7
Lecturers	6
Emeritus Professor	3
Emeritus Associate Professor	1
Scientific Officer	1
Administrative and Clerical Staff	6
Total	29

Students

Doctoral	10
Master's	18
Postgraduate service courses	89
Honours	21
Undergraduate	4076
Total	4214

Research Fields and Staff

Permanent staff

PROFESSOR GRAHAM BARR
Econometrics and economic forecasting; financial modeling; problem gambling analysis.

PROFESSOR DAVE BRADFIELD
Financial modelling.

PROFESSOR TIM DUNNE
Generalized linear models; statistical methods in education and psychology.

EMERITUS PROFESSOR RENKUAN GUO
Reliability and quality; imprecise spatial analysis.

EMERITUS PROFESSOR LINDA HAINES
Optimal experimental design; extreme value theory; modelling count data; time series.

EMERITUS PROFESSOR THEODOR STEWART
Multicriteria decision analysis and multiobjective optimization; resource allocation and management.

ASSOCIATE PROFESSOR CHRISTIEN THIART
Head of Department; GIS and spatial modeling; mixed linear models.

ASSOCIATE PROFESSOR FRANCESCA LITTLE
Statistical modeling; Biostatistic; longitutdinal Data analysis; Analysis of Causality; Analysis of time to event.

ASSOCIATE PROFESSOR SUGNET LUBBE
Multivariate statistics; Graphical displays; Biplots.

EMERITUS ASSOCIATE PROFESSOR JUNE JURITZ
Biostatistics, hierarchical generalised mixed models.

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Senior Lecturer; environmetrics; biometrics; generalized linear models; spatial statistics.

DR JUWA NYIRENDA
Senior Lecturer; operations research; management studies; simulation and Heuristics.

DR LEANNE SCOTT
Senior Lecturer; decision analysis; statistical methods in the social sciences and local government; operations research in developing countries.

MR KARL STIELAU
Senior Lecturer; sampling, ecological statistics and probability models.

DR IAN DURBACH
Senior Lecturer; decision analysis; risk and uncertainty.

DR FREEDOM GUMEDZE
Senior Lecturer; biostatistics; mixed linear models; longitudinal data analysis; survival analysis.

DR MELVIN VARUGHESE
Senior Lecturer; ecological modelling, statistical analysis of cosmological data; diffusion processes.

MR ALLAN CLARK
Lecturer; Bayesian analysis; Extreme value theory; Econometric modelling

MR GREG DISTILLER
Lecturer; biostatistics; statistical ecology.

DR MIGUEL LACERDA
Lecturer; bioinformatics; stochastic processes.

MS SHEETAL SILAL
Lecturer; Mathematical modeling of infectious disease; public health.

MR DOMINIQUE KATSHUNGA
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Research output

Articles in Peer-reviewed Journals

Altwegg, R., Broms, K., Erni, B., Barnard, P., Midgley, G.F. and Underhill, L.G. 2012. Novel methods reveal shifts in migrationphenology of barn swallows in South Africa. Proceedings of the Royal Society B-Biological Sciences, 279: 1485-1490.

Beach, R.A., Wilkinson, K., Gumedze, F.N. and Khumalo, N. 2012. Baseline sebum IL-1β is higher than expected in afro-textured hair: a risk factor for hair loss? Journal of Cosmetic Dermatology, 11: 9-16.

Beach, R.A., Wilkinson, K., Gumedze, F.N. and Khumalo, N.P. 2012. Sebum transforming growth factor B1 induced by hair products. Archives of Dermatology, 148(6): 764-766.

Distiller, G., Altwegg, R., Crawford, R., Klages, N.T.W. and Barham, B. 2012. Factors affecting adult survival and inter-colony movement at the three South African colonies of Cape gannet. Marine Ecology-Progress Series, 461: 245-255.

Dunne, T.T., Long, C., Craig, T.S. and Venter, E. 2012. Meeting the requirements of both classroom-based and systemic assessment of mathematics proficiency: the potential of Rasch measurement theory. Pythagoras, 33(3): 19.

Durbach, I.N. and Stewart, T.J. 2012. A comparison of simplified value function approaches for treating uncertainty in multi-criteria decision analysis. Omega-International Journal of Management Science, 40: 456-464.

Durbach, I.N. 2012. An empirical test of the evidential reasoning approach's synthesis axioms. Expert Systems with Applications, 39: 11048-11054.

Durbach, I.N. and Stewart, T.J. 2012. Modeling uncertainty in multi-criteria decision analysis. European Journal of Operational Research, 223: 15.

Guo, R., Cui, Y. and Guo, D. 2012. Uncertainty statistics. Journal of Uncertain Systems, 6(3): 12.

Hlozek, R., Kunz, M., Bassett, B.A., Smith, M., Newling, J., Varughese, M., Kessler, R., Bernstein, J.P., Campbell, H., Dilday, B., Falck, B., Frieman, J., Kuhlmann, S., Lampeitl, H., Marriner, J., Nichol, R.C., Riess, A.G., Sako, M. and Schneider, D. 2012. Photometric supernova cosmology with beams and sdss-11. Astrophysical Journal, 752: 79.

Kabera, G.M., Haines, L.M. and Ndlovu, P. 2012. A note on the construction of locally D- and Ds-optimal designs for the binary logistic model with several explanatory variables. Statistics & Probability Letters, 82: 865-870.

Khumalo, N. and Gumedze, F.N. 2012. The adapted classification of male pattern hair loss improves reliability. Dermatology, 225(2): 110-114.

Khumalo, N. and Gumedze, F.N. 2012. Traction: risk factor or coincidence in central centrifugal cicatricial alopecia? British Journal of Dermatology, 167(5): 1191-1193.

London, L., Beseler, C., Bouchard, M.F., Bellinger, D., Colosio, C., Grandjean, P., Harari, R., Kootbodien, T., Kromhout, H., Little, F., Meijster, T., Moretto, A., Rohlman, D.S. and Stallones, L. 2012. Neurobehavioral and neurodevelopmental effects of pesticide exposures. Neurotoxicology, 33: 887-896.

Moshabela, M., Schneider, H., Silal, S.P. and Cleary, S. 2012. Factors associated with patterns of plural healthcare utilization among patients taking antiretroviral therapy in rural and urban South Africa: a cross-sectional study. BMC Health Services Research, 12: 1-12.

Mustart, P.J., Rebelo, A.G., Juritz, J.M. and Cowling, M. 2012. Wide variation in post-emergence desiccation tolerance of seedlings of fynbos proteoid shrubs. South African Journal of Botany, 80: 110-117.

Newling, J., Bassett, B.A., Hlozek, R., Kunz, M., Smith, M. and Varughese, M. 2012. Parameter estimation with Bayesian estimation applied to multiple species in the presence of biases and correlations. Monthly Notices of the Royal Astronomical Society, 421: 913-925.

Peter, J., Theron, G., Van Zyl Smit, R., Haripersad, A., Mottay, L., Kraus, S., Binder, A.B., Meldau, R., Hardy, A. and Dheda, K. 2012. Diagnostic accuracy of a urine lipoarabinomannan strip-test for TB detection in HIV-Infected hospitlised patients. European Respiratory Journal, 40(5): 1211-1220.

Roberts, L., Passmore, J., Mlisana, K., Williamson, C., Little, F., Bebell, L.M., Walzl, G., Abrahams, M.H., Woodman, Z.L.,

Abdool Karim, Q. and Abdool Karim, S. 2012. Genital tract inflammation during early HIV-1infection predicts higher plasma viral load setpoint in women. Journal of Infectious Diseases, 205: 194-203.

Sharp, C., Barr, G.D.I., Ross, D.A., Bhimani, R., Ha, C. and Vuchinich, R. 2012. Social discounting and externalizing behavior problems in boys. Journal of Behavioral Decision Making, 25(3): 239-247.

Silal, S.P., Penn-Kekana, L., Harris, B., Birch, S. and McIntyre, D.E. 2012. Exploring inequalities in access to and use of maternal health services in South Africa. BMC Health Services Research, 12: 12.

Scriba, T.J., Tameris, M.D., Smit, E., Van der Merwe, L., Hughes, J., Kadira, B., Mauff, K.A.L., Moyo, S., Brittain, N., Lawrie, A., Mulenga, H., de Kock, M., Makhethe, L., van Rensburg, J.E., Gelderbloem, S., Veldsman, A., Hatherill, M., Geldenhuys, H.D., Hill, A.V.S., Hawkridge, A.J., Hussey, G.D., Hanekom, W.A., McShane, H. and Mahomed, H. 2012. A phase IIA trial of the new tuberculosis vaccine, MVA85A, in HIV- and/or mycobacterium tuberculosis-infected adults. American Journal of Respiratory and Critical Care Medicine, 185(7): 769-778.

Master's degrees (by research)

Anyogu, A. 2012. The use of problem structuring methods to explore the functioning and management of a selected NGO. Master's. Supervised by Scott, L.

Cecchini, L. 2012. Robben Island penguin pressure model: A decision support tool for an ecosystems approach to fisheries management. Master's. Supervised by Scott, L.

Gavine, L. 2012. The use of environmental damage schedules and conjoint analysis in environmental valuation and decision making. Master's. Supervised by Stewart, T.

Timm, A. 2012. An investigation of multidimensional scaling with an emphasis on the development of an R based graphical user interface for performing multidimensional scaling procedures. Master's. Supervised by Lubbe, S.

Department of Zoology

(Including the FitzPatrick Institute, DST/NRF Centre of Excellence, the Marine Research Institute and the Animal Demography Unit)

HEAD OF DEPARTMENT: PROFESSOR ANUSUYA CHINSAMY-TURAN

Department Profile

The Zoology Department houses the Marine Biology Research Centre (MBRC), the Percy FitzPatrick Institute, DST/NRF Centre of Excellence (PFIAO); the Freshwater Research Unit (FRU) and the Animal Demography Unit (ADU). Other smaller cogent groups co-ordinate research on mammals, palaeobiology, entomology and physiology. The Department hosts South African Research Chairs in Evolution and Systematics and in Marine Ecology and Fisheries. The Department has a large postgraduate school of some 173 master's and doctoral students and a significant portion of the research publications produced by UCT originate from Zoology.

Research interests of the MBRC include fisheries and coastal zone management, rocky shore ecology, seaweed and invertebrate biodiversity and systematics, the biology of the Benguela upwelling ecosystem, and biogeochemical cycles of the ocean, particularly of carbon and nitrogen, and how such cycles may be impacted by climate change. The PFIAO remains primarily involved in avian research, coupled with a strong emphasis on conservation biology. Research in the FRU focuses on the ecology of freshwater ecosystems, and on the conservation and management of rivers and wetlands. The Animal Demography Unit focuses on statistical ecology, with two strands of activities: a series of monitoring projects for birds, butterflies and reptiles, and a cohort of postgraduate students with statistics-rich research projects relating to various aspects of population dynamics. Other research in the department is centred around: the behaviour, ecology, physiology, systematics and evolutionary biology of a variety of small mammals (molerats, golden moles, rodents, bats), seals and primates; palaeobiology and osteohistology, including factors that affect bone depositional rates in modern birds and reptiles and the biological signals recorded in fossil bones of non-mammalian therapsids, mammals, dinosaurs and other archosaurs; the systematics and biogeography of insects and insect ecology in arid ecosystems; biological control, especially the use of herbivorous insects to curb the seeding capacity and invasiveness of problematic Australian acacia species; and physiological studies on

how small peptide hormones produced in nerve cells regulate energy metabolism, growth, development and reproduction in insects and crustaceans and how astaxanthin and chitin can be used in an economically viable way to deal with so-called waste products of the rock lobster industry.

Departmental Statistics

Permanent and Long-term Contract Staff

Professors	7
Associate Professors	9
Senior Lecturers	2
Lecturers	4
Research Staff	16
Library Manager	1
Technical Support Staff	4
Scientific Officers	5
Administrative and Clerical Staff	5
Laboratory Assistants	1
Total	54

Honorary Staff

Research Associates	34
Emeritus Professors	4
Emeritus Associate Professors	3
Professors	4
Total	45
Contract staff	16

Students

Postdoctoral	38
Doctoral	69
Master's	104
Honours	16
Undergraduate	560
Total	787

Research Fields and Staff

Permanent Academic Staff

PROFESSOR ANUSUYA CHINSAMY-TURAN
Head of Department. Palaeobiologist. Undertakes comparative bone and teeth histology of extant and extinct vertebrates (such as dinosaurs, Mesozoic birds, pterosaurs, nonmammalian therapsids, as well as, more recent Pliocene vertebrates).

ASSOCIATE PROFESSOR COLIN ATTWOOD
Marine protected areas; line fish population ecology.

DR JACQUI BISHOP
Lecturer. Evolutionary biology and conservation genetics.

DR GARY BRONNER
Senior Lecturer; systematics, ecology and conservation biology of African small mammals, with emphasis on endemic and threatened golden moles; Scientific Editor: African Zoology

PROFESSOR CHARLES GRIFFITHS
Director of the Marine Biology Research Centre; aquatic invasive alien species; biodiversity and endemicity patterns of African marine fauna; coastal marine ecology; amphipod taxonomy

ASSOCIATE PROFESSOR JOHN HOFFMANN
Integrating biological control into the management of alien invasive weeds in South Africa

ASSOCIATE PROFESSOR DAVID JACOBS
DST & NRF Research Chair in Animal Evolution and Systematics. Evolutionary biology; behavioural ecology, systematics and evolutionary development; bats and other mammals

ASSOCIATE PROFESSOR ASTRID JARRE
DST & NRF Research Chair in Marine Ecology & Fisheries. Ecosystem modeling: ecosystem approach to fisheries management, collaboration between social and natural scientists

ASSOCIATE PROFESSOR MIKE LUCAS
Honorary Research Fellowship, National Oceanography Centre, Southampton, UK. UCT: biological oceanography; biogeochemical cycling; phytoplankton dynamics, carbon/nitrogen cycling and climate change. Research in the Benguela upwelling, North and South Atlantic and Southern Ocean ecosystems. South African Surface Ocean Lower Atmosphere Study (SOLAS) SSC

DR HEATHER MARCO
Lecturer; Neuropeptide purification/biochemistry; crustacean neuroendocrinology & physiology; insect neuroendocrinolgy; Convenor of second year Form and function (Ecophysiology) course. Alexander von Humboldt Foundation Research Fellow

ASSOCIATE PROFESSOR COLEEN MOLONEY
Plankton ecology; ecosystem dynamics; fisheries ecology; ecological modelling.

ASSOCIATE PROFESSOR JUSTIN O'RIAIN
Social mammals; behavioural ecology; vertebrate reproduction

ASSOCIATE PROFESSOR MIKE PICKER
Insect ecology; insect biodiversity

DR DEENA PILLAY
Lecturer; estuarine ecology; rocky-shore ecology; benthic ecology, biological interactions

DR CECILE C. REED
Lecturer; Aquatic Parasitology, freshwater ecology and conservation

PROFESSOR LES UNDERHILL
Director Animal Demography Unit. Interfaces statistics and biology, in applications of statistics in the biological sciences, particularly ornithology and ecology

PROFESSOR GRAEME CUMMING
Chair of Conservation Biology. Landscape ecology, conservation biology, community ecology, resilience and complex systems theory

PROFESSOR TIM CROWE
Evolution; systematics; gamebird management; sustainable utilization of wildlife

PROFESSOR PHIL HOCKEY
Director, Percy Fitzpatrick Institute of African Ornithology. Avian evolutionary biology; shorebirds; migration; community ecology; behaviour; ecology of rarity

ASSOCIATE PROFESSOR PETER RYAN
Seabird-fishery interactions; avian evolutionary biology; marine pollution; behavioural ecology; island conservation

DR ARJUN AMAR
Raptor research, Rarity & conservation of African birds

Technical and Administrative Support Staff

George du Plessis – Chief Technical Officer
Granville Faulmann – Workshop/Departmental Assistant
Phelisa Hans – Niven Library Assistant
Tania Celest Jansen – PFIAO CoE Senior Secretary
Natalie Jodamus – SAP Administrator
Margaret Koopman – Niven Library Manager
Shanaaz Manie – Administrative Officer
Meg Ledeboer – Administrative Officer
Petra Muller – Chief Technical Officer
Jo-Wayne Palmer – Senior Secretary
Soraya Abrahams – Senior Secretary
Liesl Phigeland – Senior Scientific Officer
Andrea Plos – Principal Technical Officer
Hilary Buchanan – Administrative Assistant
Anthea Links – Departmental Assistant
F A C Impson – Scientific Officer
C A Kleinjan – Scientific Officer
V C Moran – Scientific Officer
R A NAVARRO – SCIENTIFIC OFFICER
Chris Tobler – Principal Technical Officer

Contract Research Staff

MR DOUG HAREBOTTLE
SABAP2 Project Manager. Movement data for waterbirds in the African Eurasian flyway.

MS FIONA IMPSON
Development of insect agents for biological control of alien invasive plants.

MS CARIEN KLEINJAN
Evaluation of insect agents used for biological control of alien invasive plants.

DR HEATHER MALAN
Aquatic pollution; water quality; wetlands, sustainable urban drainage.

DR DIETER OSCHADLEUS
SAFRING Project Coordinator. African Weaver birds

MRS DONELLA YOUNG
CAR Project Coordinator. Coordinated Avifaunal Roadcounts; Long term monitoring of large terrestrial birds in agricultural landscapes

MRS GILLY SMITH
MBRC Research Officer

MR OSCAR FRANK NOELS

MR MICHAEL BROOKS

MRS MARJA THEA WREN-SARGENT

RENE ALDREDO NAVARRO

SUSAN KUYPER

MR JACOBUS JAN CLAASEN

MS SHAAMIELAH DAVIDS

MR EMLYN RHYS

ROB LITTLE
Manager, Centre of Excellence, Percy Fitzpatrick Institute of African Ornithology
Behavioural ecology, population genetics, management and utilization of gamebirds

MR DAVID NKOSI
PFIAO Research Assistant

MS KATE MEARES
PFIAO Ground-Hornbill project manager

Emeritus Professors

EMERITUS PROFESSOR GEORGE BRANCH
Rocky-shore ecology; estuarine and lagoonal ecology; invertebrate fisheries management; fisheries policy; subsistence fisheries; impacts of diamond-mining; coastal ecology

EMERITUS PROFESSOR GERD GÄDE
Invertebrates; isolation and characterization of neuropeptides; intermediary metabolism; anaerobic metabolism; insect flight and its control by hormones; mode of action of invertebrate neuropeptide hormones; phylogeny; confirmation of expression of genome predicted neuropeptides by mass spectrometric methods; spectrometric methods; cloning of neuropeptide precursors and their cognate receptors

EMERITUS PROFESSOR JOHN FIELD
Director Marine Research Institute

EMERITUS PROFESSOR W R SIEGFRIED
Former Director of the Percy FitzPatrick Institute

EMERITUS ASSOCIATE PROFESSOR BRYAN DAVIES
River ecology; ecosystem processes; ecological effects of dams and rivers; wetland ecology

EMERITUS ASSOCIATE PROFESSOR JENNY DAY
Director of the Freshwater Research Unit; freshwater ecology; bioasessment; crustaceans; wetlands, particularly temporary and saline waters; conservation and management of inland water ecosystems; water chemistry and water quality

EMERITUS ASSOCIATE PROFESSOR JENNIFER JARVIS
Small and subterranean mammal ecophysiology and ethology

Honorary Professors

PROFESSOR DAVID CUMMINGS
Influence of land use policy and practice on biodiversity and resilience in social-ecological systems

PROFESSOR LARRY HUTCHINGS
Marine fisheries

PROFESSOR R J M CRAWFORD
Animal Demography Unit

Honorary research associates

DR RES ALTWEGG
Statistical ecology

DR LARA ATKINSON

DR PAUL BARHAM
Penguin survival

DR R BARLOW

DR BARRY CLARK

DR ROB CRAWFORD
Ecosystem approach to fisheries (as it relates to seabirds) and the conservation and suitable utilization of South Africa's seabirds

DR A COCKROFT

DR MARIENNE DE VILLIERS
SARCA Project Manager. Diversity and distribution of reptiles in South Africa, Lesotho and Swaziland.

DR DEON DURHOLTZ
Fish ageing, squid ageing, fisheries management

DR D Y GHEBREHWET

DR DAVID GRÉMILLET
Visiting Research Associate. Functional ecology of marine birds. Ecophysiology of marine birds facing global change; functional and evolutionary ecology; avian energetic; biotelemetry; impact of marine fisheries; polar ecosystems; Benguela upwelling ecosystem.

DR H J HAWKINS

DR JENNY HUGGETT

DR ALAN KEMP
Natural history, behavioral ecology and systematics of birds, especially hornbills, and diurnal and nocturnal raptors

DR SVEN KERWATH

DR R W LESLIE

EMERITUS PROFESSOR CLIFF MORAN

DR B PATERSON

DR GRANT PITCHER

DR JEAN-PAUL ROUX
Benguela system

DR T SAMAAI

DR CARL VAN DER LINGEN
Pelagic fish, fish feeding ecology, pelagic fisheries management

DR H VERHEYE

DR ROSS WANLESS
Seabird conservation; island restoration; invasive alien species; mitigation measures for avoiding seabird bycatch in fisheries; population biology and demography for conservation; seabird and insular ecology, remote tracking of seabirds at sea, marine protected areas and marine Important Bird Areas; genetics, taxonomy and conservation of the Aldabra Rail; conservation and ecological applications of stable light isotopes

DR INGRID WIESEL

DR TONY WILLIAMS
Seabird biology and conservation; the status and distribution of seabirds in Latin America; synanthropic ecology

DR P BARNARD
Birds & Environmental Change Partnership Programme, South African National Biodiversity Institute

DR A R RIDLEY
Cooperative Breeding and Sociality in Birds (including the Pied Babbler Research Project)

DR R SIMMONS
Raptor Research, Life History Strategies, Seabird Research, Climate Change Vulnerability and Adaptation

DR R M WANLESS
Seabird Conservation

DR J P ROUX

DR I WIESEL

DR A J WILLIAMS

Postdoctoral Fellows

DR LAURA BLAMEY
Coastal and fisheries ecology

DR FLORENT BLED
Dynamic macroecology in conservation

DR RUTLEDGE BOYES
Rarity and Conservation of African parrots

DR T R COOK
Seabird Research

DR AURORE CANOVILLE
Palaeobiology of early tetrapods

DR SUSAN CUNNINGHAM
Sub-lethal Effects of Climate Change on Desert Birds

DR FITSUM GEBRESELASSIE
Integrated population modelling

DR KATRIN LUDYNIA
Namibian seabirds in the Benguela System

DR ROWAN MARTIN
Parrot biology and conservation

DR ANGELA MEAD
Marine biodiversity

DR HILKKA NDJAULA
Modeling marine fisheries

DR GRAEME OATLEY
Phylogenetics and biogeography of the African white-eyes

DR LORIEN PICHEGRU
Marine Protected Areas for seabird foraging effort

DR TIMOTHY REID
Island Conservation & Seabird Research

DR RICHARD SHERLEY
Seabird biology

DR ANTJE STEINFURTH
Factors influencing the ecology of the African Penguin

DR KIRSTEN WIMBERGER
Animal behaviour

DR HENNING WINKER
Assessment of Fish Stocks

DR YAHKAT BARSHEP

DR ANNA BASTIAN

DR FLORENT HERVE BLED

DR RUTLEDGE STEPHEN BOYES

DR TIMOTHEE ROMAULD COOK

DR SUSAN JANE CUNNINGHAM

DR ALETTA DE VOS
Spatial resilience of protected areas

DR THOMAS PATRICK FLOWER
Behavioural ecology

DR GARETH PETER HEMPSON

DR TALI SONIA HOFFMAN

DR SOPHIE ANNE KOHLER

DR ALAN TRISTAM LEE
Birds & Environmental Change

DR KATRIN LUDYNIA

DR KRISTINE MACIEJEWSKI

DR THABISO MICHAEL MOKOTJOMELA

DR RALF HUBERTUS MULLERS
Conservation of the Shoebill

DR LORIEN CAROLINE PICHEGRU
Seabird foraging ecology

DR RAGNA REDELSTORFF

DR TIMOTHY ADAM REID
Island Conservation & Seabird Research

DR RICHARD BRIAN SHERLEY

DR ANTJE STEINFURTH

RESEARCH AFFILIATES

DR GEORDIE RACTLIFFE
River and wetland impact assessment, management plans, rehabilitation and biomonitoring; Western Cape river systems; role of disturbance in invertebrate community structure

DR HELEN DALLAS
Water quality and bioassessment; development and validation of appropriate biomonitoring tools for river health monitoring, and aquatic biodiversity and conservation; development of the National River Health Program; development of national water quality guidelines for aquatic ecosystems; effects of temperature on aquatic ecosystems

MS NANCY JOB
Wetlands (delineation, functional assessment and rating, mitigation, law and policy), land-use and zoning review, analysis of aerial photography, GIS and mapping. Assessment and classification of streams

MR DEAN OLLIS
Testing, use and development of 'tools' for the assessment of freshwater ecosystems. Management of water resources, and the incorporation of ecological assessment in Environmental Impact Assessment (EIA)

DR E G DAY

DR J M KING

P PASHNEE

DR P BLOOMER
Project Manager, DST/NRF at the Percy FitzPatrick Institute, University of Pretoria

DR R C K BOWIE
Project Manager, DST/NRF at the Percy FitzPatrick Institute, University of California-Berkeley

DR R COVAS
Cooperative Breeding & Sociality in Birds (Sociable Weaver Research Project)

DR A MCKECHNIE
Project Manager, DST/NRF at the Percy FitzPatrick Institute, University of Pretoria

DR A MILEWSKI
Interactions between plants and megaherbivores

DR M PINEIRO DE MELO
Systematics and Biogeography

DR P PISTORIUS
Project Manager, DST/NRF at the Percy FitzPatrick Institute, NMMU

DR C O'RYAN

DR L ROXBURGH
Rarity and Conservation of African Birds

DR C SPOTTISWOODE

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Research output

Edited books

Chinsamy-Turan, A. (ed.) 2012. The Forerunners of Mammals: Radiation, Histology, Biology. 330pp. Bloomington, USA: Bloomington: Indiana University Press. ISBN 978025335697.

Chapters in books

Botha-Brink, J., Abdala, F. and Chinsamy-Turan, A. 2012. The radiation and osteohistology of nonmammaliaform cynodonts. In A. Chinsamy-Turan (ed.), Forerunners of Mammals: Radiation, Histology, Biology, pp. 223-246. Bloomington, Indiana, USA: Indiana University Press. ISBN 9780253356970.

Chinsamy-Turan, A. and Ray, S. 2012. Bone histology of some Therocephalians and Gorgonopsians, and evidence of bone degradation by fungi. In A. Chinsamy-Turan (ed.), Forerunners of Mammals: Radiation, Histology, Biology, pp. 199-221. Bloomington, Indiana, USA: Indiana University Press. ISBN 9780253356970.

Chinsamy-Turan, A. 2012. The microstructure of bones and teeth of nonmammalian therapsids. In A. Chinsamy-Turan (ed.), Forerunners of Mammals: Radiation, Histology, Biology, pp. 65-88. Bloomington, Indiana, USA: Indiana University Press. ISBN 9780253356970.

Cumming, G.S. 2012. The resilience of big river basins. In M. Fisher and S. Cook (eds), Water, Food and Poverty in River Basins: Defining the Limits, pp. 63-95. London, UK: Routledge (Taylor & Francis Group). ISBN 0415592070.

Hurum, J. and Chinsamy-Turan, A. 2012. The radiation, bone histology, and biology of early mammals. In A. Chinsamy-Turan (ed.), Forerunners of Mammals: Radiation, Histology, Biology, pp. 249-270. Bloomington Indiana, USA: Indiana University Press. ISBN 9780253356970.

Jasinoski, S. and Chinsamy-Turan, A. 2012. Biological inferences of the cranial microstructure of the dicynodonts Oudenodon and Lystrosaurus. In A. Chinsamy-Turan (ed.), Forerunners of Mammals: Radiation, Histology, Biology, pp. 149-176. Bloomington Indiana, USA: Indiana University Press. ISBN9780253356970.

Langmore, N.E. and Spottiswoode, C.N. 2012. Host manipulation through visual trickery in avian brood parasites. In D.P. Hughes, J. Brodeur and F. Thomas (eds), Host Manipulation by Parasites, pp. 95-109. United Kingdom: Oxford University Press. ISBN 97801964224.

Ray, S., Botha-Brink, J. and Chinsamy-Turan, A. 2012. Dicynodont growth dynamics and lifestyle adaptations. In A. Chinsamy-Turan (ed.), Forerunners of Mammals: Radiation, Histology, Biology, pp. 121-146. Bloomington, Indiana, USA: Indiana University Press. ISBN 9780253356970.

Ropert-Coudert, J., Kato, A., Grémillet, D. and Crenner, F. 2012. Bio-logging: recording the ecophysiology and behaviour of animals moving freely in their environment. In J.-F. Le Galliard, J.-M. Guarini, and F. Gaill (eds), Sensors for Ecology, Towards Integrated Knowledge of Ecosystems,pp. 17-35. Paris: CNRS. ISBN 9782954168302.

Spottiswoode, C.N., Kilner, R.M. and Davies, N.B. 2012. Brood parasitism. In N.J. Royle, P.T. Smiseth, and M. Klliker (eds), The Evolution of Parental Care, pp. 226-239. United Kingdom: Oxford University Press. ISBN 9780199692583.

Articles in Peer-reviewed Journals

Abadi, F., Gimenez, O., Hans Jakober, H., Stauber, W., Arlettaz, R. and Schaub, M.M. 2012. Estimating the strength of density dependence in the presence of observation errors using integrated population models. Ecological Modelling, 242: 1-9.

Altwegg, R., Broms, K., Erni, B., Barnard, P., Midgley, G.F. and Underhill, L.G. 2012. Novel methods reveal shifts in migrationphenology of barn swallows in South Africa. Proceedings of the Royal Society B-Biological Sciences, 279: 1485-1490.

Amar, A., Court, I.R., Davison, M., Downing, S., Grimshaw, T., Pickford, T. and Raw, D. 2012. Linking nest histories, remotely sensed land use data and wildlife crime records to explore the impact of grouse moor management on peregrine falcon populations. Biological Conservation, 145: 86-94.

Arendse, D. and Pitcher, G.C. 2012. Growth and survival of the South African scallop Pecten sulcicostatus in suspended culture. African Journal of Marine Science, 34(2): 181-186.

Arlettaz, R., Maurer, M.L., Mosimann-Kampe, P., Nussle, S., Abadi, F., Braunisch, V. and Schaub, M. 2012. New vineyard cultivation practices create patchy ground vegetation, favouring Woodlarks. Journal of Ornithology, 153: 229-238.

Buffington, M.L., Brady, S.G., Morita, S. and van Noort, S. 2012. Divergence estimates and early evolutionary history of Figitidae (Hymenoptera: Cynipoidea). Systematic Entomology, 37: 287-304.

Babcock, R.C., EGLI, D.P. and Attwood, C.G. 2012. Incorporating behavioural variation in individual based simulation models of marine reserve effectiveness. Environmental Conservation, 39(3): 282-294.

Barshep, Y., Meissner, T.W.J. and Underhill, L.G. 2012. Timing of migration of the Curlew sandpiper (Calidris ferruginea) through Poland in relation to Arctic breeding conditions. Ornis Fennica, 89: 120-129.

Belnap, J., Ludwig, J.A., Wilcox, B.P., Betancourt, J.L., Dean, W.R.J., Hoffmann, B.D. and Milton, S. 2012. Introduced and invasive species in novel rangeland ecosystems: friends or foes? Rangeland Ecology & Management, 65: 569-578.

Berkes, F., Doubleday, N.C. and Cumming, G.S. 2012. Aldo Leopolds land health from a resilience point of view: self-renewal capacity of social ecological systems. Ecohealth, 9: 278-287.

Blamey, L. and Branch, G.M. 2012. Regime shift of a kelp-forest benthic community induced by an 'invasion' of the rock lobster Jasus lalandi. Journal of Experimental Marine Biology and Ecology, 420: 33-47.

Blamey, L., Howard, J., Agenbag, K. and Jarre, A.C. 2012. Regime shifts in the southern Benguela shelf and inshore region. Progress in Oceanography, 106: 80-95.

Bonnevie, B.T. and Oschadleus, H.D. 2012. Adaptations in primary wing moult of southern African viduidae and their hosts (Estrildidae). Ostrich, 83(2): 91-98.

Braby, J., Braby, S.J., Braby, R.J. and Altwegg, R. 2012. Annual survival and breeding dispersal of a seabird adapted to a stable environment: implications for conservation. Journal of Ornithology, 153: 809-816.

Bray, T.C., Bloomer, P., O'Riain, M.J. and Nigel C. Bennett, N.C. 2012. How attractive is the girl next door? An assessment of spatial mate acquisition and paternity in the solitary Cape dune mole-rat, Bathyergus suillus. PLoS One, 7(6): e39866.

Buffington, M.L. and van Noort, S. 2012. Revision of the Afrotropical Oberthuerellinae (Cynipoidea, Liopteridae). ZooKeys, 202: 1-154.

Bundy, A., Coll, M., Shannon, L. and Shin, Y.-J. 2012. Global assessments of the status of marine exploited ecosystems and their management: what more is needed? Current Opinion in Environmental Sustainability, 4: 292-299.

Caers, J., Peeters, L., Janssen, T., De Haes, W., Gade, G. and Schoofs, L. 2012. Structure activity studies of Drosophila adipokinetic hormone (AKH)by a cellular expression system of dipteran AKH receptors. General and Comparative Endocrinology, 177: 332-337.

Caron, A., Cumming, G.S., Mundava, J., Chiweshe, N., Mundy, P. and Garine-Wichatitsky, M. de. 2012. Report on a five-year avian influenza survey in the Manyame Catchment. Honeyguide, 58: 113-120.

Caron, A., De Garine-Wichatitsky, M., Ndlovu, M. and Cumming, G.S. 2012. Linking avian communities and avian influenza ecology in southern Africa using epidemiological functional groups. Veterinary Research, 43: e73:1-11.

Carvalheiro, L.G., Seymour, C., Nicolson, S. and Veldtman, R. 2012. Creating patches of native flowers facilitates crop pollination in large agricultural fields: mango as acase study. Journal of Applied Ecology, 49: 1373-1383.

Cerda, I.A. and Chinsamy-Turan, A. 2012. Biological implications of the bone microstructure of the late cretaceous ornithopod dinosaur Gasparinisaura cincosaltensis. Journal of Vertebrate Paleontology, 32(2): 355-368.

Child, M., Flower, T. and Ridley, M. 2012. Investigating a link between bill morphology, foraging ecology and kleptoparasitic behaviour in the fork-tailed drongo. Animal Behaviour, 84: 1013-1022.

Chinsamy-Turan, A., Tunoglu, C. and Thomas, D. 2012. Dental Microstructure and geochemistryof Mosasaurus hoffmanni (Squamata:Mosasauridae) from the late cretaceous of Turkey. Bulletin de La Societe Geologique de France, 183(2): 85-92.

Chinsamy-Turan, A., Thomas, D., Tumarkin-Deratzian, A.R. and Fiorillo, A.R. 2012. Hadrosaurs were perennial polar residents. Anatomical Record-Advances in Integrative Anatomy and Evolutionary Biology, 295: 610-614.

Chown, S., Lee, J.E., Hughes, K.A., Barnes, J., Barrett, P.J., Bergstrom, D.M., Convey, P., Cowan, D., Crosbie, K., Dyer, G., Frenot, Y., Grant, S.M., Herr, D., Kennicutt II, M.C., Lamers, M., Murray, A., Possingham, H.P., Reid, K., Riddle, M.J., Ryan, P.G., Sanson, L., Shaw, J.D., Sparrow, M.D., Summerhayes, C., Terauds, A. and Wall, D.H. 2012. Challenges to the future conservation of the Antarctic. Science, 337: 158-159.

Clark, B.M. and Griffiths, C.L. 2012. Western pea crabs Pinnixa occidentalis Rathbun 1894 (Brachyura: Thoracotremata: Pinnotheroidea) invade Saldanha Bay, South Africa. African Journal of Marine Science, 34(1): 153-156.

Cohen, C., Wakeling, J., Mandiwana-Neudani, T., Sande, E., Dranzoa, C., Crowe, T. and Bowie, R.C.K. 2012. Phylogenetic affinities of evolutionarily enigmaticAfrican galliforms: the stone partridge Ptilopachuspetrosus and Nahans Francolin Francolinus nahani, and support for their sister relationship with new world quails. Ibis, 154: 768780.

Cook, T., Hamann, M., Pichegru, L., Bonadonna, F., Grémillet, D. and Ryan, P.G. 2012. GPS and time-depth loggers reveal underwater foraging plasticity in a flying diver, the Cape cormorant. Marine Biology, 159: 373387.

Cook, T.R., Jewell, O.J.D., Chivell, W. and Bester, M.N. 2012. An albino Cape Cormorant Phalacrocorax capensis. Marine Ornithology, 40: 72-73.

Cornille, A., Underhill, J., Cruaud, A., Hossaert-McKey, M., Johnson, S.D., Tolley, K.A., Kjellberg, F., van Noort, S. and Proffit, M. 2012. Floral volatiles, pollinator sharing and diversification in the fig-wasp mutualism: insights from Ficus natalensis, and its two wasp pollinators (South Africa). Proceedings of the Royal Society B-Biological Sciences, 279: 1731-1739.

Crawford, R.J.M., Dyer, B.M., D Geldenhuys, D., Makhado, A.B., Randall, R., Upfold, L., Visagie, J. and Waller, L. 2012. Trends in numbers of crowned cormorants in South Africa, with information on diet. African Journal of Marine Science, 34(3): 411-424.

Crous, P.W., Shivas, R.G., Wingfield, M.J., Summerell, B.A., Rossman, A.Y., Alves, J.L., Adams, G.C., Barreto, R.W. and Ryan, P.G. 2012. Fungal Planet description sheets: 128-153. Persoonia, 29: 146-201.

Cumming, G.S., Paxton, M., King, J. and Beuster, H. 2012. Foraging guild membership explains variation in waterbird responses to the hydrological regime of an arid-region flood-pulse river in Namibia. Freshwater Biology, 57: 1202-1213.

Cumming, G.S. and Cornelis, D. 2012. Quantitative comparison and selection of home range metrics for telemetry data. Diversity and Distributions, 18: 1057-1065.

Cumming, G.S., Southworth, J., Rondon, X.J. and Marsik, M. 2012. Spatial complexity in fragmenting Amazonian rainforests: do feedbacks from edge effects push forests towards an ecological threshold? Ecological Complexity, 11: 67-74.

Cumming, G.S., Gaidet, N. and Ndlovu, M. 2012. Towards a unification of movement ecology and biogeography: conceptual framework and a case study on Afrotropical ducks. Journal of Biogeography, 39: 1401-1411.

Cundill, G., Cumming, G.S., Biggs, D. and Fabricius, C. 2012. Soft Systems Thinking and Social Learning for Adaptive Management. Conservation Biology, 26:13-20.

Currie, J.C., Sink, K.J., Le Noury, P. and Branch, G.M. 2012. Comparing fish communities in sanctuaries, partly protected areas and open-access reefs in south-east Africa. African Journal of Marine Science, 34(2): 269-281.

Da Silva, J., Donaldson, J., Reeves, G. and Hedderson, T.A. 2012. Population genetics and conservation of critically small cycad populations: a case study of the Albany cycad, Encephalartos latifrons (Lehmann). Biological Journal of the Linnean Society, 105: 293-308.

Dallas, H. and Rivers-Moore, N.A. 2012. Critical thermal maxima of aquatic macroinvertebrates: towards identifying bioindicators of thermal alteration. Hydrobiologia, 679: 61-76.

Dallimer, M., Parnell, M., Bicknell, J.E. and Melo, M. 2012. The importance of novel and agricultural habitats for the avifauna of an oceanic island. Journal for Nature Conservation, 20: 191-199.

Daly, M., Perissinotto, R., Laird, M.C., Dyer, D. and Todaro, A. 2012. Description and ecology of a new species of Edwardsia de Quatrefages, 1982 (Anthozoa, Actiniaria) from the St Lucia estuary, South Africa. Marine Biology Research, 8: 233-245.

Dawson, J. and Griffiths, C.L. 2012. Revision of the crown crabs, genus Hymenosoma (Crustacea: Hymenosomatidae), of South Africa. African Natural History, 8: 16-29.

Dean, W.R.J., Franke, U., Joseph, G., Gonçalves, F.M. Mills, M.S.L., Milton, S.J., Monadjem, A. and Oschadleus, H.D.

2012. Type specimens in the bird collection at Lubango, Angola. Bulletin of the British Ornithologists' Club, 132: 41-45.

Dehnhard, N., Ludynia, K. and Almeida, A. 2012. A Royal penguin Eudyptes Schlegeli in the Falkland Islands? Marine Ornithology, 40: 95-98.

Distiller, G., Altwegg, R., Crawford, R., Klages, N.T.W. and Barham, B. 2012. Factors affecting adult survival and inter-colony movement at the three South African colonies of Cape gannet. Marine Ecology-Progress Series, 461: 245-255.

Djerns, M., Klass, K., Picker, M.D. and Dam Gaar D, J. 2012. Phylogeny of cockroaches (Insecta, Dictyoptera,Blattodea), with placement of aberrant taxa and exploration of out-group sampling. Systematic Entomology, 37: 65-83.

Drewe, J.A., O'Riain, M.J., Beamish, E., Currie, H. and Parsons, S. 2012. Survey of infections transmissible between baboons and humans, Cape Town, South Africa. Emerging Infectious Diseases, 18(2): 298-301.

Du Plessis, K., Martin, R.O., Hockey, P.A.R., Cunningham, S. and Ridley, M. 2012. The costs of keeping cool in a warming world: implications of high temperatures for foraging, thermoregulation and body condition of an arid-zone. Global Change Biology, 18: 3063-3070.

Duckworth, G., Altwegg, R. and Harebottle, D.M. 2012. Demography and population ecology of the Hadeda Ibis (Bostrychia hagedash) at its expanding range edge in South Africa. Journal of Ornithology, 153: 421-430.

Ellender, B.R., Weyl, O. and Winker, H. 2012. Age and growth and maturity of southern Africa's largest cyprinid fish, the largemouth yellowfish Labeobarbus kimberleyensis. Journal of Fish Biology, 81: 1271-1284.

Elson, E., De Blok, W.J.G. and Kraan-Korteweg, R.C. 2012. Star formation models for the dwarf galaxies NGC 2915 and NGC 1705. Astronomical Journal, 143:1.

Evans, D.M., Barnard, P., Koh, L.P., Chapman, C.A., Altwegg, R., Garner, T.W.J., Gompper, M.E., Gordon, I.J., Katzner, T.E. and Pettorelli, N. 2012. Funding nature conservation: who pays? Animal Conservation, 15: 215-216.

Flower, T.P. and Gribble, M. 2012. Kleptoparasitism by attacks versus false alarm calls in fork-tailed drongos. Animal Behaviour, 83: 403-410

Fordyce, N., Smith, R. and Chinsamy-Turan, A. 2012. Evidence of a therapsid scavenger in the Late Permian Karoo Basin, South Africa. South African Journal of Science, 108: 1158.

Fort, J., Grémillet, D., Beaugrand, G. & Phillips, R.A. 2012. Biologging, remotely-sensed oceanography and the continuous plankton recorder reveal the environmental determinants of a seabird wintering hotspot. PlosOne 7:e41194.

Fort, J., Pettex, E., Tremblay, Y., Lorentsen, S.H., Garthe, S., Votier, S., Pons, J.B., Siorat, F., Furness, R.W., Grecian, W.J., Bearhop, S., Montevecchi, W.A. and Grémillet, D. 2012. Meta-population evidence of oriented chain migration in northern gannets (Morus bassanus). Frontiers in Ecology and the Environment, 10(5): 237-242.

Fuchs, J., Irestedt, M., Fjeldså, J., Couloux, A., Pasquet, E. and Bowie, R.C.K. 2012. Molecular phylogeny of African bush-shrikes and allies: tracing the biogeographic history of an explosive radiation of corvoid birds. Molecular Phylogenetics and Evolution, 64: 93105.

Gade, G. and Marco, H. 2012. The adipokinetic hormone (AKH) of one of the most basal orders of Pterygota: structure and function of Ephemeroptera AKH. Journal of Insect Physiology, 58: 1390-1396.

Gaidet, N., Ould El Mamy, A.B., Cappelle, J., Caron, A., Cumming, G.S., Grosbois, V., Gil, P., Hammoumi, S., Servan de Almeida, R., Fereidouni, S.R., Cattoli, G., Abolnik, C., Mundava, J., Fofana, B., Ndlovu, M., Diawara, Y., Hurtado, R., Newman, S.H., Dodman, T. and Balanca, G. 2012. Investigating avian influenza infection hotspots in old-world shorebirds. PLoS One, 7(9): e46049.

Gaidet, N., Caron, A., Cappelle, J., Cumming, G.S., Balanca, G., Hammoumi, S., Cattoli, G., Abolnik, C., de Almeida, R.S., Gil, P., Fereidouni, S.R., Grosbois, V., Tran, A., Mundava, J., Fofana, B., Ould El Mamy, A.B., Ndlovu, M., Mondain-Monval, Y.J., Triple, P., Hagemeijer, W., Karesh, W.B., Newman, S.H. and Dodman, T. 2012. Understanding the ecological drivers of avian influenza virus infection in wildfowl: a continental-scale study across Africa. Proceedings of the Royal Society B-Biological Sciences, 279: 1131-1141.

Gao, G., Chiappe, L.M., Zhang, F., Pomeroy, D.L., Shen, C., Chinsamy-Turan, A. and Walsh, M.O. 2012. A subadult specimen of the early cretaceous bird Sapeornis chaoyangensis and a taxonomic reassessment of sapeornithids. Journal of Vertebrate Paleontology, 32(5): 1103-1112.

Garthe, S., Ludynia, K., Huppop, O., Kubetski, U., Meraz, J.F. and Furness, R.W. 2012. Energy budgets reveal equal benefits of varied migration strategies in northern gannets. Marine Biology, 159: 1907-1915.

Gasche, L., Gascuel, D., Shannon, L. and Shin, Y.-J. 2012. Global assessment of the fishing impacts on the southern Benguela ecosystem using an EcoTroph modelling approach. Journal of Marine Systems, 90: 1-12.

Golabek, K.A., Ridley, M. and Radford, A.N. 2012. Food availability affects strength of seasonal territorial behaviour in a cooperatively breeding bird. Animal Behaviour, 83: 613-619.

Goulding, W., Pettifor, R.A. and Simmons, R.E. 2012. High mite burdens in an island population of Cape wagtails Motacilla capensis: release from predation pressure? Ostrich, 83: 85-89.

Govender, R., Chinsamy-Turan, A. and Ackermann, R. 2012. Anatomical and landmark morphometric analysis of fossil phocid seal remains from Langebaanweg, west coast of South Africa. Transactions of the Royal Society of South Africa, 67(3): 135-149.

Grecian, W.J., Witt, M.J., Attrill, M.J., Bearhop, S., Godley, B.J., Grémillet, D., Hamer, K.C. and Votier, S. 2012. A novel projection technique to identify important at-sea areas for seabird conservation: an example using northern gannets breeding in the north east Atlantic. Biological Conservation, 156: 43-52.

Grémillet, D., Meslin, L. and Lescrol, A. 2012. Heat dissipation limit theory and the evolution of avian functional traits in a warming world. Functional Ecology, 26: 1001-1006.

Grémillet, D., Nazirides, T., Nikolaou, H. and Crivelli, A.L. 2012. Fish are not safe from great cormorants in turbid water. Aquatic Biology, 15: 187-194.

Grémillet, D., Prudor, A., Le Maho, Y. and Weimerskirch, H. 2012. Vultures of the seas: hyperacidic stomachs in wandering albatrosses as an adaptation to dispersed food resources, including fishery wastes. PLoS One, 7(6): e37834.

Grémillet, D., Puech, W., Garçon, V., Boulinier, T. and Le Maho, Y. 2012. Robots in ecology: welcome to the machine. Open Journal of Ecology, 2: 49-57.

Grémillet, D., Welcker, J., Karnovsky, N.J., Walkusz, W., Hall, M.E., Fort, J., Brown, Z., Speakman, J.R. and Harding, A.M.A. 2012. Little auks buffer the impact of current Arctic climate change. Marine Ecology-Progress Series, 454: 197-206.

Groeneveld, J.C., Kirkman, S.P., Boucher, M. and Yemane, D. 2012. From biomass mining to sustainable fishing - using abundance and size to define a spatial management framework for deep-water lobster. African Journal of Marine Science, 34(4): 547-557.

Grote, B., Ekau, W., Stenevik, E.K., Clemmesen, C., Verheye, H.M.S., Lipinski, M.R. and Hagen, W. 2012. Characteristics of survivors: growth and nutritional condition of early stages of the hake species Merluccius paradoxus and M-capensis in the southern Benguela ecosystem. Ices Journal of Marine Science, 69(4): 553-562.

Grote, B., Stenevik, E.K., Ekau, W., Verheye, H.M.S., Lipinski, M.R. and Hagen, W. 2012. Spawning strategies and transport of early stages of the two Cape hake species, Merluccius paradoxus and M-capensis, in the southern Benguela upwelling system. African Journal of Marine Science, 34(2): 195-204.

Guambe, J., Mars, J. and Day, J.A. 2012. Application of PIXE in pollution control of the Matola river in Mozambique-analysis of fish scales. Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms, 273: 171-172.

Guerier, A.S., Bishop, J.M., Crawford, S.J., Schmidt-Kuntzel, A. and Stratford, K.J. 2012. Parentage analysis in a managed free ranging population of southern white rhinoceros: genetic diversity, pedigrees and management. Conservation Genetics, 13: 811-822.

Haiden, S.A., Hoffmann, J.H. and Cramer, M.D. 2012. Benefits of photosynthesis for insects in galls. Oecologia, 170: 987-997.

Hamann, M., Grémillet, D., Ryan, P.G., Bonadonna, F., van der Lingen, C.D. and Pichegru, L. 2012. A hard-knock life: the foraging ecology of Cape cormorants amidst shifting prey resources and industrial fishing pressure. African Journal of Marine Science, 34(2): 233-240.

Handegard, N., Du Buisson, L., Brehmer, P., Chalmers, S.J., De Robertis, A., Huse, G., Kloser, R., Macaulay, G., Maury, O., Ressler, P.H., Stenseth, N.C. and Godo, O.R. 2012. Towards an acoustic-based coupled observation and modelling system for monitoring and predicting ecosystem dynamics of the open ocean. Fish and Fisheries, 2012: 1-11.

Haupt, T., Griffiths, C.L. and Robinson, T. 2012. Intra-regional translocations of epifaunal andinfaunal species associated with cultured Pacificoysters Crassostrea gigas. African Journal of Marine Science, 34(2): 187-194.

Heydinger, J.M. 2012. Affirming the values of conservation science. Biodiversity, 13: 115-117.

Hickman, A.E., Moore, M., Sharples, J., Lucas, M.I., Tilstone, G.H., Krivtsov, V. and Holligan, P. 2012. Primary production and nitrate uptake within the seasonal thermocline of a stratified shelf sea. Marine Ecology-Progress Series, 463: 39-57.

Hoffman, T. and O'Riain, M.J. 2012. Landscape requirements of a primate population in a human-dominated environment. Frontiers in Zoology, 9:1.

Hoffman, T. and O'Riain, M.J. 2012. Monkey management: using spatial ecology to understand the extent and severity of human baboon conflict in the Cape peninsula, South Africa. Ecology and Society, 17(3): Article 13.

Hoffman, T. and O'Riain, M.J. 2012. Troop size and human-modified habitat affect the ranging patterns of a Chacma baboon population in the Cape peninsula, South Africa. American Journal of Primatology, 74(9): 853-863.

Hoffmann, V., Pfaff, M. and Branch, G.M. 2012. Spatio-temporal patterns of larval supply and settlement of intertidal invertebrates reflect a combination of passive transport and larval behavior. Journal of Experimental Marine Biology and Ecology, 418-419: 83-90.

Hofmeyr, G.J., Kirkman, S.P., Pistorius, P.A. and Bester, M.N. 2012. Natal site fidelity by breeding female southern elephant seals in relation to their history of participation in the winter haulout. African Journal of Marine Science, 34(3): 373-382.

Hubbart, B., Pitcher, G.C., Krock, B. and Cembella, A.D. 2012. Toxigenic phytoplankton and concomitant toxicity in the mussel Choromytilus meridionalis off the west coast of South Africa. Harmful Algae, 20: 30-41.

Huisamen, J., Kirkman, S.P., van der Lingen, C.D., Watson, L.H., Cockcroft, V.G., Jewell, R. and Pistorius, P.A. 2012. Diet of the Cape fur seal Arctocephalus pusillus pusillus at the Robberg peninsula, Plettenberg Bay, and implications for local fisheries. African Journal of Marine Science, 34(3): 431-441.

Huntley, B., Altwegg, R., Barnard, P., Collingham, Y.C. and Hole, D.G. 2012. Modelling relationships between species spatial abundance patterns and climate. Global Ecology and Biogeography, 21: 668-681.

Huntley, B. and Barnard, P. 2012. Potential impacts of climatic change on southern African birds of fynbos and grassland biodiversity hotspots. Diversity and Distributions, 18: 769-781.

Hutchings, L., Jarre, A.C., Lamont, T., Van den Berg, M. and Kirkman, S.P. 2012. St Helena Bay (southern Benguela) then and now: muted climate signals, large human impact. African Journal of Marine Science, 34(4): 559-583.

Jansen van Rensburg, A., Bloomer, P., Ryan, P.G. and Hansson, B. 2012. Ancestral polymorphism at the major histocompatibility complex (MHCII) in the Nesospiza bunting species complex and its sister species (Rowettia goughensis). BMC Evolutionary Biology, 12: e143.

Jasinoski, S. and Chinsamy-Turan, A. 2012. Mandibular histology and growth of the non mammaliaform cynodont Tritylodon. Journal of Anatomy, 220: 564-579.

Jasinoski, S. and Reddy, B.D. 2012. Mechanics of cranial sutures during simulated cyclic loading. Journal of Biomechanics, 45: 2050-2054.

Jewell, O.J.D. and Wcisel, M.A. 2012. A leatherback turtle stranding at Danger Point, Gansbaai, South Africa. South African Journal of Wildlife Research, 42(2): 147-150.

Jones, M., Techow, N. and Ryan, P.G. 2012. Dalliances and doubtful dads: what determines extra-pair paternity in socially monogamous wandering albatrosses? Behavioral Ecology and Sociobiology, 66: 1213-1224.

Kallen, J., Muller, H., Franken, M., Crisp, A., Stroh, C., Pillay, D. and Lawrence, C. 2012. Seagrass-epifauna relationships in a temperate South African estuary: Interplaybetween patch-size, within-patch location and algal fouling. Estuarine Coastal and Shelf Science, 113: 213-220.

Ksepka, D.T. and Thomas, D. 2012. Multiple cenozoic invasions of Africa by penguins (Aves, Sphenisciformes). Proceedings of the Royal Society B-Biological Sciences, 279: 1027-1032.

Lewis, S.E.F., Turpie, J.K. and Ryan, P.G. 2012. Are African penguins worth saving? The ecotourism value of the Boulders beach colony. African Journal of Marine Science, 34: 497-504.

Lewison, R., Oro, D., Godley, B.J., Underhill, L.G., Bearhop, S., Wilson, R.P., Ainley, D., Arcos, J.M., Boersma, P.D., Borboroglu, P.G., Boulinier, T., Frederiksen, M., Genovart, M., González-, J., Green, J.A., Grémillet, D., Hamer, K.C., Hilton, G.M., Hyrenbach, K.D., Martínez -Abran, A., Montevecchi, W.A., Phillips, R.A., Ryan, P.G., Sagar, P., Sydeman, W.J., Wanless, S., Yorio, P., Watanuki, Y. and Weimerskirch, H. 2012. Research priorities for seabirds: improving conservation and management in the 21st century. Endangered Species Research, 17: 93-121.

Lindsey, P., Alexander, R., Balme, G., Midlane, N. and Craig, J. 2012. Possible relationships between the South African captive-bred lion hunting industry and the hunting and conservation of lions elsewhere in Africa. South African Journal of Wildlife Research, 42(1): 11-22.

Lindsey, P.A., Balme, G.A., Booth, V.R. and Midlane, N. 2012. The significance of African lions for the financialviability of trophy hunting and the maintenance of wild land. PLoS One, 7(1): e29332.

Loiseau, C., Harrigan, R.J., Robert, A., Bowie, R.C.K., Thomassen, H.A., Smith, T.B. and Sehgal, R.M. 2012. Host and habitat specialization of avian malaria in Africa. Molecular Ecology, 21: 431-441.

Ludynia, K., Dehnhard, N., Poisbleau, M., Demongin, L., Masello, J.F. and Quillfeldt, P. 2012. Evaluating the impact of handling and logger attachment on foraging parameters and physiology in southern Rockhopper penguins. PLoS One, 7(11): e50429.

Ludynia, K., Kemper, J. and Roux, J.-P. 2012. The Namibian islands marine protected area: using seabird tracking data to define boundaries and assess their adequacy. Biological Conservation, 156: 136-145.

Mackas, D.L., Pepin, P. and Verheye, H. 2012. Interannual variability of marine zooplankton and their environments: Within- and between-region comparisons. Progress in Oceanography, 97-100: 1-14.

Malan, H.L., Mesjasz-Przybylowicz, J., Przybylowicz, W., Farrant, J.M. and Linder, P.W. 2012. Distribution patterns of the metal pollutants Cd and Ni in soybean seeds. Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms, 273: 157-160.

Malik, A., Gade, G. and Lange, A. 2012. Sequencing and biological effects of an adipokinetic/hypertrehalosemic peptidein the stick insect, Baculum extradentatum. Peptides, 34: 51-56.

Marco, H. 2012. The moult cycle of Jasus Lalandii (H. Milne Edwards, 1837) (Decapoda, Palinuridae), a cold water spiny lobster species: changes in ecdysteroid titre and setogenesis. Crustaceana, 85(10): 1221-1239.

Marr, S., Impson, N.D. and Tweddle, D. 2012. An assessment of a proposal to eradicate non-native fish from priority rivers in the Cape floristic region, South Africa. African Journal of Aquatic Science, 37(2): 131-142.

McKechnie, A., Hockey, P.A.R. and Wolf, B.O. 2012. Feeling the heat: Australian landbirds and climate change. Emu, 112: IVII.

McLeish, M.J. and van Noort, S. 2012. Codivergence and multiple host species use by fig wasp populations of the ficus pollination mutualism. BMC Evolutionary Biology, 12:1.

McLeish, M.J., Beukman, G., van Noort, S. and Wossler, T.C. 2012. Host-plant species conservatism and ecology of a parasitoid fig wasp genus (Chalcidoidea; Sycoryctinae; Arachonia). PLoS One, 7(9): 1-13.

Meelkop, E., Marco, H., Janssen, T., Temmerman, L., Vanhove, M.P.M. and Schoofs, L. 2012. A structural and functional comparison of nematode and crustacean PDH-like sequences. Peptides, 34: 74-81.

Merino, S., Hennicke, J., Ludynia, K., Martinez, J., Torres, R., Work, T.M., Stroud, S., Masello, J. and Quillfeldt, P. 2012. Infection by haemoproteus parasites in four species of frigatebirds and the description of a new species of haemoproteus (Haemosporida: Haemoproteidae). Journal of Parasitology, 98(2): 388-397.

Milewski, A. and Dierenfeld, E.S. 2012. Supplemental iodine as a key to reproduction in pandas? Integrative Zoology, 7: 175-182.

Mills, A.J., Milewski, A., Sirami, C., Rogers, K.H., Witkowski, E., Stalmans, M. and Fey, M. 2012. Aerosol capture by small trees in savannas marginal to treeless grassland in South Africa. Geoderma, 189-190: 124-132.

Mills, M.S.L., Vaz Pinto, P. and Haber, S. 2012. Grey-striped Francolin Pternistis griseostriatus: specimens, distribution and morphometrics. Bulletin of the African Bird Club, 19: 172-177.

Moran, V.C. and Hoffmann, J.H. 2012. Conservation of the fynbos biome in the Cape floral region:the role of biological control in the management of invasivealien trees. Biocontrol, 57: 139-149.

Moseley, C., Grémillet, D., Connan, M., Ryan, P.G., Mullers, R.H.E., van der Lingen, C.D., Miller, T.W., Coetzee, J.C., Crawford, R.J.M., Sabarros, P., McQuaid, C. and Pichegru, L. 2012. Foraging ecology and ecophysiology of Cape gannets from colonies in contrasting feeding environments. Journal of Experimental Marine Biology and Ecology, 422-423: 29-38.

Mosesso, P., Bohm, L., Pepe, P., Fiore, M., Carpinelli, A., Gade, G., Nagini, S., Ottavianelli, A. and Degrassi, F. 2012. Cytogenetic analyses of azadirachtin reveal absence of genotoxicity but marked antiproliferative effects in human lymphocytes and CHO cells in vitro. Toxicology Letters, 213: 361-366.

Mzumara, T., Hockey, P.A.R. and Ridley, M. 2012. Re-assessment of the conservation status of Malawi's endangered yellow-throated Apalis Apalis flavigularis. Bird Conservation International, 22: 184-192.

Naesje, T.F., Cowley, P., Diserud, O.H., Childs, A., Kerwath, S.E. and Thorstad, E.B. 2012. Riding the tide: estuarine movements of a sciaenid fish, Argyrosomus japonicus. Marine Ecology-Progress Series, 460: 221-232.

Nasterlack, H., Canoville, A. and Chinsamy-Turan, A. 2012. New insights into the biology of the Permian genus Cistecephalus (Therapsida, Dicynodontia). Journal of Vertebrate Paleontology, 32(6): 1396-1410.

Nelson-Flower, M., Hockey, P.A.R., O'Ryan, C. and Ridley, M. 2012. Inbreeding avoidance mechanisms: dispersal dynamics in cooperatively breeding southern pied babblers. Journal of Animal Ecology, 81: 876-883.

Oatley, G., Voelker, G., Crowe, T. and Bowie, R.C.K. 2012. A multi-locus phylogeny reveals a complex pattern of diversification related to climate and habitat heterogeneity in southern African white-eyes. Molecular Phylogenetics and Evolution, 64: 633-644.

Parker, G.C., Rexer-Huber, K., Parker, K.A., Ryan, P.G., Techow, N.M.S.M. and Cuthbert, R.J. 2012. Morphometric and genetic sexing in the Gough Moorhen Gallinula comeri. Ringing & Migration 27: 20-25.

Pettex, E., Lorentsen, S.H., Grémillet, D., Gimenez, O., Barrett, R.T., Pons, J.B., Le Bohec, C. and Bonadonna, F. 2012. Multi-scale foraging variability in northern gannet (Morus bassanus) fuels potential foraging plasticity. Marine Biology, 159: 2743-2756.

Phiri, C., Chakona, A. and Day, J.A. 2012. Body-size distribution, biomass estimates and life histories of common insect taxa associated with a submerged macrophyte Lagarosiphon ilicifolius in the Sanyati basin, Lake Kariba, Zimbabwe. African Journal of Aquatic Science, 37(3): 289-299.

Phiri, C., Chakona, A. and Day, J.A. 2012. Macroinvertebrates associated with two submerged macrophytes, Lagarosiphon ilicifolius and Vallisneria aethiopica, in the Sanyati Basin, Lake Kariba, Zimbabwe: effect of plant morphological complexity. African Journal of Aquatic Science, 37(3): 277-288.

Pichegru, L., Ryan, P.G., Van Eeden, R., Reid, T., Grémillet, D. and Wanless, R.M. 2012. Industrial fishing, no-take zones and endangered penguins. Biological Conservation, 156: 117-125.

Picker, M.D., Colville, J. and Burrows, M. 2012. A cockroach that jumps. Biology Letters, 8: 390-392.

Picker, M.D., Ross-Gillespie, A., Vlieghe, K. and Moll, E. 2012. Ants and the enigmatic Namibian fairy circles cause and effect? Ecological Entomology, 37(1): 33-42.

Pillay, D., Williams, C. and Whitfield, A.K. 2012. Indirect effects of bioturbation by the burrowing sandprawn Callichirus kraussi on abenthic foraging fish, Liza richardsonii. Marine Ecology-Progress Series, 453: 151-158.

Pistorius, P.A., Meyer, M.A., Reisinger, R.R. and Kirkman, S.P. 2012. Killer whale predation on subantarctic fur seals at Prince EdwardIsland, Southern Indian Ocean. Polar Biology, 35(11): 1767-1772.

Pitcher, G. 2012. Harmful algae – The requirement for species-specific information. Harmful Algae, 14: 1-4.

Quillfeldt, P., McGil, A.R., Furness, R., Mostl, E., Ludynia, K. and Masello, J. 2012. Impact of miniature geolocation loggers on a small petrel, the thin-billed prion Pachyptila belcheri. Marine Biology, 159: 1809-1816.

Ravasi, D., O'Riain, M.J., Adams, V. and Appleton, C.C. 2012. A coprological survey of protozoan and nematode parasites of free-ranging chacma baboons (Papio ursinus) in the south western Cape, South Africa. South African Journal of Wildlife Research, 42(1): 35-44.

Ravasi, D., O'Riain, M.J., Davids, F. and Illing, N. 2012. Phylogenetic evidence that two distinct Trichuris genotypes infect both humans and non-human primates. PLoS One, 7(8): 0044187.

Reed, C.C., MacKenzie, K. and van der Lingen, C.D. 2012. Parasites of South African sardines, Sardinops sagax, and an assessment of their potential as biological tags. Bulletin of the European Association of Fish Pathologists, 32(2): 41-48.

Remisiewicz, M. 2011. The flexibility of primary moult in relation to migration in palaearctic waders - an overview. Wader Study Group Bulletin, 118(3): 141-152.

Rexer-Huber, K., Parker, G.C., Ryan, P.G. and Cuthbert, R.J. 2012. Ringing injuries in the Gough Moorhen Gallinula comeri. Ringing and Migration, 27: 53-56.

Ribeiro, A., Lopes, R.J. and Bowie, R.C.K. 2012. Historical demographic dynamics underlying local adaptation in the presence of gene flow. Ecology and Evolution, 2(11): 2710-2721.

Ribeiro, A., Lloyd, P., Feldheim, K. and Bowie, R.C.K. 2012. Microgeographic socio-genetic structure of an African cooperative breeding passerine revealed: integrating

behavioural and genetic data. Molecular Ecology, 21: 662-672.

Rice, J., Moksness, E., Attwood, C.G., Brown, S.K., Dahle, G., Gjerde, K.M., Grefsrud, E.S., Kenchington, R., Kleiven, A.R., McConney, P., Ngoile, M.A.K., Naesje, T.F., Olsen, E., Olsen, E.M., Sanders, J., Sharma, C., Vestergaard, O. and Westlund, L. 2012. The role of MPAs in reconciling fisheries management with conservation of biological diversity. Ocean & Coastal Management, 69: 217-230.

Ridley, M. and Thompson, A.M. 2012. The effect of Jacobin cuckoo Clamator jacobinus parasitism on the body mass and survival of young in a new host species. Ibis, 154: 195-199.

Rivers-Moore, N.A., Mantel, S. and Dallas, H. 2012. Prediction of water temperature metrics using spatial modelling in the Eastern and Western Cape, South Africa. Water SA, 38(2): 167-176.

Rondon, X.J., Cumming, G.S., Cossío and Southworth, J. 2012. The effects of selective logging behaviors on forest fragmentation and recovery. International Journal of Forestry Research: 170974.

Roxburgh, L., McDougall, R. and Leonard, P. 2012. Thick-billed Weaver recovery and new atlas record for Zambia. Afring News, 41: 8-10.

Ryan, P.G. 2012. Blue-breasted Kingfisher Halcyon malimbica feeding at sea. Malimbus, 34: 43-45.

Ryan, P.G. and Branch, G.M. 2012. The November 2011 irruption of buoy barnacles Dosima fascicularis in the Western Cape, South Africa. African Journal of Marine Science, 34(1): 157-162.

Ryan, P.G. and Kerr, J. 2012. Is fur seal predation driving the decrease in Northern Rockhopper Penguins Eudyptes moseleyi at Gough Island? Marine Ornithology, 40: 69-71.

Ryan, P.G., Bouwman, H., Moloney, C.L., Yuyama, M. and Takada, H. 2012. Long-term decreases in persistent organic pollutants in South African coastal waters detected from beached polyethylene pellets. Marine Pollution Bulletin, 64: 2756-2760.

Ryan, P.G., Dilley, B. and Jones, M. 2012. The distribution and abundance of white-chinned petrels (Procellaria aequinoctialis) breeding at the sub-Antarctic Prince Edward islands. Polar Biology, 35: 1851-1859.

Ryan, P.G., Edwards, L. and Pichegru, L. 2012. African penguins Spheniscus demersus, bait balls and the Allee effect. Ardea, 100(1): 89-94.

Ryan, P.G., Glass, J.P., Glass, T., Barendse, J. and Cuthbert, R.J. 2012. Eradication of New Zealand flax Phormium tenax on Inaccessible and Nightingale Islands, Tristan da Cunha. Conservation Evidence, 9: 58-62.

Sabarros, P., Durant, J.M., Grémillet, D., Crawford, R.J.M. and Stenseth, N.C. 2012. Differential responses of three sympatric seabirds to spatio-temporal variability in shared resources. Marine Ecology-Progress Series, 468: 291-301.

Samaai, T., Janson, L. and Kelly, M. 2012. New species of Latrunculia from the Agulhas shelf, South Africa, with designation of a type species for subgenus Biannulata (Demospongiae, Poecilosclerida, Latrunculiidae). Zootaxa, 3395: 13.

Schaub, M., Reichlin, T.S., Abadi, F., Kery, M., Jenni, L. and Arlettaz, R. 2012. The demographic drivers of local population dynamics in two rare migratory birds. Oecologia, 168: 97-108.

Scott, R.J., Griffiths, C.L. and Robinson, T. 2012. Patterns of endemicity and range restriction among southern African coastal marine invertebrates. African Journal of Marine Science, 34(3): 341-347.

Sherley, R., Barham, B., Barham, P., Leshoro, T.M. and Underhill, L.G. 2012. Artificial nests enhance the breeding productivity of African penguins (Spheniscus demersus) on Robben Island, South Africa. EMU, 112(2): 97-106.

Sherley, R., Ludynia, K., Underhill, L.G., Jones, R. and Kemper, J. 2012. Storms and heat limit the nest success of Bank cormorants: implications of future climate change for a surface-nesting seabird in southern Africa. Journal of Ornithology, 153: 441-455.

Shin, Y.-J., Bundy, A., Shannon, L., Blanchard, J.L., Chuenpagdee, R., Coll, M., Knight, B., Lynam, C., Piet, G., Richardson, A.J. and Jarre, A.C. 2012. Global in scope and regionally rich: an IndiSeas workshop helps shape the future of marine ecosystem indicators. Reviews in Fish Biology and Fisheries, 22: 835-845.

Solano Fernandez, S., Attwood, C.G., Chalmers, R., Clark, B.M., Cowley, P., Fairweather, T., Fennessy, S.T., Gotz, A., Harrison, T., Kerwath, S.E., Lamberth, S.J., Mann, B.Q., Smale, M.J. and Swart, L. 2012. Assessment of the effectiveness of South Africa's marine protected areas at representing ichthyofaunal communities. Environmental Conservation, 39(3): 259-270.

Spottiswoode, C.N. and Koorevaar, J. 2012. A stab in the dark: chick killing by brood parasitic honeyguides. Biology Letters, 8: 241-244.

Spottiswoode, C.N. and Stevens, M. 2012. Host-parasite arms races and rapid changes in bird egg appearance. American Naturalist, 175(5): 633-648.

Scott, H.A., Dean, W.R.J. and Watson, L.H. 2012. Diet and habitat use by the African Black Oystercatcher Haematopus moquini in De Hoop Nature Reserve, South Africa. Marine Ornithology, 40: 1–10.

Steele, W.K. and Cooper, J. 2012. Some food items of the South Polar Skua Stercorarius maccormicki at inland sites in the Ahlmannryggen, Dronning Maud Land, Antarctica. Marine Ornithology, 40: 63-66.

Swart, S., Chang, N., Fauchereau, N., Joubert, W., Lucas, M.I., Mtshali, T., Roychoudhury, A., Tagliabue, A., Thomalla, S., Waldron, H.N. and Monteiro, P. 2012. Southern ocean seasonal cycle experiment 2012: seasonal scale climate and carbon cycle links. South African Journal of Science, 108(3/4): 3.

Teneva, L., Karnauskas, M., Logan, C.A., Bianucci, L., Currie, J.C. and Kleypas, J.A. 2012. Predicting coral bleaching hotspots: the role of regional variability in thermal stress and potential adaptation rates. Coral Reefs, 31(1): 1-12.

Terörde, A.I. and Turpie, J.K. 2012. Use of a small, intermittently-open estuary by waterbirds: a case study of the east Kleinemonde estuary, Eastern Cape, South Africa. African Journal of Aquatic Science, 37(2): 183-190.

Thomas, D., Chinsamy-Turan, A., Conard, N. and Kandel, A.W. 2012. Chemical investigation of mineralisation categories used to assess taphonomy. Palaeogeography Palaeoclimatology Palaeoecology, 361-362: 104-110.

Turner, R.C., Midgley, J.J., Barnard, P., Simmons, R.E. and Johnson, S.D. 2012. Experimental evidence for bird pollination and corolla damage by ants in the short-tubed flowers of Erica halicacaba (Ericaceae). South African Journal of Botany, 79: 25-31.

Voelker, G., Bowie, R.C.K., Wilson, B. And Anderson, C. 2012. Phylogenetic relationships and speciation patterns in an African savanna dwelling bird genus (Myrmecocichla). Biological Journal of the Linnean Society, 106: 180-190.

Voorbergen, A., De Boer, W.F. and Underhill, L.G. 2012. Natural and human-induced predation on Cape cormorants at Dyer Island. Bird Conservation International, 22: 82-93.

Wanless, R.M., Ratcliffe, N., Angel, A., Bowie, B.C., Cita, K., Hilton, G., Kritzinger, P., Ryan, P.G. and Slabber, M. 2012. Predation of Atlantic petrel chicks by house mice on Gough Island. Animal Conservation, 15: 472-479.

Weaver, R.J., Marco, H., Simek, P., Audsley, N., Clark, K. and Gade, G. 2012. Adipokinetic hormones (AKHs) of sphingid lepidoptera, including the identification of a second M. sexta AKH. Peptides, 34: 44-50.

Werner, T., Huenerlage, K., Verheye, H.M.S. and Buchholz, F. 2012. Thermal constraints on the respiration and excretion rates of krill, Euphausia hanseni and Nematoscelis megalops, in the northern Benguela upwelling system off Namibia. African Journal of Marine Science, 34(3): 391-399.

Yabsley, M.J., Parsons, N., Horne, E.C., Shock, B.C. and Purdee, M. 2012. Novel relapsing fever Borrelia detected in African penguins (Spheniscus demersus) admitted to two rehabilitation centers in South Africa. Parasitology Research, 110: 1125-1130.

Zeeman, T., Branch, G.M., Peschak, T. and Pillay, D. 2012. Assessing the ecosystem effects of the abalone Haliotis midae from its diet and foraging behaviour. African Journal of Marine Science, 34(2): 205-214.

Peer-reviewed published conference proceedings

Atkinson, L., Jarre, A.C., Shannon, L. and Field, J. 2012. Evidence for shifts in demersal fish populations on the east coast of South Africa: 1986 to 2009. In G.H. Kruse, et al. (eds), Proceedings of the Symposium Ecosystem 2010: Global Progress on Ecosystem-Based Fisheries Management, 8-11 November 2010, Alaska. Alaska: Alaska Sea Grant. ISBN 9781566121668.

Doctoral dissertations

Barquete, V. 2012. Using stable isotopes as a tool to understand the trophic relationships and movements of seabirds off southern Africa. 184pp. Supervised by Ryan, P.G.

Joseph, G. 2012. Understanding pattern-process relationships in a heterogeneouslandscape: effects of large termitaria on diversity and disturbance regimes in Miombo woodlands of northern Zimbabwe. 169pp. Supervised by Cumming, G.S.

Ndlovu, M. 2012. Environmental influences on moult andmovement strategies in southern Africanwaterfowl. 224pp. Supervised by Cumming, G.S.

Stathopoulos, S. 2012. The tangled history of olfaction in African mole-rats, Bathyergidae: insights from olfactory receptor genes. 114pp. Supervised by O'Ryan, C.

Master's degrees (by research)

Brito, D. 2012. Evolution of the ZRS and the regulation of SHH expression in the forelimbs of bats. MSc.100pp. Supervised by Illing, N.

Van Eeden, R. 2012. Foraging ecology of the African penguin Spheniscusdemersus in relation to ocean physical processes. MSc. 96pp. Supervised by Pichegru, L.

Faculty of COMMERCE

Research output from the Commerce faculty has been rising steadily for several years, but plateaued in 2011 by comparison with 2010. The 2012 results show this to have been a pause for breath. In 2012, the faculty produced a third more peer-reviewed, accredited journal articles than in any previous year, and our overall total of accredited units nearly doubled. By a number of measures, Commerce is the fastest growing hub of research at UCT, albeit from a comparatively low base, historically.

Dean's Report

The faculty is undergoing rapid organisation into a structure of 'wall to wall' research units, each led by one or more senior scholars and including mid-career and junior academics, postgraduate students, and postdoctoral fellows. Three new units were accredited by the University Research Committee in 2012 for a provisional three-year period. First, the School of Economics added Policy Research in International Services and Manufacturing (PRISM) to its existing strong suite of units. Professor Mike Morris is PRISM's founding director. Second, the Applied Management section of the School of Management Studies hosts the new UCT Tourism and Events Research Unit, directed by Dr Richard George. Third, the African Collaboration for Quantitative Finance and Risk Research (ACQuFRR) is jointly hosted by the Actuarial Science section and the Department of Finance and Tax. Associate Professor David Taylor serves as its founding director.

ACQuFRR merits special attention as the first piece of a larger enterprise that constitutes one of the faculty's three strategic priorities. It will serve as the research wing of the larger planned African Institute for Financial Markets and Risk Management (AIFMRM), now in the final stages of planning. To be sponsored in its operations and governance by a consortium of South African financial institutions, AIFMRM will partner with the Risk Management Institute of Georgia State University to create capacity in quantitative finance and risk modelling on a level that has not previously been approached on the African continent.

AIFMRM will constitute the second major structural addition to postgraduate training in the Commerce Faculty. Ahead of it is the Graduate School for Development Policy and Practice (GSDPP), which will enjoy its first official year of operation in 2013, under the administration of founding director, Professor Alan Hirsch. Professor Hirsch rejoins UCT after several years of service as the senior economic policy advisor in the Office of the Presidency. The GSDPP has already made its presence felt in the country and the continent through a series of highly successful workshops and short courses on policy implementation for senior civil servants and municipal administrators from across Africa. In 2014, it will receive its first cohort of executive master's students, with a full-time master's programme to follow thereafter.

PROFESSOR
DON ROSS
Dean of Commerce

The past year has been a milestone in the growth of the faculty's corps of NRF-rated researchers. Before 2013, there had never been an A-rated commerce researcher in South Africa. Now the Commerce faculty hosts the first two. In addition, three Commerce researchers received new B ratings, two received new C ratings, and one

received a Y rating. The faculty's overall number of A and B-rated researchers doubled in the last year.

A significant percentage of the research in the Commerce faculty is directly related to the economic development of South Africa and Africa. Government and international development agencies and foundations continue to be our overwhelmingly largest source of research support. Significantly stronger involvement is urgently needed from the main engine of economic growth and capacity development, the private sector. There is near unanimity among economists that an essential piece of the foundational institutional nexus for sustained 'tiger' – or 'lion' – rates of national growth are strong academic research hubs that work in close contact with innovative firms. UCT's Commerce faculty is among the very few parts of South Africa's tertiary education infrastructure that can realistically aspire to be the centre of such a hub in the short to medium term.

This requires persuading far more young South Africans to become involved in research beyond the level of the first degree than is currently happening. In particular, we need more such participation from members of formerly disadvantaged groups. Reduction of South Africa's world-leading level of inequality absolutely depends on the success of this kind of transformation. UCT's Commerce faculty has the capacity to make game-changing contributions to the country and the continent, but only if corporate leaders join us in setting and overseeing the research agenda. Businesses urgently need to foster an atmosphere of excitement around commercial research among young people. Our network of research partnerships with companies has been growing dramatically, from an almost non-existent base, but the scope for expansion in this area is effectively limitless.

The epicentre of research output in the Commerce faculty in 2012 remained our Africa-leading School of Economics (SoE). The Southern African Labour and Development Research Unit nurtures our two largest research enterprises, the National Income Dynamics Study and our activity as African host of the world-renowned Jameel Lateef Poverty Action Laboratory, based at the Massachusetts Institute of Technology. The SoE also hosts five other strong research units listed in this report. The Research Unit for Behavioural Economics and Neuroeconomics hosted its second annual workshop in experimental econometrics for researchers from across Africa, whose travel and accommodation was sponsored by UCT. The research of the Development Policy Research Unit (DPRU) into minimum wages yielded a series of publications in 2012, receiving significant public attention during the violent labour conflict that disrupted the country's valuable deciduous fruit harvest in early 2013. The

Departments

College of Accounting
School of Economics
Department of Finance and Tax
Department of Information Systems
School of Management Studies
Graduate School of Business

DPRU's partnership with the Africa Growth Initiative at the Brookings Institution in Washington DC has also been highly successful.

The culture of world-class research is by no means confined to Economics, and now dominates all parts of the faculty. The highest per capita rate of publication is in the Marketing section of the School of Management Studies. This is a remarkable achievement, given that our Marketing academics also carry the faculty's highest teaching loads. The UCT Unilever Institute of Strategic Marketing is the leading critical source of empirical research and marketing intelligence for South African companies. In the Department of Information Systems, the Centre for Information Technology and National Development in Africa (CITANDA), working especially closely with its new corporate partner, Samsung, leads development of customised mobile technology applications for businesses and households in the region.

Academics in the Department of Finance and Tax, which was launched at the beginning of 2012 are participating in two collaborative research projects, on international taxation with European institutions. Staff in the College of Accounting are involved in a number of research projects, including small business development and the SA Global Entrepreneurship Monitor project, and have collaborated with the South African Revenue Service and the National Energy Regulator of South Africa. Academics in the College worked with International Financial Reporting Standards (IFRS) subject experts from Ernst & Young's EMEIA region (Europe, Middle East, India and Africa) to develop a dataset of questions designed to determine how IFRS is applied globally. In Actuarial Science, the Centre for Actuarial Research (CARe) led a multiyear project, funded by the United Nations Population Fund to update, and rewrite a major manual on demographic estimation from limited and defective data. Demographers at CARe also played a publicly prominent role in the evaluation,

analysis, and assessment of the 2011 South African census. The Organisational Psychology section's Institute for Monitoring and Evaluation remains the preferred provider for public sector and non-governmental clients.

The research profile of the Graduate School of Business also continued to grow. Highlights included the 2012 international conference on the Business of Social and Environmental Innovation, which had as its theme, *Informal Sector Entrepreneurship and Social Entrepreneurship*. The conference was supported by the Bertha Centre for Social Innovation and Entrepreneurship and by TrustAfrica, which sponsored the travel and accommodation costs of a number of African delegates. The number of NRF-rated researchers in the school is currently eight, which represents a 300 percent increase over two years.

The research achievements of the Commerce faculty during 2012 have been notable, and the above represents only a fraction of these. The other achievements are, however, also both valued and recognised. The role of the faculty in producing business knowledge for Africa, integrated into the global context through an expanding range of international collaborations, is in a phase of exponential growth. We warmly encourage corporate partners and new postgraduate students to join this hub of excitement.

DOCTORAL GRADUATIONS

S.O. ADEWARA (ECONOMICS)
Provision of public goods and health outcomes during political transition in Nigeria
Supervised by Associate Professor M. Visser and Professor D. McIntyre

N. ASSAF (ACCOUNTING)
Longitudinal study of the relationship between board attributes and firms' performance in South Africa
Supervised by Professor E. Uliana

J.E.O. ATAGUBA (ECONOMICS)
Distributional impact of health care finance in South Africa
Supervised by Associate Professor I. Woolard

F. BANKOLE (INFORMATION SYSTEMS)
The impacts of ICT infrastructure on national development: a multi-method investigation involving data mining and data envelopment analysis
Supervised by Professor I. Brown and Professor K. Osei-Bryson

F. BASARDIEN (GRADUATE SCHOOL OF BUSINESS)
The impact of action strategies on entrepreneurial success of emerging entrepreneurs in the Western Cape
Supervised by Dr H. Parker

W. BRAFU INSAIDOO (GRADUATE SCHOOL OF BUSINESS)
Determinants and macro-volatility impact of international capital flows in selected sub-Saharan Africa countries
Supervised by Professor N. Biekpe

Z. BREY (GRADUATE SCHOOL OF BUSINESS)
Towards building a theory of lean implementation in health care: Understanding the enablers and inhibitors of success
Supervised by Professor N.H.B. Faull

B.A. DELCARME (INFORMATION SYSTEMS)
The development and institutionalisation of an integrated healthcare waste information system
Supervised by Professor I. Brown

T. ESEMU (GRADUATE SCHOOL OF BUSINESS)
Innovation and value creation in the fish and cut-flower export sectors in Uganda
Supervised by Associate Professor E. Wood

J. FESSEHAIE (ECONOMICS)
The dynamics of Zambia's copper value chain
Supervised by Professor M. Morris

S.J. GOSSEL (GRADUATE SCHOOL OF BUSINESS)
A macroeconomic analysis of South Africa's post-liberalisation capital inflow components
Supervised by Professor N. Biekpe

P.E. GREBE (ECONOMICS)
Civil society leadership in the struggle for AIDS treatment in South Africa and Uganda
Supervised by Professor N. Nattrass

S. HOVE (ECONOMICS)
Essays on monetary policy, institutions and terms of trade shocks in emerging market economies
Supervised by Dr A. Touna Mama

F.M. HOVE (ECONOMICS)
HIV prevalence estimates and their use in regression models: cautionary evidence from Zimbabwe and studies of the relationship between armed conflict and HIV
Supervised by Professor N. Nattrass

G.J.P. HUMAN (MANAGEMENT STUDIES)
Competencies, capabilities, and relational factors in buyer–supplier business-to-business networks
Supervised by Professor J. Simpson

J.-M. JAQUET (GRADUATE SCHOOL OF BUSINESS)
A non-linear approach to modelling motivation in the workplace using artificial neural networks
Supervised by Professor W. Baets

V. KATOMA (GRADUATE SCHOOL OF BUSINESS)
A framework for discretionary effort based on performance expectancies in an integrated work environment
Supervised by Professor K. April

G. MUTASA (ECONOMICS)
Disability grant and labour supply in South Africa
Supervised by Associate Professor I. Woolard

T. NGWARU (ECONOMICS)
Gender, poverty and intimate partner violence in Southern Africa
Supervised by Professor N. Nattrass

M.M. PHEKO (MANAGEMENT STUDIES)
Predictors of sensitivity toward being the target of upward comparison (STTUC): a study of female employees in Botswana
Supervised by Associate Professor A. Schlechter

C.D. REDDY (GRADUATE SCHOOL OF BUSINESS)
Entrepreneurship, institutions, and economic development: a configurational approach
Supervised by Associate Professor R. Hamann and Professor B. Urban

L. REED (ECONOMICS)
The changing dynamics of the South African clothing value chain and the role for industrial policy: a case study of the China quotas
Supervised by Professor M. Morris

M.F. SCHMIDT (ECONOMICS)
Poverty reduction with high inequality and growth: evidence from post-independence Namibia
Supervised by Professor M. Leibbrandt and Associate Professor I. Woolard

E. SCOTT (INFORMATION SYSTEMS)
Towards coherent practice in capstone courses for IS majors
Supervised by Associate Professor K. Sewchurran

T. TOSSY (INFORMATION SYSTEMS)
Cultivating recognition: a classic grounded theory of e-learning providers working in East Africa
Supervised by Professor I. Brown

H. WEIMANN (INFORMATION SYSTEMS)
An organisational framework for the use of web-based tools in "virtual" project teams
Supervised by Professor I. Brown

RESEARCH CONTRACTS
136

VALUE OF RESEARCH CONTRACTS
R83.36 million

NRF-RATED RESEARCHERS
28

SARCHI RESEARCH CHAIRS
2

ACCREDITED RESEARCH GROUPINGS
10

DOCTORAL GRADUATIONS
26

DHET-ACCREDITED JOURNALS
56.56 units

PEER-REVIEWED PUBLICATIONS
278

POSTGRADUATE STUDENTS
724

POSTGRADUATE FUNDING
R9.5 million

POSTDOCTORAL RESEARCH FELLOWS
8

POSTDOCTORAL RESEARCH FUNDING
R1.8 million

College of Accounting

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR MARK GRAHAM

College Profile

Research in the College of Accounting is carried out in five broad areas, namely auditing, financial accounting, financial management, management accounting and taxation. The research effort is conducted on three general levels: applied research related directly to professional practice; applied research of a more general nature; and pure research on the broader frontiers of the discipline. In addition, research is carried out on the educational aspects of accountancy. The research is carried out by the staff members and postgraduate students.

College Statistics

Permanent and Long-term Contract Staff

Professors	3
Associate Professors	4
Senior Lecturers	8
Lecturers	5
Administrative and Clerical Staff	10
Total	30

Students

Postgraduate Diplomas	341
Undergraduate	2786
Total	3127

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR PETER BOURNE
Auditing; corporate governance; company law.

MS CAROL CAIRNEY
Activity based costing/management.

MR R. CARPENTER
South African income tax; capital gains tax; international tax; trust and estate duty.

PROFESSOR CARLOS CORREIA
Capital budgeting; cost of capital; valuations.

MR PETER CRAMER
Cost of capital and capital gains tax.

PROFESSOR GEOFF EVERINGHAM
Financial reporting; International Financial Reporting Standards (IFRS); corporate governance.

ASSOCIATE PROFESSOR MARK GRAHAM
International Financial Reporting Standards (IFRS); financial analysis; corporate reporting.

MRS SHELLY HERBERT
International Financial Reporting Standards (IFRS); financial analysis; corporate reporting.

MS JACQUI KEW
Accounting education; financial literacy and entrepreneurship.

MS I. LUBBE
Accounting Education, International Financial Reporting Standards & International Reporting Standards(IFRS) for SMEs.

MR DONALD MACDONALD
Accounting Education; Financial Literacy

MR PAUL MAUGHAN
Social Accounting; accounting education; financial analysis.

MRS TARYN MILLER
International Financial Reporting Standards (IFRS).

ASSOCIATE PROFESSOR TESSA MINTER
Information risk management and financial systems and controls and the teaching thereof;
Corporate Governance and the education/teaching thereof.

MR GOOLAM MODACK
Accounting education; International Financial Reporting Standards (IFRS).

MR SHAUN PARSONS
South African income tax; capital gains tax; financial instruments, banking and the taxation thereof.

PROFESSOR ALEX WATSON
International Financial Reporting Standards (IFRS) development and professional accounting education.

MS GIZELLE WILLOWS
International Financial Reporting Standards (IFRS); Financial Analysis; Behavioural Finance

MR JAMES WINFIELD
Accounting education; business and professional ethics; foundation of accounting.

ASSOCIATE PROFESSOR MICHAEL WORMALD
Corporate capital structures and financial policy.

Contact Details

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Research output

Authored books

Everingham, G.K., Kana, S. and Wadee, Z. 2012. Corporate Reporting. 671pp. 9th edition, Claremont: Juta & Co. ISBN 9780702188626.

Haupt, P.K., Carpenter, R.J. and Parsons, S.G. 2012. Fundamentals of South African Income Tax 2012. 238pp. 2nd edition. South Africa: H & H Publications. ISBN 1874929635.

Kew, J. and Watson, A. 2012. Financial Accounting, An Introduction. 722pp. 4th edition. Cape Town: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780199046485.

Marx, B., Van Der Watt, A. and Bourne, P.J.M. 2012. Dynamic Auditing. A Student Edition. 570pp. 10th edition. Johannesburg: LexisNexis. ISBN 9780409107012.

Articles in Peer-reviewed Journals

Correia, C.D.J. 2012. Capital budgeting practices in South Africa: a review. South African Journal of Business Management, 43(2): 11-29.

Correia, C.D.J., Holman, G.S. and Jahreskog, O. 2012. The corporate use of derivatives: a survey of South Africa's large listed non-financial firms. SA Journal of Accounting Research, 26(1): 69-96.

De Jager, P., Parsons, S.G. and Roeleveld, J.J. 2012. A commentary on SARS' proposed fair value tax on financial instruments. SA Journal of Accounting Research, 26(1): 165-184.

Steenkamp, L. and Cramer, P.J. 2012. A critical analysis of the current SARS model for the disclosure of reportable arrangements and a proposed alternative. Journal of Economic and Financial Sciences, 5(2): 391-416.

Peer-reviewed published conference proceedings

Correia, C.D.J. and Levinson, L. 2012. An analysis of the accuracy of earnings forecasts of companies listing on the alternative exchange of South Africa. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Correia, C.D.J. and Mayall, P. 2012. The use of the case method in teaching corporate finance: an evaluation. In L. Morris and C. Tsolakidis (eds), Proceedings of the International Conference on Information Communication Technologies in Education (ICICTE 2012), 5-7 July 2012, Rhodes, Greece. Greece: UNESCO. ISBN 9789995702441.

Gevers, J. and Lubbe, I. 2012. Considerations for effective undergraduate teamwork design and implementation: planning a financial reporting project. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Maughan, P. 2012. An ethnographic study of the use of reading time during examinations. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Modack, G.M., Holman, G.S. and Correia, C.D.J. 2012. Derivative use in South Africa: a study of financial statements of JSE-listed companies. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Parsons, S.G. and Roeleveld, J.J. 2012. The implications of applying the Australian model for the taxation of financial instruments in South Africa. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference: Peer-reviewed Conference Proceedings, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Willows, G.D. and West, D. 2012. Differential investment performance based on gender: a review of literature. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

School of Economics

DIRECTOR: ASSOCIATE PROFESSOR CORNE VAN WALBEEK

Departmental Profile

The School of Economics is located in two faculties, namely the Faculty of Commerce (which is also its administrative home) and the Faculty of Humanities. In March 2011, the School of Economics moved into a newly-constructed building on Middle Campus. The new infrastructure provides a good working environment for staff and helps the School in attracting good students and eminent academics from around the world. The School has 64 permanent and long-term contract staff. In 2013, Associate Professor Edwin Muchapondwa is set to direct the School of Economics.

The School has more than 3000 undergraduate students. In 2012, the School had 188 newly registered Honours students (67 in Economics and 121 in Financial Management and Portfolio Management), 56 registered master's students, and 62 registered PhD students.

Since 2003, the School offers two PhD programmes. In addition to the traditional PhD by thesis programme, the School also has a coursework-and-thesis based PhD programme which is offered in collaboration with seven other universities on the African continent. The four-year collaborative PhD programme consists of 18-24 months of core and applied coursework, followed by a standard dissertation. Between 2003 and 2012 this programme has attracted 72 students, nearly all from African countries.

Since inception of the collaborative programme in 2003, a substantial number of PhD students in this programme have been funded by the African Economic Research Consortium (AERC). The AERC has typically funded about 11 students per year since 2011, up from 3-5 students per year before then. Furthermore, Carnegie Corporation provided one-year scholarships to another 12 PhD students in 2012. The scholarships from Carnegie Corporation are also tenable for students in the traditional PhD by thesis programme. The growth in the PhD enrolment means that the School can expect a sharp increase in PhD graduates in three or four years' time. In 2012, the School graduated a total of 10 PhD students.

Current research activity, with an emphasis on policy related research, is spread across a number of fields, including development economics; international economics; international finance; financial theory; growth theory and empirics; labour economics; poverty and inequality; health economics; education; environmental and resource economics; and political economy.

The School of Economics hosts six research units which are led by its academic staff but also recruit other research staff. These are the Aids and Society Research Unit (ASRU), the Development Policy Research Unit (DPRU), the Environmental-Economics Policy Research Unit (EPRU), Policy Research on International Services and Manufacturing (PRISM), Research Unit in Behavioural Economics and Neuroeconomics (RUBEN) and the Southern Africa Labour and Development Research Unit (SALDRU).

Aids and Society Research Unit (ASRU)

ASRU is an inter-disciplinary unit that conducts quantitative and qualitative social science research on various aspects of AIDS policy and the socio-economic dimensions of living with HIV. Recent research by students and researchers in ASRU has focussed on the socio-economic determinants of HIV infection, medical male circumcision, AIDS conspiracy beliefs (and how they are contested), sexual behaviour, the international AIDS response (including millennium development goal 6), HIV and reproductive rights, HIV and gender, the modelling of HIV in Southern Africa, the effect of antiretroviral treatment on labour market behaviour and household composition. ASRU continues to engage with community organisations and NGOs outside of the university. ASRU is directed by Professor Nicoli Nattrass.

Environmental-Economics Policy Research Unit (EPRU)

The Environmental-Economics Policy Research Unit (EPRU) is a research group which seeks to enhance environmental policy-making in South Africa through rigorous policy research and extension in order to attain sustainable development and poverty reduction. EPRU is funded by the Swedish International Development Cooperation Agency (SIDA) through the Environment for Development (EfD) Initiative managed by the Environmental Economics Unit (EEU) at Goteborg University. The EfD consists of 6 environmental economics research centers in developing countries (Costa Rica, China, Ethiopia, Kenya, South Africa and Tanzania), the EEU and Resources for the Future in Washington DC, US. The EfD Initiative provides EPRU with a rich network of highly skilled academics trained in environmental economics to draw on.

The existing focus of EPRU's research projects are in the following areas: biodiversity and ecosystems management; responses to climate risk; distributional consequences of climate policy; poverty, service delivery and local environmental quality; community based resource

management; fisheries; behavioural aspects of natural resource management including risk preferences and cooperative behavior.

In 2012, EPRU was coordinated by Mare Sarr (Director) and Jane Turpie (Research Convener). In addition, EPRU has four senior research fellows (Anthony Black, Martine Visser, Edwin Muchapondwa and Mare Sarr); seven junior research fellows (Kerri Brick, Reviva Hasson, Sunday Adewara, Byela Tibesigwa, Grant Smith, Sue Snyman and Coretha Komba); an administration officer (Libbi Downes) and four domestic research associates (Stephanie Giamporcaro, Precious Zikhali, Harald Winkler and Andrew Marquard). A number of PhD and master's students are also being funded and supervised by EPRU. In 2013, Anthony Leiman is set to direct EPRU.

EPRU's research fellows are actively involved in teaching Environment and Natural Resource Economics, both within the School of Economics and in the broader university. Our research fellows have been particularly prolific with a publication record of 16 papers in reputable international and local journals, 4 discussion papers and a book chapter.

EPRU has collaborated with a number of local and national stakeholders on medium-size projects; these collaborators include South African National Parks in the wildlife sector, The Department of Water Affairs and Forestry in the water sector, The Department of Environmental Affairs and Tourism on marine and coastal management, The Department of Agriculture, Forestry and Fisheries, and the City of Cape Town on air quality management and energy savings. Increasingly the unit's efforts are being channelled into research outputs accessible to policy makers.

Southern Africa Labour and Development Research Unit (SALDRU)

The Southern Africa Labour and Development Research Unit (SALDRU) carries out research in applied empirical microeconomics with an emphasis on labour markets, human capital, poverty, inequality and social policy. SALDRU is governed by an executive committee. It strives for academic excellence and policy relevance.

SALDRU was founded in 1975 and, in the apartheid years, conducted a number of surveys revealing the negative impacts of apartheid on the population. In the post-apartheid period, SALDRU has continued to gather data and conduct research directed at informing and assessing anti-poverty policy. Recent survey projects include the ongoing Cape Area Panel Study, the Financial Diaries Project, the Public Work Research Project and the Quality of Life Survey. In 2006 the Presidency awarded SALDRU the tender to set up and conduct the base wave of South Africa's first national panel study of well-being, the National Income Dynamics Study. In 2009 and 2011, respectively, SALDRU won the tenders for the second and third waves of NIDS. Fieldwork for the third wave was conducted in 2012. In January 2011 J-PAL Africa was launched as a project within SALDRU. Linked to a global network of researchers, J-PAL Africa is building capacity within Africa to run randomized impact evaluations of anti-poverty programmes. In 2012 the National Treasury asked SALDRU to run a national project to stimulate and support research in three areas; employment, income distribution and inclusive growth. Three national research groups are being put in place to undertake this work.

Currently SALDRU's research team includes a Director (Professor Murray Leibbrandt), a permanent Associate Professor, the Executive Director of J-PAL Africa, a Chief Research Officer, a Senior Research Officer, 3 Post-doctoral Fellows, a Survey Manager, 2 researchers, 19 research associates from within the School of Economics, 4 honorary research associates. There are 19 research affiliates, reflecting SALDRU's active national and international research collaborators. The NIDS survey office is run by the survey manager and contains 7 dedicated staff and, during fieldwork, up to 30 temporary staff members. The J-PAL Africa office is run by the Executive Director, Kamilla Gumede, and has two research managers and four research assistants.

Aside from the National Income Dynamics Study and the work of J-PAL Africa, current research work falls into the following research themes:

- Post-apartheid Poverty, Employment, Education, Health and Migration dynamics In 2012 our key funders were the NRF Research Chair in Poverty and Inequality Research, the NRF Programme, Grand Challenges, Social Dynamics, European Union's NoPoor Consortium, the National Institutes of Child Health and Development, the Presidency's Programme to Support Pro-poor Policy Development, the National Treasury and the Centre of Higher Education Transformation.
- Fertility and Intergenerational Transfers (funded by the Hewlett Foundation and Population Reference Bureau).
- Social Protection, Public Works and the Labour Force (funded by the International Development Research Centre, the Ford Foundation and the British ESRC).
- The Economics of Tobacco Control in Africa (funded in 2011 by the American Cancer Society (ACS) and in 2012 by the ACS and the Bill and Melinda Gates Foundation).

Since 1999 SALDRU has run the annual UCT Summer Programme in Social Science Research Using Survey Data. Currently this programme trains over 100 Southern African researchers per year. It was funded by the Mellon Foundation for the first decade and, in 2011 was endowed by large grants from Kresge, Ford and Mellon Foundations and Statistics South Africa as well as smaller grants from 10 of South Africa's universities. In addition, SALDRU runs Winter Workshops in the analysis of panel data and in programme evaluation.

Development Policy Research Unit (DPRU)

The Development Policy Research Unit (DPRU) has been actively engaged in policy-relevant research since 1990, establishing itself as one of South Africa's premier research institutions in the fields of labour markets, poverty and inequality. The Unit's research feeds into policy decisions and pronouncements at the highest level, including Cabinet memoranda, State of the Nation Addresses and legislation, while our research findings are regularly featured in the print and electronic media.

Much of the DPRU's work derives from government departments at national and provincial level, while the DPRU also receives funding from international and multilateral agencies. In particular, the DPRU has completed numerous research projects at the national level for National Treasury, the Presidency, and the Departments of Labour, Social Development, Education and Trade and Industry, as well as for various departments in the Western Cape Provincial Government.

As part of our engagement in the policy arena, the DPRU has hosted highly successful conferences aimed at fostering greater interaction between researchers and policymakers. The DPRU publishes a Working Paper and a Policy Brief series, both of which are freely available on our website. DPRU staff members also undertake limited teaching and graduate supervision.

Apart from its research and capacity building activities, the DPRU is engaged in managing the Employment Promotion Programme (EPP), an initiative of the UK Government's Department for International Development (DFID), aimed at providing an enabling policy environment in South Africa foremployment creation and poverty reduction in South Africa. Bringing business, labour and government representatives together, the Programme has been able to commission a wide range of research that has had high level policy impact.

The DPRU is also the selected South African partner institution of the African Growth Initiative (AGI), in partnership with the Brookings Institute in the United States. This partnership ensures the DPRU's research reach a broader international policymaking audience.

The DPRU's Director, Professor Haroon Bhorat, holds the NRF Research Chair in Economic Growth, Poverty and Inequality. This has facilitated the awarding of postgraduate bursaries and fellowships broadly within the DPRU's main areas of interest to Economics students at the University.

Current and recently completed projects undertaken by the DPRU include:

- Africa Growth Initiative (AGI) Programme
- Understanding enforcement of minimum wage laws
- Monitoring the impact of the economic downturn on the SA labour market
- Enhancing access to information: An analysis of collective bargaining and sectoral determination wage data
- Labour market dynamics in the Western Cape
- South African country case study on economic transformation
- Labour Market Intelligence Partnership Project
- The Pursuit of Inclusive Growth in South Africa

Policy Research on International Services and Manufacturing (PRISM)

Policy Research in International Services and Manufacturing (PRISM) is a research and policy unit located within the School of Economics. PRISM provides a lens to focus research and policy work broadly on issues of globalization, trade and industrialization. It is home to a number of related research activities, projects and programmes concerned with issues of globalization, global value chains, industrialization paths, international trade, foreign investment, the defence industry, policy governance, infrastructure development, the role of knowledge intensive services, innovation, and international competitiveness. Another feature of PRISM's work has been its applied focus, responding to economic policy questions issues in South Africa, the rest of Africa and beyond. PRISM is managed by a Steering Committee consisting of Mike Morris (Head), David Kaplan and Anthony Black.

PRISM research and policy activities are focused around the following issues: Globalisation and industrialization development; International trade and foreign investment; Governance and economic policy; Commodities and resource based linkage industrialization; Innovation and upgrading in developing countries; Industrial policy and development; Employment intensive growth in South

Africa; International competitiveness of firms and sectors; Clusters and learning networks; China's economic impact on Africa; Regulatory frameworks for trade, services and sectors; the distributional gains of industrial growth.

David Kaplan has been appointed to the Board of the Technology Innovation Agency (TIA) – the government agency responsible for bridging the chasm between new knowledge and commercial application.

Research Unit in Behavioural Economics and Neuroeconomics (RUBEN)

RUBEN's interdisciplinary team of experimental economics researchers seek to understand the way in which people in developing economies assess risk and make decisions. They do this through quantitatively analyzed laboratory and field experiments with people earning real monetary rewards for performing experimental tasks. RUBEN researchers especially focus on trust - the essential basis of business relationships – and people's attitudes to risk, uncertainty and time. This knowledge is crucial to innovative product design in insurance, banking and retail asset management. For certain studies, RUBEN researchers also have the technology and expertise to conduct brain imaging studies, of the kind needed for neuroeconomics and neuromarketing. In 2012, RUBEN was directed by Associate Professor Justine Burns, and includes researchers from other Departments at UCT and international associates. Members within the School of Economics are Andre Hofmeyr, Harold Kincaid, Don Ross, Mare Sarr, Martine Visser and Honorary Professor George Ainslie. In 2013, Professor Harold Kincaid is set to direct RUBEN.

Current RUBEN research projects underway include experimental and neuroimaging studies of addictive consumption and illegal gambling; a study of the risk and time preferences of Western Cape fruit farmers that can inform the design and pricing of new insurance products to support innovation for export promotion; a study of the consistency of choices under risk among South Africans living in disadvantaged communities; a study of the prevalence and determinants of pathological gambling among Informal gamblers In a township; a study of a new initiative to deliver early childhood education in Cape Town townships; and a Portfolios of the Poor - Atlanta and Cape Town project about the financial lives and attitudes of the poor.

Departmental Statistics

Permanent and long term contract staff

Professors	11
Associate Professors	10
Senior Lecturers	8
Lecturers	5
Research Staff	22
Administrative staff	14
Total	70

Students

Doctoral	62
Master's	56
Honours	188
Undergraduate*	8000+
Total	**8306**

*Number of students enrolled for economics courses. Students can take a number of courses in one year.

Research Fields and Staff

Permanent teaching staff

PROFESSOR HAIM ABRAHAM

Finance; futures and derivatives; monetary economics in a general equilibrium context.

PROFESSOR HAROON BHORAT

Director of the DPRU; labour markets and labour market policy; poverty and income distribution.

PROFESSOR ANTHONY BLACK

Development economics, trade and industrial policy; automotive industry, garment industry, foreign direct investment, regional integration; global location of manufacturing and services; employment.

ASSOCIATE PROF JUSTINE BURNS

Head of RUBEN; Microeconomics; labour; poverty and income distribution; rural development; institutional economics.

DR BEATRICE CONRADIE

Farm labour markets; women in agriculture; wine industry mechanisation; irrigation farming; human animal conflicts.

MR REZA C DANIELS

Econometric analysis with missing data; analyses of surveys undertaken at UCT; applied development and labour microeconomics; public policy and benefit incidence analyses; geography and uneven development.

DR CLARA DELAVALLADE
Development economics; applied econometrics; corruption; health; education; evaluation of public policies.

PROFESSOR PAUL J DUNNE
Defence, conflict and peace economics; applied econometrics

ASSOCIATE PROFESSOR LAWRENCE EDWARDS
International trade and competitiveness; trade policy; trade and infrastructure; trade, employment and poverty.

MS KATHERINE EYAL
Labour; development; education; program evaluation; econometrics, behavioural economics

DR FARAYI GWENHAMO
International capital movements and institutions; construction of economic and political institutional indices; property rights and economic performance; macroeconomics; time series econometrics.

ASSOCIATE PROF LUKASZ GRZYBOWSKI
Industrial organisation; game theory; applied econometrics; network economics; telecommunications; competition and antitrust policy.

ASSOCIATE PROFESSOR SHAKILL HASSAN
Finance: fixed income, currency and commodity markets; arbitrage and asset pricing; applied financial econometrics. Economics: currency speculation and crises; monetary policy and asset prices; applicable economic theory.

MR ANDRE HOFMEYR
Game theory; behavioural economics; the economics of addiction; political economy.

PROFESSOR DAVID KAPLAN
Technology development; technology policy; industrial policy; telecommunications industry; migration of skilled persons. Work on the SA mining industry – technological change; innovation; mining based exports (capital equipment and services); local (Western Cape) economic development issues.

PROFESSOR HAROLD KINCAID
Philosophy and methodology of social science; causal modeling; addiction; experimental elicitation of risk and time preferences and other topics in behavioral economics

MS LEIGH LAKAY
Labour economics; environmental economics.

PROFESSOR MURRAY LEIBBRANDT
Director of SALDRU; income distribution and poverty; survey econometrics; labour; education.

ASSOCIATE PROFESSOR ANTHONY LEIMAN
Environmental and resource economics; cost-benefit analysis; informal sector.

MR CECIL MLATSHENI
Youth and the labour market; participation, search and unemployment; fertility and labour market participation; the brain drain and skills migration.

PROFESSOR MIKE MORRIS
Director of PRISM; Globalisation; impact of China on Africa; industrialization and the Africa commodities boom; clothing and textiles; automotive industry; clusters and industrial development; industrial policy.

ASSOCIATE PROF EDWIN MUCHAPONDWA
Community based natural resource management; nature-based tourism; valuation of non-market environmental amenities

PROFESSOR NICOLI NATTRASS
Director of ASRU; The socio-economic dimensions of living with HIV; the clothing industry; attitudes to employment; the political-economy of job creation; the moral economy of dealing with predators.

DR MIQUEL PELLICER GALLARDO
Economic inequality; political economy; education; redistribution; political clientelism; authoritarian regimes.

MS NERYVIA PILLAY
Risk measurement, financial markets.

DR PATRIZIO PIRAINO
Applied microeconometrics; labour economics; economics of education; immigration; development economics; experimental economics.

DR VIMAL RANCHHOD
Labour economics; economics of education; economic demography; poverty; inequality and development economics.

PROFESSOR DON ROSS
Game theory; philosophy of economics (methodology); neuroeconomics and experimental economics; infrastructure development; African trade and industry policy; philosophy of science.

DR MARE SARR
Director of EPRU; Institutions and development; political economy; natural resources.

DR ASHA SUNDARAM
International trade; development economics; applied econometrics.

DR ALBERT TOUNA MAMA
Macroeconomics (households' consumption/investment behavior); international macroeconomics (current account imbalances, sovereign borrowing); dynamic stochastic equilibrium models; development economics (informal insurance arrangements, terms of trade shocks, structural changes).

ASSOCIATE PROFESSOR CORNE VAN WALBEEK
The economics of tobacco control; evaluating economic forecasts; the quality of official data, economics education; economic history.

ASSOCIATE PROF MARTINE VISSER
Behavioural and experimental economics applications to natural resource utilization; environmental and natural resource economics; poverty, inequality and sustainability; social institutions and networks; applied game theory and microeconometrics; valuation techniques.

PROFESSOR MARTIN WITTENBERG
Data Quality; Measurement of Poverty, Incomes and Economic Well-being; Labour economics; economics of the household; analysis of time-use data; microeconometrics.

ASSOCIATE PROFESSOR INGRID WOOLARD
Measurement of poverty; income inequality; labour economics; social assistance.

Adjunct staff

ADJUNCT PROFESSOR BRIAN LEVY
Governance and political economy; development policy and practice.

ADJUNCT ASSOCIATE PROFESSOR MARK ELLYNE
Monetary economics (monetary transmission, monetary policy, inflation targeting); exchange rates (policy, valuation, exchange regimes and controls); regional integration (SADC convergence, African integration); IMF and World Bank (structural adjustment programs); country macroeconomic studies.

DR NICK SAMOUILHAN
Financial Economics: asset allocation and portfolio construction, asset class modelling, quantitative market strategies and volatility modelling and forcasting.

Internship teaching staff

MS CATHERINE KANNEMEYER
Labour economics; education; social transfers.

MR FRANCOIS STEENKAMP
Labour economics and trade.

MR SEAN MULLER
Applied microeconometrics; growth and development (particularly in Africa); choice theory; intergenerational mobility; methodological issues in economics and econometrics.

Honorary staff

HONORARY PROFESSOR GEORGE AINSLIE
Behavioral economics (picoeconomics); motivation; choice; self-control; higher mental functions; interface among economics; experimental psychology; philosophy (theory of mind).

Research Staff

ASRU

NATHAN GEFFEN (researcher, deputy director of ASRU, and co-ordinator of GroundUp)

DPRU

MR MORNÉ OOSTHUIZEN
Deputy Director: Labour markets; prices; poverty and inequality.

MS CARLENE VAN DER WESTHUIZEN
Senior Researcher: Labour economics; poverty and inequality.

MS TOUGHEDAH JACOBS
Labour markets; development; poverty; inequality

MS NATASHA MAYET
Labour economics; minimum wage

MS SUMAYYA GOGA
Labour markets; poverty and inequality.

MS ELNE JACOBS
Development economics; labour economics; institutional economics; micro economics; survey data analysis; economics of education.

MR DAVID (CHEN-WEI) TSENG
Labour economics; survival analysis; time series and forecasts.

MR BENJAMIN STANWIX
Labour markets; economic history.

MR NAN TIAN
Labour economics; conflict; economic growth.

SALDRU

ASSOCIATE PROFESSOR CALLY ARDINGTON
Intergenerational support; analysis of household surveys; orphanhood; family background, school quality and educational outcomes.

PROFESSOR SEAN ARCHER
Economics of human rights; economics of education training, and economics and ecology of arid zones.

PROFESSOR FRANCIS WILSON
Poverty and development; unemployment; household survey data collection; water policy.

MS KAMILLA GUMEDE
Executive Director of J-PAL Africa.

DR THOMAS BOSSUROY
Inequalities and social mobility; political economy; social structures and identities and evaluation of public policy.

DR MALCOLM KESWELL
Econometrics of Programme Evaluation, Behavioural Economics, Development Economics

DR BRENDAN MAUGHAN-BROWN
HIV-related stigma; socioeconomic and behavioural determinants of HIV.

DR EVA WEGNER
Political mechanisms of inequality persistence; clientelism; political parties; authoritarian regimes; Islamist movements.

DR NICOLA BRANSON
Quantitative research in education inequality and the intergenerational consequence of teenage childbearing in South Africa.

ARDEN FINN
Inequality, poverty and the analysis of panel data

CLARE HOFMEYR
Economics of education, training, communications and policy work.

LAURA COSTICA
J-PAL Africa Research Manager

BRYAN PLUMMER
J-PAL Africa Research Manager

MUTHONI NGATIA
Researcher J-PAL Africa

Distinguished visitors

PROFESSOR RAVI KANBUR
Cornell University

PROFESSOR FREDERICK FOURIE
University of the Free State

PROFESSOR ROBERT LAWRENCE
Kennedy School of Government, Harvard University

PROFESSOR RHYS JENKINS
University of East Anglia

PROFESSOR ANDREW ROSE
University of California, Berkeley

PROF GLENN W HARRISON
Georgia State University

PROF ELISABET RUTSTROM
Georgia State University

PROF WARREN BICKEL
Virginia Institute of Technology

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RESEARCH UNIT IN BEHAVIOURAL ECONOMICS AND NEUROECONOMICS (RUBEN)
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POLICY RESEARCH IN INTERNATIONAL SERVICES AND MANUFACTURING (PRISM)
Postal address: School of Economics, University of Cape Town, Private Bag X3, Rondebosch, 7701
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Research Output

Authored books

Dunne, J.P. and Brauer, J. 2012. Peace Economics. A Macroeconomic Primer for Violence-Afflicted States. 135pp. United States of America: United States Institute of Peace Press. ISBN 9781601271389.

Morris, M.L., Kaplinsky, R. and Kaplan, D.E. 2012. One Thing Leads to Another. 227pp. North Carolina: Raleigh. ISBN 9781471781889.

Nattrass, N.J. 2012. The Aids Conspiracy: Science Fights Back. 216pp. Johannesburg: WITS University Press. ISBN 978186814562.

Edited books

Kincaid, H. (ed) 2012. The Oxford Handbook of Philosophy of Social Science. 657pp. Oxford: Oxford University Press. ISBN 9780195392753.

Chapters in books

Archer, S.J. 2012. Key issues in the assessment of South Africa's national skills development strategy. In H. Perold, N. Cloete and J. Papier (eds), Shaping the Future of South Africa's Youth, pp.158-176. Somerset West: African Minds. ISBN 9781920489465.

Bhorat, H.I. 2012. South Africa: an emerging market in an emerging continent. In E. Aryeetey, S. Devarajan, R. Kanbur and L. Kasekende (eds), Oxford Companion to the Economics of Africa, pp. 576-583. Oxford, United Kingdom: Oxford University Press. ISBN 9780199575978.

D'Agostino, G., Dunne, J.P. and Pieroni, L. 2012. Assessing the effects of military expenditure on growth. In M.R. Garfinkel and S. Skaperdas (eds), The Oxford Handbook of The Economics of Peace and Conflict, pp. 388-411. New York: Oxford University Press. ISBN 9780195392777.

Favish, J., Ross, D.A., Inggs, S.C., Kathard, H., Clarkson, C.P., Case, J.M., Collier-Reed, B.I. and Reid, S. 2012. Reflections on developing distinctive University of Cape Town graduate attributes. In M. Coetzee (ed), Developing Student Graduateness and Employability, pp. 207-225. Randburg: Knowres Publishing. ISBN 9781869221898.

Kaplinsky, R. and Morris, M.L. 2012. Chinese OFDI in sub-Saharan Africa. In I. Alon, M. Fetscherin and P. Gugler (eds), Chinese International Investments, pp. 300-325. United Kingdom: Palgrave Macmillan. ISBN 9780230280960.

Kincaid, H. 2012. Introduction: doing philosophy of social science. In H. Kincaid (ed), The Oxford Handbook of Philosophy of Social Science, pp.3-20. Oxford: Oxford University Press. ISBN 9780195392753.

Kincaid, H. 2012. Mechanisms, causal modeling, and the limitations of traditional multiple regression. In H. Kincaid (ed), The Oxford Handbook of Philosophy of Social Science, pp. 46-64. Oxford: Oxford University Press. ISBN 978019-5392753.

Morris, M.L. and Kaplinsky, R. 2012. The structure of supply chains and their implications for export supply. In O. Ajakaiye and T. Oyejide (eds), Trade Infrastructure and Economic Development, pp. 170-203. Oxford: Routledge. ISBN 9780415669139.

Nattrass, N.J. 2012. Gender and access to antiretroviral treatment in South Africa. In C.A. Conrad (ed), AIDS, Gender and Economic Development, pp. 19-36. England: Routledge. ISBN 9780415673273.

Nattrass, N.J. 2012. Strengthening health systems. In B. Lomborg (ed), Rethink HIV Smarter Ways to Invest in Ending HIV in Sub-Saharan Africa, pp. 226-237. Cambridge: Cambridge University Press. ISBN 9781107028692.

Piraino, P., Haveman, R., Smeeding, T. and Wilson, K. 2012. Child development and social mobility. In J. Ermisch, M. Jantti and T. Smeeding (eds), From Parents to Children, pp. 345-369. USA: Russell Sage Foundation. ISBN 9780871540454.

Ross, D.A. 2012. Addictive, impulsive and other counter-normative consumption. In V. Wells and G. Foxall (eds), Handbook of developments in Consumer Behaviour, pp. 323-360. UK: Edward Elgar Publishing. ISBN 9781849802444.

Ross, D.A. 2012. Cognitive variables and parameters in economic models. In R. Sun (ed), Grounding Social Sciences in Cognitive Sciences, pp. 287-314. United States of America: MIT Press. ISBN 9780262017541.

Ross, D.A. 2012. Coordination and the foundations of social intelligence. In H. Kincaid (ed), The Oxford Handbook of Philosophy of Social Science, pp. 481-506. Oxford: Oxford University Press. ISBN 9780195392753.

Ross, D.A. 2012. Decision-making and substance abuse: a South African perspective. In G. Ellis, D. Stein, K. Thomas and E. Meintjes (eds), Substance Use and Abuse in South Africa, pp.185-200. Cape Town: UCT Press. ISBN 9781919895291.

Ross, D.A. 2012. Economic theory, anti-economics, and political ideology. In U. Maki (ed), Handbook of The Philosophy of Science Philosophy of Economics, pp. 241-285. Amsterdam: Elsevier. ISBN 9780444516763.

Ross, D.A. 2012. Maki's realism and the scope of economics. In A. Lehtinen, J. Kuorikoski and P. Ylikoski (eds), Economics for Real Uskali Maki and the Place of Truth in Economics, pp. 181-202. Oxford, UK, USA and Canada: Routledge. ISBN 9780415686549.

Ross, D.A. 2012. The economic agent: not human, but important. In U. Maki (ed), Handbook of The Philosophy of Science Philosophy of Economics, pp. 691-735. Amsterdam: Elsevier. ISBN 9780444516763.

Sarr, M. and Swanson, T. 2012. Governance and the research and development sector for biotechnology: intellectual property rights and bioprospecting. In E. Brousseau, T. Dedeurwaerdere and B. Siebenhuner (eds), Reflexive Governance for Global Public Goods, pp.105-120. USA: MIT Press. ISBN 9780262516983.

Snyman, S. and Spenceley, A. 2012. High-End Ecotourism's Role in Assisting Rural Communities in Reaching the Millennium Development Goals. In K. S. Bricker, R. Black and S. Cottrell (eds), Sustainable Tourism and the Millennium Development Goals, pp. 89-106. Massachusetts: Jones and Bartlett Publishers. ISBN 9781449628239.

Sundaram, A., Ahsan, R.N. and Devashish, M. 2012. Complementarity between formal and informal manufacturing in India. In J. Bhagwati and A. Panagariya (eds), Reforms and Economic Transformation in India, pp. 49-85. Oxford University Press. ISBN 978-0199915200

Articles in Peer-reviewed Journals

Bhorat, H.I., Oosthuizen, M.J. and Van Der Westhuizen, C. 2012. Estimating a poverty line: an application to free basic municipal services in South Africa. Development Southern Africa, 29(1): 77-96.

Abraham, H. 2012. Financial instability and bank's balance sheets: a note. South African Journal of Business Management, 43(3): 95-98.

Ainslie, G. 2012. Pure hyperbolic discount curves predict "eyes open" self-control. Theory and Decision, 73(1): 3-34.

Aling, P. and Hassan, S.J. 2012. No-arbitrage one-factor models of the South African term structure of interest rates. South African Journal of Economics, 80(3): 301-318.

Bezabih, M. and Sarr, M. 2012. Risk preferences and environmental uncertainty: implications for crop diversification decisions in Ethiopia. Environmental & Resource Economics, 53: 483-505.

Bhorat, H.I., Kanbur, R. and Mayet, N. 2012. Estimating the causal effect of enforcement on minimum wage compliance: the case of South Africa. Review of Development Economics, 16(4): 608-623.

Bhorat, H.I., Goga, S. and Van Der Westhuizen, C. 2012. Institutional wage effects: revisiting union and bargaining council wage premia in South Africa. South African Journal of Economics, 80(3): 400-414.

Bhorat, H.I., Kanbur, R. and Mayet, N. 2012. Minimum wage violation in South Africa. International Labour Review, 151(3): 277-287.

Bloch, R. and Owusu, G. 2012. Linkages in Ghana's gold mining industry: challenging the enclave thesis. Resources Policy, 37: 434-442.

Brick, K., Visser, M.C. and Burns, J.C. 2012. Risk Aversion: experimental evidence from South African fishing communities. American Journal of Agricultural Economics, 94(1): 133-152.

Burns, J.C. and Keswell, M.M. 2012. Inheriting the future: intergenerational persistence of educational status in KwaZulu-Natal, South Africa. Economic History of Developing Regions, 27(1): 150-175.

Burns, J.C. 2012. Race, diversity and pro-social behavior in a segmented society. Journal of Economic Behavior & Organization, 81: 366-378.

Conradie, B.I. 2012. Are hunting clubs the solution to small stock depredation? The case of Ceres, 1979 and 1980. Agrekon, 51(1): 96-113.

Delavallade, C.D. 2012. What drives corruption? evidence from north African firms. Journal of African Economies, 21(4): 499-547.

Dikgang, J., Leiman, A. and Visser, M.C. 2012. Analysis of the plastic-bag levy in South Africa. Resources Conservation and Recycling, 66: 59-65.

Dikgang, J. and Visser, M.C. 2012. Behavioural response to plastic bag legislation in Botswana. South African Journal of Economics, 80(1): 123-133.

Dikgang, J., Leiman, A. and Visser, M.C. 2012. Elasticity of demand, price and time: lessons from South Africa's plastic-bag levy. Applied Economics, 44: 3339-3342.

Dikgang, J. and Muchapondwa, E. 2012. The valuation of biodiversity conservation by the South African Khomani San "bushmen" community. Ecological Economics, 84: 7-14.

Dunne, J.P., D'Agostino, G. and Pieroni, L. 2012. Corruption, military spending and growth. Defence and Peace Economics, 23(6): 591-604.

Dunne, J.P. and Nikolaidou, E. 2012. Defence spending and economic growth in the EU15. Defence and Peace Economics, 23(6): 537-548.

Dunne, J.P. 2012. Military spending, growth, development and conflict. Defence and Peace Economics, 23(6): 549-557.

Edwards, L.J. and Lawrence, R. 2012. A strategic view of South African trade policy in relation to the future global trading environment. South African Journal of International Affairs, 19(3): 277-298.

Edwards, L.J. and Lawrence, R. 2012. Shattering the myths about U.S. trade policy. Harvard Business Review, 90(3): 149-153.

Fessehaie, J. 2012. What determines the breadth and depth of Zambia's backward linkages to copper mining? The role of public policy and value chain dynamics. Resources Policy, 37: 443-451.

Grebe, E. and Nattrass, N.J. 2012. AIDS conspiracy beliefs and unsafe sex in Cape Town. AIDS and Behavior, 16: 761-773.

Gwenhamo, F., Fedderke, J.W. and de Kadt, R. 2012. Measuring institutions: indicators of political rights, property rights and political instability in Zimbabwe. Journal of Peace Research, 49(4): 593-603.

Hasson, R., Lofgren, A. and Visser, M.C. 2012. Treatment effects of climate change risk on mitigation and adaptation behaviour in an experimental setting. South African Journal of Economics, 80(3): 415-430.

Hofmeyr, A.K. and Burns, J.C. 2012. Two sides of the same coin: re-examining nepotism and discrimination in a segmented society. Review of Social Economy, 70(3): 344-374.

Kaplan, D.E. 2012. South African mining equipment and specialist services: technological capacity, export performance and policy. Resources Policy, 37: 425-433.

Keswell, M.M., Burns, J.C. and Thornton, R. 2012. Evaluating the impact of health programmes on productivity. African Development Review-Revue Africaine de Development, 24(4): 302-315.

Kincaid, H., Daniels, R.C., Dellis, A., Hofmeyr, A.K., Rousseau, J., Sharp, C. and Ross, D.A. 2012. A taxometric analysis of problem gambling data from a South African national urban sample. Journal of Gambling Studies, 28: 1-23.

Kocher, M., Martinsson, P. and Visser, M.C. 2012. Social background, cooperative behavior, and norm enforcement. Journal of Economic Behavior & Organization, 81: 341-354.

Leibbrandt, M.V., Finn, A. and Woolard, I.D. 2012. Describing and decomposing post-apartheid income inequality in South Africa. Development Southern Africa, 29(1): 19-34.

Lewis, S., Turpie, J.K. and Ryan, P.G. 2012. Are African penguins worth saving? The ecotourism value of the Boulders beach colony. African Journal of Marine Science, 34: 497504.

Maughan-Brown, B. and Venkataramani, A.S.2012. Learning that circumcision is protective against HIV: risk compensation among men and women in Cape Town, South Africa. PLoS One, 7(7): e40753(1-9).

Maughan-Brown, B. 2012. Variation in concurrent sexual partnerships and sexually transmitted diseases among African men in Cape Town, South Africa. Sexually Transmitted Diseases, 39(7): 537-542.

McEwen, H. and Woolard, I.D. 2012. The fiscal cost of child grants in the context of high adult mortality in South Africa: a simulation to 2015. Development Southern Africa, 29(1): 141-156.

Morris, M.L., Kaplinsky, R. and Kaplan, D.E. 2012. "One thing leads to another" - commodities, linkages and industrial development. Resources Policy, 37: 408-416.

Muchapondwa, E. and Sterner, T. 2012. Agricultural-risk management through community-based wildlife conservation in Zimbabwe. Journal of Agribusiness in Developing and Emerging Economies, 2(1): 41-56.

Muchapondwa, E., Biggs, H., Driver, A., Matose, F., Mungatana, E. and Scheepers, K. 2012. Providing economic incentives for biodiversity conservation in an emerging bioregional context. Journal of Sustainable Development, 5(11): 118-129.

Nattrass, N.J., Maughan-Brown, B., Seekings, J.F. and Whiteside, A. 2012. Poverty, sexual behaviour, gender and HIV infection among young black men and women in Cape Town, South Africa. African Journal of AIDS Research, 11(4): 307-317.

Nunn, A., Dickman, S., Nattrass, N.J., Cornwall, A. and Gruskin, S. 2012. The impacts of AIDS movements on the policy responses to HIV/AIDS in Brazil and South Africa: a comparative analysis. Global public health, 7(10): 1031-1044.

Oosthuizen, M.J. 2012. Low pay in South Africa. International Labour Review, 151(3): 173-192.

Pauw, K. and Leibbrandt, M.V. 2012. Minimum wages and household poverty: general equilibrium macro-micro simulations for South Africa. World Development, 40(4): 771-783.

Ranchhod, V. and Dinkelman, T. 2012. Evidence on the impact of minimum wage laws in an informal sector: domestic workers in South Africa. Journal of Development Economics, 99: 27-45.

Rankin, N., Schoer, V., Sebastiao, C. and Van Walbeek, C.P. 2012. Predictors of academic performance: national senior certificate versus national benchmark test. South African Journal of Higher Education, 26(3): 564-583.

Ross, D.A. 2012. Notes on coordination, game theory and the evolutionary basis of language. Interaction Studies, 13(1): 50-65.

Ross, D.A. 2012. Special human vulnerability to low-cost collective punishment. Behavioral and Brain Sciences, 35: 37-38.

Ross, D.A. 2012. What can economics contribute to the study of human evolution? Biology & Philosophy, 27(2): 287-297.

Sarr, M. and Swanson, T. 2012. Economics of Intellectual Property Rights (IPR) for genetic resources: north-south cooperation in sequential R&D. International Journal of Ecological Economics & Statistics (IJEES), 26(3): 68-82.

Sharp, C., Steinberg, L., Yaroslavsky, I., Hofmeyr, A.K., Dellis, A., Ross, D.A. and Kincaid, H. 2012. An item response theory analysis of the problem gambling severity index. Assessment, 19(2): 167-175.

Sharp, C., Barr, G.D.I., Ross, D.A., Bhimani, R., Ha, C. and Vuchinich, R. 2012. Social discounting and externalizing behavior problems in boys. Journal of Behavioral Decision Making, 25(3): 239-247.

Smith, L., Pym, J.M. and Ranchhod, V. 2012. Explaining the first-year academic performance of commerce academic development students: a statistical analysis. SA Journal of Accounting Research, 26(1): 43-65.

Smith, L. and Ranchhod, V. 2012. Measuring the impact of educational interventions on the academic performance of academic development students in second-year microeconomics. South African Journal of Economics, 80(3): 431-448.

Snyman, S. 2012. Ecotourism joint ventures between the private sector and communities: an updated analysis of the torra conservancy and Damaraland Camp partnership, Namibia. Tourism Management, 4: 127-135.

Snyman, S. and Spenceley, A. 2012. Key sustainable tourism mechanisms for poverty reduction and local socioeconomic development in Africa. Africa Insight, 42(2): 76-93.

Snyman, S. 2012. The impact of land management systems on community attitudes towards tourism and conservation in six South African countries. Parks, 18(2): 20-31.

Snyman, S. 2012. The role of tourism employment in poverty reduction and community perceptions of conservation and tourism in Southern Africa. Journal of Sustainable Tourism, 20(3): 395-416.

Visser, M.C., Sterner, T., Damon, M. and Kohlin, G. 2012. Capacity building to deal with climate challenges today and in the future. Journal of Environment and Development, 21(1): 71-75.

Zimper, A. and Hassan, S.J. 2012. Can industry regulators learn collusion structures from information-efficient asset markets? Economics Letters, 116: 1-4.

Doctoral dissertations

Adewara, S. 2012. Provision of public goods and health outcomes during political transition in Nigeria. Supervised by Visser, M.C.

Ataguba, J. 2012. Distributional impact of health care finance in South Africa. Supervised by Woolard, I.D.

Fessehaie, J. 2012. The dynamics of Zambia's copper value chain. Supervised by Morris, M.L.

Grebe, E. 2012. Civil society leadership in the struggle for AIDS treatment in South Africa and Uganda. Supervised by Nattrass, N.J.

Hove, F. 2012. HIV prevalence estimates and their use in regression models: cautionary evidence from Zimbabwe and studies of the relationship between armed conflict and HIV. Supervised by Nattrass, N.J.

Hove, S. 2012. Essays on monetary policy, insitutions and terms of trade shocks in emerging market economies. Supervised by Touna Mama, A.

Mutasa, G. 2012. Disability grant and labour supply in South Africa. Supervised by Woolard, I.D.

Ngwaru, T. 2012. Explaining the HIV epidemic in hyper-epidemic conditions. Supervised by Nattrass, N.J.

Reed, L. 2012. The changing dynamics of the South African clothing value chain and the role for industrial policy: a case study of the China quotas. Supervised by Morris, M.L.

Schmidt, M. 2012. Poverty reduction with high inequality and growth: evidence from post-independence Namibia. Supervised by Leibbrandt, M.V. and Woolard, I.

Master's degrees (by research)

Bertscher, J. 2012. The complex determinants of childhood nutritional status and undernutrition in South Africa. MBusSc. Supervised by Wilson, F.

Brooks, L. 2012. Financial inclusion in South Africa: A quasi-experimental approach. MCom. Supervised by Leibbrandt, M.V.

Chetty, M. 2012. Does trade liberalization cause harm to South African workers? MBusSc. Supervised by Edwards, L.J. and Sundaram, A.

Dane, A. 2012. Personal carbon emissions trading: an experimental analysis. MCom. Supervised by Visser, M.C.

Edun, A. 2012. Oil and exchange rate in Nigeria: a case of Dutch disease. MCom. Supervised by Ellyne, M.

Etheredge, G. 2012. A procedure to test human behaviour under producer scrounger conditions. MSocSc. Supervised by Ross, D.A.

Girdwood, E. 2012. A pre-R year: is it worth it, and what would it cost? MCom. Supervised by Burns, J.C.

Gull, K. 2012. Water supply in the Eastern Cape: an economic case study of land rehabilitation in the Kromme River catchment. MCom. Supervised by Leiman, A.

Havemann, S. 2012. Is there a role for public interest provisions in South African competition law. MCom. Supervised by Grzybowski, L.

Hewitson, S. 2012. An assessment of the quantum for financial provision of mine closures: a Monte Carlo approach. MCom. Supervised by Leiman, A.

Kavli, H. 2012. Spillovers in the foreign exchange market: a study of volatility and returns in emerging market currencies. MCom. Supervised by Kotze, K.L.

McMillan, T. 2012. SMME performance in South Africa 2010: linear and logit regressions of the factors affecting business owner income, employment and firm survival. MCom. Supervised by Conradie, B.I.

Mohamed, R. 2012. Foster Children's school attainment: evidence from metropolitan Cape Town. MCom. Supervised by Leibbrandt, M.V. and Ardington, C.

Montgomery, S. 2012. Evaluating the South African national school nutrition programme. MCom. Supervised by Delavallade, C.D.

Msulwa, R. 2012. The growth implications of agglomeration in South Africa,1996-2010. MCom. Supervised by Black, A.H. and Dunne, J.P.

Potgieter, K. 2012. The waiting game: a survival of unemployment duration in South Africa 2002-2004. MCom. Supervised by Leibbrandt, M.V.

Pretorius, L. 2012. The economics of animal welfare: an appraisal of welfare issues in the South African poultry industry. MCom. Supervised by Leiman, A.

Rey, A. 2012. The determinants and impact of short-term business insurance in SMEs in South Africa. MCom. Supervised by Bhorat, H.I.

Rivett, C. 2012. Labour market outcomes and the impacts of social networks: evidence from the Cape Town metropolitan area. MCom. Supervised by Burns, J.C.

Roman, T. 2012. Universal health coverage: a systems thinking approach. MSocSc. Supervised by Leiman, A.

Ryan, J. 2012. The impact of the South African old age pension on the educational attainment of children. MSocSc. Supervised by Leibbrandt, M.V. and Ardington, C.

Searle, P. 2012. Fiscal policy and the current account. Evidence from South Africa. MCom. Supervised by Touna Mama, A. and Kotze, K.L.

Sewnath, N. 2012. Pricing of credit risk and credit derivatives: from theory to implementation. Master's Mathematics of Finance. Supervised by Abraham, H.

Smith, G. 2012. Social norms, social distance, social approval and household electricity consumption: afield experiment in Cape Town. MCom. Supervised by Visser, M.C.

Tseng, C.-W.2012. The newly unemployed and the UIF take-up. MCom. Supervised by Bhorat, H.I.

Warren-Codrington, A.2012. Trade liberalization and firm dynamics: evidence from Indian firms. MCom. Supervised by Sundaram, A.

Department of Finance and Tax

ACTING HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR CRAIG WEST

Department Profile

The Department of Finance and Tax was formed with effect from 1 January 2012 and this represents the Department's first research report. During January 2012, the Department moved into its allocated space. This represented some disruption for the members of staff, their teaching and research, but these issues were soon resolved.

The Department houses two disciplines, namely: finance at an undergraduate and postgraduate level and taxation at a postgraduate level only. The new Department is also home to a research unit, being the African Collaboration for Quantitative Finance & Risk Research (ACQuFRR).

As the Department becomes more established, it is anticipated that the research outputs of its staff will increase. Further postgraduate streams for taxation qualifications were developed during 2012 to come on-stream in 2013.

The tax section within the Department was invited to participate in a collaborative research project with 6 other institutions around the world. The Research Council of Norway funds this project. The staff of this section of the Department was further invited to participate in the Marie Curie International Staff Exchange Scheme (IRSES) for particular research topics in international tax. To this end, the Department hosted Dr Daniel Smit from Tilburg University in the Netherlands and will host further guests in 2013. Department staff will also participate in the exchanges in the coming years. The IRSES programme provides funding for the travel and accommodation of the visiting academic.

The department has one NRF-rated researcher, Professor Enrico Uliana (part-time).

An exceptional 42 master's students graduated from the department in 2012. The master's graduates are expected to increase as are PhD students.

African Collaboration for Quantitative Finance & Risk Research (ACQuFRR)

The African Collaboration for Quantitative Finance & Risk Research (Director: Associate Professor David Taylor) was established within the Department of Finance & Tax at the beginning of 2012. ACQuFRR's purpose is to advance the

theory and application of modern quantitative, statistical and mathematical techniques to the modelling and risk management of financial products and markets. It will be primarily interested in the application of these techniques in African and South African contexts. Whilst doing this, it will simultaneously foster a culture of research excellence, provide research mentorship to staff and students, encourage entrepreneurial activity and develop research capacity.

Departmental Statistics

Permanent and Long-term Contract Staff (including both full and part-time staff)

Professors	3
Associate Professors	3
Senior Lecturers	8
Lecturers	4
Administrative and Clerical Staff	2
Total	20

Adjunct and Honorary Staff

Adjunct Associate Professors	1

Students

Doctoral	4
Master's	42
Honours	12
Postgraduate Diploma	4
Undergraduate	2912
Total	**2974**

Research Fields and Staff

Permanent Staff

MR ABDUL ABDULLA
Accounting education; financial ratio analysis. Islamic Finance.

DR EDWARD CHAMISA
International accounting standards in developing countries; corporate governance; corporate social responsibility.

MR PHILLIP DE JAGER
Fair value accounting; banks; capital markets.

ASSOCIATE PROFESSOR GLEN HOLMAN
Capital markets.

MR CHUN-SUNG HUANG
Financial risk management and modelling; Value-at-Risk estimates and Improvements; Utility-Indifference Pricing; Stochastic Modelling.

DR RYAN KRUGER
Predictive modelling of asset returns and the financial applications of machine learning.

MR AKIOS MAJONI
Liquidity in African financial markets; corporate restructuring and shareholder value.

MR LUCIAN PITT
General field of disclosure with emphasis on risk disclosure in AFS.

MR KANSHUKAN RAJARATNAM
Decision making in consumer credit finance; credit union models; optimisation.

ASSOCIATE PROFESSOR JENNIFER ROELEVELD
International tax (Capital and Income); Tax Information Exchange Agreements; South African income tax and Estate Duty

MR COLIN SMITH
Valuation models; working capital management; behavioural issues in Management Accounting; NGO accounting and financial management.

PROFESSOR PETER SURTEES
South African income tax.

DR FRANCOIS TOERIEN
Entrepreneurial and small business finance; alternative investments; equities.

PROFESSOR ENRICO ULIANA
Management accounting practices; strategic cost analysis; use of accounting in aligning performance with strategy; intellectual capital.

PROFESSOR PAUL VAN RENSBURG
Asset Pricing. Explaining the cross section of equity returns in local and international markets.

MR DAVID WARNEKE
Vat and income tax.

ASSOCIATE PROFESSOR CRAIG WEST
International Tax (Income and Capital); Tax Information Exchange Agreements and South African income tax.

MR DARRON WEST
Taxation of savings and investments; behavioural finance and investing.

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Research output

Chapters in books

Roeleveld, J. and De Wet, C. 2012. South Africa - The future of indirect taxation. In T. Ecker, M. Lang and I. Lejeune (eds), The Future of Indirect Yaxation: Recent Trends in VAT and GST Systems Around the World, Chapter 17, pp. 461-482. The Netherlands: Kluwer Law International BV. ISBN 9789041137975.

West, C. and West, D.G. 2012. The debt-equity conundrum. In Cahiers de Droit Fiscal International (IFA), pp. 633-648. The Netherlands: Sdu Uitgevers. ISBN 9789012388085.

Articles in Peer-reviewed Journals

Chamisa, E., Mangena, M. and Ye, G.A. 2012. Relative value-relevance of accounting measures based on Chinese accounting standard and international financial reporting standards. Journal of Accounting in Emerging Economies, 2(2): 162-187.

Correia, C.D.J., Holman, G.S. and Jahreskog, O. 2012. The corporate use of derivatives: a survey of South Africa's large listed non-financial firms. SA Journal of Accounting Research, 26(1): 69-96.

De Jager, P., Parsons, S.G. and Roeleveld, J.J. 2012. A commentary on SARS' proposed fair value tax on financial instruments. SA Journal of Accounting Research, 26(1): 165-184.

Hodnett, K., Hsieh, H. and Van Rensburg, P. 2012. Equity style payoffs and stock return predictability: evidence from the South African JSE securities exchange. Journal of Applied Business Research, 28(4): 105-114.

Hodnett, K., Hsieh, H. and Van Rensburg, P. 2012. Nonlinearities in stock return prediction: evidence from South Africa. Journal of Applied Business Research, 28(6): 1253-1274.

Hodnett, K., Hsieh, H. and Van Rensburg, P. 2012. Payoffs to equity investment styles on the JSE securities exchange: the case of South African equity market. International Business and Economics Research Journal,11(1): 19-32.

Hsieh, H., Hodnett, K. and Van Rensburg, P. 2012. Application of tactical style allocation for global equity portfolios. International Business and Economics Research Journal, 11(7): 745-752.

Hsieh, H., Hodnett, K. and Van Rensburg, P. 2012. Do managers of global equity funds outperform their respective style benchmarks? Evidence from South Africa. International Business and Economics Research Journal, 11(3): 269-282.

Hsieh, H., Hodnett, K. and Van Rensburg, P. 2012. Fundamental indexation for global equities: does firm size matter? Journal of Applied Business Research, 28(1): 105-114.

Hsieh, H., Hodnett, K. and Van Rensburg, P. 2012. Resilient market timing strategies for global equities. Journal of Applied Business Research, 28(5): 803-814.

Hsieh, H., Hodnett, K. and Van Rensburg, P. 2012. The influences of macroeconomic forces on the value-momentum spread of global equities. International Business and Economics Research Journal,11(5): 497-506.

Kruger, R., Toerien, F. and Macdonald, I.L. 2012. Nonlinear serial dependence in share returns on the Johannesburg stock exchange. The African Finance Journal, 14(2): 64-84.

Mangena, M., Tauringana, V. and Chamisa, E. 2012. Corporate boards, ownership structure and firm performance in an environment of severe political and economic crisis. British Journal of Management, 23: S23-S41.

Priilaid, D.A. and Van Rensburg, P. 2012. Nonlinear hedonic pricing: a confirmatory study of South African wines. International Journal of Wine Research, 4: 1-13.

Priilaid, D.A. and Van Rensburg, P. 2012. The hedonic valuation of South African wine brands. South African Journal of Business Management, 43(1): 15-36.

Roeleveld, J.J. 2012. An argument for either excluding death as a capital gains tax event or abolishing estate duty. SA Journal of Accounting Research, 26(1): 143-164.

Peer-reviewed published conference proceedings

Correia, C.D.J. and Levinson, L. 2012. An analysis of the accuracy of earnings forecasts of companies listing on the alternative exchange of South Africa. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Diener, M., Ledwidge, M., Low, M., Siyakatshana, S. and Rajaratnam, K. 2012. Effect of bank size on economic capital: a study of a closed stylised-system. In U. Laptaned and G. Nartea (eds), Proceedings of the 3rd International Conference on Business and Economics (ICBE 2012) "Frontiers of Business, Economics and Globalization", 13-15 September 2012, Cape Town, South Africa. Cape Town: UP Organizer and Publication Co. ISBN 9786167734002.

Modack, G.M., Holman, G.S. and Correia, C.D.J. 2012. Derivative use in South Africa: a study of financial statements of JSE-listed companies. Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Parsons, S.G. and Roeleveld, J.J. 2012. The implications of applying the Australian model for the taxation of financial instruments in South Africa. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Rajaratnam, K. 2012. Consumer loan decisions under profit variance constraint. In U. Laptaned and G. Nartea (eds), Proceedings of the 3rd International Conference on Business and Economics (ICBE 2012) "Frontiers of Business, Economics and Globalization", 13-15 September 2012, Cape Town, South Africa. Cape Town: UP Organizer and Publication Co. ISBN 9786167734002.

Rajaratnam, K. and Huang, C.S. 2012. Consumer loan decisions with profit-loss tradeoff under multiple economic conditions. In E.J. Willemse (ed), Proceedings of the 41st Annual Conference of the Operations Research Society of South Africa, 16-19 September 2012, Muldersdrift, South Africa. South Africa: ORSSA. ISBN 9780797214064.

Rajaratnam, K., Toerien, F., Huang, C.S. and Kruger, R. 2012. Forecasting model for BEE deal success: a case of a stylised BEE deal. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Willows, G.D. and West, D. 2012. Differential investment performance based on gender: a review of literature. In Proceedings of 2012 Southern African Accounting Association Western Cape Regional Conference, 7 September 2012, Cape Town, South Africa. Cape Town: Southern African Accounting Association. ISBN 9780620536738.

Master's degrees in Finance

Bowler, W. 2012. Market timing on the Johannesburg Stock Exchange. Supervised by Paul van Rensburg.

Museru, M. 2012. Impact on AID on GDP Growth on Sub-Saharan Africa. The link between sources of public spending and growth in Sub-Saharan Africa. MCom. Supervised by Francois Toerien & Sean Gossel.

Master's degrees in Financial Management

Attwood, M. 2012. An application of the Pitroski-F score to the SA market. MCom. Supervised by Paul van Rensburg.

Binneman, J. 2012. Quality of earnings an investment indicator - A literature review. MCom. Supervised by Thomas Gstraunthaler.

Govindjee, H. 2012. The performance of IPO's in South Africa (Work title in progress). MCom. Supervised by Glen Holman.

Hart, K. 2012. Derivatives usage in Egypt: a study of the use of derivative financial instruments by Egyptian companies listed on the Egyptian Stock Exchange. MCom. Supervised by Glen Holman.

Kobrin, P. 2012. The applicability of the Grameen Bank model in South Africa. MCom. Supervised by Thomas Gstraunthaler.

Makhubedu, D. 2012. An analysis of branchless banking services through a partnership between mobile phone technologies, traditional banks and nonbank retail agents. MCom. Supervised by Glen Holman.

Mavrodinov, N. 2012. The changing landscape of long-term share-based compensation in South Africa. MCom. Supervised by Glen Holman.

Miller, M. 2012. The value proposition of black economic empowerment transactions on SA companies. MCom. Supervised by Michael Wormald.

Moore, D. 2012. An assessment of style & performance of SA institutional fund managers. MCom. Supervised by Paul van Rensburg.

Ngcingwana, T. 2012. Implications of Management Control Systems for Green Supply Chain Management in South Africa; a Case Study of a Food Retailer (Woolworths). MCom. Supervised by Enrico Uliana / Philip De Jager.

Ngwane, A. 2012. Private equity as an asset class in an institutional portfolio: A South African perspective. MCom. Supervised by Glen Holman.

Raharison, R. 2012. Derivative usage by listed companies in Mauritius, Morocco, Tunisia, WAEMU region 2008/2009. MCom. Supervised by Glen Holman.

Siame, C. 2012. Derivatives usage. MCom. Supervised by Enrico Uliana.

Thomas, S. 2012. Effects of foreign indices relevant to the SA market. MCom. Supervised by Darron West.

Varughese, A. 2012. Strategic issues facing the development of clean development. MCom. Supervised by Glen Holman/ Thomas Gstraunthaler.

Willows, G. 2012. She's Built For It: Differential Investment Performance in South Africa Based on Gender. MCom. Supervised by Darron West.

Master's degrees in taxation

Bhoobun, D. 2012. Trusts and Tax general anti-avoidance rules. Does the new GAAR prevent selected common structured transactions involving the interposition of a trust? MCom. Supervised by Craig West.

Buckley, R. 2012. Defining a royalty from a South African perspective for the purposes of the South African Income Tax Act and the South African application of its Double Tax Treaty Network. MCom. Supervised by Craig West.

Carpenter, R. 2012. A critical analysis of estate duty, inheritance tax and capital gain tax for South African and United Kingdom residents on death. MCom. Supervised by Jennifer Roeleveld.

Chivaura, E. 2012. The taxation of short term insurers. MCom. Supervised by Darron West.

Glendining, D. 2012. An investigation into the leakage factor, in respect of the accretion of employer's and employee's contributions to retirement savings, compounded, over an employee's working career, in the private sector. MCom. Supervised by Jennifer Roeleveld.

Jacobs, A. 2012. The tax deductibility of contingent liabilities transferred in the sale of a going concern. MCom. Supervised by Peter Cramer.

Koeleman, M. 2012. A critical review of the South African Headquarter Company regime in light of its stated objective of attracting foreign investment. MCom. Supervised by Craig West.

Marais, A. 2012. Simulation discussed: Tax avoidance in the common law. MCom.Supervised by Jennifer Roeleveld.

Olivier, A. 2012. An exploration and critical analysis of the plastic bag levy, the fuel levy and the carbon tax on new vehicles, in order to understand the purpose and effects of their implementation.
MCom. Supervised by Peter Cramer.

Parsons, S. 2012. The taxation of financial instruments. Is the Australian model for the taxation of financial instruments a desirable alternative for South Africa? MCom. Supervised by Jennifer Roeleveld.

Van der Mescht, E. 2012. Limited interest in property: An overview of limited interests in property with particular reference to the taxation of usufructs and more specifically the capital gains tax effects on disposal for individuals and for Trusts. MCom.Supervised by Jennifer Roeleveld.

Van Wijk, A. 2012. Whether tax incentives to stimulate foreign direct investment for manufacturing in the SADC region is an indicator of harmful tax competition. MCom. Supervised by Craig West.

Wheeler, T. 2012. An in depth analysis of the development of the taxation of co-operatives in South Africa and whether this aligns with economic purpose. MCom. Supervised by Jennifer Roeleveld.

Department of Information Systems

HEAD OF DEPARTMENT: DR LISA SEYMOUR

Department Profile

Research continued to be high on the agenda of the IS department's deliverables. Professor Ojelanki Ngwenyama joined the Department on a part-time basis and received his new NRF (B) rating. With the successful re-evaluation application of Professor Hart, the Department increased its NRF-rated researchers to eight. In terms of research publications, the department succeeded in its goal of increasing the quality of its outputs with a substantial increase in output in DHET-accredited journals.

We graduated 5 PhDs in December (a record for the Department) and 10 master's students. One member of staff, Elsje Scott, was awarded her PhD in 2012 and 3 more academics intend submitting by June 2013. Our overall postgraduate profile is strong with 49 Postgraduate diploma and 49 Honours students graduating in 2012. The Department now runs four postgraduate diplomas in Information Systems, Computer Forensics, Enterprise Systems and BPM and Business and Systems Analysis (BASA) respectively. In addition to record numbers of postgraduate student graduations, the department maintains a strong and steadily increasing cohort of registered postgraduate students. In 2012, the department had 38 registered doctoral students and 42 registered master's students. This is in addition to the 65 honours students who are also required to submit an individual research project.

The department also secured its first major multi-year research contract through the UCT-Samsung Mobile Innovation Laboratory (R1+ million in annual funding in terms of a three-year agreement), the Department's Digital Forensics Unit hosted South Africa's first Digital Forensics Conference and the CITANDA Community IT project in Vrygrond has precipitated some relevant ICT for development research studies.

Departmental Statistics

Permanent Staff

Professors	2.5
Associate Professors	4
Senior Lecturers	6
Lecturers	3
Administrative and Clerical Staff	5
Total	20.5

Honorary Staff

Emeritus Professors	2

Students

Doctoral	38
Master's	42
Honours	65
Postgraduate Diploma	159
Undergraduate	2614
Total	2918

Research Fields and Staff

PROFESSOR IRWIN BROWN
IS in developing countries; IS management; Grounded Theory in IS research.

ASSOCIATE PROFESSOR WALLACE CHIGONA
ICT for national development; community informatics; and mobile technology for development.

DR ERIC CLOETE
Computer architectures and software; information systems management; image processing; electronic commerce.

EMERITUS PROFESSOR MIKE HART
Strategic use of IS; key management issues in IS; business intelligence; data mining and analytics.

ASSOCIATE PROFESSOR KEVIN JOHNSTON
ICT strategy and alignment; use of ICT in business; ICT management issues; open source software.

ASSOCIATE PROFESSOR MICHAEL KYOBE
Strategic IT planning; IT alignment; computer security and utilisation of IT to leverage knowledge management; enterprise and IT governance.

DR ELSJE SCOTT
Object-orientated programming and methodologies; efficient teaching methods for programming concepts; IS project management, with the specific focus on student group projects using C# as programming language.

MS SALAH KABANDA
IT adoption; M and E commerce; ICT4D.

PROFESSOR OJELANKI NGWENYAMA
Developing and using critical social science methods for IS research. Empirical research focused on: software process innovation; IS implementation; IS management; the impact of ICT on social and economic development.

DR JACQUES OPHOFF
Information and cyber security; privacy; design science research.

MR MIKE POLLOCK
Effective IS teams, IS programming with students; technology acceptance; the digital divide in South Africa; digital forensics; virtual teams; m-innovation.

MS SUMARIE ROODT
IS and Education: Technology-enhanced learning with a focus on using emerging technologies for the Net Generation, Digital Game-Based Learning (DGBL), Virtual Worlds, Educational Neuroscience & Technology-Enhanced Learning. IS and Business: Using emerging technologies for Competitive Advantage

DR LISA SEYMOUR
Enterprise systems and business process management with a developing country focus.

ASSOCIATE PROFESSOR KOSHEEK SEWCHURRAN
Project organising, systems thinking, innovation and creating a desirable tension between best-practices, research and professions.

EMERITUS PROFESSOR DEREK SMITH
Project portfolio management; project teams; project manager competencies.

MR ADRIE STANDER
Data communications; database design; human-computer interaction; culture and information systems.

MS MAUREEN TANNER
Agile, Global Software development.

PROFESSOR JEAN-PAUL VAN BELLE
Adoption of information technologies; ICT4D; e-commerce and m-commerce; e-government and m-government; open source software; enterprise IS architectures; e-readiness of SMEs and NGOs; Green IS/IT.

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Research output

Authored books

Stevenson, G. and Van Belle, J.W.G.D. 2012. Using Social Media Technology to Improve Collaboration: A Case Study of Micro-Blogging Adoption in a South African Financial Service Company. 29pp. United States of America: Information Science Reference. ISBN 9781466625150.

Chapters in books

Mukudu, A. and Van Belle, J.W.G.D. 2012. A case study of a successful mHealth application: cell-life's EMIT system. In F.L. Gaol (ed), Recent Progress in Data Engineering and Internet Technology, pp. 401-408. London: Springer. ISBN 97836422879785.

Petkov, D. and Sewchurran, K. 2012. The work system method as an approach for teaching and researching information systems. In Y.K. Dwivedi, M.R. Wade and S.L. Schneberger (eds), Information Systems Theory: Explaining and Predicting Our Digital Society, Vol 2, pp. 413-424. New York: Springer. ISBN 978441997067.

Articles in Peer-reviewed Journals

Adeniran, T. and Johnston, K. 2012. Investigating the dynamic capabilities and competitive advantage of South African SMEs. African Journal of Business Management, 6(11): 4088-4099.

Bankole, O., Chigona, W.M.G. and Bankole, F. 2012. The use of blogs for political campaigning in a developing country context: the case of South Africa. Journal for Transdisciplinary Research in Southern Africa, 8(1): 154-166.

Bladergroen, M., Bytheway, A. and Van Zyl, I. 2012. Educator discourses on ICT in education: a critical analysis. International Journal of Education and Development Using ICT, 8(2):107-119.

Bladergroen, M., Chigona, W.M.G., Bytheway, A., Cox, S., Dumas, C. and Van Zyl, I. 2012. Educator discourses on ICT in education: a critical analysis. International Journal of Education and Development Using ICT, 8(2): 107-119.

Chigona, W.M.G., Robertson, B. and Mimbi, L. 2012. Synchronised smart phones: the collision of personal privacy and organisational data security. South African Journal of Business Management, 43(2):31-40.

Chigona, W.M.G., Vergeer, J. and Metfula, A. 2012. The South African broadband policy: in the eyes of the media. The Journal of Policy, Regulation and Strategy for Telecommunications, Information and Media, 14(4): 65-77.

Hinde, C. and Van Belle, J.W.G.D. 2012. Cloud computing in South African SMMEs risks and rewards for playing at altitude. International Journal of Computer Science and Electrical Engineering (IJCSEE), 1(1):1-10.

Joubert, J. and Van Belle, J.W.G.D. 2012. Success factors for product and service innovation: a critical literature review and proposed integrative framework. Management Dynamics, 12(2): 1-20.

Makoza, F. and Chigona, W.M.G. 2012. The livelihood outcomes of ICT use in microenterprises: the case of South Africa. The Electronic Journal of Information Systems in Developing Countries, 53(1): 116.

Makoza, F. and Chigona, W.M.G. 2012. The outcomes of ICT diffusion and human development in Malawi. International Journal of Information Communication Technologies and Human Development, 4(4): 52-70.

Mtingwi, J. and Van Belle, J.W.G.D. 2012. The state of e-government and m-government readiness in Malawi. International Journal of Information Technology & Computer Science (IJITCS), 3(Nov/Dec): 58-68

Mukwasi, C. and Seymour, L. 2012. Enterprise resource planning business case considerations: a review for small and medium-sized enterprises. International Journal of Innovation Management, 2012: 752328(1-15).

Njenga, K. and Brown, I.T.J. 2012. Conceptualising improvisation in information systems security. European Journal of Information Systems, 21: 592-607.

Norwana, N. and Tanner, M.C. 2012. Understanding the structured processes followed by organisations prior to engaging in agile processes: a South African perspective. South African Computer Journal, 48: 41-58.

Ogunyemi, A. and Johnston, K. 2012. Exploring the roles of people, governance and technology in organizational readiness for emerging technologies. African Journal of Information Systems, 4(3): 100-119.

Ogunyemi, A. and Johnston, K. 2012. Towards an organisational readiness framework for emerging technologies: an investigation of antecedents for South African organisations' readiness for server virtualisation. The Electronic Journal of Information Systems in Developing Countries, 53(5): 1-30.

Rahimi, S., De Beer, C. and Sewchurran, K. 2012. The conceptual difficulties in implementing e-learning in post-apartheid South Africa. International Journal of Information and Education Technology, 2(6): 615-621.

Smit, L., Stander, A. and Ophoff, J. 2012. An analysis of base station location accuracy within mobile-cellular networks. International Journal of Cyber-Security and Digital Forensics (IJCSDF), 1(4): 272-279.

Sontaya, T. and Seymour, L. 2012. Towards an understanding of the business process analyst: an analysis of competencies. Journal of Information Technology Education, 11(1): 43-63.

Utulu, J. and Bolarinwa, O. 2012. Contents and architecture of Nigerian universities' websites. Issues on Informing Science and Information Technology (IISIT), 9: 385-397.

Wayman, I. and Kyobe, M. 2012. Incorporating knowledge of legal and ethical aspects into computing curricula of South African universities. Journal of Information Technology Education, 11: 139-157.

Peer-reviewed published conference proceedings

Adriaanse, Z., Sewchurran, K. and Utulu, J. 2012. An appraisal of social network media use for online group-buying in South Africa. In Proceedings of World Academic of Science, Engineering and Technology (WASET) 2012, August 2012, Paris, France. France: WASET. ISSN 20103778.

Alexander, L., Stander, A. and Ophoff, J. 2012. Using a network telescope to analyse internet traffic for network forensic readiness. In A. Koch and P.A. van Brakel (eds), Proceedings of the 14th Annual Conference on World Wide Web Applications (ZA-WWW 2012), 7-9 November 2012, Durban, South Africa. Cape Town: Cape Peninsula University of Technology. ISBN 9780620555906.

Bailey, A. and Ngwenyama, O. 2012. Identity and identification in online communities: a symbolic interaction perspective. In C.A. Shoniregun and G.A. Akmayeva (eds), Proceedings of the International Conference on Information Society (i-Society 2012), 25-28 June 2012, London, UK. UK: Infonomics Society. ISBN 9781908320056.

Bankole, F., Bankole, O., Brown, I.T.J. and Cloete, E. 2012. Cell phone banking: revisiting predictors of adoption in South Africa. In Proceedings of the Eighteenth Americas Conference on Information Systems (AMCIS 2012 Proceedings), 9-12 August 2012, Seattle, Washington. elibrary: AIS Electronic Library (AISeL). ISBN 9780615663463.

Chigona, W.M.G., Magama, F., Mhlanga, T. and Metfula, A. 2012. Media discourse analysis on new media: a case of mxit in South Africa. In A. Koch and P.A. van Brakel (eds), Proceedings of the 14th Annual Conference on World Wide Web Applications (ZA-WWW 2012), 7-9 November 2012, Durban, South Africa. Cape Town: Cape Peninsula University of Technology. ISBN 9780620555906.

Chigona, W.M.G., Siwendu, Y., Sebate, K. and Makoza, F. 2012. The 2011 South African local government election: campaigning online. In V.W. Mbarika, W. Balunywa, A. Okunoye, C. Nwokeafor, M. Moya and G.M. Kituyi (eds), Proceedings of 4th ICT for Africa Conference (ICT4 Africa 2012), 23-25 March 2012, Kampala, Uganda. USA: The International Center for Information Technology Development. ISBN 97899560202.

Chigona, W.M.G., Radic, M., Sentongo, B. and Mpazanje, F. 2012. Uses and gratifications of mobile instant messaging amongst the South African youth. In A. Koch and P.A. van Brakel (eds), Proceedings of the 14th Annual Conference on World Wide Web Applications (ZA-WWW 2012), 7-9 November 2012, Durban, South Africa. Cape Town: Cape Peninsula University of Technology. ISBN 9780620555906.

Cupido, K. and Van Belle, J.W.G.D. 2012. Increased public participation in local government through the use of mobile phones: what do young South Africans think? In Dr M. Gasco (ed), Proceedings of the 12th European Conference on e-Government, 14-15 June 2012, Barcelona, Spain. UK: Academic Publishing International Limited Reading. ISBN 9781908272416.

Gaffoor, K., Chiat, J. and Kabanda, S. 2012. Web-based technology in Islamic financing. In A. Koch and P.A. van Brakel (eds), Proceedings of the 14th Annual Conference on World Wide Web Applications (ZA-WWW 2012), 7-9 November 2012, Durban, South Africa. Cape Town: Cape Peninsula University of Technology. ISBN 9780620555906.

Gill, T., Ickis, J. and Johnston, K. 2012. Informing with case studies: panel discussion. In Proceedings of Informing Science and Information Technology Education Joint Conference, 19-24 June 2010, Southern Italy. Italy: Informing Science Institute. ISSN 15350703.

Johnston, K. 2012. An approach to what could be covered in an IS MBA course, and how it could be delivered. In E. Cohen and E. Boyd (eds), Proceedings of the Informing Science and Information Technology Education Conference (InSITE 2012), 22-27 June 2012, Montreal, Canada. Santa Rosa, CA USA: Informing Science Institute. ISBN 9781932886580.

Kabanda, S., Downes, A. and Baltazar dos Ramos, S. 2012. Mobile banking services in South Africa: the case of M-Pesa. In R.A. Botha, P.S. Dowland and S.M. Furnell (eds), Proceedings of the Ninth International Network Conference (INC 2012), 11-12 July 2012, Port Elizabeth, South Africa. United Kingdom: Plymouth University. ISBN 9781841023151.

Kyobe, M., Matengu, S., Walter, P. and Shongwe, M. 2012. Factors inhibiting recognition and reporting of losses from cyber-attacks: the case of government departments in the Western Cape Province of South Africa. In T. Nagle (ed), Proceedings of the 6th European Conference on Information Management and Evaluation (ECIME), 13-14 September 2012, Cork, Ireland. UK: Academic Publishing International Limited Reading. ISBN 9781908272669.

Lavin, S. and Seymour, L. 2012. Towards an understanding of enterprise-level SOA adoption: a South African case study. In T.E. Erkan (ed), Proceedings of the 3rd International Conference on Information Management and Evaluation, 16-17 April 2012, Ankara, Turkey. UK: Academic Publishing International Limited Reading. ISBN 9781908272355.

Lechesa, M., Seymour, L. and Schuler, J. 2012. ERP software as a service (SaaS): factors affecting adoption in South Africa. In C. Moller and S. Chaudhry (eds), Proceedings of Re-conceptualising Enterprise Information Systems: 5th IFIP WG 8.9 Working Conference (CONFENIS 2011), 16-18 October 2011, Aalborg, Denmark. Heidelberg Dordrecht London New York: Springer Science & Business Media B.V. ISBN 9783642288265.

MacLennan, E. and Van Belle, J.W.G.D. 2012. Factors affecting the organizational adoption of service-oriented architecture (SOA). In Proceedings of Pacific Asia Conference on Information Systems. Kuala Lampur, Malaysia. Malaysia: AIS (Association for Information Systems). ISBN 981055964X.

Makhoalibe, P. and Sewchurran, K. 2012. Applying creative project management: a study of ICT projects in humanities faculty in South Africa. In L.G. Chova, A.L. Martinez and I.C.Torres (eds), Proceedings of International Technology, Education and Development Conference (INTED 2012), 5-7 March, 2012, Valencia, Spain. Spain: International Association of Technology, Education and Development (IATED). ISBN 9788461555635.

Mashanda, P., Cloete, E. and Tanner, M.C. 2012. An analysis of factors affecting the adoption of business-to-consumer e-commerce by SMEs in developing countries-case study: Zimbabwe. In A. Koch and P.A. van Brakel (eds), Proceedings of the 14th Annual Conference on World Wide Web Applications (ZA-WWW 2012), 7-9 November 2012, Durban, South Africa. Cape Town: Cape Peninsula University of Technology. ISBN 9780620555906.

Metfula, A. and Chigona, W.M.G. 2012. The impact of the composition of public policy network on ICT policy: The case of a developing country. In N. Muganda (ed), Proceedings of E-Leaders in a Digital World: Towards Sustainable e-Government and e-Business Innovation, 4-5 October 2012, Pretoria, South Africa. Pretoria: IEEE. ISBN 9781477622490.

Mimbi, L. and Kyobe, M. 2012. Leveraging IT to enhance governance in transitional Tanzania: a conceptual framework. In V.W. Mbarika, W. Balunywa, A. Okunoye, C. Nwokeafor, M. Moya and G.M. Kituyi (eds), Proceedings of 4th ICT for Africa Conference (ICT4 Africa 2012), 23-25 March 2012, Kampala, Uganda. Baton Rouge, USA: The International Center for Information Technology Development. ISBN 97899560202.

Modisha, M. and Van Belle, J.W.G.D. 2012. Cloud computing for small South African organisations: factors influencing the adoption of software-as-a-service. In A. Koch and P.A. van Brakel (eds), Proceedings of the 14th Annual Conference on World Wide Web Applications (ZA-WWW 2012), 7-9 November 2012, Durban, South Africa. Cape Town: Cape Peninsula University of Technology. ISBN 9780620555906.

Mpazanje, F. and Sewchurran, K. 2012. As lived experience in arriving at information systems project objectives. In Proceedings of E-Leadership 2012 Conference,
4-5 October 2012, Pretoria, South Africa. Pretoria: Library and Information Association of South Africa (LIASA). ISBN 9781467329781.

Mpazanje, F. 2012. Exploring the phenomenon of participatory design in ICT4D project implementation in rural communities: acritical discourse analysis. In V.W. Mbarika, W. Balunywa, A. Okunoye, C. Nwokeafor, M. Moya and G.M Kituyi (eds), Proceedings of 4th ICT for Africa Conference (ICT4 Africa 2012), 23-25 March 2012, Kampala, Uganda. Baton Rouge, USA: The International Center for Information Technology Development. ISBN 97899560202.

Mpazanje, F. and Chigona, W.M.G. 2012. How the mobile phone saved properness: the case of professional women in Malawi. In Proceedings of E-Leadership 2012 Conference, 4-5 October 2012, Pretoria, South Africa. Pretoria: Library and Information Association of South Africa (LIASA). ISBN 9781467329781.

Naidoo, M. and Seymour, L. 2012. Understanding broadband usage and its impact in South African households. In T. Erman Erkan (ed), Proceedings of the 3rd International Conference on Information Management and Evaluation, 16-17 April 2012, Ankara, Turkey. UK: Academic Publishing International Limited Reading. ISBN 9781908272355.

Percy, T. and Van Belle, J.W.G.D. 2012. Exploring the barriers and enablers to the use of open educational resources by university academics in Africa. In A.J. Turner (ed), Proceedings of Open Source Systems: Long-Term Sustainability. Proceedings of the 8th IFIP WG 2.13 International Conference, OSS 2012, 10-13 September 2012, Hammamet, Tunisia. Springer. ISBN 9783642334412.

Phillips, C., Sewchurran, K. and Schuler, J. 2012. Business process modelling benefits realisation - a South African case study. In T.E. Erkan (ed), Proceedings of the 3rd International Conference on Information Management and Evaluation, 16-17 April 2012, Ankara, Turkey. UK: Academic Publishing International Limited Reading. ISBN 9781908272355.

Ramburn, H. and Seymour, L. 2012. Dimensions of knowledge management impacting ERP systems implementation: the case of a large South Africa organization. In K.S. Soliman (ed), Proceedings of the 19th International Business Information Management Association (IBIMA) Conference -Innovation Vision 2020: Sustainable Growth, Entrepreneurship and Economic Development, 12-13 November 2012, Barcelona, Spain. IBIMA. ISBN 9780982148983.

Roodt, S. and de Villiers, C. 2012. Using an innovative learning tool for undergraduate education. In C.A. Shoniregun and G.A. Akmayeva (eds), Proceedings of International Conference on Information Society (i-Society 2012), 25-28 June 2012, London, UK. UK: Infonomics Society. ISBN 9781908320056.

Roodt, S. and de Villiers, C. 2012. Using google sites as an innovative learning tool at undergraduate level in higher education. In J. Pries-Heje, M. Chiasson, J. Wareham, X. Busquets, J. Valor and S. Seiber (eds), Proceedings of the 20th European Conference on Information Systems (ECIS 2012), 10-13 June 2012, Barcelona, Spain. Spain: European Conference on Information Systems (ECIS 2012). ISBN 9788488971548.

Rule, S., Stander, A. and Ophoff, J. 2012. How the certified information systems security professional certification supports digital forensic processes. In R.A. Botha, P.S. Dowland and S.M. Furnell (eds), Proceedings of the Ninth

International Network Conference (INC 2012), 11-12 July 2012, Port Elizabeth, South Africa. United Kingdom: Plymouth University. ISBN 9781-841023151.

Scott, E., Mcgibbon, C. and Mwalemba, G. 2012. Attempts to embed green values in the information systems curriculum: a case study in a South African setting. In J. Pries-Heje, M. Chiasson, J. Wareham, X. Busquets, J. Valor and S. Seiber (eds), Proceedings of the 20th European Conference on Information Systems (ECIS 2012), 10-13 June 2012, Barcelona, Spain. Spain: European Conference on Information Systems (ECIS 2012). ISBN 9788488971548.

Sedick, F. and Seymour, L. 2012. BPMN usage: an analysis of influencing factors. In C. Moller and S. Chaudhry (eds), Proceedings of Advances in Enterprise Information Systems II. Proceedings of the Fifth International Conference on Research and Practical Issues of Enterprise Information Systems (CONFENIS 2011), 16-18 October 2012, Aalborg, Denmark. London: CRC Press, Taylor & Francis Group. ISBN 9780415631310.

Sewchurran, K., Mwalemba, G., de le Harpe, A. and McKinnell, J. 2012. Making sense of the IT/IS industry to enable better business enablement and competitiveness: a case-study of the Western Cape in South Africa. In Proceedings of the 2012 4th Software Engineering Colloquium (SE 12), 24 May 2012, Cape Town, South Africa. Piscataway, USA: IEEE Xplore. ISBN 9781467316477.

Seymour, L. and Thembela, S. 2012. Developing the South African business process analyst: addressing the challenges through a new University Programme. In Proceedings of the 2012 Conference of the Southern African Computer Lecturers' Association (SACLA 2012), 1-3 July 2012, Thaba 'Nchu, South Africa. Free State: Southern African Computer Lecturers' Association 2012 (SACLA). ISBN 9780620536103.

Smit, L., Stander, A. and Ophoff, J. 2012. Investigating the accuracy of base station information for estimating cellphone location. In Proceedings of 2012 International Conference on Cyber Security, Cyber Warfare and Digital Forensic (CyberSec12), 26 - 28 June 2012, Kuala Lumpur, Malaysia. Malaysia: IEEE Malaysia Section. ISBN 9781467316774.

Tanner, M.C., Mulaudzi, R. and Muvembi, S. 2012. An exploration of information quality measures of ICTS in the context of the 2008 xenophobic attacks in the Western Cape, South Africa. In M.B. Nunes, P. Isaias and P. Powell (eds), Proceedings of the IADIS International Conference Information Systems 2012,10-12 March 2012, Berlin, Germany. Germany: International Association for Development of the Information Society (IADIS). ISBN 9789728939687.

Van Belle, J.W.G.D. and Reed, M. 2012. OSS adoption in South Africa: applying the TOE model to a case study. In A.J. Turner (ed), Proceedings of Open Source Systems: Long-Term Sustainability. Proceedings of the 8th IFIP WG 2.13 International Conference, OSS 2012, 10-13 September 2012, Hammamet, Tunisia. Springer. ISBN 9783642334412.

Doctoral dissertations

Bankole, F. 2012. The impacts of ICT infrastructure on national development: a multi-method investigation involving data mining and data envelopment analysis. Supervised by Brown, I.T.J. and Osei-Bryson, K.

Delcarme, B.2012. The development and institutionalisation of an integrated health care waste information system. Supervised by Roode, J. and Brown, I.T.J.

Scott, E. 2012. Towards coherent practice in capstone courses for IS majors. Supervised by Sewchurran, K.

Tossy, T. 2012. Cultivating recognition: a classic grounded theory of e-learning providers working in East Africa. Supervised by Brown, I.T.J.

Weimann, P. 2012. An organisational framework for the use of web-based tools in 'virtual' project teams. Supervised by Brown, I.T.J.

School of Management Studies

HEAD OF SCHOOL: ASSOCIATE PROFESSOR ANTON F. SCHLECHTER

School Profile

The School of Management Studies provides undergraduate courses, postgraduate programmes and postgraduate diplomas in a range of management disciplines to students registered for Business Science, Commerce and Humanities degrees. Research is supervised at the Honours, Master's and Doctoral levels. The School consists of five Sections (incl. Actuarial Science, Applied Management, Marketing, Organisational Psychology and the Professional Communication Unit), as well as four established research units (African Collaboration for Quantitative Finance & Risk Research (ACQuFRR); Centre for Actuarial Science Research (CARe); Institute of Monitoring and Evaluation (IME); and the Unilever Institute for Strategic Marketing). A further three research units have recently been established and are currently seeking University Research Committee (URC) approval (Development Unit for New Enterprise

(DUNE); Practice and Research of Occupational Health Psychology in Africa (PROPHA); and UCT Tourism and Events Research Unit (UCT TRU)).

The Section of Actuarial Science (Head of Section: Ms Shivani Ramjee) produces approximately 20% of all South African actuaries. More than half of our graduates go on to complete the professional examinations to qualify as actuaries, which is one of the highest qualification rates of any university in South Africa. In addition, a significant number of our graduates go on to complete other professional qualifications (for example as a CFA). In 2001 UCT became the second university in the world to have postgraduate courses recognised for exemption from the professional United Kingdom examinations. In 2010, the local actuarial qualification was introduced in South Africa and UCT plays a key role as a provider of education to the Actuarial Science profession. The Centre for Actuarial Research (CARe) (Director: Associate Professor Tom Moultrie) and African Collaboration for Quantitative Finance & Risk Research (ACQuFRR) (Director: Associate Professor David Taylor) are further aligned with the Section of Actuarial Science.

Centre for Actuarial Research (CARe), the only unit of its kind at an African university was established in 2001 focusses on building capacity, improving techniques and producing independent research in demography. The Centre is internationally recognised in the field of estimation of demographic parameters from limited and deficient data. The Centre's other major field of work is in demographic and epidemiological modelling and population projections. In addition, the Centre hosts postgraduate training programmes in demography for both Master's and PhD students. During 2012 academic staff at CARe were the principal investigators in a multi-year project funded by the UNFPA to update and rewrite a major manual on demographic estimation from limited and defective data. The results of this work are available electronically and a print version will appear in 2013. Demographers at CARe also played a significant role, some of which was played out in the popular media, in the evaluation, analysis and assessment of the data from the 2011 South Africa census. In addition, the unit's peer-reviewed research output continued to be prolific, with staff publishing 11 papers in major international journals.

The Section of Organisational Psychology (Head of Section: Dr Suki Goodman) provides undergraduate and postgraduate courses in Industrial/Organisational Psychology. The Section presents a Master's degree in Organisational Psychology that is accredited by the Health Professions Council of South Africa (HPCSA) for the professional training and registration of Industrial Psychologists. The Section further offers a second Master's programme in Programme Evaluation, the only one of its kind in South Africa. The Section has PhD students working in the areas of talent retention, work-family studies, organisational health and safety and programme evaluation. During 2012 Professor Joha Louw-Potgieter edited a special edition of the South African Journal of Human Resource Management, to which a number of staff members contributed papers. In total, Section staff published 13 accredited articles in 2012 and contributed a total of seven oral/poster presentations at three international conferences (incl. International Congress of Psychology, World Congress of the International Federation of Scholarly Associations of Management, Annual Conference of the American Evaluation Association), and two oral presentations at the Southern Africa Institute for Management Scientists conference. One PhD, Dr Mpho Pheko and 19 Masters students graduated in 2012. Towards the end of 2012, Francois de Kock joined as a senior lecturer from the University of Stellenbosch. He is in the final stages of completing his PhD at Erasmus University of Rotterdam. Various international research collaborations were formed and further developed with visits during 2012: Dr Ines Meyer to the University of Connecticut; Prof Joha Louw-Potgieter and Adiilah Boodhoo to the Claremont Graduate University; and Chao Mulenga to the Organisational Health Psychology Institute in Oregon. The Organisational Psychology Section hosts two research units: Practice and Research of Occupational Health Psychology in Africa (PROPHA) (Director: Professor Jeffrey Bagraim); and the Institute for Monitoring and Evaluation (IME) (Director: Professor Joha Louw-Potgieter).

During 2012 the PROHPA reading group was accredited by the HPCSA and started providing Continuous Professional Development (CPD) points for various activities presented by the unit. The IME compiled a self-review report as part of the formal review of the School of Management Studies. The result of this exercise was a review of the Institute's main goals. During 2012, the IME presented nine different public short courses in programme evaluation. Despite some competition in the market, the IME remains the preferred provider of short courses for public sector and non-governmental clients. The Institute also completed two contract evaluations for clients within the University; one for the ADAPT programme of the Transformation Services Office and one for the Project for the Study of Alternative Education in South Africa (PRAESA).

The Section of Marketing (Head of Section: Dr Gert Human) provides undergraduate courses in marketing management, which includes courses in consumer behaviour, industrial marketing, services marketing, international marketing, marketing research, E-marketing

and tourism marketing. At a postgraduate level research is encouraged at the Honours, Master's and Doctoral levels. The Marketing Section continues to engage key questions in both the scholarly and applied domains of marketing. Justin Beneke, Elsamari Botha and Dr Mignon Reyneke published papers in accredited journals and presented papers at peer reviewed conferences. Research conducted in the Section covers a wide spectrum of issues: Justin focused on consumer brand value, loyalty, and digital media marketing. These include local publications in the South African Journal of Business Management, and Acta Commercii, as well as international publications in noteworthy outlets such as the Journal of Product and Brand Management. In a collection of journal articles and conference papers Elsamari and Mignon looked at both the online and traditional market spaces to asked questions about the effects of predictors such as online presence, emotion, purchase intention and their relationships with dependent variables such as trust formation, viral marketing, product types and high net worth markets. Gert obtained his PhD for a thesis that addresses the issues of network competence and network capability in business-to-business markets for the first time in South Africa. He goes on to confirm the mediation power of trust and commitment in the quality-loyalty-satisfaction causal chain within buyer-supplier dyads. The Marketing Section also saw an exponential growth in its post graduate research activity and noteworthy Masters' topic includes models to consider complex time perspectives and spontaneous infection theory in social networks. The UCT Unilever Institute of Strategic Marketing (Director: Emeritus Professor John Simpson) is aligned with the Marketing Section.

The main purpose of the UCT Unilever Institute of Strategic Marketing is to develop marketing theory and information for the uniquely South African market place. This has become a critical source of marketing intelligence for South African marketers and is widely used by corporates, market research houses, advertising agencies and academics. 2012 was an exceptional year for the institute and their unique analysis of buying behaviour in emerging black consumer markets has spurred a new conceptualisation of the dynamic nature of these markets. Hence, major corporations across South Africa are keen to engage John Simpson, Martin Neethling and Paul Egan on these insights.

The Professional Communication Unit (Head of Unit: Dr Terri Grant) has the responsibility for teaching career-based communication practices across the faculty at both under- and postgraduate level. The PCU also offers its services to other faculties and institutions in both the public and private sector. Since 2010, when the local actuarial science qualification was introduced locally under the auspices of the Actuarial Society of South Africa (ASSA), the PCU has played a national role in examining the professional communication exemption examination and providing curriculum advice. Dr Terri Grant graduated with a PhD at the end of 2012. Her PhD entitled, Scenario Pedagogy: a negotiated, multimodal approach to developing professional communication practices in higher education, gave rise to two conference papers during 2012. The first, 'Developing sustainable professional communication practices through Scenario Pedagogy, a multimodal and collaborative approach to teaching and learning in the commerce domain', was presented at the Association of Business Communication conference in the Netherlands during May. The second, 'Sustainable Business practices for Sustainable Futures: Professional Communication Pedagogy in HE', a joint paper, was co-presented with colleague, Mr Gao Nodoba, at the annual HELTASA conference in November 2012 in Stellenbosch. Two journal articles based on PhD chapters have been submitted. One is under review; another, 'Higher education drafting practices in professional communication and identity formation', has been accepted for publication in the Journal of Modern Education Review, an international journal.

The Section of Applied Management (Head of Section: Ms Alison Meadows) is responsible for core management subjects on the Business Science degree, as well as presenting four postgraduate diplomas in Management (specialising in Tourism Management, Sport Management, Marketing and Entrepreneurship). The Section produces unique research within these fields of study. Dr David Priilaid's research continues to focus on cue-conditioning where the key line of enquiry is how people consume cues like price and brand – and how through this style of consumption, given time and experience, people become increasingly conditioned by these cues. Dr Richard George wrote several journal articles on tourism crime-safety, specifically on tourists' perceptions of Table Mountain National Park and the 2010 FIFA World Cup. The UCT Development Unit for New Enterprise (DUNE) is also aligned with the Section of Applied Management.

The UCT Development Unit for New Enterprise (DUNE) in collaboration with the Manufacturing, Engineering and Related Services SETA (MerSETA) is busy finalising the scoping and programme development of a Masters Programme in Technology-Based Entrepreneurship. To this end, DUNE and MerSETA have signed a Strategic Alliance Agreement which sees MerSETA committing R1.2 million, over 15 months, towards the costs of a detailed scoping, budgeting and programme development process which will determine the steps and resources needed to implement

the Masters programme. The programme development process includes the hosting of a colloquium of local and international experts in Entrepreneurial Education in Cape Town in August 2013.

Research Fields and Staff

PROFESSOR JEFFREY BAGRAIM
Theory and management of workplace attitudes; organisation commitment; commitment to change; work-family conflict; organisational culture.

PROFESSOR ROB DORRINGTON (CARE)
Demography; mortality; migration; HIV/AIDS modelling; population estimation and projection.

PROFESSOR JOHA LOUW-POTGIETER
Programme evaluation; human resource management.

EMERITUS PROFESSOR JOHN SIMPSON
Consumer behaviour; retailing; strategic marketing; management in sport; teaching methodology.

Adjunct Associate Professor Daniel Polakow
Financial derivatives; investment strategy; risk-budgeting; stochastic recurrence models; biostatistics.

ASSOCIATE PROFESSOR IAIN MACDONALD
Applied probability; new time series models (especially hidden Markov models); mathematical finance.

ASSOCIATE PROFESSOR TOM MOULTRIE (CARE)
Demography, especially the analysis of fertility patterns and trends; analysis of census and survey data; modelling of birth intervals; contraceptive use and adoption; HIV/AIDS.

ASSOCIATE PROFESSOR ANTON SCHLECHTER
Reward Management and talent retention; leadership; positive organisational behaviour.

ASSOCIATE PROFESSOR DAVID TAYLOR
Financial derivatives; mathematical finance; financial time series models (asset returns and volatility).

DR RICHARD GEORGE
Tourism marketing; responsible tourism; impact of mega-sport events; the association relationship between tourism and crime; township tourism.

DR TERRI GRANT
Business communications in the global economy; scenario learning and pedagogy; non-verbal communication and multimodality; graphics; commerce education and learning theories.

DR SUKI GOODMAN
Organisational and individual learning; training and programme evaluation; student ethics.

DR GERT HUMAN
Industrial marketing and inter-firm networks; strategic marketing; strategic management and international marketing.

DR SHANNON KENDAL
Measuring and managing retirement product risk; taxation of retirement funds; living annuities, defined benefit valuation bases.

DR SURE MATARAMVURA
Financial Mathematics; Stochastic Calculus; Game Theory.

DR DAVID MARALACK
Principles of sport management; sport policy and politics; sport and development; sport institution building; sport in transformation; sport strategic management.

DR INES MEYER
Intergroup relations in the workplace; transformation; workplace diversity.

DR DAVID PRIILAID
Wine pricing and brand valuations; extrinsic cues; placebo effects; the entrepreneurial mind-set.

DR MIGNON REYNEKE
Consumer Behaviour, Luxury Branding, Online marketing and branding and social media marketing.

MR JUSTIN BENEKE
Retailing management; electronic marketing; customer relationship management & higher education marketing.

MS ADIILAH BOODHOO
Monitoring and programme evaluation; training evaluation; recruitment and selection.

MS ELSAMARI BOTHA
Marketing research and research methodology; social network analysis; online social networks; viral marketing; emotional contagion

MR FRANCOIS DE KOCK
Personnel selection; development and psychometric validation of psychological tests and personnel selection programmes; accuracy and bias in subjective ratings

MS CARREN FIELD
Monitoring and evaluation; training evaluation; employee relations.

MR STUART HENDRY
High-Technology Entrepreneurship; social entrepreneurship and action-based learning.

MRS AMEETA JAGA
Work-family; organisational design; performance management.

MS CLAUDIA KALIL
Applied language and literacy studies; scenario learning teaching practice; diversity, community and transformation.

MR GAONTEBALE NODOBA
Inter-cultural communication; second language acquisition; language policy and multilingualism.

MS CHAO NKHUNGULU MULENGA
Occupational Health and Safety, Recruitment and Selection; Monitoring and Evaluation.

MS SHIVANI RAMJEE
Health care insurance product design; health care financing; medical price indices; hospital efficiency models; private-sector engagement with health care reform.

MR JACQUES ROUSSEAU
Neuroeconomics of addiction; gambling behaviour and gambling policy; decision theory; epistemology; business ethics.

MR DAVE STRUGNELL
Asset pricing; behavioural finance.

School Statistics

Full-time staff

Professors	4
Associate Professors	3
Emeritus Professors	1
Adjunct Associate Professor	1
Senior Lecturers	14
Lectures	13
Administrative Staff	8

Students

Doctoral	10
Master's	27
Honours	42
PGDips	1340
Undergraduate	5808

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Research Output

Authored books

Rousseau, S. 2012. Food and Social Media: You Are What You Tweet. 98pp. Plymouth, UK: AltaMira Press. ISBN 9780759120426.

Rousseau, S. 2012. Food Media Celebrity Chefs and the Politics of Everyday Interference. 185pp. UK: Berg Publishers. ISBN 9780857850522.

Chapters in books

George, R. 2012. Visitor perceptions of crime-safety and attitudes towards risk. In C.Jones, E. Barclay and R. Mawby (eds), The Problem of Pleasure, pp. 136-154. New York: Routledge. ISBN 9780415672368.

Rousseau, S. 2012. Food representations. In A.Bentley (ed), A Cultural History of Food In The Modern Age, pp. 183-200. United Kingdom: Berg Publishers. ISBN 9780857850287.

Articles in Peer-reviewed Journals

Anderson, T. and Louw-Potgieter, J. 2012. An Implementation evaluation of voluntary counselling and testing programme for the human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS). SA Journal of Industrial Psychology, 38: 38(1) (1-10).

Andronikou, S., Spottiswoode, B. and Tomazos, N. 2012. A semi-automated method for measuring thickness and white matter integrity of the corpus callosum. SA Journal of Radiology, 16(4): 130-133.

Beets, K. and Goodman, S.L. 2012. Evaluating a training programme for executive coaches. SA Journal of Human Resource Management, 10(3): 425(1-10).

Beneke, J. 2012. An application of Sweeney's risk-price-quality-value framework through a consideration of store brand merchandise. Journal of Business Retail and Research Management, 7(1): 106-117.

Beneke, J. 2012. Product placement in South Africa: piercing through the packaging. African Journal of Business Management, 6(3): 1069-1075.

Beneke, J. 2012. The art and science of brand building on Facebook: examining the effectiveness of social presence characteristics. Journal of Business and Policy Research, 7(4): 40-52.

Beneke, J., Greene, A., Lok, I. and Mallett, K. 2012. The influence of perceived risk on purchase intent - the case of premium grocery private label brands in South Africa. Journal of Product & Brand Management, 21(1): 4-14.

Beneke, J., Hayworth, C., Hobson, R. and Mia, Z. 2012. Examining the effect of retail service quality dimensions on customer satisfaction and loyalty: The case of the supermarket shopper. Acta Commercii, 12(1): 27-43.

Beneke, J., Wannke, N., Pelteret, E.R., Tladi, T.R. and Gordon, D.B. 2012. Don't bank on it: delineating the relationship between corporate social responsibility and retail banking affinity. South African Journal of Business Management, 43(1): 45-55.

Bradshaw, D. and Dorrington, R.E. 2012. Maternal mortality ratio-trends in the vital registration data. SAJOG-South African Journal of Obstetrics and Gynaecology, 18(2): 38-42.

Coetzer, A. and Louw, J. 2012. An evaluation of the contractor development model of working for water. Water SA, 38(5): 793-801.

Davis, R.W.D. and Kendal, S. 2012. Surplus? What is surplus? Did the pension funds second amendment act achieve its aims? South African Actuarial Journal, 12: 97-128.

Field, C.G. and Louw, J. 2012. A theory-driven evaluation of a wellness initiative. SA Journal of Human Resource Management, 10(3): 427(1-8).

Field, C.G., Bagraim, J.J. and Rycroft, A.J. 2012. Parental leave rights: have fathers been forgotten and does it matter? South African Journal of Labour Relations, 36(2): 30-41.

George, R. 2012. International tourists' perceptions of crime-risk and their future travel intentions during the 2010 FIFA World Cup in South Africa. Crime Prevention & Community Safety, 14(2): 79-103.

George, R. and Swart, K. 2012. International tourists' perceptions of crime-risk and their future travel intentions during the 2010 FIFA World Cup in South Africa. Journal of Sport & Tourism, 17(3): 201.

Goncalves, S. and Moultrie, T. 2012. Short preceding birth intervals and child mortality in Mozambique. African Journal of Reproductive Health, 16(4): 29-42.

Goodman, S.L. and Louw-Potgieter, J. 2012. A best practice model for the design, implementation and evaluation of social context training for judicial officers. African Journal of Legal Studies, 5: 211-227.

Johnson, L.F., Davies, M., Moultrie, H., Sherman, G., Bland, R., Rehle, T., Dorrington, R.E. and Newell, M.-.L. 2012. The effect of early initiation of antiretroviral treatment in infants on pediatric AIDS mortality in South Africa. Pediatric Infectious Disease Journal, 31(5): 474-480.

Johnson, L.F., Dorrington, R.E., Bradshaw, D. and Coetzee, D.J. 2012. The role of sexually transmitted infections in the evolution of the South African HIV epidemic. Tropical Medicine & International Health, 17(2): 161-168.

Johnson, L.F., Hallett, T.B., Rehle, T. and Dorrington, R.E. 2012. The effect of changes in condom usage and antiretroviral treatment coverage on human immunodeficiency virus incidence in South Africa: a model-based analysis. Journal of the Royal Society Interface, 9(72): 1544-1554.

Johnson, L.F., Stinson, K., Newell, M., Bland, R., Moultrie, H., Davies, M., Rehle, T., Dorrington, R.E. and Sherman, G. 2012. The contribution of maternal HIV seroconversion during late pregnancy and breastfeeding to mother-to-child transmission of HIV. Jaids-Journal of Acquired Immune Deficiency Syndromes, 59(4): 417-425.

Joseph, L., Emmett, K. and Louw-Potgieter, J. 2012. A formative evaluation of a pay-for-performance system. SA Journal of Human Resource Management, 10(3): 426(1-12).

Joubert, J., Rao, C., Bradshaw, D., Dorrington, R.E., Vos, T. and Lopez, A.D. 2012. Characteristics, availability and uses of vital registration and other mortality data sources in post-democracy South Africa. Global Health Action, 5: 19263 (1-19).

Kerber, K.K., Tuaone-Nkhasi, M.T.N., Dorrington, R.E., Nannan, N., Bradshaw, D., Jackson, D. and Lawn, J.E.L.

2012. Progress towards millennium development goal 4. LANCET, 379(9822): 1.

Kincaid, H., Daniels, R.C., Dellis, A., Hofmeyr, A.K., Rousseau, J., Sharp, C. and Ross, D.A. 2012. A taxometric analysis of problem gambling data from a South African national urban sample. Journal of Gambling Studies, 28: 1-23.

Kruger, R., Toerien, F. and Macdonald, I.L. 2012. Nonlinear serial dependence in share returns on the Johannesburg stock exchange. The African Finance Journal, 14(2): 64-84.

Langrock, R., Macdonald, I.L. and Zucchini, W. 2012. Some nonstandard stochastic volatility models and their estimation using structured hidden Markov models. Journal of Empirical Finance, 19(1): 147-161.

Louw-Potgieter, J. 2012. Evaluating human resource interventions. SA Journal of Human Resource Management, 10(3): (1-6).

Louw-Potgieter, J. and Hendricks, K. 2012. A theory evaluation of an induction programme. SA Journal of Human Resource Management, 10(3): (1-9).

Maposa, J. and Louw-Potgieter, J. 2012. An outcome evaluation of a youth development programme. Social Work: A Professional Journal for the Social Worker, 48(2): 170-189.

Mataramvura, S. 2012. The malliavin derivative and application to pricing and hedging a European exchange option. Mathematical Finance, 2(4): 280-290.

Mdakane, S., Muhia, A., Rajna, T. and Botha, E. 2012. Customer relationship satisfaction and revenge behaviors: examining the effects of power. African Journal of Business Management, 6(39): 10445-10457.

Meyer, I.M. 2012. The reliabilities of an english, afrikaans and isiXhosa version of the SDO6 scale in South Africa. South African Journal of Psychology, 42(1): 25-36.

Moultrie, T. and Dorrington, R.E. 2012. Used for ill; used for good: a century of collecting data on race in South Africa. Ethnic and Racial Studies, 35(8): 1447-1465.

Moultrie, T., Sayi, S. and Timaeus, I. 2012. Birth intervals, postponement, and fertility decline in Africa: a new type of transition? Population Studies-A Journal of Demography, 66(3): 17.

Nujjoo, A. and Meyer, I.M. 2012. The relative importance of different types of rewards for employee motivation and commitment in South Africa. SA Journal of Human Resource Management, 10(2): 442(1-10).

Priilaid, D.A. and Van Rensburg, P. 2012. Nonlinear hedonic pricing: a confirmatory study of South African wines. International Journal of Wine Research, 4: 1-13.

Priilaid, D.A. and Van Rensburg, P. 2012. The hedonic valuation of South African wine brands. South African Journal of Business Management, 43(1): 15-36.

Pym, J.M., Goodman, S.L. and Patsika, N. 2011. Does belonging matter? exploring the role of social connectedness as a critical factor in students' transition to higher education. Pins: Psychology in Society, 42: 35-50.

Rundare, A. and Goodman, S.L. 2012. An outcome evaluation of a perinatal education programme. SA Journal of Human Resource Management, 10(3): 424(1-8).

Salie, S. and Schlechter, A.F. 2012. A formative evaluation of a staff reward and recognition programme. SA Journal of Human Resource Management, 10(3): 422(1-11).

Peer-reviewed published conference proceedings

Bagraim, J.J. and Kuhn, C. 2012. Rational choice and academic dishonesty amongst South African business students. In J.M.M. van den Berg (ed), Conference Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa, Stellenbosch: Stellenbosch University. ISBN 9780620542877.

Beneke, J. 2012. An application of Sweeney's risk-price-quality-value framework through a consideration of store brand merchandise. In P.R. Banerjee (ed), Proceedings of International Conference on Investment & Retail Management(ICIRM), 23-24 April 2012, Istanbul, Turkey. Middlesex, England: Academy of Business & Retail Management. ISSN 20472854.

Beneke, J. 2012. Consumers' buying behaviour in an emerging market setting: the case of the entry-level private label brand. In N. Jahan (ed), Proceedings of 7th Annual London Business Research Conference, 9-10 July 2012, Imperial College, London, UK. Melbourne, Australia: World Business Institute Australia. ISBN 9781922069078.

Beneke, J. and Blampied, S. 2012. Driving consumer perceptions through Facebook: an investigation into empowering brands in the 21st century. In J.M.M. van den Berg (ed), Conference Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa. Stellenbosch: Stellenbosch University. ISBN 9780620542877.

Beneke, J. 2012. The Facebook effect: an analysis of beer drinkers' perception of brands in an online environment. In N. Jahan (ed), Proceedings of 7th Annual London Business Research Conference, 9-10 July 2012, London, UK. Melbourne, Australia: World Business Institute Australia. ISBN 9781922069078.

Beneke, J. and Cook, M. 2012. Too much of a good thing? The effect of item reduction in category management. In J.M.M. van den Berg (ed), Conference Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa. Stellenbosch: Stellenbosch University. ISBN 9780620542877.

de Villiers, R., Donaldson, J., Priilaid, D.A. and Watson, N. 2012. Factors driving online brand equity in an emerging market: A South African case study. In J.M.M. van den Berg (ed), Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa. Stellenbosch: Stellenbosch University. ISBN 9780620542877.

Goodman, S.L., Bagraim, J.J. and Pulker, S. 2012. Re-imagining ethical business practices by understanding unethical behaviour amongst business students. In M. J. Morley (ed), Proceedings of Management Re-Imagined, 26-29 June 2012, Limerick, Ireland. Dublin, Ireland: Interesource Group Publishing. ISBN 9781907300042.

Jaga, A. 2012. The influence of cultural orientations on the work-family experiences of Hindu working women in South-Africa. In K. Jaakson & M. Vadi (eds), Proceedings of International Society for the study of Work and Organizational Values (ISSWOV) 2012 - Work Values:" Stability and Change in the Global Context, 24-27 June 2012, Goa, India. Shreveport: Department of Management & Marketing, Louisiana State University. ISBN 9780981799728.

King, R., Robey, J., Wylie, S. and Botha, E. 2012. The influence of customer orientation and learning orientation on sales performance: The mediating role of adaptive selling behaviour. In J.M.M van den Berg (ed), Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa. Stellenbosch: Stellenbosch University. ISBN 9780620542877.

Montandon, A., Ogonowski, A., Botha, E. and Reyneke, M. 2012. The effect of social presence on initial trust formation in a high product involvement e-commerce environment. In J.M.M van den Berg (ed), Conference Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa. Stellenbosch: Stellenbosch University. ISBN 9780620542877.

Priilaid, D.A., Barendse, J., Kato-Kalule, C. and Mubangizi, J. 2012. Flies in amber: capturing brand equity-effects in South African Rose Wines. In J.M.M. van den Berg (ed), Conference Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa. Stellenbosch: Stellenbosch University. ISBN 9780620542877.

Doctoral graduations

Human, G. 2012. Competencies, capabilities, and relational factors in buyer-supplier business-to-business networks: a multiple article approach. Supervised by Simpson, J.D. and Naude, P.

Pheko, M. 2012. Predictors of sensitivity toward being the target of upward comparison (STUC): a study of female employees in Botswana. Supervised by Schlechter, A.F.

Master's degrees (by research)

Ayalew, K. 2012. Assessment of the IGME methods of estimating infant mortality rate and neonatal mortality rate from under-five mortality rate in countries affected by HIV/AIDS. MPhil Demography. Supervised by Moultrie, T.

Dawson-Squibb, T. 2012. To what extent do student characteristics and situational factors influence academic dishonesty amongst economic and business students in a sample at three South African universities? MCom Organisational Psychology. Supervised by Goodman, S.

Gotora, T. 2012. Maternal mortality in high HIV prevalence countries: a critical analysis of the MMEIG methodology for estimating maternal mortality. MPhil Demography. Supervised by Moultrie, T.

Hako, P. 2012. An investigation into factors that influence employees to support diversity in the South African workplace. MA Organisational Psychology. Supervised by Meyer, I.M.

Kinnear, Z. 2012. Effects of first impressions on student evaluations of lecturers. MSocSc Organisational Psychology. Supervised by Meyer, I.M.

Kuhn, C. 2012. The effect of rational choice and anti-intellectualism on students intention to cheat. MSocSc Organisational Psychology. Supervised by Bagraim, J.

Kupamupindi, T. 2012. Estimating adult mortality in South Africa using orphanhood and year of death data from the 2008 national income dynamics survey. MPhil Demography. Supervised by Dorrington, R.

Magadzire, A. 2012. Test the orphanhood method against benchmark rates in South Africa since 1996. MPhil Demography. Supervised by Dorrington, R.

Marais, I. 2012. Attitudes towards multiple role planning amongst engineering students. MCom Organisational Psychology. Supervised by Bagraim, J. and Jaga, A.

Minnie, L. 2012. Death and dying: what are the psychological consequences for emergency medical care personnel in the Cape Town metropole? MSc Medicine. Supervised by Wallis, L. and Goodman, S.

Muzigaba, M. 2012. An outcome evaluation of the SHAWCO Saturday school programme. MPhil Programme Evaluation. Supervised by Louw-Potgieter, J.

Naude, Z. 2012. A theory evaluation of a peer education programme. MPhil Programme Evaluation. Supervised by Field, C.G.

Nembaware, V. 2012. A formative evaluation of an instant messaging-based HIV and AIDS helpline in South Africa. MPhil Programme Evaluation. Supervised by Goodman, S.

Flint, E. 2012. New perspectives in the modelling of alpha. MCom Actuarial Science. 50pp. Supervised by Polakow, D.

Pulker, S. 2012. Predicting academic dishonesty using the theory of planned behaviour. MSocSc Organisational Psychology. Supervised by Bagraim, J. and Goodman, S.

Souza, E. 2012. The impact of HIV on fertility in Malawi. MPhil Demography. Supervised by Moultrie, T.

Tagwira, R. 2012. An investigation into the effect of information on decision-making for members of defined contribution pension funds. MBusSc Actuarial Science. 61pp. Supervised by Strugnell, D. M.

Syce, C. 2012. Predicting employee voluntary turnover using human resource data. MCom Organisational Psychology. Supervised by Schlechter, A. F.

Timm, A. 2012. An investigation of multidimensional scaling with an emphasis on the development of an R based graphical user interface for performing multidimensional scaling procedures. Master's. Supervised by Lubbe, S.

Titus, S. 2012. The relationship between self-selected personality characteristics and preference for job features, organisational features and career goals. MSocSc Organisational Psychology. Supervised by Schlechter, A. F.

Wilson, B. 2012. Robust Bayesian portfolio optimisation: higher moments and the distorting effects of constraints. Master's. Supervised by Witten, G.

Graduate School of Business

DIRECTOR: PROFESSOR WALTER BAETS

School Profile

The UCT Graduate School of Business' goal is to be a leading emerging market business school that is relevant both internationally and to its local context. Its mission is to build and strengthen three pillars of excellence to ensure that we produce responsible leaders with a keen grasp of complex organisational and social challenges and opportunities:

Academic Excellence and Thought Leadership: The GSB is one of South Africa's leading business schools in terms of research. We strive to make good use of our position at the tip of Africa, a continent in which the role of business in contributing to sustainable development is especially pertinent. GSB research is published in scholarly journals, as well as the popular media, taking a stand on issues of public concern. There is no uniform position within the GSB on key questions within management disciplines or surrounding the role of business in society; rather, we seek to cultivate a culture of debate within the school and beyond, which also enriches students' experience.

Societal Relevance: The GSB has unique opportunities to contribute to the university's strategic goal of addressing key developmental challenges facing South Africa and the continent. This includes the all-important teaching and research activities at the GSB, but it also relates to the manner in which we seek to create mutually beneficial relationships with diverse stakeholders. Much of our research has important pertinence for public policy or business strategy, and we strive to enhance such links through, for instance, workshops and conferences for officials or managers. Teaching and training programmes have been developed to proactively target disadvantaged youngsters, as in the Raymond Ackerman Academy of Entrepreneurial Development. Students in the MBA and other programmes are commonly linked to real-life development initiatives as part of their learning experience, especially in their group work.

Pedagogical Excellence: The GSB has sought to augment traditional lecture style teaching and case study discussions with alternative approaches that emphasise experiential

learning and personal development. A dedicated methodology called SYSTAL (Systems Thinking Action Learning) has been developed and implemented particularly in the Executive MBA, linking systems thinking to on-the-job action learning projects. Such approaches are also implemented in the executive education and customized academic programmes, as well as the MBA. The emphasis on systems thinking allows for the holistic integration of complex social, environmental and organizational issues in the exercises, discussions and projects in the classroom and beyond. A key underlying premise is the need for personal reflection and the development of mindfulness in becoming a responsible leader.

Continued efforts were put into developing GSB researchers' capabilities and networks. These included in particular the "Research design and methodology workshop", which we hosted 23-25 May. Through this workshop, we wanted to support African organisational and management researchers in making profound impacts on both practice and theory. Targeted at PhD students and faculty members, the workshop was an intensive 'boot camp' focusing on how to identify a compelling research question, to situate research in the literature, and to develop a coherent research design. Attention was also given to key qualitative and quantitative data generation and analysis methods, including quasi-experimental research designs. Participants had an opportunity to present and discuss their research, and they were expected to come carefully prepared with regard to a comprehensive reading list. The workshop was facilitated by Ted Baker (Associate Professor at North Carolina State University and associate editor of Strategic Entrepreneurship Journal) and Tim Pollock (Professor at The Pennsylvania State University and associate editor for the Academy of Management Journal).

In November, we hosted for the second time our annual, international conference on "The Business of Social and Environmental Innovation". The 2012 conference theme was "Informal Sector Entrepreneurship and Social Entrepreneurship," and the event included 36 paper presentations and two keynotes. The conference was supported by TrustAfrica, which provided for travel and accommodation for a number of African delegates to attend. It was also supported by the Bertha Centre for Social Innovation and Entrepreneurship. A selection of papers presented in last year's conference is currently being compiled in a book, with preliminary agreement to publish from two publishers.

We continue to encourage GSB researchers to apply for NRF ratings. The number of rated researchers in the school is currently eight (excluding two rated visiting staff), with represents almost 20 per cent of the school. This is a significant increase over two years (300%). We also encourage GSB researchers to apply for the UCT block grants and the number of applicants has been increasing.

The GSB's 2012 publication awards went to Ralph Hamann (Best Paper - *A clash of cultures (and lawyers): Anglo Platinum and mine-affected communities in Limpopo Province, South Africa,* published in *Resources Policy).* Hamieda Parker (Best Emerging Researcher's Paper - *Knowledge acquisition and leakage in inter-firm relationships involving new technology-based firms'* published in *Management Decision*), Sean Gossel (Student Publication Award - *The effects of capital inflows on South Africa's economy*, published in *Applied Financial Economics*; *The Nominal Rand/Dollar Exchange Rate: Before and After 1995*, published in *Studies in Economics and Finance*; and *South Africa's Post-Liberalised Capital Flows and Business Cycle Fluctuation*, published in *South African Journal of Economics),* and John Fay and Farai Kapfudzaruwa (Student Publication Award - *A comparative policy analysis of the Clean Development Mechanism in South Africa and China,* published in *Climate and Development*.)

With regard to publications, 2012 publications include two authored books, one book chapter, four conference papers, and 13 accredited, peer-reviewed journal articles.

School Statistics

Permanent and long-term contract staff

Professors	8
Emeritus Professors	3
Associate Professors	4
Senior Lecturers	19
Professional and Administrative Staff	80
Total	114

Students

Doctoral (PhD)	28
Master of Business Administration (MBA)	221
Master of Commerce (MCom)	95
Master of Philosophy (MPhil)	35
Executive MBA	67
Associate in Management Programme (AIM)	54
Postgraduate Diploma in Business Administration (PDBA)	64
Customised Academic Learning - Associate in Management (AIM) in Management Practice	181
Customised Academic Learning - Postgraduate Diploma in Management Practice (PGDip)	326
Executive Education	917
Total	1,988

Research Staff and Fields

PROFESSOR WALTER BAETS
Innovation; knowledge management; management learning; non-linear dynamic (complex) behaviour in management; pedagogical approaches; workplace learning; personal development

PROFESSOR GEOFF BICK
Marketing, particularly marketing metrics

PROFESSOR NICHOLAS BIEKPE
Development finance, econometrics, statistics and financial economics.

PROFESSOR KURT APRIL
Human dynamics; organisational leadership; organisational psychology; personal psychology; diversity; inclusive workplaces and cross-cultural dynamics.

PROFESSOR ANTON EBERHARD
Strategic management; restructuring and regulation of infrastructure industries, including the electricity, gas, telecommunication and water sectors.

PROFESSOR THOMAS KOELBLE
Globalisation; European politics; business, governance and society; electoral laws; South African democracy.

PROFESSOR JOHN LUIZ
International business; business in Africa; business, society, and government economics of emerging markets.

PROFESSOR ERIC WOOD
Entrepreneurial thinking and mindsets-both individual and systemic; entrepreneurs as role models; high-tech ventures; entrepreneurship education; internationalisation strategies for high-profile businesses in the third world.

PROFESSOR (EMERITUS) NORMAN FAULL
Operations management; strategy and implementation; lean thinking in operations; supply chain management; world-class manufacturing.

PROFESSOR (EMERITUS) COLIN FIRER
Financial planning; corporate finance; history of South Africa's capital markets.

PROFESSOR (EMERITUS) PAUL SULCAS
Information systems and technology; business strategy; applied business strategy; change management.

ASSOCIATE PROFESSOR RICHARD CHIVAKA
Strategic cost management; supply chain management; business strategy; business process improvement.

ASSOCIATE PROFESSOR RALPH HAMANN
Sustainable enterprise; corporate citizenship and social responsibility; organizational strategy; cross-sector collaboration.

ASSOCIATE PROFESSOR TOM RYAN
Systems thinking and organisational development; management development and learning; management research methodology.

ASSOCIATE PROFESSOR KOSHEEK SEWCHURRAN
Innovation management, information systems, systems thinking and project organising.

ASSOCIATE PROFESSOR MILLS SOKO
International trade, international business; emerging markets; globalization; foreign direct investment; commercial diplomacy; regional economic integration, with a specific focus on southern Africa; public-private partnerships; economic competitiveness and innovation; government-business relations in South Africa.

DR FRANCOIS BONNICI
Social innovation, social entrepreneurship, health

DR PREEYA DAYA
Human resources management; diversity, inclusion and performance; performance management; leadership / team performance; high performance culture / organisation culture; employee engagement

MS JANINE EVERSON
Executive coaching; leadership and team development; large group facilitation; organisational development; productive dialogue skills; virtual teams; cross-cultural and global teams; implementation of small and large-scale coaching interventions.

DR STEPHANIE GIAMPORCARO
Responsible and sustainable investment; developmental finance; carbon finance and impact investment; social studies of finance; anthropology of markets and consumption; economic sociology; sustainability (green building, fair trade).

DR SEAN GOSSEL
Applied financial econometrics; applied macro econometrics; development finance; capital flows; corporate finance.

MS FATIMA HAMDULAY
Operations management; change leadership.

DR MLENGA JERE
Advertising; consumer behaviour; social marketing.

DR SHADRICK MAZAZA
Health management; personal transformation; leadership; continuous quality improvement; healthcare quality and accreditation.

DR CHIPO MLAMBO
Investments; finance; financial markets.

DR WARREN NILSSON
Relationship between positive organizational dynamics (e.g., engagement, creativity, compassion) and broader patterns of deep, intentional, institutional change.

DR ELIADA W GRIFFIN-EL
Social entrepreneurship; entrepreneurial development in African emerging markets; social capital/networks and economic development; international development; global political economics; grounded theory

DR HAMIEDA PARKER
Manufacturing and operations; supply chain management; entrepreneurship; innovation and new product development.

MR MARK PETERS
Strategy, marketing and governance.

DR LINDA RONNIE
Managing people in organisations; organisational change; adult learning; sociology of education; research methodology; HR good practice and management; organisational behaviour.

MS ELANCA SHELLEY
Executive development; systems thinking; organizational diagnostics and design.

MS BEVERLY SHRAND
Marketing; database marketing; business administration.

MR BARRY STANDISH
Macro-economic performance and trends; economic modelling; economic impact assessment; market size studies.

MR LANCE STRINGER
Technology strategy and management; IT management.

DR NOSAKHERE GRIFFIN-EL
Freirean thought, love as a theoretical framework, qualitative methods, autobiography as methodology, and educational and societal issues of peoples from oppressed backgrounds.

Contact Details

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Website: http://www.gsb.uct.ac.za

Research Output

Authored books

Koelble, T.A. and Siddle, A. 2012. The Failure of Decentralisation in South African Local Government. 301pp. Claremont, South Africa: UCT press. ISBN 9781919895055.

Villa-Vicencio, C. and Soko, M. 2012. Conversations in Transition: Leading South African Voices. 301pp. Cape Town: New Africa Books (Pty) Ltd. ISBN 9780864867421.

Chapters in books

Hall, M.J. 2012. Public good and private benefits of higher education. In B. Leibowitz (ed), Higher Education for the Public Good: Views From the South, pp. 17-29. Stoke on Trent, USA: Trentham Books. ISBN. 9781920338886.

Articles in Peer-reviewed Journals

April, K., Dharani, B. and Peters, K. 2012. Impact of locus of control expectancy on level of well-being. Review of European Studies, 4(2): 124-137.

April, K., Ephraim, N. and Peters, K. 2012. Diversity management in South Africa: inclusion, identity, intention, power and expectations. African Journal of Business Management, 6(4): 1749-1759.

April, K., Lifson, D. and Noakes, T.D. 2012. Emotional intelligence of elite sports leaders & elite business leaders. International Journal of Business and Commerce, 1(5): 82-115.

April, K., Loubser, J. and Peters, K. 2012. Intergroup behavior: South African Gen Y. Effective Executive, 15(2): 8-40.

Baets, W.R. 2012. A-causality, consciousness and organisations. Journal of Alternative Medicine Research, 4(1): 41-49.

Eberhard, A.A. and Shkaratan, M. 2012. Powering Africa: meeting the financing and reform challenges. Energy Policy, 42: 9-18.

Farrell, L.A.F., Hamann, R. and Mackres, E.B.M. 2012. A clash of cultures (and lawyers): Anglo Platinum and mine-affected communities in Limpopo Province, South Africa. Resources Policy, 37: 194-204.

Fay, J., Kapfudzaruwa, F., Na, L. and Matheson, S. 2012. A comparative policy analysis of the clean development mechanism in South Africa and China. Climate and Development, 4(1): 40-53.

Giamporcaro, S. and Pretorius, L. 2012. Sustainable and responsible investment (SRI) in South Africa: a limited adoption of environmental criteria. Investment Analysts Journal, 75: 1-19.

Gossel, S. and Biekpe, N. 2012. South Africa's post-liberalised capital flows and business cycle fluctuations. South African Journal of Economics, 80(4): 510-525.

Gossel, S. and Biekpe, N. 2012. The effects of capital inflows on South Africa's economy. Applied Financial Economics, 22: 923-938.

Gossel, S. and Biekpe, N. 2012. The nominal rand/dollar exchange rate: before and after 1995. Studies in Economics and Finance, 29(2): 1-13.

Hamann, R. 2012. The Business of development: revisiting strategies for a sustainable future. Environment, 54(2): 18-29.

Leung, K., Lam, B.C.P., Bond, M.H., Conway III, L.G., Gornick, L.J., Amponsah, B., Boehnke, K., Dragolov, G., Burgess, S., Golestaneh, M., Busch, H., Espinosa, A., Fardis, M., Ismail, R., Kurman, J., Lebedeva, N., Tatarko, A.N., Sam, D., Teixeira, M.L., Yamaguchi, S., Fukuzawa, A., Zhang, J. and Zhou, F. 2012. Developing and evaluating the social axioms survey in eleven countries: its relationship with the five-factor model of personality. Journal of Cross-Cultural Psychology, 43(5): 833-857.

LiPuma, E. and Koelble, T.A. 2012. Rituals of solidarity in the new South Africa. Studies in Ethnicity and Nationalism, 11(1): 1-24.

Lombard, L., April, K. and Peters, K. 2012. Sustainability & authentic leadership: stumbling blocks and enablers. Crown Research in Education, 2(2): 74-84.

Luiz, J.M. and Stephan, H. 2012. The multinationalisation of South African telecommunications firms into Africa. Telecommunications Policy, 36: 621-635.

Lynton, N. and April, K. 2012. Connected but not alike: cross-cultural comparison of generation Y in China and South Africa. Academy of Taiwan Business Management Review, 8(1): 67-80.

Mazaza, S. 2012. Consciousness and medicine from the point of view of a family physician. Journal of Alternative Medicine Research, 4(1): 1-6.

Moosa, S., Luiz, J.M. and Carmichael, T. 2012. Introducing a national health insurance system in South Africa: a general practitioner's bottom-up approach to costing. SAMJ South African Medical Journal, 102(10): 794-797.

Parker, H. 2012. Knowledge acquisition and leakage in inter-firm relationships involving new technology-based firms. Management Decision, 50(9): 1618-1633.

Ross, A., Parker, H., del Mar Benavides-Espinosa, M. and Droge, C. 2012. Sustainability and supply chain infrastructure development. Management Decision, 50(10): 1891-1910.

Stocks, A., April, K. and Lynton, N. 2012. Locus of control and subjective well-being - a cross-cultural study. Problems and Perspectives in Management, 10(1): 17-25.

Warner, R. and April, K. 2012. Building personal resilience at work. Effective Executive, 15(4): 53-68.

Peer-reviewed published conference proceedings

Arnold, S.A. 2012. Online learning in higher education: contributors to the tipping point in a South African Institution. In 2012 e/merge Online Proceedings (e/merge 2012) - Open to Change, 20 July 2012, online conference, Cape Town. Cape Town: Centre for Educational Technology, University of Cape Town. ISBN 9780620554220.

Jere, M. and Mushure, K. 2012. Exploring the factors that influence the use of hair extensions amongst black women in South Africa. In Proceedings of 2012 Academy of Indian Marketing International Conference, 29-30 July 2012, India. India: Academy of Indian Marketing.

Jere, M. and Burgess, S.M. 2012. message source portrayals. In Proceedings Proceedings of 2012 Academy of Indian Marketing International Conference, 29-30 July 2012, India. India: Academy of Indian Marketing.

Maharaj, S. and Bick, G. 2012. Potential impact of the proposed advertising regulations on the alcohol market in South Africa. In J.M.M. van den Berg (ed), Proceedings of the 24th Annual Conference of SAIMS - 2012, 9-11 September 2012, Stellenbosch, South Africa. Stellenbosch: Stellenbosch University. ISBN 9780620542877.

Faculty of LAW

I am pleased to report that the faculty's three departments and their associated research units maintained their record of diverse research in 2012, by working together to steward and administer our thriving research enterprise. The research capacity of the faculty was also significantly strengthened during the past year, when six academics were successfully re-rated by the National Research Foundation. The faculty now has a total of nineteen NRF-rated researchers.

Dean's Report

PROFESSOR PAMELA SCHWIKKARD
Dean of Law

The faculty is home to the DST/NRF SARChI Chair in Customary Law (Professor Chuma Himonga) and the now well-established DST/NRF SARChI Chair in Security and Justice (Professor Clifford Shearing), as well as the Chair of Comparative Law in Africa (Professor Salvatore Mancuso) – an initiative supported by the Vice-Chancellor's Strategic Fund – and the Chair in Intellectual Property Law and Policy (Professor Julian Kinderlerer), funded by the national Department of Trade and Industry. The Chairs all remained active in the generation and dissemination of research. The Chair in Customary Law, Professor Chuma Himonga, hosted a well-attended seminar on *Children: Rights and Ethics* on 16 October 2012. The seminar was presented by Professor Michael Freeman, a renowned scholar on children's rights, and Associate Professor Anne Pope, an expert on research ethics. The Chair of Comparative Law in Africa and the members of the Centre for Comparative Law in Africa, which was established in 2011 to promote the study of comparative law and draw on the strengths of comparative methodology to conduct research into the multifaceted field of law in Africa, held its first Comparative Law methodology workshop, titled *Building African Scholarship in Comparative Law: Teaching and Research Methodology.* The workshop, held from 22 to 24 October 2012, hosted participants from various African law faculties, as well as from Europe and the United States. As part of the Vice-Chancellor's Open Lecture series, the Centre for Criminology together with the Institute for Security Studies, hosted leading criminologist Professor John Braithwaite on 26 July 2012, who offered important ideas on how South Africa could address crime in his talk, titled *Restorative Justice: Republican Vision and Justice as a Better Future.*

Further highlights from our research units include an Expert Roundtable for the United Nations High Commissioner for Refugees hosted by the Refugee Rights Research Unit on 13 and 14 September 2012. A seminar by Willie Hofmeyr, who is currently the Deputy National Director of Public Prosecutions and Head of the Asset Forfeiture Unit, was jointly hosted by the Centre of Criminology and the Democratic Governance and Rights Unit (DGRU) and titled *Using Asset Forfeiture to fight Crime and Corruption.*

The faculty welcomed a number of special guests and visitors during the year. These include former Vice-Chancellor Dr Mamphela Ramphele and the Chair of the

Congress of Traditional Leaders, Patekile Holomisa, who formed part of the annual Constitution Week project organised by the DGRU. Clive Thompson, the founding director in 1987 of the Labour Law Unit at UCT known today as the Institute for Development and Labour Law, presented a lunchtime seminar for the faculty as part of the annual Rabinowitz lecture, titled *The Paradox of the Great Workplace*.

We had one inaugural lecture in 2012. On 31 July 2012, professor Wouter de Vos from the Department of Public Law gave a lecture on *Is a Class Action a 'Classy Act' to implement outside the Ambit of the Constitution?*

I am also very pleased to report that we have four authored books, written respectively by professors Hanri Mostert and Clifford Shearing, Ms Emma Witbooi, and Justice Laurie Ackermann, who is an Honorary Professor in the Faculty. These are listed below, together with books edited by our staff: *Fisheries and Sustainability. A Legal Analysis of EU and West African Agreements* (Emma Witbooi), *Human Dignity: Lodestar for Equality in South Africa* (Laurie Ackermann), *Mineral Law: Principles and Policies in Perspective* (Hanri Mostert), *The New Environmental Governance* (Clifford Shearing, co-author), *Accountable Government in Africa: Perspectives from Public Law and Political Studies* (Danwood Chirwa); *African Perspectives on Tradition and Justice* (Tom Bennett), *Labour Law in Context* (Rochelle Le Roux, co-author), *Permanent Court of Arbitration Award Series: The Guyana/Suriname Arbitration Award of 2007* (Lise Bosman), and *The Law of Contract in South Africa 2nd Edition* (Dale Hutchison).

The faculty has also maintained its tradition of being engaged in socially responsive research. As such, the Faculty Research and Social Responsiveness Committee considered and approved an initiative titled the UCT Law Advice Programme, co-ordinated by Dr Alistair Price, senior lecturer in the Department of Private Law. The initiative will link members of the faculty with the Legal Resources Centre (LRC) and faculty members will provide legal advice in a number of areas of law, as and when needed by the LRC. In December 2011, the Traditional Courts Bill was published in the Government Gazette and received a critical response from a broad spectrum of civil society. In response, the Centre for Law and Society (previously known as the Law, Race and Gender Unit) co-hosted a national conference for rural community-based organisations and NGOs on the bill, resulting in the establishment of a national co-ordinating committee.

Departments

Department of Commercial Law
Department of Private Law
Department of Public Law

The Kramer Law Library has established a Postgraduate Research Commons, allowing doctoral students and postdoctoral fellows to utilise the quiet and adapted area for writing up their research.

The faculty is also proud to share a number of awards and distinguished appointments received by members of staff. Dr Sindiso Mnisi-Weeks received the Department of Science and Technology's Emerging Researchers Women in Science Award for her work on the development of rural women. The previous Director of Research, Professor Hanri Mostert, was runner-up in the Distinguished Young Woman Scientist in the Social Sciences and Humanities category. Our faculty presents an annual Research Prize for the most outstanding article published in the preceding two years by any member of staff of the rank of senior lecturer or lecturer. The winner for 2012 was Dr Waheeda Amien and the runner-up was Dr Andrew Hutchison. DGRU director, Professor Richard Calland, has recently been appointed to the World Bank's Independent Access to Information Appeals Board.

Finally, the faculty welcomed Sufia Singlee, Salona Lutchman, and Thabi Chanetsa as academic staff. It is with sadness, however, that I mention the passing of a wonderful teacher, researcher, friend, and colleague, Professor John Gibson, Director of the Institute of Marine and Environmental Law. He will be missed by all at the Faculty of Law.

Given the relatively high staff/student ratio in the Faculty of Law, the role of Director of Research has been crucial in promoting research in the faculty. Professor Loretta Feris, who took on the directorship officially at the beginning of 2012, continues to encourage and support research. The research featured in this year's report reflects the broad scope and intellectual vigour of our faculty community. I have pleasure in sharing it with you.

DOCTORAL GRADUATIONS

A.M. BARDOPOULOS (COMMERCIAL LAW)
The impact of technology on taxation and is VAT the eTax solution?
Supervised by Professor D. Davis

S. BAVIKATTE (PUBLIC LAW)
Stewarding the earth: rethinking property and the emergence of biocultural rights
Supervised by Professor T. Bennett

D. JORDAAN (PRIVATE LAW)
Medical biotechnology law in South Africa: a human rights analysis of selected topics
Supervised by Professor J. Kinderlerer

J. MASABO (PUBLIC LAW)
The protection of the rights of migrant workers in Tanzania
Supervised by Professor E.R. Kalula and Associate Professor B. Rutinwa (University of Dar es Salaam)

C.O. MOITUI (PUBLIC LAW)
Implementation of the precautionary approach in the regulation of genetically modified organisms: An African context
Supervised by Professor J. Kinderlerer

A.E. TSHIVHASE (PUBLIC LAW)
Military courts in a democratic South Africa: in search of their judicial independence
Supervised by Professor H.M. Corder

S. WAGENER (PRIVATE LAW)
An assessment of the normative bases for the doctrine of vicarious liability in South African law, and the implications for its application
Supervised by Professor A. Fagan

RESEARCH CONTRACTS
44

VALUE OF RESEARCH CONTRACTS
R5.66 million

NRF-RATED RESEARCHERS
19

SARCHI RESEARCH CHAIRS
2

ACCREDITED RESEARCH GROUPINGS
3

DOCTORAL GRADUATIONS
7

DHET-ACCREDITED JOURNALS
49.58 units

PEER-REVIEWED PUBLICATIONS
219

POSTGRADUATE STUDENTS
370

POSTGRADUATE FUNDING
R3.9 million

POSTDOCTORAL RESEARCH FELLOWS
4

POSTDOCTORAL RESEARCH FUNDING
R919 291

Department of Commercial Law

(Including the Institute of Development and Labour Law, the Centre for Comparative Law in Africa, the Shipping Law Unit and the Intellectual Property Law and Policy Research Unit)

HEAD OF DEPARTMENT: PROFESSOR ALAN RYCROFT

Departmental Profile

The Department of Commercial Law is the biggest department in the Law Faculty. It is staffed by many new academic staff working on PhD degrees. Longer-serving academic staff members are working on new books or on new editions of established works. The Department now has three NRF rated researchers.

The Department has an increasing number of PhD and LLM by dissertation students and teaches most of the students who are taking the LLM by coursework and the Postgraduate Diplomas in Law.

In the LLB programme the Department teaches compulsory courses in Corporation Law and Commercial Transactions and offers optional courses to final year students. The Department also offers specialised commercial law courses to nearly 2600 students from other faculties.

There are four research and teaching units which form part of the Department: the Institute of Development and Labour Law, the Centre for Comparative Law in Africa, the Shipping Law unit and the Intellectual Property and Policy Research Unit.

Departmental Statistics

Permanent and long-term contract staff

Honorary Professors	2
Adjunct Professors	6
Honorary Research Associate	1
Professors	9
Associate Professors	4
Emeritus Professor	1
Senior Lecturers	9
Lecturers	5
Teaching and Research Assistants	2
Administrative staff	3
Total	42

Students

Other Faculties	2659
LLB	473
PG Diplomas	15
Doctor of Philosophy	15
Master of Philosophy	31
Master of Philosophy (by dissertation)	1
LLM By Dissertation	4
LLM By Coursework and Dissertation	124
TOTAL	3322

** These figures reflect actual registrations for Commercial Law courses and LLB courses. Where a student registers for two Commercial Law /LLB courses he/she was counted twice.*

Research Fields and Staff

PROFESSOR AND HEAD OF DEPARTMENT

PROFESSOR A. RYCROFT
Labour Law, Dispute Resolution

Honorary Professors

PROFESSOR/JUDGE D.M. DAVIS
Capital Transfer and International Tax Law; Competition Law

JUDGE I. FARLAM

Professors

PROFESSOR P.S. BENJAMIN (Part-time)
Labour Law

PROFESSOR J.E. HARE
Admiralty Jurisdiction and Practice; Maritime Law and Marine Insurance; Carriage of Goods by Sea

PROFESSOR R.D. JOOSTE
Revenue Law; Company Law

PROFESSOR E.R. KALULA
International Comparative Labour Law; Labour Market Regulation; Social Security

PROFESSOR J. KINDERLERER
Biotechnology and IPL

PROFESSOR R. LE ROUX
Labour Law, Sport Law

PROFESSOR S. MANCUSO
Comparative Law

PROFESSOR R.C. WILLIAMS (Part-time)
Revenue Law; Company Law

Associate Professors

ASSOCIATE PROFESSOR G. BRADFIELD
Shipping Law, International Trade

ASSOCIATE PROFESSOR D. COLLIER
Labour Law; Electronic Law; Intellectual Property Law

ASSOCIATE PROFESSOR T.S. EMSLIE SC (Part-time)
Revenue Law

ASSOCIATE PROFESSOR T. MONGALO (On extended leave)
Company Law

Emeritus Associate Professor

EMERITUS ASSOCIATE PROFESSOR J. HOFMAN

Honorary Research Associate

DR T. KRUGER
International Trade Law

Adjunct Professors

MS A. BOSMAN
MR N. JERAM
DR T. MADIMA
MR W. SCHOLTZ
MR E. SWANEPOEL
PROF C.R. THOMPSON

Senior Lecturers

DR W. AMIEN
Business Law, Muslim Law

MS T.L. GUTUZA
Revenue Law; Capital Transfer and International Tax Law

DR A. HUTCHISON
Business Law

MS K. IDENSOHN
Company Law

MS K. LEHMANN
Business Law; Global Economic Law; International Economic Law

DR C. NCUBE
Business Law; Company Law; Intellectual Property Law

MS L.-A. TONG
Intellectual Property Law

DR T. WIESE
Company Law

MS J. YEATS
Business Law; Company Law

Lecturers

MR C. CHOKUDA
Business Law; Company Law

MS J. FRANCO
Business Law

MR M. NKOMO
Business Law; Intellectual Property Law

MS H. STOOP
Business Law; Company Law

MS A.L. TITUS
Business Law; Revenue Law

Administrators

MR C. ELISSAC
Administrative Officer
LLB and Postgraduate Courses

MR M. MBEBE
Administrative Assistant
All Commerce Courses

MS F. KHAN
Administrative Assistant
Labour and Development Law

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Institute of Development and Labour Law

DIRECTOR: PROFESSOR R. LE ROUX

Institute Profile

The Institute of Development and Labour Law was established in 1996 through the merger of the Labour Law Unit and the Institute of Development Law. The Institute plays a leading role in development and labour law teaching and research. It is involved with training courses in South Africa and other countries in Southern Africa. It also regularly contributes to training programmes in other organisations and collaborates closely with other leading university centres and NGOs.

Research Fields and Staff

Professors

PROFESSOR E.R. KALULA
International and Comparative Labour Law; Labour Market Regulation; Social Security; Law and Regional Integration

PROFESSOR R. LE ROUX
Labour Law

PROFESSOR P. BENJAMIN
Collective Bargaining and Strike Law; Health and Safety; Minimum Labour Standards; Regulatory Framework

ASSOCIATE PROFESSOR D. COLLIER
Labour Market Regulation, Inequality, Intellectual Property and Development

Adjunct Professors

PROFESSOR C. THOMPSON
Collective Bargaining; International Labour Law

DR T. MADIMA
Collective Bargaining

MR C. NUPEN
Dispute Resolution; Social Dialogue

MS T. ORLEYN
Dispute Resolution

MR N. JERAM
Social Security

Administrative Staff

MS F. KHAN

Researchers

MR S. GODFREY
Senior Researcher, Labour and Enterprise Project
Bargaining Councils; Industrial Sociology

MR J. THERON
Co-ordinator of the Labour and Enterprise Policy Research Group (LEP)
Labour Rights; Small and Medium Enterprise

MS M. VISSER
Researcher

Honorary Research Associate

PROFESSOR N. RUBIN
International Labour Standards; Law and Development

Contact Details

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Centre for Comparative Law in Africa

DIRECTOR: DR A. ORDOR

The Centre for Comparative Law in Africa (CCLA) was established in 2011 to promote the study of comparative law and draw on the strengths of comparative methodology to research into the multifaceted field of law in Africa. The Centre presents an opportunity to develop a discipline that lends itself to optimal application in the pluralistic legal frameworks within which life is lived in Africa. In its mission to contribute to the development of comparative law in Africa, the strategy of the CCLA is to establish the field at UCT, build capacity in it across the continent through academic programmes, apply comparative law expertise in consultancies and disseminate new knowledge in comparative law in Africa through conferences, publications and professional networks. Its location within the Department of Commercial Law recognises

the centrality of comparative law to on-going efforts at economic integration on the African continent. The CCLA offers an LLM and a postgraduate diploma in Comparative Law and conducts research on a variety of themes that apply comparative methodology. Currently the Centre is involved in a collaborative research project on mineral law and policy in three southern African countries (South Africa, Namibia and Zambia) under the UCT PERC Africa Knowledge Project as well as customary law development in Somaliland. The CCLA offers support for Africa-focused doctoral research and also undertakes consultancies from institutions in the public and private sectors.

Professor and Chair

Professor S. Mancuso, LLB Palermo PhD Trieste

Administrator

Ms S. van der Brock

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Shipping Law Unit

PROFESSOR AND HEAD: PROFESSOR J.E. HARE

The Shipping Law Unit has been in operation since the beginning of 1993. The Unit was set up within the Department of Commercial Law to accommodate part-time and full-time studies in Shipping Law at higher postgraduate level, and to support the Maritime Law option offered to Final Level LLB students. The Shipping Law Unit provides postgraduate tuition and research in Admiralty law and practice and in all private law aspects of the law relating to the sea and ships. It serves as an information and advice centre to the shipping industry, and monitors developments in maritime law and policy in South Africa and abroad. The Unit co-operates closely with the Institute of Marine and Environmental Law which handles the public law elements of the Law of the Sea and related subjects.

Visiting Teacher

R. Knutzen, LLB Cape Town BCL Oxon

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Email: John.Hare@uct.ac.za

Department of Commercial Law

Research Output

Edited books

Bosman, L. and Clarke, H.C. (eds) 2012. Permanent Court of Arbitration Award Series. The Guyana/Suriname Arbitration Award of 2007 with an Introduction by Judge Peter Tomka. 207pp. The Hague: International Bureau; Permanent Court of Arbitration. ISBN 9789491021008.

Van der Walt, A.J., Le Roux, R. and Govindjee, A. (eds) 2012. Labour Law in Context. 292pp. Cape Town, South Africa: Pearson Education Limited. ISBN 9781775780939.

Wautelet, P., Kruger, T. and Coppens, G. (eds). 2012. The practice of arbitration: essays in honour of Hans Van Houtte. Oxford: Hart Publishing. 382 p. ISBN 9781849463331.

Chapters in books

Benjamin, P.S. 2012. To regulate or to ban? Controversies over temporary employment agencies in South Africa and Namibia. In K. Malherbe and J. Sloth-Nielsen (eds), Labour Law into the Future: Essays in Honour of D'Arcy Du Toit, pp. 189-209. Cape Town, RSA: Juta Law. ISBN 9780702194238.

Bradfield, G.B. 2012. National credit act (revised & updated). In M.A. Fouche (ed.), Legal Principles of Contracts and Commercial Law, pp. 147-176. 7th edition. Cape Town, South Africa: LexisNexis. ISBN 9780409049459.

Cassim, M.F. and Yeats, J. 2012. Fundamental transactions, takeovers and offers. In F.H.I Cassim (ed.), Contemporary Company Law, pp. 672-754. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Cassim, M.F. and Yeats, J. 2012. Fundamental transactions, takeovers and offers. In F.H.I. Cassim (ed), The Law of Business Structures, pp. 379-416. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Collier, D. and Glazewski, J.I. 2012. Climate change and possible legal liability: implications for the City of Cape Town. In A. Cartwright, S. Parnell , G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp.147-162. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Collier, D., Ncube, C.B. and Schonwetter, T. 2012. Intellectual property. In M.A. Fouche (ed.), Legal Principles of Contracts and Commercial Law, pp. 289-306. 7th edition. Cape Town, South Africa: LexisNexis. ISBN 9780409049459.

Davis, D. 2012. Developing the common law of contract in the light of poverty and illiteracy: the challenge of the constitution. In S. Liebenberg and G. Quinot (eds), Law and Poverty. Perspectives from South Africa and Beyond, pp. 403-422. Claremont, South Africa: Juta. ISBN 9780702194450.

Davis, D. 2012. Freedom of trade, occupation and profession. In S. Woolman and M. Bishop (eds), Constitutional Law of South Africa 2nd Edition (CLOSA), pp. 1-30. 2nd edition. South Africa: Juta. ISBN 97807021713080.

Davis, D. 2012. Socio-economic rights. In M. Rosenfekd and A. Sajo (eds), The Oxford Handbook of Comparative Constitutional Law, pp. 1020-1035. Great Britain: Oxford University Press. ISBN 9780199578610.

Fergus, E. 2012. Dismissal for incapacity. In A.J. Van der Walt, R. Le Roux and A. Govindjee (eds), Labour Law in Context, pp. 123-139. Cape Town, South Africa: Pearson Education Limited. ISBN 9781775780939.

Glazewski, J.I. and Collier, D. 2012. South Africa. In R. Lord, S. Goldberg, L. Rajamani and J. Brunnee (eds), Climate Change Liability: Transnational Law and Practice, pp. 319-347. USA: Cambridge University Press. ISBN 9781107673663.

Hofman, J.P. and De Jager, J. 2012. South Africa. In S. Mason (ed.), Electronic Evidence, pp. 761-796. 3rd edition. UK: LexisNexis Butterworths. ISBN 9781405779876.

Jeram, N. 2012. Allocation of death benefits. In K. Hanekom (ed), The Manual on South African Retirement Funds and Other Employee Benefits, pp. 188-280. South Africa: Lexis Nexis Butterworths. ISBN 9780409115468.

Jooste, R.D. 2012. Business trusts. In F.H.I. Cassim (ed.), The Law of Business Structures, pp. 46-60. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Jooste, R.D. and Shev, J. 2012. Close corporations. In F.H.I. Cassim (ed), The Law of Business Structures, pp. 530-559. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Jooste, R.D. 2012. Corporate finance. In F.H.I. Cassim (ed), The Law of Business Structures, pp. 184-210. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Jooste, R.D. 2012. Corporate finance. In F.H.I. Cassim (ed), Contemporary Company Law: 262-352. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Jooste, R.D. 2012. Groups of companies and related persons. In F.H.I. Cassim (ed), The Law of Business Structures, pp. 153-161. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Jooste, R.D. 2012. Groups of companies and related persons. In F.H.I. Cassim (ed), Contemporary Company Law, pp. 194-211. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Jooste, R.D. and Cassim, R. 2012. Insider trading and market manipulation. In F.H.I. Cassim (ed), Contemporary Company Law, pp. 926-1000. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Jooste, R.D. and Cassim, R. 2012. Insider trading and market manipulation. In F.H.I. Cassim (ed), The Law of Business Structures, pp. 504-521. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Jooste, R.D. and Yeats, J. 2012. Shares, securities and transfer. In F.H.I. Cassim (ed), The Law of Business Structures, pp. 162-183. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Jooste, R.D. and Yeats, J. 2012. Shares, security and transfer. In F.H.I. Cassim (ed), Contemporary Company Law, pp. 212-262. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Kruger, T. and Samyn, L. 2012. De afwezige verweerder in het Europees procesrecht. In J. Rozie, S. Rutten and A. van Oevelen (eds), Verstek en verzet in burgerlijke zaken en strafzaken, nationaal en Europees. Antwerpen: Intersentia. pp. 25-51. ISBN 789400003507.

Kruger, T. 2012. Internationaal Privaatrecht en ouderlijk gezag. In Centrum voor beroepsvervolmaking, Samenlevingsvormen en recht. Antwerpen: Maklu. pp. 79-105. ISBN 9789046604472.

Kruger, T. 2011. Procedural aspects and private international law. In I. Samoy and B. Lambrecht (eds), Consortium Agreements for Research Projects. Multiparty Agreements under Belgian Contract Law. Cambridge: Intersentia. pp. 351-382. ISBN 9781780680316.

Le Roux, R. 2012. Dismissal. In A.J. Van der Walt, R. Le Roux and A. Govindjee (eds), Labour Law in Context, pp. 85-99. Cape Town, South Africa: Pearson Education Limited. ISBN 9781775780939.

Le Roux, R. 2012. Dismissal for conduct. In A.J. Van der Walt, R. Le Roux and A. Govindjee (ed), Labour Law in Context, pp. 111-122. Cape Town, South Africa: Pearson Education Limited. ISBN 9781775780939.

Le Roux, R. 2012. The purpose of labour law: can it turn green? In K. Malherbe and J. Sloth-Nielsen (ed), Labour Law into the Future: Essays in Honour of D'Arcy Du Toit, pp. 230-249. Cape Town, RSA: Juta Law. ISBN 9780702194238.

Ncube, C.B. 2012. Electronic commerce. In M.A. Fouche (ed.), Legal Principles of Contracts and Commercial Law, pp. 307-314. 7th edition. Cape Town, South Africa: LexisNexis. ISBN 9780409049459.

Ncube, C.B. 2012. Software patents. In S. Papadopulous and S. Snail (eds), Cyberlaw@SA III, pp. 123-136. 3rd edition. Pretoria, South Africa: Van Schaik Publishers. ISBN 9780627028076.

Shev, J. and Jooste, R.D. 2012. The auditor, financial records and reporting. In F.H.I. Cassim (ed.), Contemporary Company Law, pp. 595-647. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Shev, J. and Jooste, R.D. 2012. The auditor, financial records and reporting. In F.H.I. Cassim (ed.), The Law of Business Structures, pp. 329-368. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Yeats, J. 2012. Public offerings of company securities. In F.H.I Cassim (ed), The Law of Business Structures, pp. 369-378. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Yeats, J. 2012. Public offerings of company securities. In F.H.I. Cassim (ed), Contemporary Company Law, pp. 648-672. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Yeats, J. 2012. Winding-up. In F.H.I. Cassim (ed), The Law of Business Structures, pp. 496-503. Claremont, Cape Town: Juta & Co Limited. ISBN 9780702195488.

Yeats, J. 2012. Winding-up. In F.H.I Cassim (ed), Contemporary Company Law, pp. 913-926. 2nd edition. Claremont, South Africa: Juta. ISBN 9780702185656.

Articles in Peer-reviewed Journals

Aiyedun, Y. and Ordor, A.O. 2012. Accessing justice within plural normative systems in Africa: case study of South Africa. African Journal of Clinical Legal Education and Access to Justice, 1: 49-72.

Benjamin, P. 2012. Labour law beyond employment. Acta Juridica, 1(2012): 21-40.

Bradstreet, R. 2012. Regulating legal capital reduction: a comparison of creditor protection in South Africa and the State of Delaware. South African Law Journal, 129(2012): 736-757.

Collier, D. 2012. Technology and law. Griffith Law Review, 21(1): 245-287.

Collier, D. and Bamu, P. 2012. Linking trade to labour standards: a promising synergy or a double-edged sword? Acta Juridica, 1(2012): 326-347.

Davis, D. 2011. Developing the common law of contract in the light of poverty and illiteracy: the challenge of the Constitution. Stellenbosch Law Review, 22(3): 845-864.

Davis, D. 2012. How many positivist legal philosophers can be made to dance on the head of a pin? A reply to Professor Fagan. South African Law Journal, 129(1): 59-72.

Davis, D. and Le Roux, M. 2012. Changing the role of the corporation: a journey away from adversarialism. Acta Juridica, 2012(1): 306-325.

Fergus, E. 2012. Circumventing review - when is a question jurisdictional? South African Law Journal, 129: 504-526.

Fergus, E. and Rycroft, A.J. 2012. Refining review. Acta Juridica, 1(2012): 170-194.

Field, C.G., Bagraim, J.J. and Rycroft, A.J. 2012. Parental leave rights: have fathers been forgotten and does it matter? South African Journal of Labour Relations, 36(2): 30-41.

Godfrey, S.D. and Bamu, P. 2012. The state of centralised bargaining and possible future trends. Acta Juridica, 1(2012): 219-243.

Gutuza, T.L. 2012. Has recent United Kingdom case law affected the interplay between 'place of effective management' and 'controlled foreign companies'? SA Mercantile Law, 24(4): 424-437.

Gutuza, T.L. 2012. South Africa. Cahiers de droit fiscal international, 97(2012a): 593-618.

Hutchison, A.J. 2012. Liability for breaking off contractual negotiations? South African Law Journal, 129: 104-131.

Hutchison, A.J. 2012. Remoteness in contract: under revision in the House of Lords too? South African Law Journal, 129: 199-209.

Idensohn, K. 2012. The fate of Foss under the Companies Act 71 of 2008. SA Mercantile Law, 24(3): 355-360.

Idensohn, K. 2012. The meaning of 'prescribed officers' under the Companies Act 71 of 2008. South African Law Journal, 129: 717-735.

Idensohn, K. 2012. The nature and scope of employees' fiduciary duties. Industrial Law Journal Including Industrial Law Reports, 33(July): 1539-1554.

Jooste, R.D. 2012. Companies and CCs. Juta Quarterly Review, July to September(2012): 3.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(1): 3-29.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(2): 35-81.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(3): 85-130.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(4): 133-232.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(5): 235-342.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(6): 345-424.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(7): 427-462.

Jooste, R.D. 2012. South Africa. Income Tax Reporter, 51(8): 465-498.

Kruger, T. 2011. Case note on the judgment of the Commercial Court of Namur, 10 March 2010. Droit de la Consommation / Consumentenrecht, 59-68.

Kruger, T. 2012. Case note on the ECJ judgment in the joined cases C-585/08, Pammer v. Reederei Karl Schlütter GmbH & Co. KG and C-144/09, Hotel Alpenhof GesmbH v; Heller. Droit de la Consommation / Consumentenrecht, 55-69.

Kruger, T. 2012. Case note on the ECJ judgment in the joined cases C-585/08, Pammer v. Reederei Karl Schlütter GmbH & Co. KG and C-144/09, Hotel Alpenhof GesmbH v; Heller. Tijdschrift voor Consumentenrecht en handelspraktijken.

Kruger, T. 2012. Onderhoudsvorderingen: nieuwe IPR-wetgeving. Tijdschrift voor Familierecht, 32-42.

Kruger, T. and Samyn, L. 2012. Als de Europese consument moet procederen. Droit de la consummation, 66-91.

Le Roux, R. 2012. The new unfair labour practice. Acta Juridica, 1(2012): 41-57.

Mancuso, S. 2012. Creating mixed jurisdictions: legal integration in the Southern African development community region. Journal of Comparative Law, 5(2): 146-160.

Ncube, C.B. 2012. Copyright enforcement: the graduated response takes centre stage. SA Mercantile Law, 24(2): 133-147.

Ncube, C.B. 2012. Equitable intellectual property protection of computer programs in South Africa: some proposals for reform. Stellenbosch Law Review, 2012(3): 438-461.

Nkomo, M. 2012. IP rights no longer capital in South Africa: a welcome signal for foreign investment. Journal of Intellectual Property Law and Practice, 7(2): 88-89.

Rycroft, A. 2012. Can a protected strike lose its status? Tsogo Sun Casinos (Pty) Ltd T/A Montecasino v future of SA Workers Union & Others. Industrial Law Journal Including Industrial Law Reports, 33(April): 821-827.

Rycroft, A. 2012. The intolerable relationship. Industrial Law Journal, 33(October): 2271-2287.

Stoop, H.H. 2012. The derivative action provisions in the Companies Act 71 of 2008. South African Law Journal, 129: 527-553.

Theron, J.P. 2012. Prisoners of a paradigm: labour broking, the 'new services' and non-standard employment. Acta Juridica, 1(2012): 58-83.

Titus, A.L. 2012. The different permutations of CSARS v Brummeria: was it something other than an 'interest-free' loan? South African Law Journal, 129: 236-247.

Von Broembsen, M. 2012. Legal empowerment of the poor: the re-emergence of a lost strand of human rights? Rapoport Center Working Paper Series, 1: 1-19.

Von Broembsen, M. 2012. People want to work, yet most have to labour: towards decent work in South African supply chains. Law, Democracy and Development, 16: 1-27.

Department of Private Law

HEAD OF DEPARTMENT: PROFESSOR TJAKIE NAUDÉ

Departmental Profile

The Department of Private Law has seven NRF-rated researchers. The Department continued to maintain its strong research record during the period of review. Members of the department maintained a high rate of publication, which included a number of international publications.

The Department welcomed Mr Alistair Price who has since obtained his PhD from the University of Cambridge in 2013.

Professor Hanri Mostert and Associate Professor Anne Pope convened the annual Southern African Property Law Teachers Colloquium and Associate Professor Mohamed Paleker convened a conference on the Law of Succession and Trusts. Several members of the Department presented papers at local and international conferences: Dr Lesley Greenbaum (UCT's Teaching and Learning Conference and the Higher Education Teaching and Learning Association of South Africa Conference); Professor Tjakie Naude (International Consumer Law Conference, Utrecht, Netherlands); and Professor Hanri Mostert (World Bank Conference on Land and Poverty, Washington DC; Progressive Property Seminar, Harvard University).

Professor Jaco Barnard-Naudè was invited to teach at the University of Pretoria, Associate Professor Paleker at the University of Florida, Professor Mostert in the Topclass Programme of the Universities of Radboud Nijmegen and Groningen, and Associate Professor Scott at the University of Oxford. Prof Barnard-Naudè was also appointed as Honorary Research Fellow in the Birkbeck Institute for Humanities, University of London.

Departmental Statistics

Permanent and long-term contract staff

Emeritus Professor	2
Professors	6
Associate Professors	3
Senior Lecturers	4
Lecturers	1
Admin and Clerical Staff	2
Total	18

Students

LLB	511
Masters	6
PhD	9
Total	526

** These numbers generated from Peoplesoft course numbers for 2012.*

RESEARCH FIELDS AND STAFF
Professor and Head of Department

PROFESSOR T. NAUDÉ
Law of Contract; Consumer Protection

Professors

PROFESSOR A.J. BARNARD-NAUDÉ
Jurisprudence; Legal Theory

PROFESSOR A.G. FAGAN
Law of Delict; Jurisprudence; Constitutional Theory

PROFESSOR C. HIMONGA
African Customary Law

PROFESSOR D.B. HUTCHISON
Law of Contract; Law of Delict

Emeritus Professors

EMERITUS PROFESSOR W. DE VOS SC
Unjustified Enrichment; Legal History

EMERITUS PROFESSOR I. LEEMAN
Copyright Law

Honorary Research Associate

ASSOCIATE PROFESSOR M.L. HEWETT
South African and European Legal History

Distinguished visitors

PROFESSOR R. EVANS-JONES
University of Aberdeen, Scotland

Senior Lecturers

DR A. BARRATT
Law of Persons and Marriage; Legal History; Intellectual Property Law

DR L. GREENBAUM
Legal Education; Legal Writing.

DR SINDISO MNISI-WEEKS
African Customary Law

DR ALISTAIR PRICE
Law of Delict; Jurisprudence

Lecturers

MS SALONA LUTCHMAN
Law of Succession

PROFESSOR H. MOSTERT
Law of Property; Land Law; Mineral and Petroleum Law

ASSOCIATE PROFESSOR M. PALEKER
Law of Succession; Civil Procedure

ASSOCIATE PROFESSOR A. POPE
Law of Property; Bio-ethics; Customary Law; Family Law

ASSOCIATE PROFESSOR H. SCOTT
Unjustified Enrichment; Law of Delict; Legal History

Administrators

MRS. N. CAMPBELL
Administrative Officer
LLB Intermediate/Final Year

MRS. F. MOHAMED
Senior Secretary
LLB Pre-liminary Undergraduate/Postgraduate/LLM Courses

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Research Output

Authored books

Mostert, H. 2012. Mineral Law: Principles and Policies in Perspective. 173pp. Claremont, Cape Town: Juta & Co. Ltd. ISBN 9780702185908.

Edited books

Barratt, A. (ed) 2012. Law of Person and the Family. 448pp. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Hutchison, D.B. and Pretorius, C.J. (eds) 2012. The Law of Contract in South Africa. 2nd edition. South Africa: Oxford University Press Southern Africa. ISBN 9780199055111.

Mostert, H. and Bennett, T. (eds) 2012. Pluralism and Development: Studies in Access to Property in Africa. Cape Town: Juta Press. ISBN: 9780702195327. Also published in journal form as Acta Juridica 2011: Pluralism and Development: Studies in Access to Property in Africa.

Chapters in books

Barnard-Naude, A.J. 2012. Adjudication, interpretation and dispute resolution. In T. Humby and L. Kotze (eds), Introduction to Law and Legal Skills in South Africa, pp.185-214. Goodwood, CPT: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780195994636.

Barnard-Naude, A.J. 2012. The legislative process and the interpretation of statutes. In T. Humby and L. Kotze (eds), Introduction to Law and Legal Skills in South Africa, pp. 169-184. Goodwood, CPT: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780195994636.

Barnard-Naude, A.J. 2012. The post-apartheid legal order. In T. Humby and L. Kotze (eds), Introduction to Law and Legal Skills in South Africa, pp. 11-43. Goodwood, CPT: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780195994636.

Barratt, A. and Domingo, W. 2012. Children after divorce. In A. Barratt (ed.), Law of Person and the Family, pp. 360-374. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Customary marriages. In A. Barratt (ed), Law of Person and the Family, pp. 375-392. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Dissolution of civil marriage. In A. Barratt (ed), Law of Person and the Family, pp. 317-323. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Domicile. In A. Barratt (ed), Law of Person and the Family, pp. 116-130. 2012. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Economic consequences of divorce. In A. Barratt (ed), Law of Person and the Family, pp. 335-359. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Grounds for divorce. In A. Barratt (ed), Law of Person and the Family, pp. 324-334. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Introduction. In A. Barratt (ed), Law of Person and the Family, pp. 3-5. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. and Domingo, W. 2012. Introduction: family law in 21st century South Africa. In A. Barratt (ed), Law of Person and the Family, pp. 161-176. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Marital property. In A. Barratt (ed), Law of Person and the Family, pp. 276-316. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Minority: how age affects status and capacity. In A. Barratt (ed), Law of Person and the Family, pp. 38-78. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Personal consequences of civil marriage. In A. Barratt (ed), Law of Person and the Family, pp. 255-276. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. and Denson, R. 2012. Religious marriages. In A. Barratt (ed), Law of Person and the Family, pp. 393-411. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Requirements of civil marriage. In A. Barratt (ed), Law of Person and the Family, pp. 232-246. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Barratt, A. 2012. Through the looking glass: defining words and concepts in law. In A. Barratt (ed), Law of Person and the Family, pp. 6-21. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Collier, D., Ncube, C.B. and Schonwetter, T. 2012. Intellectual property. In M.A. Fouche (ed), Legal Principles of Contracts and Commercial Law, pp. 289-306. 7th edition. Cape Town, South Africa: LexisNexis. ISBN 9780409049459.

Domingo, W. and Barratt, A. 2012. Parent and child. In A. Barratt (ed), Law of Person and the Family, pp. 177-206. Pinelands, Cape Town: Pearson Education Limited. ISBN 9781775780427.

Fagan, A. 2012. Cause in fact. In D. Visser and M. Loubser (eds), Thinking about Law: Essays for Tony Honore, pp. 50-68.Cape Town: SiberInk. ISBN 9781920025380.

Hawthorne, L. and Hutchison, D.B. 2012. Offer and acceptance. In D. Hutchison and C.-J. Pretorius (eds), The Law of Contract in South Africa. 2nd edition, pp. 45-79. 2nd/2012. South Africa: Oxford University Press Southern Africa. ISBN 9780199055111.

Himonga, C. 2012. Constitutional rights of women under customary law in Southern Africa: dominant interventions and "old pathways". In B. Baines, D. Barak-Erez and T. Kahana (eds), Feminist Constitutionalism. Global Perspectives, pp. 317-335. New York, USA: Cambridge University Press. ISBN 9780521137799.

Himonga, C. 2012. Exploring the concept of ubuntu in the South African legal system. In U. Kischel and C. Kirchner (eds), Ideologie und Weltanschauung im Recht - Ideology in Law, pp. 1-22. Tubingen: Mohr Siebeck. ISBN 9783161519888.

Hofman, J.P. and De Jager, J. 2012. South Africa. In S. Mason (ed.), Electronic Evidence, pp. 761-796. 3rd edition. UK: LexisNexis Butterworths. ISBN 9781405779876.

Hutchison, D.B. 2012. Forms of breach. In D. Hutchison and C.-J. Pretorius (eds), The Law of Contract in South Africa, pp. 277-307. 2nd edition. South Africa: Oxford University Press Southern Africa. ISBN 9780199055111.

Hutchison, D.B. 2012. Improperly obtained consensus. In D. Hutchison and C.-J. Pretorius (eds), The Law of Contract in South Africa, pp. 113-146. 2nd edition. South Africa: Oxford University Press Southern Africa. ISBN 9780199055111.

Hutchison, D.B. 2012. The nature and basis of contract. In D. Hutchison and C.-J. Pretorius (eds), The Law of Contract in South Africa, pp. 3-41. 2nd edition. South Africa: Oxford University Press Southern Africa. ISBN 9780199055111.

Kotze, L.J., Du Plessis, A. and Barnard-Naude, A.J. 2012. Sources of law and legal authority. In T. Humby and L. Kotze (eds), Introduction to Law and Legal Skills in South Africa, pp. 121-148. Goodwood, CPT: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780195994636.

Kuschke, B. and Hutchison, D.B. 2012. Parties to contract. In D. Hutchison and C.-J. Pretorius (eds), The Law of

Contract in South Africa, pp. 219-231. 2nd edition. South Africa: Oxford University Press Southern Africa. ISBN 9780199055111.

Naude, T. 2012. Termination of obligations. In D. Hutchison and C.-J. Pretorius (eds), The Law of Contract in South Africa. Private Law 2nd Edition, pp. 375-391. 2nd/2012. South Africa: Oxford University Press Southern Africa. ISBN 978019-9055111.

Naude, T. and De Stadler, E. 2012. The Consumer Protection Act 68 of 2008. In D. Hutchison and C.-J. Pretorius (eds), The Law of Contract in South Africa, pp. 431-462. 2nd edition. South Africa: Oxford University Press Southern Africa. ISBN 9780199055111.

Paleker, M. 2012. Capacity to inherit. In J. Jamneck and C. Rautenbach (eds), The Law of Succession in South Africa, pp. 99-114. 2nd edition. South Africa: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780199045426.

Paleker, M. 2012. Fact- and truth-finding in South African civil procedure. In C.H. van Rhee and A. Uzelac (eds), Truth and Efficiency in Civil Litigation: Fundamental Aspects of Fact-Finding and Evidence-Taking in a Comparative Context, pp. 189-227. Antwerp: Intersentia. ISBN 9781780681337.

Paleker, M. 2012. Interpretation of wills. In J. Jamneck and C. Rautenbach (eds), The Law of Succession in South Africa, pp. 211-230. 2nd edition. South Africa: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780199045426.

Paleker, M. 2012. Intestate succession. In J. Jamneck and C. Rautenbach (eds), The Law of Succession in South Africa, pp. 21-42. 2nd edition. South Africa: Oxford University Press Southern Africa (Pty) Ltd. ISBN 9780199045426.

Price, A.M. 2012. The content and justification of rationality review. In S. Woolman and D. Bilchitz (eds), Is this Seat Taken? Conversations at the Bar, the Bench and the Academy about the South African Constitution, pp. 37-73. Cape Town, SA: Pretoria University Law Press (PULP). ISBN 9781920538071.

Articles in Peer-reviewed Journals

Barnard-Naude, A.J. 2012. "A law of impurity or a principle of contamination": poetry's resistance. Stellenbosch Law Review, 2012(3): 462-475.

Barnard-Naude, A.J. 2012. Die denker as digter, die digter as denker: D.J. Opperman, N.P. Van Wyk Louw en die digkuns/filosofie-debat in die Afrikaanse letterkunde (Deel 1). LitNet Akademies, 9(1): 144-180.

Barnard-Naude, A.J. 2012. Die denker as digter, die digter as denker: D.J. Opperman, N.P. Van Wyk Louw en die digkuns/filosofie-debat in die Afrikaanse letterkunde (Deel 2). LitNet Akademies, 9(1): 181-207.

Barnard-Naude, A.J. and De Vos, P. 2012. Die politiek van die estetiese in n postkoloniale konteks: menswaardigheid en vryheid van uitdrukking in die debat rondom Brett Murray se skildery The Spear. LitNet Akademies, 9(2): 176-201.

Bennett, T.W. and Mostert, H. 2012. Access to property in Africa: an introductory survey. Acta Juridica, 1(2011): 1-2.

Fagan, A. 2012. A straw man, three red herrings, and a closet rule-worshipper – a rejoinder to Davis JP. South African Law Journal, 129(4): 788-798.

Fagan, A. 2012. The German origins of a South African dogma about delict. Rabels Zeitschrift fnr AuslSndisches und Internationales Privatrecht, 76(4): 967-993.

Greenbaum, L. 2012. Current issues in legal education: a comparative review. Stellenbosch Law Review, 23(1): 16-39.

Greenbaum, L. 2012. Experiencing the South African undergraduate law curriculum. De Jure, 1(45): 104-124.

Himonga, C. 2011. Taking the gap - 'living law land grabbing' in the context of customary succession laws in Southern Africa. Acta Juridica, 1(2011): 114-139.

Jordaan, D. 2012. Autologous stem cell therapy: an analysis of the South African regulatory regime. South African Journal on Human Rights, 28(2012): 31-54.

Jordaan, D. 2012. Regulatory crackdown on stem cell therapy: what would the position be in South Africa? SAMJ South African Medical Journal, 102(4): 219-220.

Naude, T. 2011. The consumer's right to safe, good quality goods and the implied warranty of quality under sections 55 and 56 of the consumer protection act 68 of 2008. SA Mercantile Law, 23(2011): 336-351.

Naude, T. 2012. The protection of low-income consumers under the South African Consumer Protection Act 68 of 2008. Zeitschrift Fur Europaisches Unternehmen und Verbraucherrecht (Journal of European Consumer and Market Law), 1(4): 243-253.

Naude, T. 2012. The South African consumer protection act. Tijdschrift voor Consumentenrecht en Handelspraktijken / Journal of Consumer & Commercial, 2: 64-71.

Newdigate, J. 2012. The attraction of convenience: the South African ship registry predicament. SA Mercantile Law, 24(2): 194-202.

Paleker, M. 2011. Civil procedure in South Africa: the past, the present and the future. Zeitschrift fur Zivilprozess International, 16: 343-368.

Pope, A. 2011. Indigenous-law land rights: constitutional imperatives and proprietary paradoxes. Acta Juridica, 1: 308-333.

Pope, A. 2012. Ethical and legal issues regarding consent in research with adult stroke patients. Journal of Nervous and Mental Disease, 200(3): 250-254.

Price, A.M. 2012. The influence of human rights on private common law. South African Law Journal, 129: 330-374.

Scott, H. 2011. Absolute ownership and legal pluralism in Roman law: two arguments. Acta Juridica, 1: 23-34.

Scott, H. 2012. Regional digest: South Africa. Restitution Law Review, 20: 231-234.

Scott, H. and Visser, D.P. 2012. Excess baggage? Rethinking risk allocation in the Restatement (Third) of Restitution and Unjust Enrichment? Boston University Law Review, 92(3): 859-883.

Department of Public Law

(Including the Centre of Criminology; Institute of Marine and Environmental Law; Democratic Governance and Rights Unit; Law, Race and Gender Unit; and Refugee Rights Unit)

HEAD OF DEPARTMENT: PROFESSOR D.M. CHIRWA

Departmental Profile

The Department of Public Law now has 9 NRF rated researchers on staff and continues to produce high level research in various areas, including constitutional law and human rights, environmental law, criminal law (both national and international), criminal procedure, evidence, policing, land rights and labour law. 2012 was another highly productive year for this Department. Members of the Department were involved in the production of at least four books and two edited books. A large amount of book chapters and journal articles were produced.

The Department's research units – the Centre of Criminology, the Institute of Marine and Environmental Law, the Democratic Governance and Rights Unit, and the Law, Race and Gender Research Unit – apart from producing accredited research outputs, were involved in a wide range of socially responsive activities, which bolstered the Departments contribution to society.

Departmental Statistics

Permanent and long-term contract staff

Professors	11
Associate Professors	6
Senior lecturers	4
Lecturers	5
Administrative	2
Teaching and Research Assistants	6
Total	34

Honorary staff

Research Associates	1
Honorary Professors	2
Emeritus Professors	2

Students

LLB	479
Masters – Coursework and Research/MPhil	194
Postgraduate Diploma	8
Honours	8
PhD	42
Total	731

**These figures reflect actual registrations for Public Law courses and LLB courses. Where a student registers for two Public Law/LLB courses he/she was counted twice.*

Research Fields and Staff

Professor and Head of Department

PROFESSOR D.M. CHIRWA
International Human Rights; the Rights of the Child; Domestic implementation of Human Rights; Administrative Law; Social and Economic Rights

Professors

PROFESSOR T.W. BENNETT
African customary law; land rights; public and private international law

PROFESSOR J. BURCHELL
Criminal Law; Personality Rights

PROFESSOR H. CHEADLE
Labour Law; Human Rights; Constitutional Litigation; Legal Drafting

PROFESSOR H.M. CORDER
Administrative Law; the Judicial Process

PROFESSOR P. DE VOS, CLAUDE LEON FOUNDATION CHAIR IN CONSTITUTIONAL GOVERNANCE
Constitutional Law; Current issues in Constitutional Law; Governing under Constitution

PROFESSOR W. DE VOS
Criminal Procedure; Law of Evidence; Constitutional aspects of Procedure; Class
Actions

PROFESSOR L.A. FERIS
Environmental law; Human rights, Liability; Biodiversity; Climate Change; Trade and Environment

PROFESSOR J.N.K. GIBSON
Law of the Sea; Coastal Zone Law; Environmental Law

PROFESSOR J.I. GLAZEWSKI
Environmental Law; Energy Law, Antarctic, Marine Pollution Law

PROFESSOR C.M. MURRAY
Constitutional Law including Co-operative Government, Parliament, Intergovernmental Relations, Local Government, Constitution Making, and Comparative Constitutional Law

PROFESSOR P.J. SCHWIKKARD
Evidence, Criminal Procedure

PROFESSOR C. SHEARING
Governance of Security; Environmental Security

Associate Professors

ASSOCIATE PROFESSOR R. CALLAND
Accountable Government; Access to Information; Whistle Blowing Legislation; Constitutional Law; Public Ethics

ASSOCIATE PROFESSOR A.R. PATERSON
Environmental Law; Biodiversity; Protected Areas; Environmental Fiscal Reform

ASSOCIATE PROFESSOR D. SMYTHE
Law and Society (particularly the use of interdisciplinary research methods); Criminal Justice Policy; Human Rights; Violence against Women

ASSOCIATE PROFESSOR E. VAN DER SPUY
Policing (public); International Assistance to Policing in Transition; Security Sector Reform; Police Reform; Peace-keeping

Emeritus Professors

PROFESSOR D.J. DEVINE
International Law of the Sea; General Principles of International Law; Regional Integration

PROFESSOR D. VAN ZYL SMIT
Criminal Law

Honorary Professors

PROFESSOR J. DUGARD

ADVOCATE W. TRENGOVE
Honorary Research Associates

JUSTICE L.W.H. ACKERMANN
Emeritus Justice of the Constitutional Court

Senior Lecturers

MS C.H. POWELL
Constitutional Law; International Law; International Criminal law

Lecturers

MS M.C. DU PLESSIS
Social Security Law and Governance; Workers' Compensation

MS P.K. GUMEDE
Environmental Law; Alien Invasive Species, Environmental Management Agreements; African Customary Law; Marine Pollution Law

MS K. PHELPS
Constitutional Criminal Adjudication; Punishment; the Principle of Legality and Sexual Offences

MR A. TSHIVHASE
Military Justice; Criminal Procedure; Law and Regional Integration in Africa; Human Rights; Constitutional Law

Contract Staff

ASSOCIATE PROFESSOR R. MANJOO
Women's Human Rights; Violence against Women; Culture, Religion, Tradition and Human Rights

DR H. WOOLAVER
International Law, International Criminal Law

MS M. VON BROEMBSEN
Law and Poverty; Human Rights and Legal Empowerment of the Poor; the Interrelationship between the Informal Economy; Alleviation of Poverty and Law

Administrative Staff

MS D. MWAMBALA
Administrative Officer

MS R. FRANCKE
Senior Secretary

Contact Details

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Centre of Criminology

DIRECTOR: PROFESSOR C. SHEARING

Centre profile

The Centre is a niche research unit within the Faculty of Law at the University of Cape Town. Our research and analysis in 2012 was organised around three principal foci, namely, developments in policing; developments in penal policy and the emergence of new environmental risks and responses to them. A uniting theme is the concern to ensure that the programmes contribute to both theory development and to policy development and implementation.

The Centre's research programme builds on established arenas within Criminology and established strengths within the Centre of Criminology and is stretching the boundaries of Criminology in ways that will enable it to recognise and respond to the changing international and local risk landscapes.

Research on policing at the Centre of Criminology is concerned both with public police and private policing developments in South Africa and in transitional contexts, particularly in Africa.

Centre Statistics

Permanent and long-term contract staff

Professors	1
Associate Professors	1
Senior Lecturer	1
Administrative Staff	2
Research Staff	4
Honorary Research Associates	3
Total	12

Research Fields and Staff

Permanent Staff

PROFESSOR C. SHEARING
Governance of Physical and Environmental Security

ASSOCIATE PROFESSOR E. VAN DER SPUY
Policing (public); International Assistance to Policing in Transition; Security Sector Reform; Police Reform; Peace-keeping

MS. J. BERG, SENIOR LECTURER,
Governance of Security; Plural Policing; Policing Accountability

Honorary Research Associates

DR L. LAZARUS
lecturer at St Anne's College, University of Oxford

C. CULLINAN
Director, EnAct International, Practising Environmental Attorney

ASSOCIATE PROFESSOR J. FROESTAD
Institute of Administration and Organization Theory, University of Bergen

Research Staff

MS E. ATKINS (Information Manager)
Multi-media Electronic Resource Library

MR T. HERBSTEIN
Environmental Security Programme

PROFESSOR J. CARTWRIGHT
Urban Security Programme

MS L. JOUBERT
Contract Researcher, Food Security

Administrative Staff

MS V. TOLENI
Administrative Assistant

MS T. HUME
Finance Administrator

Postdoctoral Fellow

DR G. SUPER
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Institute of Marine and Environmental Law

DIRECTOR: ASSOCIATE PROFESSOR A.R. PATERSON

Institute Profile

The Institute of Marine and Environmental Law undertakes research, teaching and consultancy in the fields of marine and environmental law both at the international level and in the context of Southern Africa. It also participates in multi-disciplinary projects in collaboration with other specialists in marine and environmental subjects. 2012 was a year of transition for the Institute with the sudden sad death of its director, Professor John Gibson. Prof Gibson will always be remembered for his significant international and domestic contribution to teaching and research in the areas of international law of the sea, coastal zone law, marine resources law and marine pollution law. In 2012, Professor Loretta Feris initiated a research project examining the right to sanitation in both international law and domestic law. To this end she delivered papers at both international and domestic conferences which will shortly be published. She also published an article on acid mine drainage and investigated the intersection between customary law and the traditional rights to fishing, which resulted in the drafting of an advisory opinion for the Eastern Cape Parks and Tourism Authority. Professor Jan Glazewski's research focussed on the areas of climate change law and marine law. In collaboration with the Centre for Law and Environment at UCL, he convened a series of workshops and co-authored a report titled Carbon Capture and Storage – Towards a Regulatory and Legal Regime for South Africa. He was also involved in collaborative projects with the ACDI (on climate change in the Berg River Region) and MA-Re (on ocean governance). Associate Professor Alexander Paterson continued with his research in the area of protected areas governance. He published several journal papers and book chapters on co-management, indigenous peoples' rights in protected areas, and legal models for promoting inclusive, participatory and human-centred legal approaches to conservation. He also continued his work with the IUCN Environmental Law Centre relating to the development of a Concept Paper on the Legal Aspects of Connectivity Conservation. Miss Peggy Gumede progressed with her research in the areas of integrated coastal management and alien invasive species regulation.

Institute Statistics

Permanent and Long-term Contract Staff

Professors	3
Associate Professors	1
Emeritus Professor	1
Lecturers	1
Honorary Research Associate	2
Administrative and Clerical Staff	1
Total	9

Students

Doctoral	9
Masters	57
Postgraduate Diploma	2
LLB – Final Year	24
Non-Law students	12
Total	104

Research Fields and Staff

Permanent Staff

PROFESSOR J.N.K. GIBSON
Law of the sea; coastal zone law; environmental law

PROFESSOR J.I. GLAZEWSKI
Environmental law; energy law; Antarctic; marine pollution law

PROFESSOR L.A. FERIS
Environmental law; human rights and environment; trade and environment; sanitation biodiversity; liability.

ASSOCIATE PROFESSOR A.R. PATERSON
Environmental Law; biodiversity; protected areas; environmental fiscal reform

MS P.K. GUMEDE
Environmental law; alien invasive species; marine pollution; integrated coastal management

Emeritus Professor

PROFESSOR D.J. DEVINE
Law of the sea; international law

Honorary Research Associate

DR J. HALL
Role of the judiciary in environmental governance

DR E.V. WITBOOI
Law of the sea; marine fisheries

Administrative Assistant

MS P. MURPHY

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Democratic Governance & Rights Unit

DIRECTOR: ASSOCIATE PROFESSOR R. CALLAND

Unit Profile

Based in the Department of Public Law at the University of Cape Town, the DGRU's mission is to advance the principles and practice of constitutional democracy in Africa. Recognising the gap between the promise of constitutionalism and the reality of daily life for the majority of Africans, the DGRU aims to stimulate fresh thinking on the intersection between rights and transformative governance. In collaboration with others, the DGRU supports the process of law and policy reform, and informs public debate, through inter-disciplinary research and advocacy.

The vision for the future is that in ten years' time, the DGRU will have a strong international reputation as a place where bold new ideas are born and then turned into working practice, providing a stimulating environment for policy-makers, academic thinkers and students alike, and an intellectual bridge between Europe and Africa on some of the most significant public law issues that face modern societies everywhere.

Unit Statistics

Associate Professors	1
Contract researchers	2
Administrator	1
Total	4

Research Fields and Staff

Permanent and Contract Staff

ASSOCIATE PROFESSOR R. CALLAND
Transparency Law & Policy, the Right of Access to Information, Whistle Blowing, Public Ethics, Political and Economic Governance, Constitutional Law, Multi-stakeholder Processes

MS T. MASENGU
Refugee Law, Women's Rights and the impact of the Protocol to the African Charter on the Rights of Women in Africa on Democracy and Governance

MR C. OXTOBY
Judicial Appointments, Judicial Ethics, Human Rights, Anti-terrorism Law and Practice in Southern and Eastern Africa and the 2010 World Cup

Administrative Staff

MS V. KARTH
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Law, Race and Gender Research Unit

DIRECTOR: ASSOCIATE PROFESSOR D. SMYTHE

Unit profile

The Law, Race and Gender Unit (LRG) has worked, since its inception in 1993, to provide legal decision-makers with an understanding of the ways in which the history and social context of our country informs the creation, application and interpretation of our laws. The Unit focuses on producing excellent empirical studies of law in context, based on participatory methodologies and collaborative partnerships. It publishes a work in progress series, called Issues in Law, Race & Gender and convene a very successful seminar series under the auspices of our Rural Women's Action Research Project.

Over the years LRG has done research, developed a range of training materials, and conducted regular participatory workshops through which actors within the justice system are able to explore issues such as gender-based violence, racial discrimination and inequality, sexuality, ethics and various associated legal problems. Current work focuses on laws and practices affecting women living under customary law, including the Traditional Courts Bill and Communal Land Rights Act, and related governance issues. Its work reflects a continued commitment to sound research underpinning evidence-based advocacy on critical legal and social issues.

LRG hosted an externship project with Stanford University's Stanford International Human Rights Clinic, receiving 3 final-year Stanford law students. They also convene the final year LLB research focus group on 'Women and the Legal System' and an LLM course on 'Sexual Offences".

LRG works on a collaborative basis with a range of external partners, including rural community based organisations (e.g. Masifunde, Masimanyane, LAMOSA, Border Rural Committee, and the Rural Women's Movement) and other academic institutions (especially UWC, Stellenbosch and Stanford University). They work particularly closely with lawyers from the Legal Resources Centre. They draw on a range of internationally recognised researchers to supplement their own research capacity where necessary.

Permanent and Contract Staff

Associate Professors	1
Senior Researchers	3
Research Support Staff	1
Contract researchers	3
Administrator	1
Total	9

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR D. SMYTHE
Law and Society (particularly the use of Interdisciplinary Research Methods), Participatory Governance, Criminal Justice Policy, Violence against Women

DR A. CLAASSENS
Culture and Human Rights; Land Rights; Women's Rights; Participatory Action Research, Traditional Leadership and Governance

DR S. MNISI
Interface between Living Customary Law and State Law, Culture and Human Rights; Institutionalisation of Traditional Authorities, particularly Traditional Courts; Succession

MS M. DE SOUZA
Researcher

MS D. JEFTHAS
Researcher

MS S. TAHERZADEH
Researcher

MR M. JARA
Accountable Government; Traditional Leadership and Governance; Land Rights; Agricultural Production

Research Support Staff

MR C. KAVURO
Resource Administrator

Administrator

MS S. WRIGHT

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Refugee Rights Unit

DIRECTOR: MS F. KHAN

Unit Profile

The Refugee Rights Unit was founded in 1998 as a Project within the UCT Law Clinic, aimed at providing legal support services to the growing number of refugees and asylum seekers in South Africa. It has since evolved into a fully independent Unit, with four main components: the Unit's Refugee Law Clinic provides direct legal services to thousands of refugees and asylum seekers in the Western Cape each year; the Unit conducts applied research in refugee law and related topics; it teaches refugee law to undergraduate law and masters' students within the Department of Public Law; and, it undertakes a significant amount of targeted advocacy and training of government officials, the judiciary, civil society partners and refugee communities.

The close relationship between the Refugee Law Clinic's practice, the Unit's teaching of Refugee and Immigration Law courses to LLB and LLM students, and the Unit's research is a unique aspect of the Unit's work. The Refugee Law Clinic provides the Unit with a close link to the practical application of refugee law in South Africa and therefore directly informs and supports the Unit's teaching activities and research outputs. Students often engage with the most current issues facing refugees and asylum seekers in South Africa, including those involved in the strategic litigations undertaken by the Refugee Law Clinic. Students are also encouraged to volunteer at the Refugee Law Clinic in order to gain practical experience and fulfil community service requirements. The Unit's teaching component includes the direct supervision of undergraduate and graduate level research work in the field of refugee and immigration law.

The Working Paper Series, (http://www.refugeerights.uct.ac.za/research/working_papers/) publishes the research reports of the Refugee Rights Unit, occasional papers of the Unit members and versions of some of the papers presented by the Refugee Rights Unit members. A key focus of the Working Papers is the promotion of the rights of refugees in South Africa and the global South.

The Refugee Rights Unit remains not only committed to directly assisting refugees and asylum seekers but also in teaching and engaging in research which can be used to promote and further the law in this area and as an advocacy tool in the future.

Unit Staff

Ms F. Khan Rights of refugees and their integration into the host country

Ms T. Schreier (Senior Attorney and Research Manager) International and human rights law, South African refugee law and analyzing refugee legislation in SADC

Unit Attorneys and Researchers

MR J. CHAPMAN
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MS M. SCHOEMAN

Unit Candidate Attorneys

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Department of Public Law

Research output

Authored books

Ackermann, L.W.H. 2012. Human Dignity: Lodestar for Equality in South Africa. 405pp. Claremont, Cape Town: Juta Law. ISBN 9780702199011.

Cartwright, J. and Shearing, C.D. 2012. Where's the Chicken? Making South Africa Safe. 140pp. Kenilworth, Cape Town: Jacana Media ISBN 9780987005830.

Holley, N., Gunningham, N. and Shearing, C.D. 2012. The New Environmental Governance. 216pp. Abingdon, Oxon: Earthscan. ISBN 9781849714105.

Witbooi, E.V. 2012. Fisheries and Sustainability. A Legal Analysis of RU and West African Agreements. 244pp. Netherlands: Martinus Nijhoff. ISBN 9789004206755.

Edited books

Bennett, T.W., Brems, E., Corradi, G. and Nijzink, L. (eds) 2012. African Perspectives on Tradition and Justice, 168pp. United Kingdom: Intersentia. ISBN 9781780680590.

Chirwa, D.M. and Nijzink, L. (eds) 2012. Accountable Government in Africa, 292pp. Cape Town, South Africa: UCT Press. ISBN 9781919895376.

Chapters in books

Amoah, J. 2012. Watch grace grow: South African customary law and constitutional law in the equality garden. In B. Baines, D. Barak-Erez and T. Kahana (eds), Feminist Constitutionalism. Global Perspectives, pp. 357-376. New York, USA: Cambridge University Press. ISBN 9780521137799.

Bennett, T.W. 2012. Access to justice and human rights in the traditional courts of sub-Saharan Africa. In T. Bennett, E. Brems, G. Corradi, L. Nijzink and M. Schotsman (eds), African Perspectives on Tradition and Justice, pp. 19-45. United Kingdom: Intersentia. ISBN 9781780680590.

Bennett, T.W. 2011. Customary law in South Africa: new constitutional order. In G. Giappichelli (ed.), Durritto Pubblico Comparato Ed Europeo 2011-iv, pp. 1315-1345. Torino: Il Tribunale di Pavia. ISBN 9788834899502.

Calland, R. and Oxtoby, C.C. 2012. In search of a theory of judicious (judicial) transparency: a response to Klaaren. In S. Woolman and D. Bilchitz (eds), Is this Seat Taken? Conversations at the Bar, the Bench and the Academy about the South African Constitution, pp. 437-446. Cape Town, SA: Pretoria University Law Press (PULP). ISBN 9781920538071.

Calland, R. and Reddy, T. 2012. Towards a framework for national climate finance governance in Africa. In H.B. Stiftung (ed.), Africa, pp. 2-26. Cape Town: Heinrich Boll Stiftung.

Chirwa, D.M. and Kapindu, R.E. 2012. Accountable governance and the role of national human rights institutions: the experience of the Malawi Human Rights Commission. In D.M. Chirwa and L. Nijzink (eds), Accountable Government in Africa, pp.140-159. Cape Town, South Africa: UCT Press. ISBN 9781919895376.

Chirwa, D.M. and Nijzink, L. 2012. Accountable government in Africa: introduction. In D.M. Chirwa and L. Nijzink (eds), Accountable Government in Africa, pp. 1-13. Cape Town, South Africa: UCT Press. ISBN 9781919895376.

Collier, D. and Glazewski, J.I. 2012. Climate change and possible legal liability: implications for the City of Cape Town. In A. Cartwright, S. Parnell, G. Oelofse, and S. Ward (ed), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 147-162. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Corder, H.M. 2011. Constitutional reform in South African history. In G. Giappichelli (ed.), Durritto Pubblico Comparato Ed Europeo 2011-iv, pp. 1346-1362. Torino: Il Tribunale di Pavia. ISBN 9788834899502.

Corder, H.M. 2012. Judicial review of parliamentary actions in South Africa: a nuanced interpretation of the separation of powers. In D.M. Chirwa and L. Nijzink (eds), Accountable Government in Africa, pp. 85-104. Cape Town, South Africa: UCT Press. ISBN 9781919895376.

De Vos, P. 2012. Balancing independence and accountability: the role of chapter 9 institutions in South Africa's constitutional democracy. In D.M. Chirwa and L. Nijzink (eds), Accountable Government in Africa, pp.160-177. Cape Town, South Africa: UCT Press. ISBN 9781919895376.

Froestad, J., Shearing, C.D., Herbstein, T.P.W. and Grimwood, S. 2012. City of Cape Town solar water heater by-law: barriers to implementation. In A. Cartwright, S. Parnell, G. Oelofse, and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 244-262. Abingdon, Oxon: Routledge. ISBN 9780 415527583.

Glazewski, J.I. and Collier, D. 2012. South Africa. In R. Lord, S. Goldberg, L. Rajamani and J. Brunnee (eds), Climate Change Liability: Transnational Law and Practice, pp. 319-347. USA: Cambridge Univ Press. ISBN 9781107673663.

Glazewski, J.I. 2012. Towards a climate-resilient and low-carbon city of Cape Town. Climate change, planning law and practice. In A. Cartwright, S. Parnell, G. Oelofse, and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp.163-181. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Manjoo, R. 2012. Women's human rights in Africa. In M. Ssenyonjo (ed.), The African Regional Human Rights System: 30 Years after the African Charter on Human and Peoples' Rights, pp. 137-154. Leiden, Netherlands: Martinus Nijhoff. ISBN 9789004218147.

Mnisi, S. and Claassens, A. 2012. Tensions between vernacular values that prioritise basic needs and state versions of customary law that contradict them: "we love these fields that feed us, but not at the expense of a person". In S. Liebenberg and G. Quinot (eds), Law and Poverty. Perspectives from South Africa and Beyond, pp. 381-402. Claremont, South Africa: Juta. ISBN 9780702194450.

Nijzink, L. 2012. Accountability compromised: floor crossing in Malawi and South Africa. In D.M. Chirwa and L. Nijzink (eds), Accountable Government in Africa, pp. 178-199. Cape Town, South Africa: UCT Press. ISBN 9781919895376.

Olugbuo, B. 2012. Thematic prosecution of international sex crimes and stigmatisation of victims and survivors: two sides of the same coin? In M. Bergsmo (ed.), Thematic Prosecution of International Sex Crimes, pp. 109-136. 2012. Beijing: TOAEP/Torkel Opsahl Academic EPublisher. ISBN 9788293081319.

Oxtoby, C.C. and Powell, C. 2012. Terrorism and governance in South Africa and eastern Africa. In V. Ramraj, M. Hor, K. Roach and G. Williams (eds), Global Anti-Terrorism Law and Policy, pp. 573-596. United States: Cambridge University Press. ISBN 9781107014671.

Powell, C. 2012. The United Nations Security Council, terrorism and the rule of law. In V. Ramraj, M. Hor, K. Roach and G. Williams (eds), Global Anti-Terrorism Law and Policy, pp. 19-43. 2nd edition. United States: Cambridge University Press. ISBN 9781107014671.

Schwikkard, P.J. 2012. A constitutional revolution in South African criminal procedure? In P. Roberts and J. Hunter (eds), Criminal Evidence and Human Rights. Reimagining Common Law Procedural Traditions, pp. 25-54. United Kingdom: Hart Publishing. ISBN 9781849461726.

Schwikkard, P.J. 2012. Evidence. In S. Woolman and M. Bishop (eds), Constitutional Law of South Africa, pp. 52:1-52:30. 2nd edition. South Africa: Juta. ISBN 97807021713080.

Stenning, P.C. and Shearing, C.D. 2011. The shifting boundaries of policing globalisation and its possibilities. In T. Newburn and J. Peay (eds), Policing, Politics, Culture and Control. Essays in Honour of Robert Reiner, pp. 265-284. United Kingdom: Hart Publishing. ISBN 9781849463003.

Articles in Peer-reviewed Journals

Bargueno, D.P. 2012. Cash for genocide? The politics of memory in the Herero case for reparations. Holocaust and Genocide Studies, 26(3): 394-424.

Barnard-Naude, A.J. and De Vos, P. 2012. Die politiek van die estetiese in n postkoloniale konteks: menswaardigheid en vryheid van uitdrukking in die debat rondom Brett Murray se skildery The Spear. LitNet Akademies, 9(2): 176-201.

Bennett, T.W. 2012. An African doctrine of equity in South African public law. Loyola Law Review, 57(2012): 709-726.

Bennett, T.W. and Jacobs, P.J. 2012. The spoor law: an anachronism or constitutional misfit? South African Journal of Criminal Justice, 25(2): 213-234.

Bennett, T.W. and Mostert, H. 2012. Access to property in Africa: an introductory survey. Acta Juridica, 1(2011): 1-2.

Burchell, J., Phelps, K. and Smythe, D.L. 2012. Jurisdiction spotlight: South Africa. Journal of Commonwealth Criminal Law, 1: 125-156.

Calland, R. and Nakhooda, N. 2012. Participatory democracy meets the hard rock of energy policy: South Africa's national integrated resource plan. Democratization, 19(5): 912-931.

Cheadle, H.M. 2012. Reception of international labour standards in common-law legal systems. Acta Juridica, 1(2012): 348-364.

Claassens, A.E. 2011. Contested power and apartheid tribal boundaries: the implications of 'living customary law' for indigenous accountability mechanisms. Acta Juridica, 1(2011): 174-209.

Concetta, L. 2012. Prison reforms in Mozambique fail to touch the ground. Accessing the experience of pre-trial detainees in Maputo. South African Crime Quarterly, 42: 29-38.

Corder, H.M. 2012. 'Building a nation': the judicial role in South Africa. Law in Context, 28(8): 60-75.

De Vos, P. 2012. Looking backward, looking forward: 'race', corrective measures, and the South African constitutional court. Transformation, 79(2012): 144-167.

De Vos, P. 2012. Proposed assessment of South Africa's constitutional court: danger or opportunity? Public Law Review, 23(2): 69-74.

De Vos, P. 2012. The past is unpredictable: race redress and remembrance in the South African constitution. South African Law Journal, 129(2012): 73-103.

De Vos, W. 2012. Is a class action a "classy act" to implement outside the ambit of the Constitution. Tydskrif Vir Die Suid-Afrikaanse Reg, 2012(4): 737-757.

Feris, L. 2012. The public trust doctrine and liability for historic water pollution in South Africa. Lead Journal, 8(1): 3-18.

Glazewski, J.I. 2011. Country/region report: South Africa. Yearbook of International Environmental Law, 20(2009): 668-687.

Glazewski, J.I. 2012. Coutry/region report: South Africa. Yearbook of International Environmental Law, 21(2010): 474-488.

Hall, J. 2010. Building the ethical dimension of the environmental right: the contribution of the South African Predator Breeders Association v The Minister of Environmental Affairs and Tourism. The South African Journal of Environmental Law and Law Policy, 17(1): 1-21.

Hubschle, A. and Van der Spuy, E. 2012. Organised crime and law enforcement in Southern Africa: the challenges confronting research. SADC Law Journal / Southern African Development Community Law Journal, 2(2): 319-334.

Kinnes, I. 2012. Contesting police governance: respect, authority and belonging in organised violent gangs in Cape Town. Acta Criminologica, 2(2012): 31-46.

Kinnes, I. and Newham, G. 2012. Why an anti-corruption agency should not be in the SAPS. South African Crime Quarterly, 39: 33-39.

Manjoo, R. 2012. The continuum of violence against women and the challenges of effective redress. International Human Rights Law Review, 1: 1-29.

Mnisi, S. 2011. Securing women's property inheritance in the context of plurality: negotiations of law and authority in Mbuzini customary courts and beyond. Acta Juridica, 1(2011): 140-173.

Mnisi, S.S. 2012. Regulating vernacular dispute resolutions forums: controversy concerning the process, substance and implications of South Africa's traditional courts bill. Oxford University Commonwealth Law Journal, 12(1): 133-156.

Mnisi, S.S. 2012. Take your rights then and sleep outside, on the "street": rights, Fora and the significance of rural South African women's choices. Wisconsin International Law Journal (WILJ), 29(2): 288-318.

Moyo, A. 2011. Sub-regional and constitutional protection of socio-economic rights: SADC, Botswana, Lesotho, Malawi, Namibia and Zimbabwe. Malawi Law Journal, 5(1/ June 2011): 75-90.

Moyo, A. 2012. Reconceptualising the 'paramountcy principle': beyond the individualistic construction of the best interests of the child. African Human Rights Law Journal, 12(1): 142-177.

Munro, R. and Bennett, T.W. 2012. Ubuntu, indaba and Baptist congregationalism. The South African Baptist Journal of Theology, 21: 24-35.

Murray, C.M. 2012. How new laws balance budgetary powers. Law Nairobi Monthly, January: 38-43.

Paterson, A.R. 2010. Co-Managing South Africa's conservation and land reform agendas: evaluating recent initiatives to resolve the unruly interface thrust upon South Africa's protected Areas. The South African Journal of Environmental Law and Law Policy, 17(2): 97-125.

Paterson, A.R. 2011. An attempt to delimit the boundary between regional and municipal planning in Lagoon Bay Lifestyle Estate (Pty) Ltd v Minister of Local Government, Environmental Affairs and Development Planning (Western Cape). The South African Journal of Environmental Law and Law Policy, 18(1): 65-75.

Paterson, A.R. 2011. The Judiciary's gritty efforts to erode the mining authority's continued aversion to cooperative environmental governance in the Cape dunes. Southern African Public Law. SA Public Law, 26(2): 567-577.

Reeves, C.J. 2012. After Glenister: the case for a New dedicated agency. South African Crime Quarterly, 39(March): 23-32.

Sang, B. 2012. Clearing some of the fog of war over combating terrorists on the frontiers of international law: targeted killing and international humanitarian law. African Yearbook of International Humanitarian Law, 1(2011): 1-46.

Sang, B. 2012. Improving the protection of human and peoples' rights in Africa: reflections from the Yogogomaye case. African Journal of International and Comparative Law/ Revue Africaine de Droit International et Compare, 20(3): 341-364.

Schwikkard, P.J. 2012. Evidence. Juta Quarterly Review, JQR Evidence 2012(1-3): [online] http://ipproducts.jutalaw.co.za/nxt/gateway.dll?f=templates&fn=default.htm&vid=Publish:10.1048/Enu.

Schwikkard, P.J. 2012. The law of evidence. Annual Survey of South African Law, 2010(2012): 954-980.

Smythe, D.L. 2012. Response: of classifications and sub-classifications: a response stone and Erasmus, and de Vos. Transformation, 79: 168-172.

Von Broembsen, M. 2012. Mediating from the margins: the role of intermediaries in facilitating participation in markets by poor producers. South African Journal of Labour Relations, 36(1): 31-53.

Ward, C.L., Artz, L.M., Berg, J.M., Boonzaier, F.A., Crawford-Browne, S.H., Dawes, A.R.L., Foster, D.H., Matzopoulos, R., Nicol, A., Seekings, J.F., Van As, A.B. and Van Der Spuy, E. 2012. Violence, violence prevention, and safety: a research agenda for South Africa. SAMJ South African Medical Journal, 102(4): 215-218.

Peer-reviewed published conference proceedings

Okafor, O.C. and Olugbuo, B. 2012. Economic and financial crimes commission and the accountability of corrupt foreign actors in Nigeria. In H. Mohammed, M.T. Aluaigba and A. Kabir (eds), Proceedings of Corruption, Governance and Development in Nigeria: Perspectives and Remedies, December 2011, Kano, Nigeria. Nigeria: Aminu Kano Centre for Democratic Research & Training. ISBN 9789788203452.

Faculty of ENGINEERING & THE BUILT ENVIRONMENT

The Faculty of Engineering & the Built Environment continues to strive towards research excellence, and to strengthen its international profile.

Dean's Report

During 2012, the faculty has seen an increase in the number of NRF-rated researchers to 46. There has also been a marked increase in publications in peer-reviewed, accredited journals, and the publication count is up from 71.36 units in 2005 to 94.67 units in 2011. With this reputation, the faculty has become the faculty of choice for a growing number of prospective postgraduate students. The number of postgraduate students registered in the faculty in 2012 totaled 1 040. Contracts from industry have steadily increased in number over the past years. In 2011, the faculty signed 299 contracts to the value of R94.2 million and in 2012 a total of 296 contracts, valued at R136.6 million, were awarded to the faculty.

In 2012, the South African National Roads Agency Limited funded a chair in Transport Studies in the Department of Civil Engineering. Eskom established two chairs, the first in the field of Energy Efficiency, housed in the Department of Mechanical Engineering, and the second in Materials Science, hosted by the Centre of Materials Engineering. In addition, the faculty has two new DST/NRF SARChI Chairs – the first in Reaction Engineering, in the Department of Chemical Engineering, and the other in Industrial Computational Fluid Dynamics, in the Department of Mechanical Engineering.

The faculty has appointed three senior research scholars to assist in the mentoring of younger staff, and also to contribute to the research agenda of the faculty. As part of the AW Mellon Foundation's Visiting and Retired Scholars Mentorship project, the African Centre for Cities hosted Professor Margo Huxley, a retiree from the University of Sheffield, in the UK. The faculty continues to create a supportive and enabling environment for research and innovation, and it is particularly encouraging to note that nine new staff members joined the Emerging Researcher Programme during 2012. The programme ensures the transfer of essential research skills from experienced researchers to those academics who are establishing a research career.

The faculty had 21 registered postdoctoral research fellows in 2012. Four postdoctoral fellowships are available annually through faculty funds, to increase the number of postdoctoral fellows in the faculty. We believe that the role of postdoctoral fellows is critical to the development of the next generation of research scholars.

PROFESSOR
FRANCIS PETERSEN
Dean of Engineering &
the Built Environment

Departments

School of Architecture, Planning and Geomatics

Department of Chemical Engineering

Department of Civil Engineering

Department of Construction Economics and Management

Department of Electrical Engineering

Department of Mechanical Engineering

Highlights from 2012

- The Centre for Materials Engineering had a Geeble 3 800 installed thanks to an NRF special equipment award. Valued at more than R10 million, the Geeble 3 800 will place the centre at the forefront of research into the performance of materials during manufacture, allowing researchers to investigate novel materials processing.
- Aurecon has committed R2 million over the next five years to support postgraduate students in the Department of Civil Engineering.
- Professor Mark Alexander, Dr Hans Beushausen, and Mike Otieno (PhD student) from the Department of Civil Engineering were awarded the Wason Medal for Materials Research from the American Concrete Institute.
- Associate Professor Harro Von Blottnitz's Environmental and Process Systems Research Group, in the Department of Chemical Engineering, was awarded a R2.5 million grant by the NRF to support research into the emerging biogas innovation sector in South Africa.
- Professor Alison Lewis from the Department of Chemical Engineering was named Distinguished Woman Scientist: Physical and Engineering Sciences at the Department of Science and Technology Distinguished Women in Science Awards.
- Joyce Mwangama, Gladwell Nganga, and Lombe Mutale received fellowships from the Department of Science and Technology for their doctoral and master's studies.
- The African Centre for Cities co-hosted a workshop with the Stockholm Resilience Centre, aimed at gathering an African perspective for inclusion in the United Nations Environment Programme Convention on Biological Diversity's Cities and Biodiversity Outlook.
- C*Change, the DST/NRF Centre of Excellence in Catalysis, hosted the Syngas Convention in association with Sasol and PetroSA. This was a first-of-its-kind convention, dedicated to synthesis gas conversion and brought together some of the world's top scientists and industry experts to build valuable international collaborations.
- Neehal Mooruth and Dr Rob van Hille, from the Department of Chemical Engineering, received the Water Institute of South Africa's award for the most outstanding contribution to industrial water technology.

The years ahead will remain exciting and demanding ones for the faculty, progressing on a journey of providing quality research output that can make an impact internationally.

DOCTORAL GRADUATIONS

M.S. AHMAD (MECHANICAL ENGINEERING)
Study of dynamic behaviour of multilayered structures subjected to blast loading
Supervised by Professor G. Nurick

O.S. AZEEZ (CHEMICAL ENGINEERING)
Supply and target-based superstructure synthesis of heat and mass exchange networks
Supervised by Associate Professor D. Fraser

L.E.K. CHALEMBA (ELECTRICAL ENGINEERING)
Topology-aware multicasting in phased mobile ad hoc networks for e-learning
Supervised by Dr A. Murgu and Professor M.E. Dlodlo

G. EVEZARD (MECHANICAL ENGINEERING)
An innovative rapid compression machine in theory and practice
Supervised by Professor A. Yates and Mr T. Cloete (International Labour Resource and Information Group)

C. GERETTO (MECHANICAL ENGINEERING)
The effects of different degrees of confinement on the deformation of square plates subjected to blast loading
Supervised by Professor G. Nurick and Dr S.C. Kim Yuen

Y. GHORBANI (CHEMICAL ENGINEERING)
On the progression of leaching from large particles in heaps
Supervised by Associate Professor J. Petersen, Dr M. Becker, Dr A. Mainza and Professor J.-P. Franzidis

M. JOHNSTONE-ROBERTSON (CHEMICAL ENGINEERING)
Influence of enzyme location and culture rheology on the optimisation of glucose oxidase production by Aspergillus niger NRRL-3 and Penicillium sp. CBS120262
Supervised by Professor S.T.L. Harrison and Professor K.G. Clarke (Stellenbosch University)

A. KOTSIOPOULOS (CHEMICAL ENGINEERING)
Development of an unsteady state model for the tank bioleaching of sulphide mineral concentrates in flow reactor systems
Supervised by Dr R. Rawatlal and Emeritus Professor G. Hansford (deceased)

C.V. MADELL (ARCHITECTURE AND PLANNING)
Local economic development, business stimulation and poverty reduction in poor urban areas: the disjuncture between state policies and household survival strategies in the case of Heideveld, Cape Town
Supervised by Professor V. Watson

J.T. MARKS (MECHANICAL ENGINEERING)
Kolb interrupted: an investigation into students' experience of an experiential learning approach to entrepreneurship education
Supervised by Associate Professor B. Collier-Reed and Professor J. Case

R.P. MOGOROSI (CHEMICAL ENGINEERING)
Metal support interactions on Fe-based Fischer-Tropsch catalysts
Supervised by Professor E. van Steen

M.M.Z.E. MOHAMMED (ELECTRICAL ENGINEERING)
Automated signature generation for zero-day polymorphic worms using a double-honeynet
Supervised by Professor H.A. Chan

M.M.A. MUSLAM (ELECTRICAL ENGINEERING)
Host mobility management with identifier-locator split protocols in hierarchical and flat networks
Supervised by Professor H.A. Chan

M.J. RAPSON (ELECTRICAL ENGINEERING)
An extensible computational cochlear modelling framework
Supervised by Professor J.C. Tapson and Ms R.A. Verrinder

C. SHAW (MECHANICAL ENGINEERING)
Learning systemic management practice
Supervised by Associate Professor T. Ryan

L.C. SMITH (CHEMICAL ENGINEERING)
The effect of selected academic development programmes on the academic performance of academic development students at a South African university: An empirical analysis
Supervised by Associate Professor J. Case, Professor D.M. Fraser, Associate Professor C. van Walbeek, and Dr V. Ranchhod

A.F. UDEMANS (MECHANICAL ENGINEERING)
Business Architecture Tool (BAT): Development and assessment of a systems framework to guide organisations from concept to delivery, in terms of creating deeper and meaningful integration across processes and functions
Supervised by Associate Professor T. Ryan

A.A. VAN DER BYL (ELECTRICAL ENGINEERING)
A parallel processing framework for spectral based computations
Supervised by Professor M. Inggs and Professor R. Wilkinson (Department of Electrical Engineering, Cape Peninsula University of Technology)

PATENTS

FILED APPLICATIONS

BACON, T. AND MCNAUGHT, A.M.
Prosthesis with Underactuated Prosthetic Fingers.
PCT Patent Application PCT PCT/IB2012/056637

TOMA, V.N.
Stablised and Activated Metal Cluster Complex Based Catalysts and their Preparation.
PCT Patent Application PCT PCT/IB2012/056681

BOONZAIER, J.A., HENDRICKS, M.R. AND VICATOS, G.
Transport Distraction Apparatus.
PCT Patent Application PCT PCT/IB2012/056664

BRIJLAL, Y., JOHN, L.R. AND SIVARASU, S.
Hand Exoskeleton.
Provisional Patent Application South Africa 2012/08238

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound. National Phase Patent Application China 201080052708.1

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound. National Phase Patent Application Europe 10818478.9

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound. National Phase Patent Application Japan 2012-530349

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound. National Phase Patent Application South Africa 2012/02288

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound. National Phase Patent Application United States 13/497,483

CLAEYS, M.C.M.
Compression Seal Fitting for Tubes and Other Elongate Elements. Provisional Patent Application South Africa 2012/04359

CLAEYS, M.C.M. AND FISCHER, N.F.
Sample Presentation Device for Radiation-Based Analytical Equipment. Continuation-in-Part Patent Application United States 13/659,082

CLAEYS, M.C.M. AND FISCHER, N.F.
Sample Presentation Device for Radiation-Based Analytical Equipment. PCT Patent Application PCT PCT/IB2012/053438

GINSBERG, S.I.
Adjustable Picture Hanger.
Provisional Patent Application South Africa 2012/05031

GINSBERG, S.I., PARSONS, A.T. AND VICATOS, G.
An Endoprosthesis. PCT Patent Application PCT PCT/IB2012/053247

GOLOVINS, E.
A Method for Improving Channel Estimation Performance in dynamic spectrum access multicarrier systems. National Phase Patent Application China 201080055508.1

GOLOVINS, E.
A Method for Improving Channel Estimation Performance in dynamic spectrum access multicarrier systems. National Phase Patent Application South Africa 2012/03925

GOLOVINS, E.
A Method for Improving Channel Estimation Performance in dynamic spectrum access multicarrier systems.
National Phase Patent Application United States 13/514,346

LUSILAO-ZODI, G-A. AND MORRISON, N.
A System and Method for Estimating Round-Trip Time in Telecommunication Networks.
National Phase Patent Application Britain GBxPCTIB2011/000393

LUSILAO-ZODI, G-A. AND MORRISON, N.
A System and Method for Estimating Round-Trip Time in Telecommunication Networks.
National Phase Patent Application China 201180010384.X

LUSILAO-ZODI, G-A. AND MORRISON, N.
A System and Method for Estimating Round-Trip Time in Telecommunication Networks.
National Phase Patent Application South Africa 2012/05903

LUSILAO-ZODI, G-A. AND MORRISON, N.
A System and Method for Estimating Round-Trip Time in Telecommunication Networks.
National Phase Patent Application United States 13/579,253

VICATOS, G.
Rotating Hinge Knee Prosthesis.
Provisional Patent Application South Africa 2012/01641

GRANTED APPLICATIONS

BRADSHAW, D.J. AND NEWELL, A.J.H.
Sulfidisation Process and Apparatus for Enhanced Recovery of Oxidised and Surface Oxidised Base and Precious Metal Minerals.
National Phase Patent Application China 200780042453.9

BURTON, S.G., DAVIDS, L.M. AND ZWANE, E.N.
A Hydroxytyrosol Compound.
National Phase Patent Application South Africa 2012/02288

RESEARCH CONTRACTS
296

VALUE OF RESEARCH CONTRACTS
R136.62 million

NRF-RATED RESEARCHERS
46

SARCHI RESEARCH CHAIRS
6

ACCREDITED RESEARCH GROUPINGS
13

DOCTORAL GRADUATIONS
18

DHET-ACCREDITED JOURNALS
94.67 units

PEER-REVIEWED PUBLICATIONS
389

FILED PATENTS
22

GRANTED PATENTS
2

POSTGRADUATE STUDENTS
1090

POSTGRADUATE FUNDING
R29 million

POSTDOCTORAL RESEARCH FELLOWS
21

POSTDOCTORAL RESEARCH FUNDING
R3.3 million

School of Architecture, Planning & Geomatics

(Including the African Centre for Cities)

DIRECTOR: ASSOCIATE PROFESSOR ALTA STEENKAMP

School Profile

Within the School of Architecture, Planning and Geomatics, research work includes conventional research and applied research as well as creative work. This takes place within the actively teaching divisions within the School, as well as within dedicated research units. In the Architecture and Planning programmes these research endeavours include areas of enquiry such as urban design, architectural design, architectural education, digital technology, contemporary architectural theory and practice, planning theory, urban conservation, urban transport policy and urban informality.

The ethos of this School is also strongly influenced by our context: the physical context, the city, and the broader social/cultural/economic context of the region and the country. We are committed to engage with these contexts in both a meaningful and critical way, not as abstract sites for investigation but rather as peopled places to which we can respond.

The Geomatics Division within the School undertakes research in a variety of areas. These include documentation, modelling and visualization of African heritage sites, close-range photogrammetry, laser scanning of architectural structures and remote sensing of the environment; issues relating to land surveying, ownership, registration and tenure; modeling of the shape of the Earth (geoid) using gravity and satellite data, applications of GPS and modeling of datum transformations in Africa; applications of remote sensing and geographic information systems (GIS) to urban, agricultural and environmental monitoring. Spatial data infrastructure (SDI) development for integrated development planning (IDP) in sub-Saharan African cities.

African Centre for Cities

Known colloquially by the acronym 'ACC', the Centre has established an impressive international profile and reputation as a dynamic home for analysis of urban problems and policies. Its interdisciplinary brand gives the ACC huge potential to facilitate urban conversations and inquiry throughout UCT.

'CityLabs', a new model of engaged and applied research, were created to address pressing concerns in Cape Town, including flooding, urban health, densification, ecology, and climate change. New Labs on violence, culture and human settlements have been launched. The ACC partners with international research units studying food security, and women's informal employment. Honours for ACC include its (renewed) status as a UCT 'Signature Theme' and a Rockefeller Innovation Award.

School Statistics

Permanent and Long-term Contract Staff

Professors	5
Associate Professors	4
Senior Lecturers	8
Lecturers	8
Technical Support Staff	9
Administrative Staff	8
Total	42

Students

Doctoral	17
Master's	118
Honours	44
Undergraduates	347
Total	526

Research Fields and Staff

DR MAHMOUD ABDEL-GELIL
Senior Lecturer: Geomatics. Gravity data analysis, GPS, Geodesy and geophysics.

FRANCIS CARTER
Senior Lecturer: Architecture. Curriculum theory in relation to undergraduate built environment design programmes; theories of making, with reference to contemporary South African architecture; programming for new knowledge space.

ASSOCIATE PROFESSOR NICHOLAS COETZER
Architecture. Architectural design; contemporary architectural history and theory; digital technology.

ALBERTRUM CROWDER
Lecturer: Architecture. Specializes in the area of cultural heritage conservation. His research focuses on the inherent values that people associate with their environment and the possibility for this to help promote sustainable cultural heritage conservation and development.

KEVIN FELLINGHAM
Senior Lecturer: Architecture. Interdisciplinary research, practice and design.

CLINTON HINDES
Senior lecturer: Landscape Architecture. History and theory of landscape architectural design and its application to teaching and practice. Documenting the history of South African landscape architecture.

SIMON HULL
Lecturer: Geomatics. Digital photogrammetry for heritage documentation, fields of land tenure reform, disaster management using remote sensing and GIS, heritage documentation, and improving education.

FADLY ISAACS
Lecturer: Architecture. (Measuring) urban settlement quality, integrating strategic urban infrastructure investment.

TANIA KATZSCHNER
Lecturer: Planning. Education for sustainable development, sustainable urban systems, creating and nurturing educational systems that serves human needs while also protecting our resources for future generations, trans-disciplinarity and systems thinking.

SIMONE LE GRANGE
Lecturer: Architecture. Architectural design, Academic Development Lecturer.

MIKE LOUW
Lecturer: Architecture. Sustainable architecture and urbanism, architectural history and materiality.

PROFESSOR IAIN LOW
Architecture. Space and transformation; critical thinking / practice and the 're-writing' of architectural type; post apartheid South African condition: urbanism, the 'new' public realm, contemporary dwelling and architectural pedagogy.

LIANA MULLER
Lecturer: Landscape Architecture. Heritage and management of cultural landscapes, heritage landscapes and representation, specifically focussing on people's connection with the environment and landscape as an anchoring point for memory and meaning.

PROFESSOR JO NOERO
ARCHITECTURE.

DR NANCY ODENDAAL
Senior Lecturer: Planning. Relationship between Information and Communication Technology and urban transformation, metropolitan planning, planning theory and infrastructural transitions in cities of the Global South. Commissioned research on planning and transformation, land use management and planning standards.

STELLA PAPANICOLAOU
Lecturer: Design, the tension between meaning and the production of space in architectural practice and education; developing tools for critical thinking to enhance the creative process in architectural education.

PROFESSOR EDGAR PIETERSE
Director: African Centre for Cities, and holder of a DST/NRF SARChI Research Chair. Promoting new approaches to urban development in South Africa and Africa, in collaboration with partners from the global South.

PROFESSOR GORDON PIRIE
Deputy Director: African Centre for Cities. Geographer, principal research field of transportation and travel.

DR TOM SANYA
Senior Lecturer: Architecture. Sustainable Habitat Innovations (SusHI), systems theory in sustainable architecture evaluation with particular focus on Africa. Sustainability evaluation tool (emerging from PhD). Design and making Epistemology – in Search of an Afro-centric perspective via the African Informal Settlement.

DR GEORGE SITHOLE
Senior Lecturer: Laser altimetry, photogrammetry, 3D object reconstruction.

ASSOCIATE PROFESSOR JULIAN SMIT
Geomatics. Application of remote sensing, photogrammetry and geographic information systems for land and environmental management.

ASSOCIATE PROFESSOR ALTA STEENKAMP
Director: School of Architecture, Planning & Geomatics. History and theory of Southern African architecture and its relation to the global environment.

PROFESSOR VANESSA WATSON
Planning. Planning theory; governance; housing; urbanization; large city planning.

ASSOCIATE PROFESSOR JENNY WHITTAL
Geomatics. Land tenure and cadastral systems, specialising in land for the urban poor and fiscal cadastral systems and reform.

DR TANJA WINKLER
Senior Lecturer: Planning. Current research interests include critically assessing "the voice of the poor" in urban governance and public decision making processes. Ongoing research on civil society, poverty, and inner city regeneration.

Research Associates

EMERITUS PROFESSOR JULIAN COOKE
Contemporary South African architecture.

EMERITUS PROFESSOR DAVID DEWAR
Former Deputy Dean of the Faculty of Engineering and the Built Environment; BP Chair of Planning; urban structure and form; place making; informal housing; housing policy; informal economic development; public space; regional planning and development.

EMERITUS PROFESSOR LUCIEN LE GRANGE
Urban Conservation Policy; Urban Design; Mission Settlements in South Africa; Documenting modern architecture in Cape Town. Contemporary Architecture – Theory and Practice.

EMERITUS PROFESSOR FABIO TODESCHINI
Architect, city planner, urban designer, heritage practitioner.

EMERITUS PROFESSOR HEINZ RÜTHER
Digital close range and aerial photogrammetry; precise engineering surveying; geographic information systems; visualisation and 3D modeling.

EMERITUS ASSOCIATE PROFESSOR CHARLES MERRY
Earth's gravity field; global positioning system; co-ordinate transformations.

MR BARRIE GASSON
Ecologically sustainable cities; regional planning and development.

Contact Details

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Telephone and Fax:
Architecture: Tel: SA (21) 650-2374 and
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Planning: Tel: SA (21) 650-2359 and Fax: SA (21) 689-9466
Geomatics: Tel: SA (21) 650-3577 and Fax: SA (21) 650-3572
Webpage: http://www.apg.uct.ac.za

Research output

Edited books

Cartwright, A., Parnell, S., Oelofse, G. and Ward, S. (eds) 2012. Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town. 270pp. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Hindes, C., Muller, L. and Stoffberg, H. (eds) 2012. South African Landscape Architecture: A Reader. 292pp. South Africa: UNISA Press. ISBN 9781868886623.

Chapters in books

Bruyns, G. and Low, I. 2012. Formal and informal realities of urban design, civic action and agency in the South African city. In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 260-267. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Bruyns, G. and Low, I. 2012. Reappropriation. In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 290.299. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Cartwright, A., Oelofse, G., Parnell, S. and Ward, S. 2012. Climate at the city scale: the Cape Town climate think tank. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp.1-8. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Cartwright, A., Parnell, S. and Oelofse, G. 2012. Emerging lessons from the climate change think tank. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 263-270. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Cartwright, A., Cohen, B. and Liddell, D. 2012. Supporting city-scale decisions in the context of climate change: the case of the City of Cape Town. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 202-222. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Cartwright, A. and Brundrit, G. 2012. Understanding the risks to Cape Town of inundation from the sea. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 21-37. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Coetzer, N.R. 2012. Narrative Space: three post-apartheid museums reconsidered. In S. Macleod, L. Hourston Hanks and J. Hale (eds), Museum Making Narratives, Architectures, Exhibitions, pp. 63-73. UK, USA and Canada: Routledge (Taylor & Francis Group). ISBN 9780415676021.

Hindes, C. and Roos, G. 2012. Introduction and retrospective overview. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture, pp. 1-16. South Africa: UNISA Press. ISBN 9781868886746.

Hindes, C. and Roos, G. 2012. Priming for added value: how the application of the principles of landscape urbanism to the redevelopment of Culemborg 'adds value' to the designed landscape. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture: A Reader, pp. 221-232. South Africa: UNISA Press. ISBN 9781868886623.

Hindes, C. 2012. Structuring Thinking: Plotting a Way for More Active Engagement with Theory in Landscape Architecture. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture: A Reader, pp. 179-194. South Africa: UNISA Press. ISBN 9781868886623.

Jooste, M. and Lewis, Y. 2012. Opportunities and challenges in establishing a low-carbon zone in the Western Cape Province. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 99-121. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Lewis, Y. and Borchers, M. 2012. Energy Scenarios for Cape Town: exploring the implications of different energy futures for the city up to 2050. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 73-98. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Low, I. 2012. A Visual Perspective: Tradition, Culture and Education of an African Architecture and Urbanism In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 158-163. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Low, I. 2011. Design, build, research (DBR) - an insoluble problem? In L. Farber (eds), On Making: Integrating Approaches to Practice-Led Research in Art and Design, pp. 305-314. Johannesburg: Faculty of Art, Design and Architecture, University of Johannesburg. ISBN 9780620497381.

Low, I. 2012. Housing. In C.G. Crysler, S. Cairns and H. Heynen (eds), The SAGE Handbook of Architectural Theory, pp. 711-724. London: SAGE Publications. ISBN 9781412946131.

Low, I. 2011. Nostalgia for the specific southern Africa, local culture and global pressures. In Atlas Architectures of the 21st Century Africa and Middle East, pp. 14-81. Spain: Fundacion BBVA. ISBN 9788492937196.

Low, I. and Bruyns, G. 2012. Pondering (South) African urban development. oppositions and correlations. In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 270-289. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Low, I. 2012. Signs from the Margins: design as instrument of empowerment in the 'new' South Africa. In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 166-187. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Muller, L. 2012. An ecological method and cultural landscapes. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture, pp. 95-154. South Africa: UNISA Press. ISBN 9781868886746.

Muller, L. 2012. Celebration of the South African landscape. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture, pp. 155-275. South Africa: UNISA Press. ISBN 9781868886746.

Muller, L. 2012. Establishing landscape architecture in South Africa. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture, pp. 17-37. South Africa: UNISA Press. ISBN 9781868886746.

Muller, L. 2012. Excellence in design. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture, pp. 39-93. South Africa: UNISA Press. ISBN 9781868886746.

Muller, L. 2012. Historic Schools as an intangible landscape: The role of oral histories in development. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture: A Reader, pp. 95-106. South Africa: UNISA Press. ISBN 9781868886623.

Muller, L. 2012. Landscapes of memory: interpreting and presenting places and pasts. In H. Stoffberg, C. Hindes and L. Muller (eds), South African Landscape Architecture: A Reader, pp. 7-25. South Africa: UNISA Press. ISBN 9781868886623.

Pieterse, E.A. and Gurney, K. 2012. Cities, cultural policy and governance. In H. Anheier and Y.R. Isar (eds), Cities, Cultural Policy and Governance, pp. 194-203. 5th edition. UK: Sage Publications Ltd. ISBN 9781446201220.

Pieterse, E.A. 2012. Notes towards an alternative framework for urban development. In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 50-63. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Simone, A. 2012. Introduction: enacting modernity. In C.G. Crysler, S. Cairns and H. Heynen (eds), The SAGE Handbook of Architectural Theory, pp. 201-212. London: SAGE Publications. ISBN 9781412946131.

Simone, A. 2012. Reclaiming black urbanism: inventive methods for engaging urban fields in Africa and beyond. In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 30-49. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Steenkamp, A. 2012. Transformation's urban agents - South African then and now. In G. Bruyns and A. Graafland (eds), African Perspectives - [South] Africa. City, Society, Space, Literature and Architecture, pp. 188-197. Rotterdam: 010 Publishers Rotterdam. ISBN 9789064507977.

Tadross, M.A., Taylor, A. and Johnston, P.A. 2012. Understanding Cape Town's climate. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 9-20. Abingdon, Oxon: Routledge. ISBN 9780415 527583.

Tawodzera, G. 2012. Urban household vulnerability to food security and climate change: experiences from urban areas of Zimbabwe. In B. Frayne, C. Moser and G. Ziervogel (eds), Climate Change, Assets and Food Security in Southern African Cities, pp. 57-74. Abingdon, Oxon: Earthscan. ISBN 9780415696043.

Articles in Peer-reviewed Journals

Brown-Luthango, M. 2012. Community-university engagement: the Philippi CityLab in Cape Town and the challenge of collaboration across boundaries. Higher Education, 65(3):309-324.

Brown-Luthango, M., Makanga, P. and Smit, J.L. 2012. Towards effective city planning - the case of Cape Town in identifying potential housing land. Urban Forum, July 2012: 1-15.

Dewar, D. and Louw, P. 2012. J'Accuse: the professions concerned with the built environment. Architecture South Africa: Journal of the South African Institute of Architects, Sept/Oct: 54-60.

Earle, L. 2012. From insurgent to transgressive citizenship: housing, social movements and the politics of rights in Sao Paulo. Journal of Latin American Studies, 44(1): 97-126.

El-Gelil, A., Pagiatakis, S. and El-Rabbany, A. 2012. On the potential of least squares response method for the calibration of superconducting gravimeters. International Journal of Geophysics, 2012: 1-11.

Farrell, L.A.F., Hamann, R. and Mackres, E.B.M. 2012. A clash of cultures (and lawyers): Anglo Platinum and mine-affected communities in Limpopo Province, South Africa. Resources Policy, 37: 194-204.

Govender, I., Matzopoulos, R.G., Makanga, P. and Corrigall, J. 2012. Piloting a trauma surveillance tool for primary healthcare emergency centres. SAMJ South African Medical Journal, 102(5): 303-306.

Graham, M. and Ernstson, H. 2012. Co-management at the fringes: examining stakeholder perspectives at Macassar Dunes, Cape Town, South Africa - at the Intersection of high biodiversity, urban poverty, and inequality. Ecology and Society, 17(3): (1-18).

Lawhon, M. 2012. Contesting power, trust and legitimacy in the South African e-waste transition. Policy Sciences, 45(1): 69-86.

Lawhon, M. 2012. Relational power in the governance of a South African e-waste transition. Environment and Planning A, 44: 954-971.

Lawhon, M. and Chion, M. 2012. Rooted cosmopolitanism: spaces of multiplicity in Cusco, Peru. International Journal of Urban and Regional Research, 36(3): 539-553.

Lawhon, M. and Murphy, JT. 2012. Socio-technical regimes and sustainability transitions: Insights from political ecology. Progress in Human Geography, 36(3): 354-378.

Musungu, K., Motala, S. and Smit, J.L. 2012. Using multi-criteria evaluation and GIS for flood risk analysis in informal settlements of Cape Town: the case of graveyard pond. South African Journal of Geomatics, 1(1): 77-91.

Odendaal, N. 2012. Reality check: planning education in the African urban century. Cities, 29: 174-182.

Parnell, S. and Robinson, J. 2012. (Re)Theorizing cities from the global south: looking beyond neoliberalism. Urban Geography, 33(4): 593-617.

Ruther, H., Held, C.O., Bhurtha, R., Schroeder, R. and Wessels, S. 2012. From point cloud to textured model, the Zamani laser scanning pipeline in heritage documentation. South African Journal of Geomatics, 1(1): 44-59.

Ruther, H., Held, C.O., Bhurtha, R., Schroeder, R. and Wessels, S. 2012. Challenges in heritage documentation with terrestrial laser scanning. Photogrammetric Engineering and Remote Sensing, 78(4): 309-316.

Ruther, H., Smit, J.L. and Kamamba, D. 2012. A comparison of close-range photogrammetry to terrestrial laser scanning for heritage documentation. South African Journal of Geomatics, 1(2): 149-162.

Sanya, T. 2012. Sustainable architecture evaluation method in an African context: transgressing discipline boundaries with a systems approach. Sustainability Science, 7: 55-65.

Sanya, T. 2012. Sustainable Architecture: A fresh vision or mere nostalgia? Architecture South Africa: Journal of the South African Institute of Architects, March/April 2012: 08-11.

Simone, A. and Rao, V. 2012. Securing the majority: living through uncertainty in Jakarta. International Journal of Urban and Regional Research, 36(2): 315-335.

Sithole, G. and Mapurisa, W. 2012. 3D object segmentation of point clouds using profiling techniques. South African Journal of Geomatics, 1: 60-76.

Smit, W. and Parnell, S. 2012. Urban sustainability and human health: an African perspective. Current Opinion in Environmental Sustainability, 4: 443-450.

Watson, V.J. and Odendaal, N. 2012. Changing planning education in Africa: the role of the association of African planning schools. Journal of Planning Education and Research, 33(1): 96-107.

Winkler, T.A. 2012. Between economic efficacy and social justice: exposing the ethico-politics of planning. Cities, 29: 166-173.

Winkler, T.A. 2012. Why won't downtown Johannesburg 'regenerate'? reassessing Hillbrow as a case example. Urban Forum, October 2012: 1-15.

Peer-reviewed published conference proceedings

Cirolia, L. 2012. Towards 'progressive' housing delivery in the Western Cape: unpacking and assessing the underlying meta-narratives. In A. Osman and C. Aigbavboa (eds), Proceedings of the Sustainable Human(e) Settlements: The Urban Challenge conference, 17-21 September 2012 Johannesburg. Johannesburg: Faculty of Art, Design and Architecture, University of Johannesburg. ISBN 9780620540698.

Duncan, P. and Smit, J.L. 2012. An investigation of automatic change detection for topographic map updating. Proceedings of International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 25 August - 1 September 2012, Melbourne Australia. Online: ISPRS. ISSN 21949034.

Ikokou, G. and Sithole, G. 2012. Multi-scale contextual classification of urban scenes from high resolution imagery. Proceedings of GISSA Ukubuzana 2012. An African Dialogue: Geomatics for Infrastructure Development and Service Delivery, 2 October, Kempton Park, Gauteng. South Africa: EE Publishers (Pty) Ltd. ISBN 9780620529136.

Letoao, N. and Smit, J.L. 2012. The use of GIS to evaluate the impact of the built environment on health in Cape Town: the case study of Philippi, "Brown's Farm". Proceedings of GISSA Ukubuzana 2012. An African Dialogue: Geomatics for Infrastructure Development and Service Delivery, 2 October, Kempton Park, Gauteng. South Africa: EE Publishers (Pty) Ltd. ISBN 9780620529136.

Rautenbach, V., Coetzee, S., Smit, J.L., du Plessis, H. and Muzondo, I.F. 2012. Identifying the target audiences, media and messages for SDI education and training in South Africa. Proceedings of GISSA Ukubuzana 2012. An African Dialogue: Geomatics for Infrastructure Development and Service Delivery, 2 October, Kempton Park, Gauteng. South Africa: EE Publishers (Pty) Ltd. ISBN 9780620529136.

Todeschini, F., Dewar, D. and Brander, A. 2012. Place, urban design and poverty: lessons from a comparison of Cape Town and Ahmedabad. Proceedings of 1st International Conference on Architecture and Urban Design (1-ICAUD), 19-21 April 2012, Tirana. Albania: Epoka University Press. ISBN 9789928135018.

Artistic works

Low, I. 2012. Digest of South African Architecture 2011.

Master's degrees (by research)

Du Plessis, K. 2012. Promoting inclusionary regeneration processes and outcomes in Woodstock, Cape Town: local actors and agencies solutions to countering market-led gentrification in their neighbourhood. Master of City and Regional Planning. 179pp. Supervised by Winkler, T.

Bosworth, R. 2012. Ruimsig informal settlement: spatial dialectics and upgrade planning. Master of City and Regional Planning. 101pp. Supervised by Winkler, T.

Department of Chemical Engineering

(Including the Centre for Bioprocess Engineering Research (CeBER), the Centre for Catalysis Research, c*change – DST-NRF Centre of Excellence in Catalysis, HySA/catalysis – National Hydrogen Catalysis Competence Centre, the Centre for Minerals Research, the Centre for Research in Engineering Education and the Crystallization and Precipitation Research Unit)

HEAD OF DEPARTMENT: PROFESSOR ALISON E LEWIS

Departmental Profile

The vision of The Department of Chemical Engineering is to be "A Beacon in Education and Research", which we aim to fulfil through our combined undergraduate and postgraduate programmes. The undergraduate programme is accredited by the Engineering Council of South Africa, whilst the undergraduate and postgraduate programmes both have national and international recognition for their high quality graduates.

Our postgraduate programme is the largest academic research activity in Chemical Engineering in Africa and is based on a strong link between fundamental research and its application to the solution of industrial and applied problems.

The research programme is focussed around five University-accredited research groupings in Bioprocessing, Catalysis, Crystallization & Precipitation, Engineering Education and Minerals Processing. The department also has strong research interests in Environmental Process Engineering and Process Modelling. The Chemical Engineering Department also hosts the DST-NRF Centre of Excellence in Catalysis, the DST Hydrogen Catalysis Centre of Competence, the South African Minerals to Metals Research Institute (SAMRI), four DST/NRF SARChI chairs: Minerals Beneficiation, Bioprocess Engineering, Nano-Materials for Catalysis and Reaction Engineering, as well as the Anglo American Platinum Chair in Minerals Processing.

Noteworthy research-related achievements in 2012

Dr Dyllon Randall, from the Crystallization and Precipitation Research Unit in the Department of Chemical Engineering, was one of three South African scientists to receive the renowned "Green Talents" sustainability prize in a competition organised by the German Federal Ministry of Education and Research in Berlin.

A first-of-its-kind convention dedicated to synthesis gas conversion - one of the key industrial technologies underpinning the South African economy - took place in Cape Town in April. The event was hosted by c*change, the Department of Science and Technology and the National Research Foundation's Centre of Excellence in Catalysis at UCT, in association with Sasol, PetroSA and other sponsors.

Professor Alison Lewis was awarded the Department of Science and Technology's Distinguished Women Scientist Award in the 2012 South African Women in Science Awards.

Dr Adeniyi Isafiade received NRF Y2 rating.

Chemical Engineering had its highest-ever number of graduating students in 2012 – 99, 25 more than in 2011, and 43 more than in 2010.

Departmental Statistics

Professors	9
Professor (contract)	1
Associate Professors	2
Senior Lecturers	5
Lecturer	1
Lecturers - Contract	1
Research Staff (permanent)	12
Research Staff (contract)	7
Technical & Scientific Staff (permanent & Long-term Contract)	24

Technical & Support Staff (contract)	15
Administrative and Clerical Staff (permanent)	20
Administrative and Clerical Staff (contract)	7
Total	104

Honorary Staff

Honorary Professor	1
Honorary Adjunct Professors	2
Total	3

Students

Doctoral	54
Master's	111
BSc(Eng)	508
Total	673

Research Fields and Staff

Permanent Academic Staff

MR PAUL BEPSWA
Centre for Minerals Research - Heuristic-based methods for precision accounting of material flows in mineral processing systems

DR MEGAN BECKER
Centre for Minerals Research, Process Mineralogy: using mineralogy to understand and predict the effect of mineralogy on minerals beneficiation (liberation, separation and disposal of valuable minerals from gangue).

MR WALTER BÖHRINGER
Centre for Catalysis Research - Acid catalysis.

DR ROALD BROSIUS
Centre for Catalysis Research - Diesel selective and gasoline/kerosene selective catalytic synthetic fuel processes; noble metal promoted zeolite catalysts for Fischer-Tropsch compatible hydrocracking catalysts; hierarchically and/or nano-structured zeolite catalysts for combined FT synthesis and fuels upgrading in micro-channel and continuously stirred tank reactors.

PROFESSOR JENNI CASE
Centre for Research in Engineering Education – Student experience of learning in science and engineering, gold catalysis.

PROFESSOR MICHAEL CLAEYS
Centre for Catalysis Research – Director DST/NRF Centre of Excellence in Catalysis (c*change), Fischer Tropsch synthesis, in-situ catalyst characterization, nano-materials.

DR KIRSTEN CORIN
Centre for Minerals Research - Mineral Processing, Flotation Chemistry: chemical interactions between reagents and minerals.

PROFESSOR DAVE DEGLON
Centre for Minerals Research and Anglo Chair - modelling of mechanical mineral flotation cells, computational fluid dynamics, hydrodynamics, gas dispersion, solids suspension.

HONORARY PROFESSOR MARK DRY
Centre for Catalysis Research - Fischer Tropsch (FT) catalytic processes, production of synthesis gas.

DR CARYN FENNER
Centre for Bioprocess Engineering Research - Production of fine chemicals and commodity bioproducts through combining research into process kinetics, product optimisation and induction. Production of affordable, modern biopharmaceuticals and chemicals; production of industrial enzymes with commercial applications; and the development and optimisation of bio-analytical procedures.

DR BELINDA MCFADZEAN
Centre for Minerals Research - Mineral processing: Flotation reagents such as collectors, frothers and depressants.

PROFESSOR JACK FLETCHER
Director of the Centre for Catalysis Research – Contract Director National Hydrogen Catalysis Competence Centre (HySA/catalysis) - catalysis by noble metals, zeolite catalysed conversion of phenol and derivatives, wax hydrocracking, shape selectivity in zeolites and molecular sieves, hydrogen processors and fuel cells.

PROFESSOR JEAN-PAUL FRANZIDIS
SA Research Chair in Minerals Beneficiation, Director: Minerals to Metals Signature Theme - Integrating and expanding capacity in minerals beneficiation research.

MR MARTIN HARRIS
Centre for Minerals Research – flotation, modelling, simulation

PROFESSOR SUE HARRISON
SA Research Chair in Bioprocess Engineering, Deputy Dean Research EBE, Director of the Centre for Bioprocess Engineering Research – Interaction of micro-organisms with the biochemical, thermal and hydrodynamic environment. Microbial community dynamics in planktonic and sessile environments. Biokinetics and metabolic modelling of the biomass and bioproduct components, applied to alkane biotechnology, human

health products, mineral bioleaching through heap and tank processes, AMD prevention and remediation, algal bioprocesses for bioenergy and fine chemicals. Bioprocesses for sustainable process engineering.

MR HILTON HEYDENRYCH
Senior Lecturer - Development of a systematic approach for the treatment of effluent water streams. Using multi-criteria evaluations and comparisons of simulated processes to develop new heuristic principles for the design of water treatment processes. Chemical engineering education: curriculum design and the analysis of throughput issues.

MR NABEEL HUSSAIN
Centre for Catalysis Research - Design and development of catalytic components and devices for low temperature fuel cells

DR ADENIYI ISAFIADE
Environmental and Process Systems Engineering – Process design and optimization.

DR PIETER LEVECQUE
Centre for Catalysis Research - Electrocatalysts for fuel cells and high throughput catalyst preparation

PROFESSOR ALISON LEWIS
Director of the Crystallization & Precipitation Research Unit – Industrial precipitation and crystallization, product and particle analysis; process control for optimised product quality; crystallization process development; aqueous chemistry modelling of speciation, thermodynamic equilibria, hydrodynamic and population balance modelling of precipitation systems; water treatment through crystallization, eutectic freeze crystallization .

MR NIELS LÜCHTERS
Centre for Catalysis Research - high throughput experimentation, parallel preparation of heterogeneous catalysts, high throughput methodology for fuel processing research.

DR AUBREY MAINZA
Centre for Minerals Research – Comminution and classification, positron emission particle tracking, discrete element method, computational fluid dynamics.

MS RETHABILE MELAMU
Environmental & Process Systems Engineering Group - waste-to-energy, specifically using a framework of waste-to-energy projects on the ground.

PROFESSOR KLAUS MÖLLER
Process Modelling and Optimisation Group – multiphase reactor modelling, separator modelling, integrated reaction – separation systems modelling, parameter estimation, modular process and flowsheet feasibility and optimisation. Centre for Catalysis Research – wax hydrocracking modelling, FT process modelling.

PROFESSOR CYRIL O'CONNOR
Director of the Centre for Minerals Research Flotation, reagent evaluation, cell design.

DR JOCHEN PETERSEN
Centre for Bioprocess Engineering Research – Hydrometallurgy, especially heap (bio) leaching of low grade minerals, heap reactor characterisation and modelling, bio-leaching processes.

DR DYLLON RANDALL
Crystallization and Precipitation Research Unit

DR RANDHIR RAWATLAL
Reactor Engineering with focus on modelling and simulation, mass transfer modelling in the activation of alkanes, multiphase flow, population balances and applications of segregation and compartment models in flow reactors for minerals bio-leaching and polymerization

DR MARCOS RODRIGUEZ PASCUAL
Crystallization and Precipitation Research Unit - Design and implementation of reactors for crystallization and precipitation processes applying thermo - fluid dynamics and non-intrusive optical techniques

MRS JEANNETTE SWEET
Centre for Minerals Research - Comminution and flotation

MRS RENE TOERIEN
Engineering Education - Chemical Engineering Schools Project: Resource material development for secondary school science teachers; science education research; schools liaison.

PROFESSOR ERIC VAN STEEN
Centre for Catalysis Research/DST-NRF Centre of Excellence in Catalysis C*Change - Fischer-Tropsch synthesis, nano-materials, molecular modelling of heterogeneous catalytic systems, reaction kinetics.

MR JACOBUS VAN DER MERWE
Engineering Education

MR ANDRIES VAN DER WESTHUIZEN
Centre for Minerals Research Comminution as used on mineral processing operations for the liberation of valuables. Applied process optimisation through plant

campaigns, mass balancing, model fitting, and simulations. Fine grinding through stirred milling.

DR ROB VAN HILLE
Centre for Bioprocess Engineering Research – Mineral biotechnology, algal biotechnology, microbial ecology, carbon cycling, sulphide chemistry and bioremediation.

ASSOCIATE PROFESSOR HARRO VON BLOTTNITZ
Environmental and Process Systems Engineering – Industrial ecology especially Life Cycle Assessment, waste management and bioenergy, for sustainable development.

DR MARK WILLIAMSON
Development and characterisation of novel sensors for use in combustion processes, computational fluid dynamic modelling of combustion systems and optimisation of heat transfer in ovens, furnaces and driers.

MRS JENNIFER WIESE
Centre for Minerals Research - Flotation chemistry

Honorary Staff

HONORARY PROFESSOR DEE BRADSHAW
Centre for Minerals Research – Process mineralogy, froth flotation including machine vision systems and chemical interactions.

HONORARY ADJUNCT PROFESSOR ALEXANDER STEWART LAMBERT

HONORARY ADJUNCT PROFESSOR DAVID WILLIAM WRIGHT

Postdoctoral Fellows

DR ABOYADE AKINWALE
LCA of syngas from co-gasification

DR MAYELI ALVAREZ-SILVA
An investigation into the role of the froth phase in the flotation of UG2 ore using a laboratory column flotation cell

DR OLUWATOSIN AZEEZ
Synthesis of heat exchanger networks involving multiple utilities

DR THERESA FELTES
Preparation and characterization of nano-materials for Fischer-Tropsch synthesis

DR MELINDA GRIFFITHS
Large scale production of spirulina

DR ROBERT HENKEL
Two-dimensional gas chromatography GCxGC-TOF, Magnometer

DR RENE LARYEA-GOLDSMITH
Thermal conversion of biomass

DR PETER MALATJI
Development of bimetallic precious metal catalysts for steam reforming of methane

DR RAMOSHIBIDU MOGOROSI
Metal solutions indicators

DR RUSHANAH MOHAMED
Membrane electrode assembly development for PEM fuel cell application

DR QILING NAIDOO
Synthesis core-shell platinum group metal electrocatalysts by different approaches

DR SUZANA ANNA SAVVI
Biological oxidation of alkanes for maximising use of this resource

DR ANGELA STOTT
Developing interactive quizzes for improving conceptual learning in science education.

International Visitors

Centre for Catalysis Research

Professor Hans Niemantsverdriet - Eindhoven University of Technology, Netherlands
Professor Guenther G. Scherer - Paul Scherrer Institut, Switzerland
Professor Calvin H Bartholomew - Brigham Young University, USA
Dr Hanene Zazoua - Technical and Scientific Research Centre of Physico-Chemical Analysis, Algeria
Dr Lerari Djahida - Technical and Scientific Research Centre of Physico-Chemical Analysis, Algeria
Dr Sanjiv Malhotra (CEO) - Oorja Protonics, USA
Professor Thomas Schmidt - ETH Zurich and Paul Scherrer Institut, Switzerland
Professor Hubert Gasteiger - Technical University Munich, Germany
Professor Graham Hutchings - Cardiff University, United Kingdom
Dr Andrew York - Cambridge University, United Kingdom
Gessie Brisard - Sherbrooke University, Canada
Professor Hubert A. Gasteiger - Technische Universität, Germany

Dr Amira Abou-Hamdan - Chemspeed Technologies AG, Switzerland
Mr Bill Massengill - Micromeritics, USA
Dr Sebastian Storck - Germany
Cordelia Gloor - Paul Scherrer Institut, Switzerland
Dr Bachari Khaldoun - Research Centre in Analytical Chemistry and Physics, Algeria

Centre for Minerals Research

Mr Okay Altun - Hacettepe University, Turkey
Mr Denise Altun - Hacettepe University,Turkey
Mr Gauti Asbjörnsson - Chalmers University of Technology, Sweden
Professor Sun Chuanyao – BGRIMM, China
Mr Benoit Claremont - Magotteaux, Belgium
Mrs Ashleigh Collins - JKMRC University of Queensland, Australia
Mr Benard de Haas - Magotteaux, Belgium
Dr Hakan Dundar - Hacettepe University, Turkey
Professor Magnus Evertsson - Chalmers University of Technology, Sweden
Professor He Fayu - BGRIMM, China
Dr Malko Hilden - JKMRC University of Queensland, Australia
Dr Erik Hulthén - Chalmers University of Technology, Sweden
Mr Paul Kay - JKMRC University of Queensland, Australia
Professor Han Long - BGRIMM, China
Mr Rodrigo M de Carvalho - Federal University of Rio de Janairo, Brazil
Dr Narasimha Mangadoddy - Indian Institute of Technology,, India
Professor Wei Mingan – BGRIMM, China
A/Professor Bertil Pålsson - Lulea Technical University, Sweden
Mr Johannes Quist - Chalmers University of Technology, Sweden
Dr Sepehr Sadrai - JKMRC University of Queensland, Australia
Dr Ray Shaw - Australia
Mr Luo Sigang - BGRIMM, China
Professor Stephen Simukanga - University of Zambia, Zambia
Professor Marcelo Tavares - Federal University of Rio de Janairo, Brazil
Dr Grant Valentine - JKMRC University of Queensland, Australia
Mr Yan Wenfa - BGRIMM, China
Dr Weiguo Xie - JKMRC University of Queensland, Australia

Centre for Bioprocess Engineering Research

Professor Jill Banfield - University of Calidfornia, USA
Professor Chris Howe - Cambridge University, UK
Professor John Villadsen - Danish University of Technology, Denmark
Dr Chris Bryan - University of Exeter, UK
Dr Peter Neubauer - Technical University of Berlin, Germany
Dr Dave Dew - Billiton, UK

Crystallization and Precipitation Research Unit

Professor Patrice Nortier - Grenoble INP, France
Mr Jim Wrubel - Newco, USA
Rudy Maliepaard - Mettler Toledo, Switzerland
Juan-Carlos Mani, Process Systems Enterprise Limited, UK

Engineering Education

Professor Vidar Gynnild - Norwegian University of Science and Technology, Norway
Anna Danielson – Cambridge University, UK

Minerals to Metals Initiative (MtM)

Professor Don McKee – Retired, University of Queensland, Australia
Professor MJ Nicol – Murdoch University, Australia
Professor JD Miller – University of Utah, USA

Resignation

Dr Sanet Minnaar, Senior Lecturer 31st October 2012

Retirement

Mr Bill Randall, Principal Scientific Officer 31st December 2012

Appointments

Mr Hilton Heydenrych, Senior Lecturer 1st January 2012
Dr Mark Williamson, Senior Lecturer 1st January 2012
Mrs Zulfa Le Riche, Senior Scientific Officer 1st September 2012

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Research Output

Chapters in books

Favish, J., Ross, D.A., Inggs, S.C., Kathard, H., Clarkson, C.P., Case, J.M., Collier-Reed, B.I. and Reid, S. 2012. Reflections on developing distinctive University of Cape Town graduate attributes. In M. Coetzee et al. (eds), Developing Student Graduateness and Employability, pp. 207-225. Randburg: Knowres Publishing. ISBN 9781869221898.

Articles in Peer-reviewed Journals

Ahmadi, A., Ranjbar, M., Schaffie, M. and Petersen, J. 2012. Kinetic modeling of bioleaching of copper sulfide concentrates in conventional and electrochemically controlled systems. Hydrometallurgy, 127-128: 16-23.

Azeez, O., Isafiade, A.J. and Fraser, D. 2012. Supply and target based superstructure synthesis of heat and mass exchanger networks. Chemical Engineering Research & Design, 90: 266-287.

Brent, G.F., Allen, D.J., Eichler, B., Petrie, J.G., Mann, J.P. and Haynes, B. 2012. Mineral carbonation as the core of an industrial symbiosis for energy-intensive minerals conversion. Journal of Industrial Ecology, 16(1): 94-104.

Bryan, C., Davis-Belmar, C.S., Van Wyk, N., Fraser, M., Dew, D.W., Rautenbach, G.F. and Harrison, S.T.L. 2012. The effect of CO_2 availability on the growth, iron oxidation and CO_2 fixation rates of pure cultures of Leptospirillum ferriphilum and Acidithiobacillus ferrooxidans. Biotechnology and Bioengineering, 109(7): 1693-1703.

Chiume, R., Minnaar, S.H., Ngoma, I.E., Bryan, C. and Harrison, S.T.L. 2012. Microbial colonisation in heaps for mineral bioleaching and the influence of irrigation rate. Minerals Engineering, 30: 156-164.

Coetzee, W., Coetzer, R.L.J. and Rawatlal, R. 2012. Response surface strategies in constructing statistical bubble flow models for the development of a novel bubble column simulation approach. Computers & Chemical Engineering, 36(1): 22-34.

Coetzee, W., Coetzer, R.L.J. and Rawatlal, R. 2012. Semianalytical bubble-flow models for the development of a novel bubble-column simulator. Industrial & Engineering Chemistry Research, 51: 7398-7409.

Cole, K.E., Buffler, A., van der Meulen, N.P., Cilliers, J.J., Franzidis, J.-P., Govender, I., Liu, C. and van Heerden, M.R. 2012. Positron emission particle tracking measurements with 50 micron tracers. Chemical Engineering Science, 75: 235-242.

Corin, K.C., Bezuidenhout, J. and O'Connor, C.T. 2012. The role of dithiophosphate as a co-collector in the flotation of platinum group mineral ore. Minerals Engineering, 36-38: 100-104.

Dey, S. and Pani, S. 2012. Effective processing of low-volatile medium coking coal fines of Indian origin using different process variables of flotation. International Journal of Coal Preparation and Utilization, 32: 253-264.

Dey, S., Parolis, L.A.S. and Yorath, G.A. 2012. Quantification of sulphydryl collector-mixture used in sulphide ore flotation. Transactions of the Indian Institute of Metals, 65(4): 387-392.

Durant, B., Farber, B.Y., Rule, C. and Mainza, A.N. 2012. Ceramic media selection for optimization of energy efficiency in IsaMills™. Chemical Engineering & Technology, 35(11): 1949-1953.

Fernandez-Torres, M.J., Randall, D.G., Melamu, R.B. and Von Blottnitz, H. 2012. A comparative life cycle assessment of eutectic freeze crystallisation and evaporative crystallisaton for the treatment of saline wastewater. Desalination, 306: 17-23.

Fischer, N., Minnermann, M., Baeumer, M., Van Steen, E.W.J. and Claeys, M.C. 2012. Metal Support Interactions in $Co_3O_4Al_2O_3$ catalysts prepared from w/o microemulsions. Catalysis Letters, 142: 830-837.

Fung, W., Claeys, M.C. and Van Steen, E.W.J. 2012. Effective utilization of the catalytically active phase: NH_3 oxidation over unsupported and supported Co_3O_4 Catalysis Letters, 142: 445-451.

Ghorbani, Y., Petersen, J., Harrison, S.T.L., Tupikina, O., Becker, M.E., Mainza, A. and Franzidis, J.-P. 2012. An experimental study of the long-term bioleaching of large sphalerite ore particles in a circulating fluid fixed-bed reactor. Hydrometallurgy, 129-130: 161-171.

Govender, E., Harrison, S.T.L. and Bryan, C. 2012. Modification of the ferric chloride assay for the spectrophotometric determination of ferric and total iron in acidic solutions containing high concentrations of copper. Minerals Engineering, 35: 46-48.

Griffiths, M., van Hille, R.P. and Harrison, S.T.L. 2012. Lipid productivity, settling potential and fatty acid profile of 11 microalgal species grown under nitrogen replete and limited conditions. Journal of Applied Phycology, 24: 989-1001.

Gudiminchi, R.K., Randall, C., Opperman, D.J., Olaofe, O., Harrison, S.T.L., Albertyn, J. and Smit, M. 2012. Whole-

cell hydroxylation of n-octane by Escherichia coli strains expressing the CYP153A6 operon. Applied Microbiology and Biotechnology, 96: 1507-1516.

Harrison, S.T.L., Stevenson, R. and Cilliers, J.J. 2012. Assessing solids concentration homogeneity in Rushton-agitated slurry reactors using electrical resistance tomography (ERT). Chemical Engineering Science, 71: 392-399.

Hauman, M.M., Saib, A.M., Moodley, D.J., Du Plessis, E., Claeys, M.C. and Van Steen, E.W.J. 2012. Re-dispersion of cobalt on a model Fischer-Tropsch catalyst during reduction-oxidation-reduction cycles. ChemCatChem, 4: 1411-1419.

Kazadi Mbamba, C., Harrison, S.T.L., Franzidis, J.-P. and Broadhurst, J.L. 2012. Mitigating acid rock drainage risks while recovering low-sulfur coal from ultrafine colliery wastes using froth flotation. Minerals Engineering, 29: 13-21.

Kotsiopoulos, A., Hansford, G.S. and Rawatlal, R. 2012. A dynamic analysis of chalcopyrite bioleaching in continuous flow reactor systems. AICHE Journal, 58(8): 2428-2440.

Langley, N., Harrison, S.T.L. and van Hille, R.P. 2012. A critical evaluation of CO_2 supplementation to algal systems by direct injection. Biochemical Engineering Journal, 68: 70-75.

Lu, Y., Wang, X., Liu, B., Liu, Y. and Yang, X. 2012. Isolation and characterization of heterotrophic nitrifying strain W1. Chinese Journal of Chemical Engineering, 20(5): 995-1002.

Luo, J., Van Tan, T.V., Conrad, O. and Vankelecom, I.F.J. 2012. 1H-1,2,4-triazole as solvent for imidazolium methanesulfonate. Physical Chemistry Chemical Physics, 14: 11441-11447.

Luo, J., Conrad, O. and Venkelecom, I.F.J. 2012. Physicochemical properties of phosphonium-based and ammonium-based protic ionic liquids. Journal of Materials Chemistry, 22: 20574-20579.

Manono, M., Corin, K.C. and Wiese, J.G. 2012. An investigation into the effect of various ions and their ionic strength on the flotation performance of a platinum bearing ore from the Merensky reef. Minerals Engineering, 36-38: 231-236.

Massey, W., Harris, M.C. and Deglon, D.A. 2012. The effect of energy input on the flotation of quartz in an oscillating grid flotation cell. Minerals Engineering, 36-38: 145-151.

McCoy, J. and Rawatlal, R. 2012. A more efficient simulator of particle size distribution in slurry phase polyolefin systems. Computers & Chemical Engineering, 36(1): 68-78.

McFadzean, B.J., Castelyn, D. and O'Connor, C.T. 2012. The effect of mixed thiol collectors on the flotation of galena. Minerals Engineering, 36-38: 211-218.

Mehlomakulu, B., Nguyen, T.T.N., Delichere, p., Van Steen, E.W.J. and Millet, J.M.M. 2012. Identification of the active species in oxidation reactions on mixed oxide catalysts: supra-surface or bulk surface species. Journal of Catalysis, 289: 1-10.

Mhlanga, S., O'Connor, C.T. and McFadzean, B.J. 2012. A study of the relative adsorption of guar onto pure minerals. Minerals Engineering, 36-38: 172-178.

Miettunen, H., Kaukonen, R., Corin, K.C., Ojala, S. and Keiski, R. 2012. Effect of reducing grinding conditions on the flotation behaviour of low-S content PGE ores. Minerals Engineering, 36-38: 195-203.

Mogashana, D., Case, J.M. and Marshall, D. 2012. What do student learning inventories really measure? A critical analysis of students' responses to the approaches to learning and studying inventory. Studies in Higher Education, 37(7): 783-792.

Mogorosi, R., Fischer, N., Claeys, M.C. and Van Steen, E.W.J. 2012. Strong-metal-support interaction by molecular design: Fe-silicate interactions in Fischer-Tropsch catalysts. Journal of Catalysis, 289: 140-150.

Mokone, T., Lewis, A.E. and van Hille, R.P. 2012. Effect of post-precipitation conditions on surface properties of colloidal metal sulphide precipitates. Hydrometallurgy, 119-120: 55-66.

Mokone, T., van Hille, R.P. and Lewis, A.E. 2012. Metal sulphides from wastewater: assessing the impact of supersaturation control strategies. Water Research, 46: 2088-2100.

Morar, S., Harris, M.C. and Bradshaw, D.J. 2012. The use of machine vision to predict flotation performance. Minerals Engineering, 36-38: 31-36.

Morar, S., Bradshaw, D.J. and Harris, M.C. 2012. The use of the froth surface lamellae burst rate as a flotation froth stability measurement. Minerals Engineering, 36-38: 152-159.

Mwase, J., Petersen, J. and Eksteen, J.J. 2012. A conceptual flowsheet of heap leaching of platinum group metals (PGMs) from a low-grade ore concentrate. Hydrometallurgy, 111-112: 129-135.

Narasimha, M., Mainza, A.N., Holtham, P. and Brennan, M. 2012. Air-core modelling for hydrocyclones operating with solids. International Journal of Mineral Processing, 102-103: 19-24.

Oyekola, O., Harrison, S.T.L. and van Hille, R.P. 2012. Effect of culture conditions on the competitive interaction between lactate oxidizers and fermenters in a biological sulfate reduction system. Bioresource Technology, 104: 616-621.

Randall, D.G., Nathoo, J., Genceli-Guner, F.E., Kramer, H., Witkamp, G. and Lewis, A.E. 2012. Determination of the metastable ice zone for a sodium sulphate system. Chemical Engineering Science, 77: 184-188.

Ras, C. and Von Blottnitz, H. 2012. A comparative life cycle assessment of process water treatment technologies at the Secunda industrial complex, South Africa. Water SA, 38(4): 549-554.

Royker, M., Case, J.M. and Van Steen, E.W.J. 2012. Platinum promotion of Au/Al_2O_3 catalysts for glycerol oxidation: activity, selectivity and deactivation. Journal of the South African Institute of Mining and Metallurgy, 7A: 577-581.

Sheridan, C.M., Petersen, J. and Rohwer, J. 2012. On modifying the Arrhenius equation to compensate for temperature changes for reactions within biological systems. Water SA, 38(1): 149-151.

Van Heerden, T., Hill, M., Case, J.M. and Van Steen, E.W.J. 2012. Characterization of Au catalysts. Journal of the South African Institute of Mining and Metallurgy, 7A: 527-533.

Wiese, J.G. and Harris, P.J. 2012. The effect of frother type and dosage on flotation performance in the presence of high depressant concentrations. Minerals Engineering, 36-38: 204-210.

Peer-reviewed published conference proceedings

Alvarez-Silva, M., Wiese, J.G. and O'Connor, C.T. 2012. An investigation into the role of the froth phase in the flotation of Ug2 ore using a laboratory column flotation cell. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Bbosa, L.S., Govender, I., Mainza, A.N., Powell, M.S. and Plint, N. 2012. Comparing power draw predictions in experimental scale tumbling mills using PEPT and DEM. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Becker, M.E., Ramonotsi, M. and Petersen, J. 2012. Effect of alteration on the mineralogy and flotation performance of PPM platinum ore. In M.A.T.M. Broekmans (ed.), Proceedings of the 10th International Congress for Applied Mineralogy (ICAM), Trondheim, Norway. Berlin: Springer Heidelberg, Germany. ISBN 978364227681.

Corin, K.C., Mishra, J. and O'Connor, C.T. 2012. Investigating the role of pulp chemistry on the floatability of a Cu-Ni sulfide ore. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Govender, I., Richter, M., Tupper, G.B. and Mainza, A.N. 2012. Granular flow modelling in tumbling mills. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Khonthu, T., Wiese, J.G. and O'Connor, C.T. 2012. Comparative study of the flotation performance of ores treated in an IsaMill and a ball mill. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Mainza, A.N., Clarement, B., de Haas, B., Keshav, P., Crafford, D. and Plitt, N. 2012. Optimisation of the ball mill circuit using a simulator in conjunction with measurements from a non-intrusive sensor. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

McFadzean, B.J., Mhlanga, S. and O'Connor, C.T. 2012. The effect of using thiol collector mixtures on the flotation of pyrite and galena. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Morar, S.H., Bradshaw, D. and Harris, M.C. 2012. Froth surface solids loading measurement and its relationship to froth stability. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Naik, L., Von Blottnitz, H. and Melamu, R.B. 2012. Onsite food waste valorisation: experiences with an anaerobic digester at a university residence. Proceedings of WasteCon 2012 - Wrestling with Waste, 9-12 October 2012, East London, South Africa. South Africa: Document Transformation Technologies cc. ISBN 9781920017576.

Narasimha, M., Mainza, A.N. and Holtham, P. 2012. Multi-component modelling concept for hydrocyclone classifier. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Ngoepe, N., Mainza, A., Govender, I., Bradshaw, D.J., Morrison, A. and Parker, D.I. 2012. Tracking the motion of particle-bubble aggregates in flotation using pept. In Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Ngoroma, F., Wiese, J.G. and Franzidis, J.-P. 2012. The effect of frother blends on the flotation performance of selected PGM bearing ores. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Powell, M.S. and Mainza, A.N. 2012. Step change - a staircase rather than a giant leap. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Smuts, E., Deglon, D.A. and Meyer, C.M. 2012. Methodology for coupled CFD-DEM modelling of particulate suspension rheology. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Sweet, J.A., Harris, M.C., Franzidis, J.-P., Plint, N. and Tustin, J. 2012. The AGDP in 2012 - nine years of exceptional graduate training. Proceedings of XXVI International Mineral Processing Congress - IMPC 2012, 24-28 September 2012, New Delhi, India. India: Technowrites Pvt Ltd. ISBN 8190171437.

Von Blottnitz, H. 2012. Three not two! How strong is the case for separate organic waste management systems in the municipal and commercial sector? Proceedings of WasteCon 2012 - Wrestling with Waste, 9-12 October 2012, East London, South Africa. South Africa: Document Transformation Technologies cc. ISBN 9781920017576.

Department of Civil Engineering

HEAD OF DEPARTMENT: ASSOCIATE PROFESSOR NEIL ARMITAGE

Departmental Profile

The Department of Civil Engineering currently has an establishment of 15 permanent full-time academic positions and 3 Research Officers, supported by a dedicated complement of 13 technical and administrative staff. It offers a four-year BSc (Civil Engineering) degree programme and several taught postgraduate programmes, as well as supervised research studies leading to Master's and Doctoral degrees. The current enrolment is about 425 undergraduate students and 210 postgraduates – giving a total of 635 students.

Postgraduate teaching and research is conducted within the framework of well-established research groups in the areas of Structural Engineering and Mechanics, Geotechnical Engineering, Concrete Materials and Technology, Hydraulic Engineering, Water Quality Engineering, Urban Water Management, Urban Engineering and Management, Transport Studies and GIS. Members of staff also interact with research groups in other departments, such as the Centre for Research in Computational and Applied Mechanics (CERECAM) and the Africa Centre for Cities (ACC). The Department has fruitful collaborative links with several local and overseas universities, and with local industry. Much of the work done by members of staff finds application in industry.

The high quality of the research undertaken by the Department is evidenced by the considerable number of peer-reviewed publications in ISI-accredited international journals produced by members of staff annually, and the international recognition that members of staff enjoy in their areas of research. Members actively participate on the committees of local professional bodies, provide expert advice to industry, and serve on the editorial and advisory boards of various international journals and conferences.

Departmental Statistics

Permanent and Long-Term Contract Staff

Professors	4
Associate Professors	7
Senior Lecturers	3
Lecturers	1
Research Officers	3
Technical Support Staff	6
Administrative Support Staff	7
TOTAL	31

Emeritus and Honorary Staff

Emeritus Associate Professors	4
Honorary Research Associates	3
TOTAL	7

Students

Doctoral	22
Master's	188
Undergraduate	425
TOTAL	635

Research Fields and Staff

Permanent and Long-Term Contract Staff

PROFESSOR MARK ALEXANDER
Concrete durability and deterioration; concrete materials; concrete service life; sustainability of concrete construction; applications to structural design and construction.

ASSOCIATE PROFESSOR NEIL ARMITAGE
Urban water management including: Water Sensitive Urban Design (WSUD), Sustainable Drainage Systems (SuDS) and the provision of water services to informal settlements.

ASSOCIATE PROFESSOR ROGER BEHRENS
Activity-based travel analysis; local movement network configuration and management; non-motorised transportation; policy analysis in the fields of urban passenger transport; land use-transport interaction.

ASSOCIATE PROFESSOR HANS BEUSHAUSEN
Concrete materials; structural engineering; repair of concrete structures.

DR KIRSTY CARDEN
Urban water management; sustainability assessment; integrated approaches geared towards sustainable urban development and water sensitive cities.

MR MICHAEL CHAMPANIS
iCOMMS: Information for Community Oriented Municipal Services. Role of ICTs in water service delivery and management.

MS FARIIDAH CHEBET
Geotechnical engineering

PROFESSOR GEORGE EKAMA
Chemical and biological wastewater treatment; physical and biological process modelling.

DR DENIS KALUMBA
Geotechnical engineering: Ground Improvement, Waste Minimisation, Foundations/Soils Interaction, Electrokinetics, Geosynthetics, and Soil Remediation

PROFESSOR PILATE MOYO
Structural health monitoring and testing.

ASSOCIATE PROFESSOR ULRIKE RIVETT
iCOMMS: Information for Community Oriented Municipal Services. Role of ICTs in water service delivery and management.

MR HERRIE SCHALEKAMP
Road-based public transport policy and regulation; institutional and operational reform processes in passenger transport systems; qualitative methods of investigation in the transport arena

DR SEBASTIAN SKATULLA
Multiscale Methods; Biomechanics; Electromechanics; Meshfree Methods; High-Performance Computing.

ASSOCIATE PROFESSOR MARIANNE VANDERSCHUREN
Assessment of urban transport systems; urban transport decision-making; transport policy.

ASSOCIATE PROFESSOR MARK VAN RYNEVELD
Urban Engineering

ASSOCIATE PROFESSOR KOBUS VAN ZYL
Hydraulics; urban water management; water demand analysis; distribution networks.

MS NICKY WOLMARANS
Academic development; teaching and learning; mechanics of solids.

PROFESSOR ALPHOSE ZINGONI
Shell structures; space structures; structural mechanics; applications of group theory; finite element modelling; vibration and structural dynamics; structural analysis and design.

Honorary Research Associates

MS LISA KANE
Transportation engineering and planning.

PROFESSOR MANU SANTHANAM
Concrete materials and technology; concrete diagnosis, service life design

MR VERNON COLLIS
Integrated structural design; sustainability solutions; concrete repair and rehabilitation

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Research output

Chapters in books

Vanderschuren, M.J.W.A. 2012. Non-motorised transport in Africa. In R. Williams (ed.), The Sustainable Transport & Mobility Handbook - Volume 3 - The Essential Guide: pp. 3-73. South Africa: alive2green. ISBN 9780620450652.

Articles in Peer-reviewed Journals

Batstone, D., Amerlinck, Y., Ekama, G.A., Goel, R., Grau, P., Johnson, B., Kaya, I., Steyer, J., Tait, S., Takcs, I., Vanrolleghem, P.A., Brouckaert, C. and Volcke, E. 2012. Towards a generalized physiochemical framework. Water Science and Technology, 66(6): 1147-1161.

Beukes, E. and Vanderschuren, M.J.W.A. 2012. A city-wide cluster analysis of contextual data to prioritize cycling infrastructure projects. Cycling Research International, 2: 192-207.

Beushausen, H., Alexander, M.G. and Ballim, Y. 2012. Early-age properties, strength development and heat of hydration of concrete containing various South African slags at different replacement ratios. Construction and Building Materials, 29: 533-540.

Beushausen, H., Masuku, C. and Moyo, P. 2012. Relaxation characteristics of cement mortar subjected to tensile strain. Materials and Structures, 45(8): 1181-1188.

Crous, P., Van Zyl, J. and Roodt, Y. 2012. The potential of graphical processing units to solve hydraulic network equations. Journal of Hydroinformatics, 14(3): 603-612.

Githachuri, K., Alexander, M.G. and Moyo, P. 2012. Durability performance of a range of marine concretes and the applicability of the South African service life prediction model. Materials and Structures, 45(1-2): 185-198.

Kobel, D. and Del Mistro, R.F. 2012. Evaluation of non-user benefits towards improvement of water and sanitation services in informal settlements. Urban Water Journal, 9(5): 347-359.

Lu, H., Ekama, G.A., Wu, D., Feng, J., van Loosdrecht, M.C.M. and Chen, G.H. 2012. SANI process realizes sustainable saline sewage treatment: steady state model-based evaluation of the pilot-scale trial of the process. Water Research, 46: 475-490.

Lu, H., Wu, D., Feng, J., Ekama, G.A., van Loosdrecht, M.C.M. and Chen, G.H. 2012. The demonstration of a novel sulfur cycle-based wastewater treatment process: sulfate reduction, autotrophic denitrification, and nitrification integrated (SANI) biological nitrogen removal process. Biotechnology and Bioengineering, 109(11): 2778-2789.

Lugoma, M.F.T., Van Zyl, J. and Ilemobade, A. 2012. The extent of on-site leakage in selected suburbs of Johannesburg. Water SA, 38(1): 127-132.

Malumbela, G., Moyo, P. and Alexander, M.G. 2012. A step towards standardising accelerated corrosion tests on laboratory reinforced concrete specimens. Journal of the South African Institution of Civil Engineering, 54(2): 78-85.

Malumbela, G., Moyo, P. and Alexander, M.G. 2012. Longitudinal strains and stiffness of RC beams under load as measures of corrosion levels. Engineering Structures, 35: 215-227.

Milandri, S., Winter, K.J., Chimphango, S.B., Armitage, N.P., Mbui, D.N., Jackson, G.E. and Liebau, V. 2012. The performance of plant species in removing nutrients from stormwater in biofiltration systems in Cape Town. Water SA, 38(5): 655-662.

Moyo, P., Sibanda, B. and Beushausen, H. 2012. Modelling and integrity assessment of shear connectors in precast cast-in-situ concrete bridges. Structural Engineering and Mechanics, 42(1): 55-72.

Muigai, R., Moyo, P. and Alexander, M.G. 2012. Durability design of reinforced concrete structures: a comparison of the use of durability indexes in the deemed-to-satisfy

approach and the full-probabilistic approach. Materials and Structures, 45(8): 1233-1244.

Otieno, M., Beushausen, H. and Alexander, M.G. 2012. Prediction of corrosion rate in reinforced concrete structures - a critical review and preliminary results. Materials and Corrosion-Werkstoffe und Korrosion, 63(9): 777-790.

Otieno, M., Beushausen, H. and Alexander, M.G. 2012. Towards incorporating the influence of cover cracking on steel corrosion in RC design codes: the concept of performance-based crack width limits. Materials and Structures, 45: 1805-1816.

Skatulla, S., Sansour, C. and Arockiarajan, A. 2012. A multiplicative approach for nonlinear electro-elasticity. Computer Methods in Applied Mechanics and Engineering, 245-246: 243-255.

Sparks, A.D.W. 2012. Formation and evolution of water menisci in unsaturated granular media. Geotechnique, 62(12): 1143-1144.

Van Zyl, J.E., le Gat, Y., Piller, O. and Walski, T. 2012. Impact of water demand parameters on the reliability of municipal storage tanks. Journal of Water Resources Planning and Management-ASCE, 138(5): 553-561.

Vanderschuren, M.J.W.A. 2012. Facts and fiction about e-tolling. Civil Engineering, 20(8): 11-13.

Vanderschuren, M.J.W.A. 2012. Real-time information for South African public transport systems. Civil Engineering, 20(8) : 22-25.

Wright, J.A., Yang, H., Rivett, U.K. and Gundry, S. 2012. Public perception of drinking water safety in South Africa 2002-2009: a repeated cross-sectional study. BMC Public Health, 12: 556(

Zingoni, A. 2012. A group-theoretic finite-difference formulation for plate eigenvalue problems. Computers & Structures, 112-113: 266-282.

Zingoni, A. 2012. Symmetry recognition in group-theoretic computational schemes for complex structural systems. Computers & Structures, 94-95: 34-44.

Peer-reviewed published conference proceedings

Adjei, E. and Behrens, R. 2012. Travel behaviour change theories and experiments: a review and synthesis. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Angelucci, M., Beushausen, H. and Alexander, M.G. 2012. Mix design optimisation - the influence of binder content on mechanical and durability properties of concrete. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Arito, P., Beushausen, H., Alexander, M.G. and Otieno, M. 2012. The use of discrete sacrificial anodes in reducing corrosion rate in chloride-contaminated RC. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Beushausen, H. 2012. The use of performance-based specifications to prevent repair of reinforced concrete structures. In M. Grantham, V. Mechtcherine and U. Schneck (eds), Proceedings of Concrete Solutions - 4th International Conference on Concrete Repair, 26-28 September 2011, Dresden. Boca Raton London New York Leiden: Taylor and Francis. ISBN 9780415616225.

Brown, D., Marsden, G. and Rivett, U.K. 2012. Water Alert!: using mobile phones to improve community perspective on drinking water quality in South Africa. In M.L. Best and E. Zegura (eds), Proceedings of the Fifth International Conference on Information Technologies and Development (ICTD2012), 12-15 March 2012, Atlanta, USA. USA: ACM. ISBN 9781450310451.

Bukenya, P., Moyo, P. and Oosthuizen, C. 2012. Modal parameter estimation from ambient vibration measurements of a dam using stochastic subspace identification methods. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Champanis, M. and Rivett, U.K. 2012. Reporting water quality - a case study of a mobile phone application for collecting data in developing countries. In M.L. Best and E. Zegura (eds), Proceedings of the Fifth International Conference on Information Technologies and Development (ICTD2012), 12-15 March 2012, Atlanta, USA. USA: ACM. ISBN 9781450310451.

Chebet, F., Kalumba, D. and Avutia, D. 2012. Investigating the effect of plastic shopping bag waste material on load bearing capacity of foundation soils in civil engineering. Proceedings of WasteCon 2012 - Wrestling with Waste, 9-12 October 2012, East London, South Africa. South Africa: Document Transformation Technologies cc ISBN 9781920017576.

Chilwesa, M. and Beushausen, H. 2012. Cracking characteristics of cement mortars subjected to restrained shrinkage. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Fisher-Jeffes, L., Carden, K., Armitage, N.P., Spiegel, A.D., Winter, K.J. and Ashley, R. 2012. Challenges facing implementation of water sensitive urban design in South Africa. Proceedings of 7th International Conference on Water Sensitive Urban Design: Building the Water Sensitive Community (WSUD Conference 2012), 21-23 February 2012, Melbourne, Australia. Melbourne: Engineers Australia. ISBN 9780858258952.

Gaya, V. and Moyo, P. 2012. Impact of mobile cranes on medium span bridges. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Jobanputra, R. and Vanderschuren, M.J.W.A. 2012. Calibration and validation of a micro-simulation model for a local arterial in Cape Town. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Jobanputra, R. and Vanderschuren, M.J.W.A. 2012. The suitability of micro-simulation models to assess the relative safety of road infrastructure for vehicles and pedestrains. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Kabani, M., Moyo, P. and Alexander, M.G. 2012. Structural reliability targets for assessment of ageing infrastructure. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Kanjee, J., Beushausen, H., Alexander, M.G. and Otieno, M. 2012. Towards incorporating the influence of cracks in the durability index testing approach. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Makha, R. and Moyo, P. 2012. Observations from the calibration of an arch dam model using ambient modal properties. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Muchaka, P. and Behrens, R. 2012. Evaluation of a 'walking bus' demonstration project in Cape Town: qualitative findings, implications and recommendations. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Muigai, R., Alexander, M.G. and Moyo, P. 2012. The role of the structural engineer in the design of low embodied energy concrete-frame buildings. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Newmark, A., Moyo, P. and Kruger, E. 2012. Repair and dynamic-based condition assessment of impact damage to a freeway overpass bridge near Mossel Bay, South Africa. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Nganga, G., Alexander, M.G. and Beushausen, H. 2012. Control of concrete cover depth of reinforced concrete structures for durability. In M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Otieno, M., Beushausen, H. and Alexander, M.G. 2012. Towards correlating natural and accelerated chloride-induced corrosion in cracked RC preliminary results. In

M.G. Alexander, H.-D. Beushausen, F. Dehn and P. Moyo (eds), Proceedings of the 3rd International Conference on Concrete Repair, Rehabilitation and Retrofitting (ICCRRR), 3-5 September 2012, Cape Town. Cape Town: CRC Press, Taylor & Francis Group. ISBN 9780415899529.

Pretorius, T. and Vanderschuren, M.J.W.A. 2012. Voluntary transport demand management: route choice study in Port Elizabeth. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Roux, Y., Del Mistro, R.F. and Mfinanga, D. 2012. Comparative analysis of public transport systems in African cities. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Salazar Ferro, P., Behrens, R. and Golub, A. 2012. Planned and paratransit service integration through trunk and feeder arrangements: an international review. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Sparks, A.D.W. 2011. Slope stability analysis: challenges in developing countries. In M.A. Shahin and H.R. Nikraz (eds), Proceedings of the International Conference on Advances in Geotechnical Engineering (ICAGE 2011), 7-9 November 2011, Perth, Australia,. Australia: Curtin University. ISBN 9780646551425.

Vanderschuren, M.J.W.A. and Awotar, Y. 2012. Advanced traveller information systems: real-time information on the Jammie shuttle service at the University of Cape Town. Proceedings of 31st Southern African Transport Conference (SATC 2012), 9-12 July 2012, Pretoria, South Africa. Pretoria, South Africa: Document Transformation Technologies cc. ISBN 9781920017538.

Ward, S., Lundy, L., Shaffer, P., Wong, T., Ashley, R., Arthur, S., Armitage, N.P., Walker, L., Brown, R., Deletic, A. and Butler, D. 2012. Water sensitive urban design in the city of the future. Proceedings of 7th International Conference on Water Sensitive Urban Design: Building the Water Sensitive Community (WSUD Conference 2012), 21-23 February 2012, Melbourne, Australia. Melbourne: Engineers Australia. ISBN 9780858258952.

Department of Construction Economics and Management

HEAD OF DEPARTMENT: PROFESSOR KEITH CATTEL

Departmental Profile

Research and allied scholarly work in the Department falls under two broad themes of property and construction. Five research groups examine issues related to infrastructure delivery, construction industry development, wellness in construction, emerging property markets, and facilities management. A number of cross cutting themes provide diversity and smaller research interest groups; these themes include sustainability, project management, human development, procurement, entrepreneurship, and teaching and learning.

Strong research links exist with academic institutions in the United Kingdom, Australia, United States of America, Central and East Africa, and India, as well as with institutions within South Africa.

During 2012, papers were presented at key international conferences in Durban, Port Elizabeth, Cape Town, Abuja, Edinburgh, Sydney, Elmina, and Montreal. In addition, a number of papers were published in peer-reviewed local and international journals, frequently with international co-authorship, underlining the Department's international profile and collaborative research philosophy.

Nationally, the Department continues its engagement with local and international organisations. These include:

- The Association of South African Quantity Surveyors on the Standard System and Chapter Committees,
- The South African Council for the Quantity Surveying Profession as Council Members and on the Education Standards and Research Sub-Committee,
- The Royal Institution of Chartered Surveyors on the World Regional Board, the Education Standards Board and on the EMEA Region Education Standards Board,
- The South African Facilities Management Association,
- The South African Property Owners Association, and,
- The Construction Industry Development Board.

Research endeavours by individual staff have been good in terms of higher degree graduates, attracting research funding, and producing research outputs. The staff received research funding from a variety of sources in 2012, namely: the University Research Committee, the National Research Foundation (NRF), and the Construction Industry Development Board. In addition, the department boasts a "B2" NRF-rated researcher.

Departmental Statistics

Permanent and Long-term Contract Staff

Professors	2
Associate Professors	2
Senior Lecturers	9
Lecturer	1
Administrative and Clerical Staff	5
Departmental Assistant	1
TOTAL	20

Students

Doctoral	6
Master's	91
Postgraduate Diploma	23
Honours	61
Undergraduate	425
TOTAL	606

Research Fields and Staff

Permanent Staff

PROFESSOR K.S. CATTELL
Head of Department: Value management; workplace facilities management; learning spaces; the impact of HIV/AIDS on the South African construction industry; corruption in the construction industry; and stress management for built environment professionals.

PROFESSOR P.A. BOWEN
Value management; project procurement; project briefing as an interpersonal communication process; the sustainability assessment of buildings; the impact of HIV/AIDS on the South African construction industry; corruption in the construction industry; and stress management for built environment professionals.

ASSOCIATE PROFESSOR K.A. MICHELL
Facilities management as a social and community enterprise in low-income areas of cities; urban facilities management; work space planning and management in buildings; learning spaces.

ASSOCIATE PROFESSOR F. VIRULY
Urban economics; property development; property feasibility studies; property and building cycles; property and the macro economy; econometric forecasting of the commercial and residential property markets; institutions and the structure of property markets.

MRS E. EDWARDES
Senior Lecturer: Education in construction studies; enhancement of skills required for construction studies.

MRS K. EVANS
Senior Lecturer: Work with the African Centre for Cities Research Laboratory; innovative financing of medium to low-income housing from the perspective of end-users; working capital, bridging finance and wholesale finance.

MR I. JAY
Senior Lecturer: Project Management – particularly in the area of project strategy and project portfolio (Programme) management. Application of value models to portfolio balancing, and enterprise wide project management structures and systems. Value Management – particular focus on client values, determination of project measures of success (success criteria) and modelling of client values.

MRS K. LE JEUNE
Senior Lecturer: Gender related issues within the Built Environment professions; green buildings; service learning and application in construction education; social responsibility and construction education.

MR J. MARKS
Senior Lecturer: Entrepreneurial thinking; skills migration, learning spaces; experiential learning; integrated learning.

MR M. MASSYN
Senior Lecturer: Skills and competencies of SME's within the construction industry; procurement systems using in housing delivery with particular emphasis on the PHP delivery system.

MR R. MCGAFFIN
Senior Lecturer: The relationship between land economics and planning; property markets and value-capture; Housing and affordable housing markets.

DR M. MOOYA
Senior Lecturer: Informal/Low income property markets; property market process; property valuation theory and practice; epistemology and methodology in property market research.

DR A. WINDAPO
Senior Lecturer: Contractor performance and development studies; housing procurement and development studies; risk and quality management processes on construction projects and health, safety and environmental issues.

DR E. HURST

Academic Development Lecturer: Academic literacies; student-centred learning and assessment; identity and agency; the sociolinguistic study of the links between language, style and identity.

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Research output

Chapters in books

Michell, K.A. 2012. FM as a social enterprise. In K. Alexander and I. Price (eds), Managing Organizational Ecologies - Space, Management and Organization, pp.167-177. New York. NY: Routledge (Taylor & Francis Group). ISBN 9780415896993.

Articles in Peer-reviewed Journals

Bowen, P.A., Edwards, P. and Cattell, K.S. 2012. Corruption in the South African construction industry: a thematic of verbatim comments from survey participants. Construction Management and Economics, October 30: 885-901.

English, P.J. and Le Jeune, K. 2012. Do professional women and tradeswomen in the South African construction industry share common employment barriers despite progressive government legislation? Journal of Professional Issues in Engineering Education and Practice, 138(2): 145-152.

English, P.J. and Bowen, P.A. 2012. Overcoming potential risks to females employed in the South African construction industry. The International Journal of Construction Management, 12(1): 37-49.

Mooya, M.M. and Cloete, C.E. 2012. Governance structures for real estate transactions: markets, networks and hierarchies in Windhoek's urban low-income settlements. Acta Structilia, 19(2): 46-73.

Vilasini, N., Neitzert, T., Rotimi, J. and Windapo, A.O. 2012. A framework for subcontractor integration in alliance contracts. International Journal of Construction Supply Chain Management, 2(1): 54.

Windapo, A.O. and Rotimi, J. 2012. Contemporary issues in building collapse and its implications for sustainable development. Buildings, 2(3): 283-299.

Peer-reviewed published conference proceedings

Bowen, P.A., Edwards, P. and Cattell, K.S. 2012. Corruption in the South African construction industry: a mixed methods study. In S. Smith (ed.), Proceedings of the Twenty-Eight Annual Conference of the Association of Researchers in Construction Management (ARCOM 2012), 3-5 September 2012, Edinburgh. Reading, UK: ARCOM. ISBN 9780955239069.

Bowen, P.A., Edwards, P. and Cattell, K.S. 2012. Corruption in the supply chain: South African construction managers' experiences. In K. Michell, P. Bowen and K. Cattell (eds), Proceedings of the Joint CIB W070, W092 & TG72 International Conference on Facilities Management, Procurement Systems and Public Private Partnership - Delivering Value to the Community, 23-25 January 2012, Cape Town, SA. Cape Town: Department of Construction Economics and Management, University of Cape Town. ISBN 9780620507592.

Docherty, M.J., Gabaraane, T. and Mabusela, N.O. 2012. The township caterer's project: experiences from the student chapter of Engineers without Borders. In N. Beute (ed.), Proceedings of the 20th Conference on the Domestic Use of Energy 2012 (DUE 2012), 3-4 April 2012, Cape Town. Cape Town, South Africa: CPUT. 9780981431178.

Ellmann, A.-M. and Allen, S. 2012. Contextualising the evaluation of the sustainability of low cost housing. In K. Michell, P. Bowen and K. Cattell (eds), Proceedings of the Joint CIB W070, W092 & TG72 International Conference on Facilities Management, Procurement Systems and Public Private Partnership - Delivering Value to the Community, 23-25 January 2012, Cape Town, SA. Cape Town: Department of Construction Economics and Management, University of Cape Town. ISBN 9780620507592.

Olatunji, A., Windapo, A.O. and Nureni, F. 2012. Examining the effect of quality management practices used on construction project performance. In S. Laryea, S.A. Agyepong, R. Leiringer and W. Hughes (eds), Proceedings of the West Africa Built Environment Research (WABER) Conference 2012, 24-26 July 2012, Abuja, Nigeria. Reading, UK: West African Built Environment Research (WABER) Conference. ISBN 9780956606013.

Pearl, R.G., Bowen, P.A. and Maritz, T. 2012. The new registration routes for candidate quantity surveyors with effect from 1 January 2013. In R.G. Pearl and J.J.P.

Verster (eds), Proceedings of 8th ICEC World Congress "Quest for Quality: Professionalism in Practice" (ICEC 2012), 23-27 June 2012, Durban, SA. Durban: ASAQS. ISBN 9780868868080.

Samarasinghe, D.A.S., Tookey, J.E., Rotimi, J. and Windapo, A.O. 2012. Clients and their professional advisers' roles in construction material purchasing functions. In K. Michell, P. Bowen and K Cattell (eds), Proceedings of the Joint CIB W070, W092 & TG72 International Conference on Facilities Management, Procurement Systems and Public Private Partnership - Delivering Value to the Community, 23-25 January 2012, Cape Town, SA. Cape Town: Department of Construction Economics and Management, University of Cape Town. ISBN 9780620507592.

Samarasinghe, D.A.S., Tookey, J.E., Rotimi, J., Windapo, A.O. and Thiruchelvam, S. 2012. Examining construction materials purchasing practices. In I. Kamardeen, S. Newton, B. Lim and M. Loosemore (eds), Proceedings of 37th AUBEA (Australasian Universities Building Educators Association) International Conference, 4-6 July 2012, Sydney, Australia. Australia: The University of New South Wales, Australia. ISBN 9780646581279.

Tucker, G., Windapo, A.O. and Cattell, K.S. 2012. Marketing strategy and small and medium-sized construction companies: establishing their strength of affiliation. In F. Emuze (ed.), Proceedings of Second NMMU Construction Management Conference, 25-27 November 2012, Port Elizabeth, SA. Port Elizabeth: Department of Construction Management, NMMU. ISBN 9781920508166.

Van Zyl, A., Worsley, L., Allen, S. and Massyn, M.W. 2012. The impact of a formal requirements specification process/ methodology on the quality and success of complex engineering projects. In R.G. Pearl and J.J.P. Verster (eds), Proceedings of 8th ICEC World Congress "Quest for Quality: Professionalism in Practice" (ICEC 2012), 23-27 June 2012, Durban, SA. Durban: ASAQS. ISBN 9780868868080.

Vilasini, N., Neitzert, T., Rotimi, J. and Windapo, A.O. 2012. Reorganization of sub-contractor management practices in alliance contracts. In K. Michell, P. Bowen and K. Cattell (eds), Proceedings of the Joint CIB W070, W092 & TG72 International Conference on Facilities Management, Procurement Systems and Public Private Partnership - Delivering Value to the Community, 23-25 January 2012, Cape Town, SA. Cape Town: Department of Construction Economics and Management, University of Cape Town. ISBN 9780620507592.

Windapo, A.O. and Cattell, K.S. 2012. Examining the trends in building material prices: Built Environment stakeholders' perspectives. Proceedings of Joint CIB International Symposium of W055, W065, W089, W118, TG76, TG78, TG81 and TG84 (Management of Construction: Research to Practice), 26-29 June 2012, Montreal, Canada. Canada, Montreal: CIB conference. ISBN 9782981335517.

Windapo, A.O. and Cloete, A. 2012. A study of briefing practices and its effect on the quality of brief documents and client/end-user satisfaction in constructed health care facilities. Proceedings of Joint CIB International Symposium of W055, W065, W089, W118, TG76, TG78, TG81 and TG84 (Management of Construction: Research to Practice), 26-29 June 2012, Montreal, Canada. Canada, Montreal: CIB conference. ISBN 9782981335517.

Windapo, A.O., Cattell, K.S. and Oyewobi, L. 2012. Business diversification and performance: evidence from south african construction firms. In F. Emuze (ed.), Proceedings of Second NMMU Construction Management Conference, 25-27 November 2012, Port Elizabeth, SA. Port Elizabeth: Department of Construction Management, NMMU. ISBN 9781920508166.

Windapo, A.O. and Oladapo, O. 2012. Determinants of construction firms' compliance with health and safety regulations in South Africa. In S. Smith (ed.), Proceedings of the Twenty-Eight Annual Conference of the Association of Researchers in Construction Management (ARCOM 2012), 3-5 September 2012, Edinburgh. Reading, UK: ARCOM. ISBN 9780955239069.

Windapo, A.O. and Rotimi, J. 2012. Determining project performance criteria and key procurement methods in Nigeria: clients' perspectives. In K. Michell, P. Bowen and K. Cattell (eds), Proceedings of the Joint CIB W070, W092 & TG72 International Conference on Facilities Management, Procurement Systems and Public Private Partnership - Delivering Value to the Community, 23-25 January 2012, Cape Town, SA. Cape Town: Department of Construction Economics and Management, University of Cape Town. ISBN 9780620507592.

Yokwana, N.R.A., Ndihokubwayo, R. and Windapo, A.O. 2012. An analysis of the impact of mentor attitude on the successful mentorship of female mentees in the South African construction industry. In G. Nani, R.K. Nkum, E. Awere, E. Kissi and E. Bamfo-Agyei (eds), Proceedings of the 1st Applied Research Conference in Africa (ARCA) 2012, 29-31 August 2012, Elmina, Ghana. Ghana: Applied Research Conference in Africa (ARCA) Conference. ISBN 9789988170516.

Yokwana, N.R.A., Ndihokubwayo, R. and Windapo, A.O. 2012. Qualitative analysis of indicators of successful women mentorship in the South African construction industry. In G. Nani, R.K. Nkum, E. Awere, E. Kissi and E. Bamfo-Agyei (eds), Proceedings of the 1st Applied Research Conference

in Africa (ARCA) 2012, 29-31 August 2012, Elmina, Ghana. Ghana: Applied Research Conference in Africa (ARCA) Conference. ISBN 9789988170516.

Department of Electrical Engineering

HEAD OF DEPARTMENT: EMERITUS PROFESSOR B.J. DOWNING

Departmental Profile

The Department of Electrical Engineering has 24 permanent academic staff, 131 MSc students and 53 PhD students. The research activities and projects are largely industrially based. The main funding sources are Eskom, Sasol, Telkom, Siemens, De Beers, Mintek, Water Research Commission, Anglo Platinum, Department of Trade and Industry, South African National Defence Force, SunSpace, IQS and the NRF.

The Department has seen a growth in the number of undergraduate students over the past 10 years, which is expected to result in higher postgraduate numbers. There are seven large research groups in the Department, which attract 80% of the postgraduate students. These are:

1. Broadband, Wireless, Communication, and Networks
2. Electrical Machines and Power Electronics
3. Image Processing and Vision Systems
4. Control and Instrumentation
5. Power Engineering
6. Remote Sensing and Radar
7. Robotics and Mechatronics

Departmental Statistics

Permanent and Long-term Contract Staff

Professors	6
Associate Professors	6
Senior Lecturers	9
Lecturers	6
Research Staff	3
Technical Support Staff	6
Administrative and Clerical Staff	6
Departmental Assistants	1
Total	43

Students

Doctoral	53
Master's	131
Undergraduates	710
Total	894

Research Fields and Staff

Permanent Staff

PROFESSOR M. BRAAE
Multivariable control; mineral extraction control applications; computer-based education

PROFESSOR A. BAGHAI-WADJI
Electronics and Computational Engineering

PROFESSOR C.T. GAUNT
Electricity delivery networks

PROFESSOR M.R. INGGS
Radar remote sensing; synthetic aperture radar; software defined radio; parallel computing

PROFESSOR J. TAPSON
Instrumentation and measurements; ultrasonics; microactuators; probe micropscopy

PROFESSOR P. PILLAY
Electrical machines and drives

ASSOCIATE PROFESSOR S.P. CHOWDHURY
Renewable Energy, Distributed Generation and Grid Integration, Microgrids and Smartgrids, Energy Efficiency and Demand Side Management, Fuel Cells and Energy Storage, Electrical Drives, Power System Operation, Control and Stability

ASSOCIATE PROFESSOR M.E. DLODLO
3G mobile and future communication systems

ASSOCIATE PROFESSOR K. FOLLY
Power system stability, control, grid integration of Renewable Energy, Intelligent grid, applied Computational Intelligence and HVDC Transmissions Systems

ASSOCIATE PROFESSOR M.A. KHAN
Electrical machines and drives

ASSOCIATE PROFESSOR A.J. WILKINSON
Signals and image processing; radar; SAR interferometry; tomography, Bayesian interference; inverse problems; RF power amplifiers

ADJUNCT ASSOCIATE PROFESSOR M. MALENGRET
Power electronics; remote area power supplies and rural electrification

DR P.S. BARENDSE
Senior Lecturer; Electrical machines and drives

DR S. CHOWDHURY
Senior Lecturer, Power & Energy

DR O.E. FALOWO
Senior Lecturer, Communications

MR S.I. GINSBERG
Senior Lecturer, Digital systems

DR M. HANIF
Senior Lecturer, Power Electronics

DR A. MISHRA
Senior Lecturer; Radar Signal Processing and Machine Learning

DR A. MURGU
Senior Lecturer, Telecommunications, Networks, IP and Network Reliability

DR F.C. NICOLLS
Senior Lecturer; Image processing, signal processing and computer vision

MR I. KHAN
Adjunct Senior Lecturer, High frequency power electronics, induction heating

MRS K.E AWODELE
Lecturer, Power System Reliability

MR A. PATEL
Lecturer, BioRobotics and Control

MS R. SMIT
Lecturer, Engineering Education

MR M.S. TSOEU
Lecturer, Control and Instrumentation

MS R.A. VERRINDER
Lecturer, Robotics: navigation, localisation and mapping; control and instrumentation

MR S. WINBERG
Lecturer, High Performance Computing & Software Defined Radio

Research Staff

DR R. HERMAN
Senior Research Officer, Statistical Techniques in Power Systems

DR A VAN DER BYL
Research Officer, Reconfigurable computing for signal processing applied to SDR

MR M.J.E. VENTURA
Senior Research Officer, Broadband communications & applications; digital systems

Honorary/Emeritus Professors

EMERITUS PROFESSOR B.J. DOWNING
Microwave Systems and Circuits

EMERITUS PROFESSOR G. DE JAGER
Image processing; machine vision and image compression

EMERITUS PROFESSOR A. PETROIANU
Power system analysis; operation and control

EMERITUS PROFESSOR K.M. REINECK
Antennas

EMERITUS ASSOCIATE PROFESSOR J.R. GREENE
Computational Intelligence

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Research output

Chapters in books

Folly, K.A. and Sheetekela, S. 2012. Optimal design of power system controller using breeder genetic algorithm. In S. Gao (eds), Bio-Inspired Computational Algorithms and Their Applications, pp. 303-316. Croatia: Intech. ISBN 9789535102144.

Articles in Peer-reviewed Journals

Adeyeye, M., Ventura, N.M. and Foschini, L. 2012. Converged multimedia services in emerging Web 2.0 session mobility scenarios. Wireless Networks, 18: 185-197.

Alatawneh, N. and Pillay, P. 2012. Test specimen shape considerations for the measurement of rotational core losses. IEEE Transactions on Energy Conversion, 27(1): 151-159.

Bagula, A.B., Zennaro, M., Inggs, G., Scott, S. and Gascon, D. 2012. Ubiquitous sensor networking for development (USN4D): an application to pollution monitoring. Sensors, 12(1): 391-414.

Basak, P., Chowdhury, S., Halder, S. and Chowdhury, S.P. 2012. A literature review on integration of distributed energy resources in the perspective of control, protection and stability of microgrid. Renewable & Sustainable Energy Reviews, 16: 5545-5556.

Basu, A.K., Bhattacharya, A., Chowdhury, S. and Chowdhury, S.P. 2012. Planned scheduling for economic power sharing in a chp-based micro-grid. IEEE Transactions on Power Systems, 27(1): 30-38.

Curry, N. and Pillay, P. 2012. Biogas prediction and design of a food waste to energy system for the urban environment. Renewable Energy, 41: 200-209.

Dekker, J., Nthontho, M., Chowdhury, S. and Chowdhury, S.P. 2012. Economic analysis of PV/diesel hybrid power systems in different climatic zones of South Africa. International Journal of Electrical Power & Energy Systems, 40(1): 104-112.

Dekker, J., Nthontho, M., Chowdhury, S. and Chowdhury, S.P. 2012. Investigating the effects of solar modelling using different solar irradiation data sets and sources within South Africa. Solar Energy, 86: 2354-2365.

Dzobo, O., Gaunt, C.T. and Herman, R. 2012. Investigating the use of probability distribution functions in reliability-worth analysis of electric power systems. International Journal of Electrical Power & Energy Systems, 37: 110-116.

Dzobo, O., Gaunt, C.T. and Herman, R. 2012. Reliability worth assessment of electricity consumers: a South African case study. Journal of Energy in Southern Africa, 23(3): 31-39.

English, P.J. and Le Jeune, K. 2012. Do professional women and tradeswomen in the South African construction industry share common employment barriers despite progressive government legislation? Journal of Professional Issues in Engineering Education and Practice, 138(2): 145-152.

English, P.J. and Bowen, P.A. 2012. Overcoming potential risks to females employed in the South African construction industry. The International Journal of Construction Management, 12(1): 37-49.

Falowo, O.E. and Chan, H.A. 2012. Dynamic RAT selection for multiple calls in heterogeneous wireless networks using group decision-making technique. Computer Networks, 56(4): 1390-1401.

Falowo, O.E. and Chan, H.A. 2012. Multiple-RAT selection for reducing call blocking/dropping probability in cooperative heterogeneous wireless networks. EURASIP Journal on Wireless Communications and Networking, 221: (1-12).

Hendricks, M.S., Karpul, D., Nicolls, F. and Lambert, M.I. 2012. Velocity and acceleration before contact in the tackle during rugby union matches. Journal of Sports Sciences, 30(12): 1215-1224.

Ibrahim, M. and Pillay, P. 2012. Advanced testing and modeling of magnetic materials including a new method of core loss separation for electrical machines. IEEE Transactions on Industry Applications, 48(5): 1507-1515.

Inggs, M.R. and Tong, C. 2012. Commensal radar using separated reference and surveillance channel configuration. Electronics Letters, 48(18): 1158-1160.

Magagula, L., Chan, H.A. and Falowo, O.E. 2012. Handover approaches for seamless mobility management in next generation wireless networks. Wireless Communications & Mobile Computing, 12(16): 1414-1428.

Malengret, M. and Gaunt, C.T. 2012. General theory of average power for multi-phase systems with distortion, unbalance and direct current components. Electric Power Systems Research, 84: 224-230.

Minnaar, U., Gaunt, C.T. and Nicolls, F. 2012. Characterisation of power system events on South African transmission power lines. Electric Power Systems Research, 88: 25-32.

Neemat, S. and Inggs, M.R. 2012. Design and implementation of a digital real-time target emulator for secondary surveillance radar / identification friend or foe. IEEE Aerospace and Electronic Systems Magazine, 27(6): 17-24.

Obok Opok, A. and Folly, K.A. 2012. Review of corrective switching and corrective facts controls for use in power transmission systems. International Review of Automatic Control, 5(5): 677-688.

Okou, R., Sebitosi, A.B. and Pillay, P. 2012. A specification of a flywheel battery for a rural South African village. Journal of Energy in Southern Africa, 23(3): 52-63.

Olaofe, Z. and Folly, K.A. 2012. Statistical analysis of the wind resources at darling for energy production.

International Journal of Renewable Energy Research - IJRER, 2(2): 250-261.

Panigrahi, R.K. and Mishra, A. 2012. Comparison of hybrid-Pol with quad-Pol scheme based on polarimetric information content. International Journal of Remote Sensing, 33(11): 3531-3541.

Panigrahi, R.K. and Mishra, A.K. 2012. Gini index-based land-cover classification using polarimetric synthetic aperture radar. International Journal of Remote Sensing, 33(8): 2628-2640.

Ramaboli, A., Falowo, O.E. and Chan, H.A. 2012. Bandwidth aggregation in heterogeneous wireless networks: a survey of current approaches and issues. Journal of Network and Computer Applications, 35(6): 1674-1690.

Ramesh, L., Chakraborthy, N. and Chowdhury, S.P. 2012. Intelligent algorithm for optimal meter placement and bus voltage estimation in ring main distribution system. Frontiers in Energy, 6(1): 47-56.

Ramesh, L., Chakraborthy, N., Chowdhury, S.P. and Chowdhury, S. 2012. Intelligent DE algorithm for measurement location and PSO for bus voltage estimation in power distribution system. International Journal of Electrical Power & Energy Systems, 39: 1-8.

Rapson, M., Tapson, J.C. and Karpul, D. 2012. Unification and extension of monolithic state space and iterative cochlear models. Journal of the Acoustical Society of America, 131(5): 3935-3952.

Siraki, A.G., Gajjar, C.S., Khan, M.A., Barendse, P.S. and Pillay, P. 2012. An algorithm for nonintrusive in situ efficiency estimation of induction machines operating with unbalanced supply conditions. IEEE Transactions on Industry Applications, 48(6): 1890-1900.

Siraki, A. and Pillay, P. 2012. An in situ efficiency estimation technique for induction machines working with unbalanced supplies. IEEE Transactions on Energy Conversion, 27(1): 85-95.

Siraki, A.G. and Pillay, P. 2012. Comparison of two methods for full-load in situ induction motor efficiency estimation from field testing in the presence of over/undervoltages and unbalanced supplies. IEEE Transactions on Industry Applications, 48(6): 1911-1921.

Smit, R. 2012. Towards a clearer understanding of student disadvantage in higher education: problematising deficit thinking. Higher Education Research & Development, 31(3): 369-380.

Van Rhyn, P., Pretorius, J.H. and Herman, R. 2012. Probabilistic lv distribution network design for aggregated light industrial loads. International Review of Electrical Engineering-IREE, 7(1): 3435-3442.

Zhang, Y., Pillay, P., Ibrahim, M. and Cheng, M. 2012. Magnetic characteristics and core losses in machine laminations: high-frequency loss prediction from low-frequency measurements. IEEE Transactions on Industry Applications, 48(2): 623 -629.

Peer-reviewed published conference proceedings

Ajibesin, A., Ventura, N.M., Chan, H.A., Murgu, A. and Egunsola, O. 2012. Performance of multicast algorithms over coded packet wireless networks. In D. Al-Dabass, A. Orsoni and R. Cant (eds), Proceedings of UKSim 14th International Conference on Computer Modelling and Simulation (UKSim 2012), 28-30 March 2012, Cambridge, UK. UK: IEEE. ISBN 978076954682.

Alhuwaimel, S., Mishra, A.K. and Inggs, M.R. 2012. Review of radar signal attenuation due to sand and dust storms. Proceedings of the 2012 International Conference on Electromagnetics in Advanced Applications (ICEAA '12), 2-7 September 2012, Cape Town, South Africa. Cape Town: IEEE. ISBN 9781467303347.

Ampofo-Anti, N. and Ventura, N.M. 2012. Modeling of service capabilities to achieve context-oriented service brokering in the IP multimedia subsystem. In S. Scriba (ed.), Proceedings of Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George, Western Cape. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Anekunu, A.Y., Chowdhury, S.P., Chowdhury, S.P., Obiazi, A.M. and Ochagwuba, R.E. 2012. Investigative study on the applicability of melon oil for transformer insulation and cooling. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Baghai-Wadji, A.R. 2012. Automated diagonalization of Maxwells equations: theory, implications and applications. Proceedings of the 2012 International Conference on Electromagnetics in Advanced Applications (ICEAA '12), 2-7 September 2012, Cape Town, South Africa. Cape Town: IEEE. ISBN 9781467303347.

Baghai-Wadji, A.R. 2012. Design and construction of computational tools exclusively based on Maxwell's equations. Proceedings of the 2012 International Conference on Electromagnetics in Advanced Applications (ICEAA '12), 2-7 September 2012, Cape Town, South Africa. Cape Town: IEEE. ISBN 9781467303347.

Basak, P., Chowdhury, S., Chowdhury, S.P. and Halder, S. 2012. Automated demand side management (adsm) strategy of microgrid. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Bohra, P., Fadiran, N., Chowdhury, S. and Chowdhury, S.P. 2012. Evaluating the economic viability of vehicle to grid applications in South Africa. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Buque, C., Ipinnimo, O., Chowdhury, S. and Chowdhury, S.P. 2012. Modeling and simulation of an adaptive relaying scheme for a microgrid. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Ernest, E., Chan, H.A. and Falowo, O.E. 2012. Distributed mobility management scheme with mobility routing function at the gateways. Proceedings of IEEE Globecom 2012, 3-7 December 2012, Anaheim, California, USA. USA: IEEE. ISBN 9781467309196.

Chan, H.A. 2012. Distributed mobility management with mobile IP. Proceedings of 2012 IEEE International Conference on Communications (IEEE ICC 2012), 10-15 June 2012, Ottawa, Canada. Canada: IEEE. ISBN 9781457720512.

Chidi, M.M., Ipinnimo, O., Chowdhury, S. and Chowdhury, S.P. 2012. Investigation of impact of integrating on-grid home based solar power systems on voltage rise in the utility network. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Chidi, M.M., Nthontho, M., Chowdhury, S. and Chowdhury, S.P. 2012. Viability of grid-connected domestic solar photovoltaic systems in South Africa. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Chukwuka, C. and Folly, K.A. 2012. Batteries and super-capacitors. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Chukwuka, C. and Folly, K.A. 2012. Overview and modeling of the concentrated solar power. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

De Beer, C., Barendse, P.S. and Khan, M.A. 2012. Emulation of high temperature pem fuel cell electrical dynamics and operational phenomena. Proceedings and Tutorials 2012. IEEE Energy Conversion Congress and Exposition (ECCE 2012), 15-20 September 2012, Raleigh, North Carolina. North Carolina: IEEE. ISBN 978167308014.

De Beer, C., Barendse, P.S., Khan, M.A. and Pillay, P. 2012. Modeling and emulation of fuel cell flooding behavior. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

De Bruyn, S., Fadiran, J., Chowdhury, S., Chowdhury, S.P. and Kolhe, P. 2012. The impact of wind power penetration on recloser operation in distribution networks. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

De La Bat, J.G., Khan, M.A. and Barendse, P.S. 2012. Development of a system for testing grid-connected permanent magnet wind generators. Proceedings of the 2012 XXth International Conference on Electrical Machines (ICEM 2012), 2-5 September 2012, Marseille, France. France: IEEE. ISBN 9781467301411.

De Villiers, J., Wilson, F. and Nicolls, F. 2012. A study of the sensitivity of long-range passive ranging techniques to atmospheric scintillation. In M.A. Neifeld and A. Ashok (eds), Proceedings of SPIE Visual Information Proceeding XX1, 24-25 April 2012, Baltimore, Maryland, United States. United States: SPIE. ISBN 9780819490773.

Dey, R., Rakshit, A., Ray, G. and Ghosh, S. 2012. New delay-dependent stabilization result for linear time-delay system with actuator saturation. Proceedings of 2012 International Conference on Power, Signals, Controls and Computation (EPSCICON), 3-6 January 2012, Kerala, India. India: IEEE. ISBN 9781467304498.

Dlamini, M. and Barendse, P.S. 2012. The Detection on inter-turn stator faults on inverter fed induction motors. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Docherty, M.J., Gabaraane, T. and Mabusela, N.O. 2012. The township caterer's project: experiences from the student chapter of Engineers without Borders. In N. Beute (ed.), Proceedings of the 20th Conference on the Domestic Use of Energy 2012 (DUE 2012), 3-4 April 2012, Cape Town. Cape Town, South Africa: CPUT. ISBN 9780981431178.

Dowling, M., Kibaara, S., Chowdhury, S. and Chowdhury, S.P. 2012. Economic feasibility analysis of electricty generation from landfill gas in Suth Africa. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Ernest, E., Falowo, O.E. and Chan, H.A. 2012. Distributed data path and mobility function scheme for PMIPv6 in flattened networks. In S. Scriba (ed.), Proceedings of 2012 - Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George, Western Cape. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Fadiran, J., Chowdhury, S. and Chowdhury, S.P. 2012. Optimal placement of phasor and conventional measurements for power system state estimation and fault observability. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Fadiran, J, Yuil, W., Chowdhury, S. and Chowdhury, S.P. 2012. Practical demand side management - a programmable load manager. Proceedings of 2012 IEEE PES Transmission & Distribution Conference & Exposition (T&D 2012), 7-10 May 2012, Orlando, Florida. Florida: IEEE. ISBN 9781467319331.

Falowo, O.E. and Chan, H.A. 2012. Effect of call dynamics of a multiservice multimode terminal on rat selection in heterogeneous wireless networks. Proceedings of IEEE Globecom 2012, 3-7 December 2012, Anaheim, California, USA. USA: IEEE. ISBN 9781467309196.

Falowo, S.K. and Ventura, N.M. 2012. Efficient resource allocation through bandwidth degradation of non-real-time polling service in IEEE 802.16 network. In S. Scriba (ed.), Proceedings of 2012 - Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George, Western Cape. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Fish, A.-A., Chowdhury, S. and Chowdhury, S.P. 2012. A revised matrix manipulation approach for optimal placement of phasor measure units. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Folly, K.A. and Kaberere, K. 2012. Generator saturation modelling using three saturation models. Proceedings of 2012 International Conference on Power and Energy (PECon 2012), 2-5 December 2012, Kota Kinabalu, Sabah, Malaysia. Malaysia: IEEE. ISBN 9781467350181.

Folly, K.A. and Venayagamoorthy, G.K. 2012. Optimization of power system stabilizer parameters using population-based incremental learning. 2012 Proceedings and Tutorials. IEEE Energy Conversion Congress and Exposition (ECCE 2012), 15-20 September 2012, Raleigh, North Carolina. North Carolina: IEEE. ISBN 978167308014.

Folly, K.A. 2012. Population-based incremental with adaptive learning rate strategy. Proceedings of Advances in Swarm Intelligence. Proceedings, Part 1, Third International Conference on Swarm Intelligence (ICSI 2012), 17-20 June 2012, Shenzhen, China. China: Springer. ISBN 9783642309755.

Gaunt, C.T. and Malengret, M. 2012. Why we use the term non-active power, and how it can be measured under non-ideal power supply conditions. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Gonzalez-Longatt, F., Chikuni, E., Stemmet, W. and Folly, K.A. 2012. Effects of the synthetic inertia from wind power on the total system inertia after a frequency disturbance. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Hiremath, S.M., Patra, S.K. and Mishra, A.K. 2012. Extended date rate prediction for cognitive radio using anfis with subtractive clustering. Proceedings of the 5th International Conference Computers and Devices for Communication (CODEC 2012), 17-19 December 2012, Kolkata, India. India: IEEE. ISBN 9781467326186.

Inggs, G., Thomas, D. and Winberg, S.L. 2012. Exploring the latency-resource trade-off for the discrete fourier transform on the FPGA. Proceedings of 22nd International Conference on Field Programmable Logic and Applications (FPL2012), 29-31 August 2012, Oslo, Norway. Norway: IEEE. ISBN 9781467322560.

Ip-Cho, N. and Awodele, K.O. 2012. Comparison of four load models for reliability evaluation considering reconfiguration using monte carlo simulation. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 97814673-28685.

Ipinnimo, O., Chowdhury, S. and Chowdhury, S.P. 2012. Effects of renewable distributed generation (RDG) on voltage dip mitigation in microgrids. Proceedings of 11th International Conference on Developments in Power Systems Protection, 2012 (DPSP 2012), 23-26 April 2012, Birmingham, UK. UK: Inst Engineering Technology-Iet. ISBN 9781849196208.

Ipinnimo, O., Chowdhury, S., Chowdhury, S.P. and Mitra, J. 2012. Intelligent voltage dip detection in power networks with distributed generation (DG). Proceedings of 2012 North American Power Symposium (NAPS 2012), 9-11 September 2012, University of Illinois at Urbana-Champaign, USA. Illinois: IEEE. ISBN 9781467323086.

Ipinnimo, O., Chowdhury, S. and Chowdhury, S.P. 2012. Mitigation of multiple voltage dips in a weak grid using wind and hydro-based distribution generation. Proceedings of 2012 IEEE PES Transmission & Distribution Conference & Exposition (T&D 2012), 7-10 May 2012, Orlando, Florida. Florida: IEEE. ISBN 9781467319331.

Jagau, H., Khan, M.A. and Barendse, P.S. 2012. Sizing and topology of a small-scale sustainable wind energy capture and storage system. Proceedings of the 2012 XXth International Conference on Electrical Machines (ICEM 2012), 2-5 September 2012, Marseille, France. France: IEEE. ISBN 9781467301411.

John, C. and Ventura, N.M. 2012. Service continuity in network-based ip flow mobility in the evolved packet core. In S. Scriba (ed.), Proceedings of 2012 - Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Kariuki, S., Machinda, G.T., Chowdhury, S. and Chowdhury, S.P. 2012. Solar multiple optimization and dispatch analysis of a potential parabolic csp plant in Kenya. Proceedings of 2012 IEEE PES Transmission & Distribution Conference & Exposition (T&D 2012), 7-10 May 2012, Orlando, Florida. Florida: IEEE. ISBN 9781467319331.

Kariuki, S., Xu, Z.P., Chowdhury, S. and Chowdhury, S.P. 2012. Analysis of parabolic trough cstp and biogas hybrid power plant. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Katanekwa, N. and Ventura, N.M. 2012. Routing enhancements for selectively offloaded IP traffic in the evolved packet system (EPS). In S. Scriba (ed.), Proceedings of 2012 - Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Katz, S., Winberg, S.L. and Mishra, A.K. 2012. Rapid model-based prototyping tool for SDR on a RC platform. In Nitin and S. Prakash Ghrera (eds), Proceedings of the Second IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC-2012), 6-8 December 2012, Jaypee, India. India: IEEE. ISBN 9781467329248.

Kibaara, S., Chowdhury, S. and Chowdhury, S.P. 2012. A thermal analysis of parabolic trough csp and biomass hybrid power system. Proceedings of 2012 IEEE PES Transmission & Distribution Conference & Exposition (T&D 2012), 7-10 May 2012, Orlando, Florida. Florida: IEEE. ISBN 9781467319331.

Kibaara, S., Chowdhury, S. and Chowdhury, S.P. 2012. Analysis of cooling methods of parabolic trough concentrating solar thermal power plant. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Kimera, R., Okou, R., Sebitosi, A.B. and Awodele, K.O. 2012. A concept of dynamic pricing for rural hybrid electric power mini-grid systems for sub-Saharan Africa. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Kolhe, P., Bitzer, B., Chowdhury, S.P. and Chowdhury, S. 2012. Hybrid power system model and TELELAB. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Machinda, G.T., Chowdhury, S., Chowdhury, S.P. and Nguz, M. 2012. Power management of inverter interfaced solar pv microgrid: a review of the current technological trend. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Manley, J. and Kapp, F. 2012. The MeerKAT array and its digital signal processor. Proceedings of the 2012 International Conference on Electromagnetics in Advanced Applications (ICEAA '12), 2-7 September 2012, Cape Town, South Africa. Cape Town: IEEE. ISBN 9781467303347.

Manley, J., Malan, S. and Kapp, F. 2012. Meeting MeerKAT's signal processing challenges. Proceedings of the 2012 International Conference on Electromagnetics in Advanced Applications (ICEAA '12), 2-7 September 2012, Cape Town, South Africa. Cape Town: IEEE. ISBN 9781467303347.

Mishra, A.K. and Singh, V. 2012. Henkel transform based near field imaging using UWB impulse radar. In Conference Proceedings, 13th International Radar Symposium (IRS 2012), 23-25 May 2012, Warsaw, Poland. Poland: IEEE. ISBN 9781457718359.

Mishra, A.K., Phogat, R. and Mann, S. 2012. SAR imaging from randomly sampled phase history using compressive sensing. In Conference Proceedings, 13th International Radar Symposium (IRS 2012), 23-25 May 2012, Warsaw, Poland. Poland: IEEE. ISBN 9781457718359.

Mishra, A.K., Wilsenach, G. and Inggs, M.R. 2012. Information sensing for radar target classification using compressive sensing. In Conference Proceedings, 13th International Radar Symposium (IRS 2012), 23-25 May 2012, Warsaw, Poland. Poland: IEEE. ISBN 9781457718359.

Mitra, R., Mishra, A.K. and Choubisa, T. 2012. Maximum likelihood of estimation of parameters of Nakagami-m distribution. In C. Bose, A.S. Chowdhury, P. Venkateswaran, and S. K.Sarkar (eds), Proceedings of the 2012 International Conference on Communications Devices and Intelligent Systems (CODIS 2012), 28-29 December 2012, Kolkata, India. India: IEEE. ISBN 9781467346986.

Mohapi, L., Winberg, S.L. and Murray, S. 2012. Model-based synthesis of timing-safe real-time trigger configurations for particle accelerator experiments using nim electronics and FPGA. Proceedings of 4th International Conference on Science & Technology (ICSTIE'12), 7-8 November 2012, Penang, Malaysia. Malaysia: ICSTIE. ISBN 978983220495.

Mollo, T.C., Fadiran, J., Chowdhury, S. and Chowdhury, S.P. 2012. Power system restoration with distributed generation in a south african network. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Moodley, N. and Gaunt, C.T. 2012. Developing a power transformer low energy degradation assessment triangle. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Moodley, R., Nthontho, M., Chowdhury, S. and Chowdhury, S.P. 2012. A technical and economic analysis of energy extraction from the Agulhas current on the east coast of South Africa. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Motsoeneng, L., Mbuli, N., Sithole, S., Pretorius, J., Chowdhury, S. and Chowdhury, S.P. 2012. Comparing capability of two possible sending ends for new 765kv hvac injection into the Western Cape networks. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Moyo, V., Falowo, O.E. and Dlodlo, M.E. 2012. Improving inter service bandwidth fairness in wireless mesh network. Proceedings of 2012 IEEE Mediterranean Electrotechnical Conference (MELECON 2012), 25-28 March 2012, Medina Yasmine Hammamet, Tunisia. Tunisia: IEEE. ISBN 9781467307833.

Mphatsi, L. and Falowo, O.E. 2012. A cross-layer approach to optimize proxy mobile ipv6 handovers performance. Proceedings of 23rd IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'12), 9-12 September 2012, Sydney, Australia. Australia: IEEE. ISBN 9781-467325684.

Mphatsi, L. and Falowo, O.E. 2012. Achieving efficient network resources utilization in bicasting proxy mobile IPv6. Proceedings of 2012 IEEE 8th International Conference on Wireless and Mobile Computing, Networking and Communications (IEEE WiMob 2012), 8-10 October 2012, Barcelona, Spain. Spain: IEEE. ISBN 9781467314299.

Mphatsi, L. and Falowo, O.E. 2012. An enhanced bicasting scheme for proxy mobile IPv6 with buffering. In S. Scriba (ed.), Proceedings of 2012 - Southern Africa Telecommunication Networks and Applications Conference

(SATNAC 2012), 2-5 September 2012, Fancourt, George, Western Cape. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Mulumba, T. and Folly, K.A. 2012. Application of self-adaptive differential evolution to tuning pss parameters. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Muslam, M., Chan, H.A., Magagula, L. and Ventura, N.M. 2012. Network-based mobility and host identity protocol. Proceedings of 2012 IEEE Wireless Communications and Networking Conference (WCNC 2012), 1-4 April 2012, Paris. Paris: IEEE. ISBN 9781467304351.

Mwangama, J. and Ventura, N.M. 2012. QoS management and network context awareness for IPTV services in the 3GPP evolved packet system. In S. Scriba (ed.), 2012 Proceedings - Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Mwangama, J., Spiers, R., Ventura, N.M. and Magedanz, T. 2012. Past and current IMS testbed initiatives the UCT IMS and EPC testbed. Proceedings of 2012 IEEE Globecom Workshops, 3-7 December 2012, Anaheim, California USA. USA: IEEE. ISBN 9781467349413.

Namuli, R. and Pillay, P. 2012. Maximisation of revenue from biomass waste to energy conversion systems on rural farms. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Ndjaba, S., Machinda, G.T., Nthontho, M., Chowdhury, S., Chowdhury, S.P. and Mbuli, N. 2012. Modeling and simulation of fault detection methods for power electronic interfaced microgrids. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Ndwe, T.J., Barnard, E. and Dlodlo, M.E.H. 2012. Effects of application type on the choice of interaction modality in IVR systems. In H. Gelderblom and H. Lotriet (eds), Proceedings of South African Institute for Computer Scientists and Information Technologists (SAICSIT) 2012 (SAICSIT 2012), 1-3 October 2012, Centurion, South Africa. Pretoria, South Africa: ACM. ISBN 9781450313087.

Nguz, M., Chowdhury, S. and Chowdhury, S.P. 2012. Feasibility and cost optimization study of landfill gas to energy projects based on a Western Cape landfill site in South Africa. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Nkubito, P. and Murgu, A. 2012. Live migration of VoIP services in vitualized servers. In S. Scriba (ed.), Proceedings of 2012 - Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George, Western Cape. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Nthontho, M., Chowdhury, S.P., Winberg, S.L. and Chowdhury, S. 2012. Communication networks for domestic photovoltaic based microgrid protection. Proceedings of 11th International Conference on Developments in Power Systems Protection, 2012 (DPSP 2012), 23-26 April 2012, Birmingham, UK. UK: Inst Engineering Technology-Iet. ISBN 9781849196208.

Nthontho, M., Chowdhury, S.P., Winberg, S.L. and Chowdhury, S. 2012. Protection of domestic solar photovoltaic based microgrid. Proceedings of 11th International Conference on Developments in Power Systems Protection, 2012 (DPSP 2012), 23-26 April 2012, Birmingham, UK. UK: Inst Engineering Technology-Iet. ISBN 9781849196208.

Ntshangase, M., Kariuki, S., Chowdhury, S. and Chowdhury, S.P. 2012. Voltage Stability Analysis of Electricity Networks with DFIG-Based Wind Power Plants. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Nye, J.M., De La Bat, J.G., Khan, M.A. and Barendse, P.S. 2012. Design and implementation of a variable speed wind turbine emulator. Proceedings of the 2012 XXth International Conference on Electrical Machines (ICEM 2012), 2-5 September 2012, Marseille, France. France: IEEE. ISBN 9781467301411.

Olaofe, Z. and Folly, K.A. 2012. Economic viability of a 3kW wind conversion system for home energy management. Proceedings of 2012 IEEE Symposium on Power Electronics and Machines in Wind Applications (PEMWA 2012), 16-18 July 2012, Denver, Colorado. Colorado: IEEE. ISBN 9781467311298.

Olaofe, Z. and Folly, K.A. 2012. Energy storage technologies for small scale wind conversion system. Proceedings of 2012 IEEE Symposium on Power Electronics and Machines in Wind Applications (PEMWA 2012), 16-18 July 2012, Denver, Colorado. Colorado: IEEE. ISBN 9781467311298.

Olaofe, Z. and Folly, K.A. 2012. Evaluation of high wind speed site for large-scale wind energy generation: case study of Slangkop, South Africa. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Olaofe, Z. and Folly, K.A. 2012. Stand alone wind energy systems for community electrification: a case-study of darling. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Olaofe, Z. and Folly, K.A. 2012. Wind power estimation using recurrent neural network technique. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Olulope, P.K., Folly, K.A. and Venayagamoorthy, G.K. 2012. Modeling and simulation of hybrid distributed generator and its impact on transient stability of power system. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Olulope, P.K., Venayagamoorthy, G.K. and Folly, K.A. 2012. Wide area monitoring of rotor angle based on synchrophasor measurements. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Papic, M., Awodele, K., Billington, R., Dent, C., Eager, D., Hamoud, G., Jirutitijaroen, P., Kumbale, M., Mitra, J., Samaan, N., Schneider, A. and Singh, C. 2012. Overview of common mode outages in power systems. Proceedings of 2012 Power and Energy Society General Meeting (2012 IEEE PES General Meeting), 22-26 July 2012, San Diego, California, USA. San Diego: IEEE. ISBN 9781467327282.

Peters, P., Machinda, G.T., Nthontho, M., Chowdhury, S., Chowdhury, S.P. and Mbuli, N. 2012. Modelling and simulation of degraded and loss of voltage protection scheme for class 1 E Bus of a nuclear power plant. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Premraj, S., Yuil, W., Chowdhury, S. and Chowdhury, S.P. 2012. Energy intensity and carbon footprinting baselines in a leading South African bread producer. Proceedings of 2012 IEEE PES Transmission & Distribution Conference & Exposition (T&D 2012), 7-10 May 2012, Orlando, Florida. Florida: IEEE. ISBN 9781467319331.

Reddy, D., Barendse, P.S. and Khan, M.A. 2012. Power electronic interface for combined heat and power systems using high temperature pem fuel cell technology. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Rukezo, S., Inggs, M.R. and Mishra, A.K. 2012. Tutorial review of an l band radar transceiver for use with a software defined radar baseband system. In Conference Proceedings, 13th International Radar Symposium (IRS 2012), 23-25 May 2012, Warsaw, Poland. Poland: IEEE. ISBN 9781457718359.

Saulo, M., Gaunt, C.T. and Mbogho, M. 2012. Penetration level of capacitor coupling sub-station on a power transmission network. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Siyoi, V., Nthontho, M., Chowdhury, S. and Chowdhury, S.P. 2012. Wide area monitoring for power system protection - a review. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Smit, R. 2012. Engineering science and pure science: do disciplinary differences matter in engineering education. In L. Mann and S. Daniel (eds), Proceedings of 2012 Annual Conference of the Australasian Association for Engineering Education (2012 AAEE), 3-5 December 2012, Melbourne, Australia. Australia: AAEE. ISBN 9780987177230.

Solomon, R., Khan, M.A., Barendse, P.S., Pillay, P. and Folly, K.A. 2012. Review and application of micromachines for wind energy integration. Proceedings of the 2012 XXth International Conference on Electrical Machines (ICEM 2012), 2-5 September 2012, Marseille, France. France: IEEE. ISBN 9781467301411.

Soubachov, B. and Ventura, N.M. 2012. NC-OFDM cognitive radio optimal pilot placement for the LS estimator.

Proceedings of The Second International Conference on Advances in Cognitive Radio (COCORA 2012), 29 April - 4 May 2012, Chamonix/Mont Blanc, France. France: IARIA Publications. ISBN 9781612081977.

Tichagwa, A., Barendse, P.S. And Khan, M.A. 2012. Cost effective micro-CHP sizing. Proceedings of IEEE PES PowerAfrica 2012 Conference, Exposition and Tutorial (PowerAfrica 2012), 09-13 July 2012, Johannesburg, South Africa. Johannesburg: IEEE. ISBN 9781467325509.

Velempini, M., Moyo, V. and Dlodlo, M.E. 2012. Improving local and collaborative spectrum sensing in cognitive networks through the implementation of cognitive collaborators. Proceedings of 2012 IEEE Mediterranean Electrotechnical Conference (MELECON 2012), 25-28 March 2012, Medina Yasmine Hammamet, Tunisia. Tunisia: IEEE. ISBN 9781467307833.

Vera, D. and Ventura, N.M. 2012. User generated content for an IMS-based IPTV. In S. Scriba (ed.), Proceedings of 2012 - Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012), 2-5 September 2012, Fancourt, George, Western Cape. Western Cape, South Africa: Southern African Telecommunications Networks & Applications Conference (SATNAC). ISBN 9780620537131.

Williams, A., Nthontho, M., Chowdhury, S. and Chowdhury, S.P. 2012. Modelling South African Agulhas marine current profile data for electricity generation. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Winberg, S.L., Raw, B. and Mohapi, L. 2012. Bringing industry-recommended practical experiences into the final year of a computer engineering curriculum. Proceedings of 4th International Conference on Science & Technology (ICSTIE'12), 7-8 November 2012, Penang, Malaysia. Malaysia: ICSTIE. ISBN 978983220495.

Winberg, S.L., Mishra, A.K. and Raw, B. 2012. Rhino blocks pulse - doppler radar framework. In Nitin and S. Prakash Ghrera (eds), Proceedings of the Second IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC-2012), 6-8 December 2012, Jaypee, India. India: IEEE. ISBN 9781467329248.

Xezile, R., Mbuli, N., Sithole, S., Pretorius, J., Chowdhury, S. and Chowdhury, S.P. 2012. Evaluation of steady state and voltage stability limits of new HVDC lines into the Cape grid considering Pluto and Matla substations as sending ends. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Xezile, R., Mbuli, N., Pretorius, J., Chowdhury, S. and Chowdhury, S.P. 2012. Impact of transmission faults on the voltage dip performance of a weak Upington distribution network with a csp plant connected. Proceedings of 2012 IEEE International Conference on Power Systems Technology (POWERCON 2012), 30 October - 2 November 2012, Auckland. Auckland: IEEE. ISBN 9781467328685.

Xu, Z.P., Kariuki, S., Chowdhury, S. and Chowdhury, S.P. 2012. Investigation of thermal storage options for concentrating solar power plants. Proceedings of 2012 47th International Universities Power Engineering Conference (UPEC 2012), 4-7 September 2012, London, United Kingdom. London, United Kingdom: IEEE. ISBN 9781467328562.

Doctoral dissertations

Chalemba, L. 2012. Topology-aware multicasting in phased mobile ad hoc networks for e-learning. 263pp. Supervised by Dlodlo, M.

Rapson, M. 2012. An extensible computational cochlear modelling framework. 120pp. Supervised by Verrinder, R. and Tapson, J.C.

Van Der Byl, A. 2012. A parallel framework for spectral based computations. 128pp. Supervised by Inggs, M.

Master's degrees (by research)

Ampofo-Anti, N. 2012. A context-orientated service brokering platform for the IP Multimedia subsystem (IMS). MSc (Eng). 90pp. Supervised by Ventura, N.

Bruintjies, M. 2012. PD trending and TVA test readings are good indicators of the condition of aged Stator Bar insulation. MSc (Eng). 104pp. Supervised by Gaunt, C.

Calder-Potts, G. 2012. Review of current radiometer technology with suggestions for future South African satellites. MSc Astrophysics & Space-Science. 160pp. Supervised by Dunsby, P. and Inggs, M.

Cecchini, C. 2012. General predictive control: an investigation of perceived limitations. MSc(Eng). 98pp. Supervised by Braae, M. and Tsoeu, M.S.

Dube, C. 2012. Imitating human motion using humanoid upper body models. MSc(Eng). 99pp. Supervised by Tsoeu, M.S. and Tapson, J.C.

Falowo, S.K. 2012. Connection admission control and packet scheduling for IEEE 802.16. MSc (Eng). 85pp. Supervised by Ventura, N.

Khwambala, P. 2012. The importance of selecting the optimal number of principal components for fault detection using principal component analysis. MSc(Eng). 85pp. Supervised by Braae, M.

Klopper, M. 2012. Stability analysis of distributed wind generation operating on weak distribution networks in the presence of hydro generation. MSc(Eng). 156pp. Supervised by Gaunt, C.

Molteno, M. 2012. Eddy current detection of fatigue cracks in drill pipes. Master of Science in Engineering. Supervised by Tait, R.B. and Wilkinson, A.

Moore, C. 2012. Remote hearing aid fitment. MSc(Eng). 86pp. Supervised by Ginsberg, S.

Ogbeide, S. 2012. Distributed control of reconfigurable mobile network agents for resources co-ordination. Msc(Eng). 124pp. Supervised by Murgu, A.

Ohene Anyang, E. 2012. The impact of variable speed drives on energy efficient motors. MSc(Eng). 98pp. Supervised by Khan, M. and Barendse,

P. Omar, S. 2012. Target tracking using multisensor data fusion for an unmanned aerial vehicle sense and avoid system. MSc(Eng). 88pp. Supervised by Winberg, S.

Oyedokun, T. 2012. Sea clutter simulation. MSc (Eng). 90pp. Supervised by Inggs, M.

Paverd, A.J. 2012. Enhanced mobile computing using cloud resources. MSc(Eng). 98. Supervised by Inggs, M.

Raw, B. 2012. The design and development of a pulsed radar block for the Rhino platform. MSc (Eng). 89pp. Supervised by Inggs, M. and Winberg, S.

Rukezo, S. 2012. Design of an L band radar sensor. MSc(Eng). 99pp. Supervised by Inggs, M.

Ubisse, A. 2012. Comparison of Digsilent, Matlab PST and PSAT for steady state and stability studies on HVAC-HVDC systems. MSc(Eng). 105pp. Supervised by Folly, K. and Awodele, K.

Van den Eynde, N.V.E. 2012. Modelling of a stand-alone photovoltaic system with dedicated hybrid battery energy storage system. MSc(Eng). 99pp. Supervised by Chowdhury, S.P. and Chowdhury, S.

Vera, D. 2012. User generated content for IMS-based IPTV. MSc(Eng). 98pp. Supervised by Ventura, N.

Patents

Ginsberg, S., Parsons, A. and Vicatos, G. 2012. An Endoprosthesis/Endoprosthetic Growth. Registered in: Pretoria RSA. Von Seidels. Date registered: 27/06/2012. PCT/IB2012/053247.

Department of Mechanical Engineering

(Including the Blast Impact and Survivability Research Unit (BISRU), the Centre for Materials Engineering (CME), the Centre for Research in Computational and Applied Mechanics (CERECAM), the Energy Research Centre (ERC), and the SASOL Advanced Fuels Laboratory (SAFL)).

HEAD OF DEPARTMENT: PROFESSOR CHRISTIAAN REDELINGHUYS

Department Profile

The Department of Mechanical Engineering includes the following recognized research groupings: Blast Impact and Survivability Research Unit (BISRU), the Centre for Materials Engineering (CME), the Centre for Research in Computational and Applied Mechanics (CERECAM), the Energy Research Centre (ERC) and the SASOL Advanced Fuels Laboratory (SAFL). The research interests of BISRU cover all engineering aspects of blast and impact scenarios, including the impact/blast process, structural response and material characterisation of structural components, as well as human bio-mechanical response under impact conditions. Research in CME is directed at an understanding of the relationships between the production processes and structure, properties and performance of engineering materials. CERECAM focuses on mathematical modelling of complex material behaviour, simulation of processes of deformation and failure of engineering components and artefacts, development of stable and accurate computational solution techniques and computational fluid dynamics. The ERC researches energy efficiency, energy modelling, climate change issues and sustainable energy. The SAFL

is arguably the most sophisticated engines laboratory undertaking fuels research in the country. A number of smaller research groupings focus on areas such as advanced manufacturing, aeronautics, orthopaedics, composite materials engineering, computational fluid dynamics, engineering education, engineering management, fracture and fatigue, non-destructive testing and robotics.

Departmental Statistics

Permanent and long-term contract staff (excluding research officers)

Professors	5
Adjunct Professors	2
Emeritus Professor	1
Honorary Professor	1
Associate Professors	6
Senior Lecturers	8
Lecturers	2
Part-time Lecturer	2
Academic Development Lecturer	1
Teaching Assistants	8
Technical Support Staff	11
Administrative and Clerical Staff	3
Workshop Apprentices	3
Total	55

Students

Postdoctoral	2
PG Diploma	5
Doctoral	25
Occasional – Non degree UG	34
Occasional – Non degree PG	1
Master's	127
Honours	17
Undergraduate	627
Total	838

Research Fields and Staff

PROFESSOR KEVIN BENNETT
Director, Energy Research Centre; Energy research.

MS TRACY BOOYSEN
Chief Scientific Officer; Electro Mechanical engineering, robotics and agents.

ASSOCIATE PROFESSOR BRANDON COLLIER-REED
Director of the Centre for Research in Engineering Education (CREE); the sociocultural characterization of the student experience; social aspects of technology; technological literacy of adolescents; podcasting in engineering education.

MR TREVOR CLOETE
Senior Lecturer; BISRU, CERECAM; deformation and tearing of blast loaded metal plates; high strain rate plasticity; constitutive modeling.

MR DIRK FINDEIS
Senior Lecturer; non-destructive testing; portable ESPI and shearography.

DR WIM FULS
Senior Lecturer; Centre of specialisation in energy efficiency; power plant process flow modelling

DR REUBEN GOVENDER
Senior Lecturer; BISRU; high strain rate material characterisation; composite materials; blast and impact loading of structures and materials.

EMERITUS PROFESSOR JASSON GRYZAGORIDIS
CERECAM; heat transfer and refrigeration; combined absorption and compression refrigeration cycles; optical techniques in non-destructive testing; holographic interferometry; ESPI; shearography; materials properties evaluation.

MR ERNESTO ISMAIL
Lecturer; BISRU, CERECAM; meshless methods, non-linear elasticity.

ADJUNCT PROFESSOR LOUIS JESTIN
Power Generation systems design and operation

PROFESSOR DORA KARAGIOZOVA
Honorary Professor; BISRU; analytical and computational analysis of dynamic systems.

ASSOCIATE PROFESSOR FRANZ-JOSEF KAHLEN
Lean/advanced manufacturing; laser materials processing; laser diagnostics.

DR BRUCE KLOOT
Academic Development Lecturer; sociology of education; higher education studies; foundation and extended curriculum programmes; student success and progression.

ASSOCIATE PROFESSOR RAMESH KUPPUSWAMY
Advanced manufacturing; micro/nano systems.

PROFESSOR ROBERT KNUTSEN
Deputy Head of Department; Director, Centre for Materials Engineering; physical metallurgy; thermo-mechanical processing; texture; microstructure; microscopy.

ASSOCIATE PROFESSOR GENEVIEVE LANGDON
BISRU; CREE; blast response of structures and materials; high strain rate behaviour; structural impact.

ASSOCIATE PROFESSOR ARNAUD MALAN
Computational Fluid Dynamics

Mr STEPHEN MARAIS
Senior Lecturer; Electro Mechanical design.

PROFESSOR GERALD NURICK
Director, BISRU; structural impact; crashworthiness; high strain rates; impact biomechanics.

MR RODGER NKUMBWA
Lecturer; advanced manufacturing processes, manufacturing IT integration, lean & green manufacturing, Engineering Management

PROFESSOR CHRIS REDELINGHUYS
Head of Department; autonomously guided parafoils, airliners in formation flight.

MR PAUL SCHABERG
Lecturer, SASOL Advanced Fuel Lab, engines and fuels research.

MS CORRINNE SHAW
Senior Lecturer; Engineering Management; management and engineering education, systems theory and practice.

PROFESSOR ROBERT TAIT
Centre for Materials Engineering; fracture mechanics; fatigue; assessment of residual stresses in structural components; applied non-destructive testing.

DR GEORGE VICATOS
Senior Lecturer; heat transfer and refrigeration; combined absorption and compression refrigeration cycles; bioengineering prosthesis design.

ASSOCIATE PROFESSOR CHRIS VON KLEMPERER
Composite materials; processing and modelling of composite materials and structures.

DR CHRIS WOOLARD
Site leader; Sasol Advanced Fuels Laboratory; fuels chemistry; polymeric materials; thermal analysis.

PROFESSOR ANDY YATES
Adjunct Professor, SASOL Advanced Fuels Lab, engines and fuels.

Contract Research Staff

MR VICTOR BALDEN
Research Officer, BISRU; impact dynamics.

MS ANYA BOYD
Assistant Research Officer, ERC; energy, environment and climate change.

MS L CHILOANE
Research Officer, ERC; energy efficiency, measurement and verification

DR STEEVE CHUNG KIM YUEN
Research Officer, BISRU; structural dynamics, blast response, crashworthiness.

DR GARETH FLOWEDAY
Projects co-supervisor, SASOL Advanced Fuels Lab, engines and fuels.

MR ANDREW HIBBERD
Energy Efficiency Engineer, ERC; measurement and verification.

MS ALISON HUGHES
Senior Research Officer, ERC; energy efficiency; energy modeling.

MR RICHARD LARMOUR
Research Officer, ERC; climate change.

MR THAPELO LETETE
Research Officer, ERC: climate change.

DR ANDREW MARQUARD
Senior Research Officer, ERC; energy and climate change team.

MS MASCHA MOORLACH
Energy Efficiency Engineer, ERC; measurement and verification.

MR ALFRED MOYO
Research Officer, ERC; energy & climate change group.

DR GISELA PRASAD
Chief Research Officer, ERC; energy, poverty and development.

DR SEBATAOLO RAHLAO
Researcher, ERC; energy, environment and climate change.

DR B RENNKAMP
Research Officer, ERC; energy and climate change

Mrs M Senatla
Research Officer, energy systems analysis & planning

DR DEBBIE SPARKS
Senior Research Officer, ERC; energy and climate change.

MR AC STONE
Senior Reseach Officer, ERC; energy sstems analysis, modelling

DR MIRA TOPIC
Senior Research Scientist, iThemba Laboratory for Accelerator Based Sciences, Centre for Materials Engineering; solid-state phase transformation, thin films and coatings, materials characterization by nuclear microprobe, X-ray, neutron and synchrotron diffraction techniques.

DR M TORRES GUNFAUS
Chief Research Officer, ERC; climate change

MR AJAY TRIKAM
Research Officer, ERC; energy efficiency; greenhouse gases; mitigation modeling.

PROFESSOR HARALD WINKLER
ERC; climate change (economics, mitigation & policy) and environmental economics.

MS HOLLE WLOKAS
Assistant Research Officer, ERC; energy, poverty & development group.

Contact Details

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Research output

Chapters in books

Favish, J., Ross, D.A., Inggs, S.C., Kathard, H., Clarkson, C.P., Case, J.M., Collier-Reed, B.I. and Reid, S. 2012. Reflections on developing distinctive University of Cape Town graduate attributes. In M. Coetzee et al. (eds), Developing Student Graduateness and Employability, pp. 207-225. Randburg: Knowres Publishing. 9781869221898.

Jooste, M. and Lewis, Y. 2012. Opportunities and challenges in establishing a low-carbon zone in the Western Cape province. In A. Cartwright, S. Parnell, G. Oelofse and S. Ward (eds), Climate Change at the City Scale: Impacts, Mitigation and Adaptation in Cape Town, pp. 99-121. Abingdon, Oxon: Routledge. ISBN 9780415527583.

Reddy, B.D. and McBride, A.T. 2012. Introduction to finite element analysis and recent developments. In A. Patanaik (ed.), Modelling and Simulation in Fibrous Materials, pp. 1-28. New York: Nova Science Publishers, Inc. ISBN 9781621001164.

Yahya, M.Y., Cantwell, W., Langdon, G.S. and Nurick, G.N. 2012. The blast response of sandwich structures. In M.N. Tamin (ed.), Damage and Fracture of Composite Materials and Structures, pp. 189-217. Verlag Berlin Heidelberg: Springer. ISBN 9783642236587.

Articles in Peer-reviewed Journals

Becker, T., Becker, T., Mostafavi, M., Tait, R.B. and Marrow, J.M. 2012. An approach to calculate the J-integral by digital image correlation displacement field measurement. Fatigue & Fracture of Engineering Materials & Structures, 35: 971-984.

Boyd, A. 2012. Informing international UNFCCC technology mechanisms from the ground up: using biogas technology in South Africa as a case study to evaluate the usefulness of potential elements of an international technology agreement in the UNFCCC negotiations process. Energy Policy, 51: 301-311.

Chung Kim Yuen, S., Langdon, G.S., Nurick, G.N., Pickering, E.G. and Balden, V.H. 2012. Response of V-shaped plates to localised blast load: experiments and numerical simulation. International Journal of Impact Engineering, 46: 97-109.

Flumerfelt, S.F., Halada, G.P.H. and Kahlen, F.-J. 2012. Complexity by design. Mechanical Engineering, 2012(2012): 29-33.

Flumerfelt, S.F., Siriban-Manalang, A.B.S.M. and Kahlen, F.-J. 2012. Are agile and lean manufacturing systems employing sustainability, complexity and organizational learning? The Learning Organization, 19(3): 238-247.

George, S. and Knutsen, R.D. 2012. Composition segregation in semi-solid metal cast AA7075 aluminium alloy. Journal of Materials Science, 47: 4716-4725.

Govender, R., Louca, L., Pullen, A., Fallah, A.S. and Nurick, G.N. 2012. Determining the through-thickness properties of thick glass fiber reinforced polymers at high strain rates. Journal of Composite Materials, 46(10): 1219228.

Hanief, N., Lang, C.I., Bucher, R. and Topic, M. 2012. Phase transformations and surface characterization of the platinum-chromium coated system. Journal of the South African Institute of Mining and Metallurgy, 112(7A) : 501-504.

Hassan, M.Z., Guan, Z.G., Cantwell, W., Langdon, G.S. and Nurick, G.N. 2012. The influence of core density on the blast resistance of foam-based sandwich structures. International Journal of Impact Engineering, 50: 9-16.

Jama, H.H., Nurick, G.N., Bambach, M.R., Grzebieta, R.H. and Zhao, X.-L. 2012. Steel square hollow sections subjected to transverse blast loads. Thin-Walled Structures, 53: 109-122.

Karagiozova, D., Langdon, G.S. and Nurick, G.N. 2012. Propagation of compaction waves in metal foams exhibiting strain hardening. International Journal of Solids and Structures, 49: 2763-2777.

Knowles, C., Becker, T. and Tait, R.B. 2012. Residual stress measurements and structural integrity implications for selective laser melted TI-6AL-4V. South African Journal of Industrial Engineering, 23(2): 119-129.

Knutsen, R.D. and Petersen, S. 2012. Deformation and recrystallisation of powder processing commercially pure titanium. Powder Metallurgy, 55(5): 340-347.

Langdon, G.S., Von Klemperer, C.J., Rowland, B. and Nurick, G.N. 2012. The response of sandwich structures with composite face sheets and polymer foam cores to air-blast loading; preliminary experiments. Engineering Structures, 36: 104-112.

Pather-Elias, S., Davis, S.J. and Cohen, B. 2012. A techno-economic study of energy efficiency technologies for supermarkets in South Africa. Journal of Energy in Southern Africa, 23(3): 2-8.

Pelteret, J. and Reddy, B.D. 2012. Computational model of soft tissues in the human upper airway. International Journal for Numerical Methods in Biomedical Engineering, 28: 111-132.

Pickering, E.G., Chung Kim Yuen, S., Nurick, G.N. and Haw, P.R. 2012. The response of quadrangular plates to buried charges. International Journal of Impact Engineering, 49: 103-114.

Rahlao, S.J., Mantlana, B., Winkler, H.E. and Knowles, T. 2012. South Africa's national REDD+ initiative: assessing the potential of the forestry sector on climate change mitigation. Environmental Science & Policy, 17: 24-32.

Ramesh, K., Ozbayraktar, S. and Saridikmen, S. 2011. Aero-lap polishing of poly crystalline diamond inserts using Multicon media. Journal of Manufacturing Processes, 14: 167-173.

Taele, B.M., Mokhutsoane, L., Hapazari, I., Tlali, S.B. and Senatla, M. 2012. Grid electrification challenges, photovoltaic electrification progress and energy sustainability in Lesotho. Renewable & Sustainable Energy Reviews, 16(1): 973-980.

Tait, L. and Winkler, H.E. 2012. Estimating greenhouse gas emissions associated with achieving universal access to electricity of all households in South Africa. Journal of Energy in Southern Africa, 23(4): 8-17.

Theron, M., Knutsen, R.D., Ivanchev, L. and Burger, H. 2012. Effect of heat treatment on the properties of laser-beam welded rheo-cast F357 aluminum. Journal of Materials Processing Technology, 212: 465-470.

Wlokas, H.L., Boyd, A. and Andolfi, M. 2012. Challenges for local community development in private sector-led renewable energy projects in South Africa: an evolving approach. Journal of Energy in Southern Africa, 23(4): 46-51.

Peer-reviewed published conference proceedings

Cloete, T.J. and Stander, M. 2012. Refinement of the wedge bar technique for compression tests at intermediate strain rates. In S. Hiermaier (ed.), Proceedings of 10th International Conference on the Mechanical and Physical Behaviour on Materials under Dynamic Loading (DYMAT 2012), 2-7 September 2012, Freiburg, Germany. France: EDP Sciences S A. ISBN 9782759807574.

Collier-Reed, B.I. 2012. Improving the design and implementation of lecture casting and its impact on an academic's classroom practice. Proceedings of 2012 e/merge Online Proceedings (e/merge 2012) - Open to Change, 9-20 July 2012, Cape Town. Cape Town: Centre for Educational Technology, University of Cape Town. ISBN 9780620554220.

Curry, R., Cloete, T.J. and Govender, R.A. 2012. Implementation of viscoelastic Hopkinson bars. In S. Hiermaier (ed.), Proceedings of 10th International Conference on the Mechanical and Physical Behaviour on Materials under Dynamic Loading (DYMAT 2012), 2-7 September 2012, Freiburg, Germany. France: EDP Sciences S A. ISBN 9782759807574.

Docherty, M.J., Gabaraane, T. and Mabusela, N.O. 2012. The township caterer's project: experiences from the student chapter of Engineers without Borders. In N. Beute (ed.), Proceedings of the 20th Conference on the Domestic Use of Energy 2012 (DUE 2012), 3-4 April 2012, Cape Town. Cape Town, South Africa: CPUT. ISBN 9780981431178.

George, S. and Knutsen, R.D. 2012. Evolution of the solidification microstructure of rheocast high purity aluminium. In H. Moller and G. Govender (eds), Proceedings of 12th International Conference on Semi-Solid Processing of Alloys and Composites, 8-11 October 2012, Cape Town, South Africa. Switzerland: Trans Tech Publications Ltd. ISBN 9783037854815.

Govender, R.A., Langdon, G.S., Cloete, T.J. and Nurick, G.N. 2012. High strain rate compression testing of glass fibre reinforced polypropylene. In S. Hiermaier (ed.), Proceedings of 10th International Conference on the Mechanical and Physical Behaviour on Materials under Dynamic Loading (DYMAT 2012), 2-7 September 2012, Freiburg, Germany. France: EDP Sciences S A. ISBN 9782759807574.

Luckay, M. and Collier-Reed, B.I. 2012. Technological profile inventory (TPI): determining first year university students' levels of technological literacy. In D. Nampota and M. Kazima (eds), Proceedings of the twentieth annual meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE 2012), 16-19 January 2012, Lilongwe, Malawi. Unknown: SAARMSTE ISBN 9780986980046.

Prot, M., Cloete, T.J. and Pattofatto, S. 2012. Dynamic compression and recovery of cancellous bone for microstructural investigation. In S. Hiermaier (ed.), Proceedings of 10th International Conference on the Mechanical and Physical Behaviour on Materials under Dynamic Loading (DYMAT 2012), 2-7 September 2012, Freiburg, Germany. France: EDP Sciences S A. ISBN 9782759807574.

Senatla, M. 2012. Fast tracking the implementation of minimum energy performance standards (Meps) and mandatory appliance labelling in South Africa: lessons learnt from the voluntary appliance labelling. In N. Beute (ed.), Proceedings of the 20th Conference on the Domestic Use of Energy 2012 (DUE 2012), 3-4 April 2012, Cape Town. Cape Town, South Africa: CPUT. ISBN 9780981431178.

Creative writing: Short story published in a journal

Langdon, G.S. and Wright, C. 2012. NextGen speaks. Science, 3356064: 36.

Doctoral dissertations

Ahmad, M.S. 2012. Study of dynamic behaviour of multi-layered structures subjected to blast loading. Supervised by Nurick, G.N. and Langdon, G.S.

Evezard, G.M. 2012. An innovative rapid compression machine in theory and practice. Supervised by Yates, A.

Geretto, C. 2012. The effects of different degrees of confinement on the deformation of square plates subjected to blast loading. Supervised by Nurick, G.N. and Chung K. Yuen, S.

Shaw, C. 2012. Learning systemic management practice. Supervised by Ryan, T.B.

Master's degrees (by research)

Bergh, C. 2012. Energy efficiency in the South African oil refining industry: the drivers, barriers and opportunities. MSc(Eng). Energy Studies. Supervised by Cohen, B.

Bizinos, N. 2012. Passenger comfort during formation flight within atmospheric turbulence. MSc(Eng). Supervised by Redelinghuys, C.

Boachie-Yiadom, K. 2012. An extended analysis of the BISRU sled tester 's dynamic response. MSc(Eng) Mechanical. Supervised by Balchin, K. and Nurick, G.

Chhiba, C. 2012. Titanium alloy powder production from waste metal. MSc(Eng) Materials. Supervised by Knutsen, R.D.

Cross, B.A. 2012. An investigation into the effects of diesel fuel properties on the injection characteristics of a common rail injection system. MSc(Eng) Mechanical. Supervised by Schaberg, P.

de Waal, D. 2012. Feasibility study of heat pumps for waste heat recovery in industry. MSc(Eng)Energy Studies. Supervised by Grobler, L. and Moorlach, M.

Dreyer, E. 2012. Development of robotic platform for the exploration of hazardous environments. MSc(Eng). Supervised by Marais, S.

Henson, P. 2012. The development of a low-backlash robotic manipulator arm. MSc(Eng) Mechanical. Supervised by Marais, S.

Isaacs, D. 2012. The barriers to lean implementation in high mix, low volume manufacturing - a marine diving engineering case study. MSc (Eng). Supervised by Kahlen, F.-J.

Johnston, O. 2012. Analysis of energy in South Africa's primary mineral industry: a focus on gold. MSc(Eng). Supervised by Cohen, B. and Von Blottnitz, H.

Knowles, C. 2012. Residule stress measurement and the structural integrity evaluation of SLM TiG 4V. MSc(Eng). Supervised by Tait, R. B.

Leisegang, D. 2012. Study into the feasibility and design of a renewable energy portfolio for the Klein Constantia wine estate. MSc(Eng). Supervised by Hibberd, A.C.M. and Bennett, K.

Lutalo, P. 2012. Uganda and Redd+: is it worth getting involved from a socio-economic presepctive? MPhil. Supervised by Rahloa, S.

Makhetha, W. 2012. Phase transformation in platinum-based coatings. MSc(Eng). Supervised by Lang, C.I. and Topic, M.

Molteno, M. 2012. Eddy current detection of fatigue cracks in drill pipes. MSc(Eng). Supervised by Tait, R.B. and Wilkinson, A.

Mudd, R. 2012. Exploring the range of motion between the acetabular component and the femoral componentin hip resurfacing. MSc(Med) Biomedical Engineering.116pp. Supervised by Vicatos, G. and Sivarasu, S.

Philip, J. 2012. Root cause analysis of production defects in a foundry using lean tools. MSc(Eng). Supervised by Kahlen, F.-J.

Pougnet, M. 2012. New product development as an approach to remail viable in a stagnant market: a case study of a company with technologically (ITS) focused products in South Africa. MSc(Eng). Supervised by Shaw, C.B.

Rampai, T. 2012. The making and characterization of max phase ceramics. MSc (Eng) Materials. Supervised by Lang, C.I.

Richardson, N. 2012. An investigation into aspects of rate-independent single crystal plasticity. MSc(Eng) Mechanical. Supervised by Reddy, B.

Tait, L. 2012. The potential for local community benefits from wind farms in South Africa. MSc(Eng) Energy Development Studies. Supervised by Prasad, G. and Wolkas, H.L.

Tembo, B. 2012. Policy options for the sustainable development of the power sector in Zambia. MSc (Eng). Supervised by Hughes, A. and Merven, B.

Thiart, A. 2012. CFD study of fuel evaporation and related thermofluid dynamics in the inlet manifold, port and cylinder of the CFR octoane engine. MSc(Eng) Mechanical. Supervised by Floweday, G. and Meyer, C.

Trautmann, C.2012. Investigation of the use of biogas in a gas hob. MSc(Eng) Sustainable Energy. Supervised by Von Blottnitz, H. and Cohen, B.

Patents

Boonzaier, J., Hendricks, M.S. and Vicatos, G. 2012. Maxillofacial. Registered in: Pretoria RSA. Von Seidels. Date registered: 23/11/2012. PCT/IB2012/056664.

Ginsberg, S., Parsons, A. and Vicatos, G. 2012. An Endoprosthesis/Endoprosthetic Growth. Registered in: Pretoria RSA. Von Seidels. Date registered: 27/06/2012. PCT/IB2012/053247.

Vicatos, G. 2012. Rotating Hinge Knee Prosthesis. Registered in: Pretoria RSA. Von Seidels. Date registered: 06/03/2012. 2012/01641.

Centre for HIGHER EDUCATION DEVELOPMENT

The research mission of the Centre for Higher Education Development (CHED) is to ensure that its educational development work is based on rigorous and ethical research that will serve the objectives of providing equitable access to higher education, enabling social redress through higher education, and strengthening the quality of teaching and learning in higher education at UCT, in South Africa, and in countries with similar needs.

Dean's Report

ASSOCIATE PROFESSOR NAN YELD
Dean of the Centre for Higher Education Development

This report attests to the commitment of CHED and its staff to the scholarship of teaching and learning, and to higher education as an emerging field of research and policy. CHED research arises from individual interest, as well as institutional and national imperatives. In 2012, CHED staff published research that was geared to investigating and developing educational theories and practices that contribute to continual improvement in the quality of higher education and educational development. Accordingly, the research dealt with educational development issues such as multimodality, the role of writing centres, academic writing and student voice, language and academic achievement, and sociocultural perspectives on learning.

The research also reflects on innovative strategies adopted by CHED staff and those from other faculties to improve teaching and learning. Some of the research demonstrates the ways in which research and inquiry into aspects of teaching and student learning is being integrated in an iterative way into the curriculum design and development. This is clearly demonstrated by articles on educational technology aspects, such as mobile learning, digital literacies, and podcasting. This increased focus on educational technology in CHED research is very important, given the worldwide recognition of the role of technology in higher education.

It is also important to note that much of CHED research for 2012 was published in peer-reviewed, accredited local journals such as the *SA Journal of Higher Education, South African Journal of Accounting Research, South African Medical Journal, Per Linguam,* and *Southern African Linguistics and Applied Language Studies,* and international journals such as the *Journal for Higher Education, Teaching in Higher Education, Educational Technology & Society, and Higher Educational Research & Development*. A research highlight attesting to the standard and quality of CHED research is the recent inclusion of Dr Lucia Thesen's 1997 *TESOL Quarterly* article in the *SAGE Benchmarks in Language and Linguistics*, which presents collections that bring together the most authoritative and influential research in language and linguistics. The series is edited by world-leading experts in their fields and presents the 'gold standard' for university libraries throughout the world, who are seeking to solidify their linguistics reference collections.

Departments

Academic Development Programme

Centre for Educational Technology

Higher and Adult Education Studies and Development Unit

Centre for Open Learning

RESEARCH CONTRACTS
28

VALUE OF RESEARCH CONTRACTS
R7.33 million

NRF-RATED RESEARCHERS
5

DHET ACCREDITED JOURNALS
14 units

PEER-REVIEWED PUBLICATIONS
54

In 2012, CHED continued its strong contribution to the scholarship of teaching and learning by organising the *Conference on Teaching and Learning,* which took place on 25 October 2012. The papers presented at this conference reflected the diversity of research in CHED, and UCT as a whole, in educational development and higher education in general.

Besides conventional research, CHED also undertook institutional research that resulted in different types of research outputs. An example of such research is the *Large Classes Project,* which was led by Associate Professor Jeff Jawitz. This was an inter-institutional research project that aimed to identify the key mechanisms needed to improve students' learning in the context of large-class teaching in each of the four case studies. The project concluded at the end of 2012 and its findings were disseminated through institutional seminars, a national symposium, and the publication of articles. Another example is the international project focused on *Closing the skills gap in South Africa,* commissioned by the World Bank. Although this project was undertaken in 2010 by Professor Ian Scott, in collaboration with Glen Fisher, an education consultant, it is cited here to highlight the role of CHED research in advancing higher education scholarship on both the national and the international level.

To enhance their research capacity, many CHED academic staff continued to develop and maintain productive associations with individuals, institutions, and scholarly bodies abroad. Some staff members were invited to present keynote addresses at international conferences. Associate Professor Suellen Shay, for example, was invited to give a keynote address at the Society for Research in Higher Education Conference in Newport, Wales, UK, on 13 December 2012. Associate Professor Rochelle Kapp was a keynote speaker at the Thomas R. Watson Conference on The Economies of Writing, University of Louisville, USA, in October 2012.

CHED staff also participated in research development programmes, such as the Emerging Researcher Programme and a Writers' Workshop initiated by the Department of Research and Innovation. The Writers' Workshop entailed a series of workshops with emerging researchers to develop their skills in research writing and preparation of research papers for publication. Approximately 22 staff members signed up for this programme in 2012. The programme concluded with a two-day Writing Development Workshop hosted at Mont Fleur, Stellenbosch, where participants were given the opportunity to finalise their research papers. It is hoped that this intervention will not only result in an increase in research publications, but will also generally increase research activity in the faculty.

Another highlight of CHED research is in relation to research contracts. In 2012, CHED research contracts increased in number from 16 to 28 and also in value from R2.57 million to R7.33 million. Although the number of contracts is still low compared to 2010 (31), the significant improvement made during the past year is likely to have a positive impact on CHED research output in the next few years, and we look forward to building on this base in 2013.

Academic Development Programme

DIRECTOR: PROFESSOR IAN SCOTT

Departmental Profile

Over the last decade the focus of the Academic Development Programme (ADP) has changed from primarily providing direct assistance to individuals from educationally disadvantaged groups to efforts to improve the effectiveness of mainstream academic programmes in catering for student diversity. This involves such means as curriculum restructuring, integrating AD approaches into mainstream courses, and seeking to enable regular academic teaching staff to refine their practice in accordance with the changing environment of Higher Education. The research interests of ADP staff are, in the main, focused on understanding and improving key aspects of learning, teaching and assessment in Higher Education, analysing conditions at institutional and national level that affect learning and teaching, and contributing to educational policy development and implementation. Many ADP staff members have a particular interest in the effects of students' prior educational experiences.

Departmental Statistics

Permanent and Long-term contract staff

Professors	1
Associate Professors	6
Senior Lecturers	15
Lecturers	19
Part-time Lecturers	4
Professional and Administrative Staff	26
Total	71

Research Fields and Staff

MS MICHELLE ABRAHAMS
Academic Development Officer, Education Development Unit, Faculty of Commerce. Impact of mentoring and student leadership.

ASSOCIATE PROFESSOR SAALIH ALLIE
ADP Co-ordinator, Faculty of Science. Curriculum Development; Physics Education Research.

MS MELANIE ALPERSTEIN
Senior Lecturer; Curriculum Development Officer, Education Development Unit, Faculty of Health Sciences. Introducing Primary Health Care in clinical teaching and assessment; Problem based learning; Inter-professional community-based education/service learning; new graduates in rural health community service.

DR ARLENE ARCHER
Senior Lecturer; Co-ordinator, Writing Centre, Language Development Group. Academic Literacies; Multimodality; Cultural Studies.

MR MOEAIN AREND
Lecturer, Language Development Group. Academic literacy; Language and literacy across contexts; Apprenticeship and collaborative learning practices.

DR ABONGWE BANGENI
Lecturer, Language Development Group. Academic Literacy; Writing in the Disciplines; Postgraduate literacies; Multilingualism; Language Development; Writing and Identity.

MS ANITA CAMPBELL
Lecturer, ASPECT, Faculty of Engineering and the Built Environment. Factors affecting first year success; Dr Math tutoring; facilitation of learning groups using mobile technology; e-learning.

MR JUMANI CLARKE
Lecturer, Numeracy Centre. Excel as a learning environment; Academic literacies. Student identities in academic writing.

DR ALAN CLIFF
Senior Lecturer, Alternative Admissions Research Project (AARP). Academic Literacy and Student Learning; Students' Conceptions of Learning; Admissions Testing; Diagnostic Profiling of Students' Academic Literacies and Numeracies.

DR TRACY CRAIG
Senior Lecturer, ASPECT, Faculty of Engineering and the Built Environment. Tertiary mathematics education; Mathematical problem-solving; Language and mathematics; Engineering mathematics education.

ASSOCIATE PROFESSOR BETTE DAVIDOWITZ
Chemistry; Convener: General Entry for Programmes in Science (GEPS). Chemical Education; Curriculum Design; Learning in Laboratories; Writing across the Curriculum; Improving Adjustment to Higher Education, Using student-generated drawings to probe understanding of basic concepts in chemistry.

MISS BONANI DUBE
Student Development Officer, Education Development Unit, Faculty of Commerce. Social and academic support needed by students on academic probation.

MS CARLA FOURIE
Senior Lecturer, Convenor Financial Accounting and Financial Reporting 1 (EDU: Commerce).
Academic teaching post

MS VERA FRITH
Senior Lecturer, Co-ordinator Numeracy Centre. Quantitative Literacy in Higher Education curricula; Academic Literacies.

MS TARRYN GRINAKER
Lecturer, Financial Reporting 2 (Commerce). Financial Reporting – IFRS for SMEs; Higher Education in Accounting; Teaching Methodology; Teaching and Learning Structures; Action Research.

DR NADIA HARTMAN
Senior Lecturer, Director: Education Development Unit, Faculty of Health Sciences. Curriculum and Institutional Development; Social Responsiveness; Health Professional Development.

PROFESSOR NIKOLAAS J HENDRI HEIDEMAN
Lecturer, Mathematics, Academic Development Programme (ADP) Science.

DR ADITI HUMNA
Assistant Lecturer, Foundation courses tutoring and evaluation; research into curriculum development for the teaching of reading and writing in the Humanities.

MS CATHERINE HUTCHINGS
Lecturer, Language Development Group. Academic Literacy; Mentorship in Education; Language and Diversity; Writing, language and Identity; Narrative theory; Reflective Literacy.

MR JACOB JAFTHA
Lecturer, Numeracy Centre. Online learning environments (supporting tutorial activities); Adaptive feedback; Operator theory and its applications.

Associate Professor Rochelle Kapp
First-Year Experience Project and Language Development Group. Academic Literacy; English as a Second Language; student development

MR PIERRE LE ROUX
Lecturer, ASPECT, Faculty of Engineering and the Built Environment. Engineering Physics Education; Teaching and Learning.

DR KATE LE ROUX
Senior Lecturer, Numeracy Centre. Mathematics education research; School/university transition; Mathematics learning in extended curricula; Contexts in the teaching and learning of mathematics.

MS PAM LLOYD
Lecturer (part-time), Numeracy Centre. Curriculum Development for quantitative literacy in higher education.

MR TIM LOW
Senior Lecturer, Statistics/Mathematics, Education Development Unit, Faculty of Commerce. Mathematics Education; Technology for teaching and learning mathematics.

MS JEAN LUYT
Clinical Psychologist and Student Development Practitioner, Education Development Unit, Faculty of Commerce. Impact of affective factors on student success and student support and development practice.

ASSOCIATE PROFESSOR KATHY LUCKETT
Director, EDU, Faculty of Humanities; Curriculum Development, Educational Evaluation, Sociology of Knowledge and curriculum, Functional Linguistics.

DR DUNCAN MHAKURE
Lecturer, Numeracy Centre. Mathematics Education research; Quantitative/ mathematical Literacy research; Teacher Education.

MR DANIEL MUNENE
Lecturer, ADP Co-ordinator: Education Development Unit, Faculty of Commerce. Teaching and Learning; Disadvantage and Support; Culture, identity and learning; Institutional Economics; Economics Education; Financial markets and regulation.

MS NISREEN NARKER
Lecturer, Economics. Education Development Unit, Faculty of Commerce. Economics Education.

MS KALPANA NATHOO
Lecturer, ASPECT, Faculty of Engineering and the Built Environment. Teaching and Learning in Mathematics and Engineering Education; Effective learning systems.

MR GIDEON NOMDO
Lecturer, Language Development Group. Academic Literacy; Language and Identity; Curriculum Development; Mentorship.

DR BOB OSANO
Senior Lecturer, Mathematics. Mathematics Education Research; Theoretical Cosmology.

ASSOCIATE PROFESSOR MORAGH PAXTON
Language Development Group. Impact of prior discourses on acquisition of new discourses; Literacy Practices in Higher Education; Multilingualism for learning; Affordances and Barriers to acquisition of postgraduate research genres.

DR HOWARD PEARCE
Senior Lecturer, Co-ordinator, ASPECT, Faculty of Engineering and the Built Environment. Quantitative and Qualitative Learning in Physics; Assessment of student learning in Mathematics, Physics and Engineering; Mathematics for Engineering students; Curriculum development.

MR ROBERT PRINCE
Deputy Director, Academic Development Programme. Algebraic Number Theory; Commutative Algebra; Mathematics Education; Computers in Teaching Mathematics and Quantitative Literacy, Admissions Testing.

ASSOCIATE PROFESSOR JUNE PYM
Director: Education Development Unit, Faculty of Commerce. Barriers to learning; Effect of prior educational experience and context on student learning; the impact of the teaching and learning environment, Identity and agency.

MS SHEENA RUGHUBAR-REDDY
Lecturer, Numeracy Centre. Mathematics Education; Quantitative/Mathematics Literacy; Curriculum Development; Student learning (Extended programmes); Teacher development.

MS MEGAN RILEY
Writing Consultant (part-time), Education Development Unit, Faculty of Commerce. Academic literacy.

PROFESSOR IAN SCOTT
Director, Academic Development Programme. Higher Education Policy related to Teaching and Learning; Widening Participation in Higher Education; Curriculum Development; Professional Development.

MS MEKE SHIVUTE
Lecturer, Information Systems (ADP), Telemedicine, Medical Informatics and competence-based curriculum development for higher institutions.

MS RIASHNA SITHALDEEN
Lecturer, Biological, Earth and Environmental Sciences.

DR LEONARD SMITH
Senior Lecturer, Economics. Education Development Unit, Faculty of Commerce. Economics Education; Academic development.

MS SHERRY STUART
Academic Development Officer, Education Development Unit, Faculty of Commerce. Impact of affective factors on student success.

MR GARY STEWART
Lecturer, Computer Science. Computer Education.

MS DALE TAYLOR
Lecturer, Physics. Physics Education Research; Teacher Education.

DR LUCIA THESEN
Senior Lecturer, Language Development Group. Access to Academic Literacies; Postgraduate literacies; Multimodal communicative practices.

MR STUART TORR
Lecturer, Mathematics, Education Development Unit, Faculty of Commerce. Mathematics Education; Contextual priming and mathematical abstraction.

DR MATHILDE VAN DER MERWE
Lecturer, Language Development Group. Postgraduate quantitative literacies, Postgraduate publication patterns: Biological Sciences.

DR ERMIEN VAN PLETZEN
Senior Lecturer and Coordinator, Language Development Group. Academic Literacy; Medical Education; Public Health.

MS EVELYN VICATOS
Lecturer (part-time), ASPECT, Faculty of Engineering and the Built Environment. Introduction to academic literacy and scientific writing for 1st year engineering students in the academic support programme.

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Research output

Chapters in books

Archer, A. 2012. Changing academic landscapes: principles and practices of teaching writing at the University of Cape Town. In C. Thaiss, G. Braeuer, P. Carlino, L. Ganobcsik-Williams and A. Sinha (eds), Writing Programs Worldwide: Profiles of Academic Writing in Many Places, pp. 353-364. South Carolina: The WAC Clearinghouse and Parlor Press. ISBN 9781602353435.

Archer, A. and Richards, R. 2011. Writing centres as alternate pedagogical spaces. In A. Archer and R. Richards (eds), Changing Spaces: Writing Centres and Access to Higher Education in South Africa, pp. 5-15. Stellenbosch, South Africa: Sun Press. ISBN 9781920338596.

Huang, C.H. and Archer, A. 2012. Uncovering the multimodal literacy practices in reading manga and the implications for pedagogy. In T.B. Williams and A.A. Zenger (eds), New Media Literacies and Participatory Popular Culture Across Borders, pp. 44-60. New York: Routledge, Taylor and Francis Group, New York & London. ISBN 9780415897686.

Skelly, L., Eidelman, J.L. and Underwood, P.G. 2012. Web 2.0 technology as a teaching tool. In J. Tramullas and P. Garrido (eds), Library Automation and OPAC 2.0: Information Access and Services in the 2.0 Landscape, pp. 187-205. Hershey, PA: Information Science Reference. ISBN 9781466619128.

Rohleder, P. and Thesen, L.K. 2012. Interpreting drawings: reading the racialised politics of space. In B. Leibowitz, L. Swartz, V. Bozalek, R. Carolissen, L. Nicholls and P. Rohleder (eds), Community, Self and Identity Educating South African University Students for Citizenship, pp. 87-96. Cape Town, South Africa: HSRC Press. ISBN 9780796923981.

Scott, I.R. 2012. Access, success and curriculum: Aspects of their organic relationship. In R. Dhunpath, R and R. Vithal (eds), Alternative Access to Higher Education: Underprepared Students or Underprepared Institutions? pp. 26-50. Pinelands, South Africa: Pearson Education Limited. ISBN 9781775784975.

Scott, I.R. 2012. Case study: curriculum structure as a key variable affecting performance in higher education: The case of South Africa. In P. Blackmore and C. Kandiko (eds), Strategic Curriculum Change: Global Trends In Universities, pp. 192-205. Oxon, USA and Canada: Routledge (Taylor & Francis Group). ISBN 9780415809344.

Articles in peer-reviewed journals

Amosun, S.L., Hartman, N., Janse van Rensburg, V.C., Duncan, E.M. and Badenhorst, E.S. 2012. Process in widening access to undergraduate allied health sciences education in South Africa. African Journal of Health Professions Education, 4(1): 34-39.

Archer, A. 2012. Writing as design: enabling access to academic discourse in a multimodal environment. South African Journal of Higher Education, 26(3): 411-421.

Dunne, T.T., Long, C., Craig, T.S. and Venter, E. 2012. Meeting the requirements of both classroom-based and systemic assessment of mathematics proficiency: the potential of Rasch measurement theory. Pythagoras, 33(3): 19(1-16).

Frith, V. 2012. A quantitative literacy course for Humanities and Law students: the challenges of a context-based curriculum. Perspectives in Education, 30(2): 41-49.

Frith, V. 2012. Quantitative literacy interventions at University of Cape Town: effects of separation from academic disciplines. Numeracy, 5(1): 1-23.

Glaser, M. and van Pletzen, E. 2012. Inclusive education for deaf students: literacy practices and South African sign language. Southern African Linguistics and Applied Language Studies, 30(1): 25-37.

Hartman, N., Kathard, H., Perez, G., Reid, S., Irlam, J.H., Gunston, G.D., Janse van Rensburg, V.C., Burch, V.C., Duncan, E.M., Hellenberg, D.A., Van Rooyen, I.W., Smouse, M.R., Sikakana, C.N.T., Badenhorst, E.S. and Ige, B. 2012. Health sciences undergraduate education at University of Cape Town: a story of transformation. SAMJ South African Medical Journal, 102(6): 477-480.

Kapp, R. 2012. Students' negotiations of English and literacy in a time of social change. Journal of Composition Theory, 32(3-4): 591-614.

Luckett, K.M. 2012. Disciplinarity in question: comparing knowledge and knower codes in sociology. Research Papers in Education, 27(1): 19-40.

Luckett, K.M. 2012. Working with 'necessary contradictions': a social realist meta-analysis of an academic development programme review. Higher Education Research & Development, 31(3): 339-352.

Mongwane, B., Dunsby, P.K.S. and Osano, O. 2012. Cosmic electromagnetic fields due to perturbations in the gravitational field. Physical Review D, 86(8): 083533(1-13).

Nakedi, M., Taylor, D., Mundalamo, F., Rollnick, M. and Mokeleche, M. 2012. The story of a physical science curriculum: transformation or transmutation? African Journal of Research in Mathematics, Science and Technology Education (AJRMSTE) or African Journal of Research in MST Education, 16(3): 273-288.

Paxton, M.I.J. 2012. Student voice as a methodological issue in academic literacies research. Higher Education Research & Development, 31(3): 381-391.

Perez, A.M., Ahmed, N. and London, L. 2012. Racial discrimination: experiences of black medical school alumni at the University of Cape Town, 1945-1994. SAMJ South African Medical Journal, 102(6): 574-577.

Pym, J.M., Goodman, S.L. and Patsika, N. 2011. Does belonging matter? Exploring the role of social connectedness as a critical factor in students' transition to higher education. Pins Psychology in Society, 42: 35-50.

Smith, L., Pym, J.M. and Ranchhod, V. 2012. Explaining the first-year academic performance of commerce academic development students: A statistical analysis. SA Journal of Accounting Research, 26(1): 43-65.

Smith, L. and Ranchhod, V. 2012. Measuring the impact of educational interventions on the academic performance of academic development students in second-year microeconomics. South African Journal of Economics, 80(3): 431-448.

Smith, L. 2012. Measuring the impact of educational interventions on the academic performance of black academic development students. South African Review of Education, 18(1): 85-113.

Sonday, A., Anderson, K.A., Flack, C.F., Fisher, C.F., Greenhough, J.G., Kendal, R.K. and Shadwell, C.S. 2012. School-based occupational therapists: an exploration into their role in a Cape Metropole Full Service School. South African Journal of Occupational Therapy, 42(1): 2-6.

Van Den Heever, A.P., Lazarus, J. and Naude, J.H. 2012. Retrospective outcome analysis of urethroplasties performed for various etiologies in a single South African centre. African Journal of Urology, 18: 127-130.

Van Pletzen, E., Stein, D.J., Seedat, S., Williams, D.R. and Myer, L. 2012. Recall of early non-fatal suicidality in a nationally representative sample of South Africans. Ethnicity & Health, 17(1-2): 149-159.

Wolff, K. and Luckett, K.M. 2013. Integrating multidisciplinary engineering knowledge. Teaching in Higher Education, 1(1): 1-15.

Peer-reviewed published conference proceedings

Le Roux, K. and Adler, J. 2012. Talking and looking structurally and operationally as ways of acting in a socio-political mathematical practice. In T.-Y. Tso (ed), Proceedings of the 36th Conference of the International Group for the Psychology of Mathematics Education, 18-22 July 2012, Taiwan. Taiwan: Taiwan Association of Mathematics Education. ISSN 0771-100X.

Mhakure, D. and Stone, R. 2012. African indigenous knowledge systems in higher education: a discourse analysis. In M.B. Ogunniyi (ed), Proceedings of 1st South African-Mozambican Systematic Review of IKS Studies Conference, 25-27 October 2012, Cape Town, South Africa. Bellville, South Africa: University of the Western Cape. ISBN 9780868087375.

Ng'ambi, D. and Campbell, A. 2012. Influence of mobile learning on human agency: a critical discourse analysis. In P. Lam (ed.), Proceedings of 7th International Conference on e-Learning, 12-22 June, Hong Kong. Hong Kong: Chinese University Press. ISBN 9781908272430.

Tanner, M.C. and Chigona, W.M.G. 2012. Towards an understanding of the contextual influences on distributed agile software development: a theory of practice perspective. In J. Pries-Heje, M. Chiasson, J. Wareham, X. Busquets, J. Valor and S. Seiber (eds), Proceedings of the 20th European Conference on Information Systems (ECIS 2012), 10-13 June 2012, Barcelona, Spain. Barcelona, Spain: European Conference on Information Systems (ECIS 2012). ISBN 9788488971548.

Centre for Educational Technology

ACTING DIRECTOR: STEPHEN MARQUARD

Centre Profile

The Centre for Educational Technology has been an established unit in CHED since 2005. While the Centre has a broad focus, its core activities focus on encouraging and supporting the innovative and effective use of ICTs for educational purposes. CET's work focuses on the areas of learning technologies, staff development, curriculum projects, postgraduate teaching, and also includes research and special projects. Research in CET has largely been centered on the professional interests of individuals and the focus of funded projects. It can be grouped into some dominant themes including: access to and use of

ICTs; academic literacies; learning design; mobile learning; lecture recording and podcasting; innovation by educators; teaching with new media; the educational technology profession; open educational resources; open research; communities of practice in staff development; the effects of organisational cultures on technology adoption; the rhetoric of staff development; and online conferences for professional development. Together with the UCT Research Office, CET hosts the Scholarly Communication in Africa Programme which is a three-year, IDRC-funded initiative aimed at increasing African universities' contribution to regional and global knowledge production.

Departmental Statistics

Permanent and Long Term Contract Staff

Associate Professors	3
Senior Lecturers	3
Lecturers	1
Support, administrative and technical staff	12
TOTAL	19

Research Fields and Staff

MR LUBABALO BADI
Learning Technologies Consultant: promotion of and support for the use of educational technologies among staff.

DR CHERYL BROWN
Lecturer: digital identity, first year students' experiences of ICTs at university, discourses of ICTs and access to ICTs.

MR ROGER BROWN
Educational Technology Consultant; promotion of and support for the use of educational technologies among staff.

MR TONY CARR
Senior Lecturer; Co-ordinator Staff Development; on-line conferences, online communities of practice, use of interactive computer-mediated approaches for teaching and learning.

MS RULISHA CHETTY
Digital Learning Materials Designer; use of video in curriculum development.

MS GLENDA COX
Lecturer; Curriculum Projects; teaching and learning with technology, curriculum development; Open Education Resources.

ASSOCIATE PROFESSOR LAURA CZERNIEWICZ
Seconded to OpenUCT; open scholarship broadly, scholarly communication, students' digitally-mediated practices, digital identities and the field of learning technology as a scholarly domain.

MR ANDREW DEACON
Instructional Designer; learning environments, evaluation of interactive computer mediated approaches for teaching and learning, learning analytics.

ASSOCIATE PROFESSOR CHERYL HODGKINSON-WILLIAMS
Online learning design, interactive whiteboards, open scholarship, open education resources and electronic portfolios.

MR DAVID HORWITZ
Online Learning Environments developer, design of interactive environments and the effective use of databases to support interactive computer-mediated approaches for teaching and learning.

MS SETA JACKSON
Learning Technologies Consultant: promotion of and support for the use of educational technologies among staff.

DR CATHY KELL
Research Lead, Scholarly Communication in Africa Programme; scholarly Communication.

MR STEPHEN MARQUARD
Acting Director; Learning Technologies Coordinator: design, implementation and support of online environments for effective teaching and learning, group collaboration and personal workspaces and portfolios, higher education ICT strategy and governance.

MS DESIREE MCKIE
Coordinator: ICT Literacy Project, ICT proficiency training, assessment and integration into learning and teaching, ICT policy, multilingualism and technology.

MR EDMORE MOYO
Online Learning Environments developer, design of interactive environments and the effective use of databases to support interactive computer-mediated approaches for teaching and learning.

ASSOCIATE PROFESSOR DICK NG'AMBI
Coordinator – postgraduate programme (ICT in Education); mobile learning, ubiquitous technologies, emerging technologies, open educational resources, podcasting, social networking, and informal learning.

MR IAN SCHROEDER
Staff development, use of interactive computer-mediated approaches for teaching and learning, peer instruction and collaborative learning.

MS STACEY STENT
Graphics and animation designer. teaching with images, visual literacy.

MS MICHELLE WILLMERS
Programme Manager, Scholarly Communication in Africa Programme; scholarly Communication.

Honorary Research Associate

MS EVE GRAY
Conducts donor-funded research projects on policy and strategy for ICT and scholarly communications in Africa, with a specific focus on open access and new publishing models.

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Research output

Chapters in books

Czerniewicz, L. and Brown, C. 2012. Objectified cultural capital and the tale of two students. In L. Dirckinck-Holmfeld, V. Hodgson and D. McConnell (eds), Exploring the Theory, Pedagogy and Practice of Networked Learning: pp. 209-219. New York: Springer. ISBN 9781461404958.

Articles in Peer-reviewed Journals

Brown, C. 2012. University students as digital migrants. Language and Literature, 14(2): 41-61.

Hodgkinson-Williams, C.A. and Paskevicius, M. 2012. The role of postgraduate students in co-authoring open educational resources to promote social inclusion: a case study at the University of Cape Town. Distance Education, 33(2): 253-269.

Mugwanya, R., Marsden, G., Ng'ambi, D. and Traxler, J. 2012. Using a participatory action research approach to design a lecture podcasting system. International Journal of Mobile and Blended Learning, 4(2): 67-86.

Ng'ambi, D. and Lombe, A. 2012. Using podcasting to facilitate student learning: a constructivist perspective. Educational Technology & Society, 15(4): 181–192.

Peer-reviewed published conference proceedings

Boyinbode, O., Bagula, A.B. and Ng'ambi, D. 2012. A mobile learning application for delivering educational resources to mobile devices. In C.A. Shoniregun and G.A. Akmayeva (eds), Proceedings of International Conference on Information Society (i-Society 2012), 25-28 June 2012, London, UK. UK: Infonomics Society. ISBN 9781908320056.

Boyinbode, O., Bagula, A.B. and Ng'ambi, D. 2012. An interactive mobile learning system for enhancing learning in higher education. In I.A. Sanchez and P. Isaias (eds), Proceedings of the IADIS International Conference Mobile Learning 2012, 11-13 March 2012, Berlin, Germany. Berlin, Germany: IADIS Press. ISBN 9789728939663.

Cox, G. 2012. "Why would you do it,... would a student actually be interested" Understanding the barriers and enablers to academic contribution to an OER directory. Proceedings of Cambridge 2012: Innovation and Impact - Opening Collaborating to Enhance Education, 16-18 April 2012, Cambridge. Cambridge: Cambridge University Press. ISBN 9780749229375.

Deacon, A. and WynSculley, C. 2012. When my sub-editor is a nit-picking bot: mediating roles of a TV news scriptwriting exercise. Proceedings of 2012 e/merge Online Proceedings (e/merge 2012) - Open to Change, 9-20 July 2012 . Cape Town: Centre for Educational Technology, University of Cape Town. ISBN 9780620554220.

Ng'ambi, D., Gachago, D., Ivala, E., Bozalek, V. and Watters, K. 2012. Emerging technologies in South African higher education institutions: towards a teaching and learning practice framework. In P. Lam (ed.), Proceedings of 7th International Conference on e-Learning, 12- 2 June, Hong Kong. Hong Kong: Chinese University Press. ISBN 9781908272430.

Ng'ambi, D. and Campbell, A. 2012. Influence of mobile learning on human agency: a critical discourse analysis. In P. Lam (ed.), Proceedings of 7th International Conference on e-Learning, 12-22 June, Hong Kong. Hong Kong: Chinese University Press. ISBN 9781908272430.

Rambe, P. and Ng'ambi, D. 2012. Using ubiquitous technologies to cognitively scaffold academically underprepared learners: student contextualised learning in mobile learning environments. In P. Kommers, T. Issa and P. Isaias (eds), Proceedings of IADIS International Conference on Internet Technologies and Society, 28-30 November, Perth, Australia. Perth, Australia: IADIS Press. ISBN 9789728939779.

Higher and Adult Education Studies and Development Unit

UNIT HEAD: ASSOCIATE PROFESSOR LINDA COOPER

Unit Profile

The Higher & Adult Education Development & Studies Unit forms part of the Centre for Higher Education Development at the University of Cape Town. HAESDU supports the on-going professional development of both higher education professionals and adult education practitioners through a range of courses, research and development projects. HAESDU recognizes the importance of its work being research-led, and all staff are actively engaged in research. There are two NRF rated researchers in the unit – Associate Professors Suellen Shay and Jeff Jawitz.

Unit Statistics

Permanent and long-term contract staff

Associate Professors	3
Senior Lecturers	3
Lecturers	2
Administrative and Clerical Staff	1
Total	9

Research Fields and Staff

DR ALAN CLIFF
Senior lecturer: Academic literacy and student learning; admissions testing; diagnostic profiling of students' academic literacies and numeracies; understanding how adults learn; assessment of academic potential. MCQ assessment: design and impact; assessment and evaluation in adult and continuing education contexts.

ASSOCIATE PROFESSOR LINDA COOPER
Theorising different forms of knowledge; impact of changes in the broader political economy and labour markets on knowledge and pedagogy; relationship between higher education and the workplace; RPL and continuing professional education within higher education; worker education and training: the role of education in workplace and social change.

DR JEANNE GAMBLE
Senior Lecturer: The relation between knowledge and practice in curriculum, pedagogy and assessment; vocational and professional education; education and training policy

DR SALMA ISMAIL
Senior Lecturer: Adult education curriculum and changing student needs, challenges of retaining a critical transformative educational practice and inclusion of feminist pedagogy; relationship of indigenous knowledge to adult education; learning in social movement contexts; staff experiences of institutional culture in a changing university context.

MS KASTURI BEHARI-LEAK
Lecturer: Academic identity and social agency; nascent academics – 'being and becoming'; knowledge and knower structures; social inclusion and difference; structure, culture and agency; the power of performative texts.

ASSOCIATE PROFESSOR JEFF JAWITZ
Professional development of academics in teaching; the impact of race on academic practice; the academic identity and the academic workplace; educational development initiatives and large class teaching

DR JANICE MCMILLAN
Senior Lecturer: Social responsiveness in teaching and learning; building university-community partnerships; citizenship and ethics in service learning; role of critical reflection in service learning; theorizing service learning from a social justice perspective

MS JUNE SALDANHA
Lecturer: Understanding the challenges which women encounter when trying to pursue further learning in formal and informal contexts; investigating the opportunities that exist for adult learners who have completed the Diploma in Education.

ASSOCIATE PROFESSOR SUELLEN SHAY
Developing an understanding of assessment as a socially-situated practice; understanding the formative influences on curriculum which influence what is valued in assessment; the relationship between disciplinary knowledge and curriculum; curriculum differentiation and progression.

Contact Details

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Research output

Chapters in books

Ismail, S. 2012. Holding onto transformative practices in a university: musings of a feminist popular educator. In L. Manicom and S. Walters (eds), Feminist Popular Education in Transnational Debates: Building Pedagogies of Possibility, pp. 177-191. Great Britain: Palgrave Macmillan. ISBN 9780230339132.

Articles in Peer-reviewed Journals

Favish, J., McMillan, J.M.E. and Ngcelwane, S. 2012. Developing a strategic approach to social responsiveness at the University of Cape Town, South Africa. Journal of Higher Education Outreach and Engagement, 16: 37-59.

Jawitz, J.P. 2012. Race and assessment practice in South Africa: understanding black academic experience. Race Ethnicity and Education, 15(4): 545-559.

Shay, S.B. 2012. Educational development as a field: are we there yet? Higher Education Research & Development, 31(3): 311-323.

Centre for Open Learning

ACTING DIRECTOR: MEDEÉ RALL

Centre Profile

The Centre for Open Learning comprises two divisions: the Third Term and the Public and Continuing Education Divisions. The Public and Continuing Education Division is responsible for the annual Summer School programme. This programme encourages a diverse community of students to enjoy adult study by making University research available to the general public, by drawing on different disciplines and by stimulating debate about important issues. The Public and Continuing Education Division also offers continuing education opportunities to the general public, work-related courses aimed at career development and customised courses designed for specific organisations. It also makes focused interventions in the adult education and cultural sector, working with other partners. The Third Term Division offers University accredited courses to University students during the University's winter and summer vacations. This division draws on the University's academic resources for its courses.

Centre Statistics

Permanent and long-term contract staff

Professor	1
Senior Lecturers	2
Technical and Support Staff	1
Administrative and Clerical Staff	9
Total	13

Research Fields and Staff

DR KEVIN WILLIAMS
Senior Lecturer: Social agency and student learning; Heideggarian insights on being in relation to research ethics.

PROFESSOR INGRID FISKE
Adult education provision, adult education practices at cultural institutions such as museums, contemporary South African literary practices, poetry writing.

MEDEÉ RALL: SENIOR LECTURER: Adult education provision, multimodality, museum studies.

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Research output

Articles in Peer-reviewed Journals

Williams, K. 2012. Rethinking 'learning' in higher education. Journal of Critical Realism, 11(3): 296-323.

Creative writing

Anthology of poems

Fiske, I.J. (Writing as De Kok) 2012. Merchants in Venice. South Africa: African Sun Press, pp. 36-37.

Poems in journals

De Kok, I. 2012. Three poems in *The Common* 4 (Amherst) The poems are 'Today I do not love my country' (p129),'Histoplasmosis' (pg130) and 'Shards' (pp131-3).

De Kok, I. 2012. One poem in *The Times Literary Supplement* 5718, November 2012. The poem is 'Dyad' (p11).

De Kok, I. 2012. One poem in *The Poetry Paper*, 9, 2012. (Suffolk, UK). The poem is 'Found Names' (p13).

Dean's Office

Profile

Apart from its central leadership, management and administrative role in CHED, the Dean's Office houses special projects, including the Multilingualism Education Project, headed by Associate Professor Mbulungeni Madiba, the OpenUCT Initiative (OUI) under the directorship of Associate Professor Laura Czerniewicz, the Confucius Institute, and student fellowship and scholarship programmes that comprise the Equity Development Programme.

Office Statistics

Permanent and long-term contract staff

Associate Professors	3
Total	3

Research Fields and Staff

ASSOCIATE PROFESSOR NAN YELD
Admissions; educational measurement; academic literacy; higher education policy.

ASSOCIATE PROFESSOR MBULUNGENI MADIBA
Language policy and planning; sociolinguistics; terminology and terminography; corpus linguistics, human language technology, concept literacy, language acquisition, politics of language; phonology.

ASSOCIATE PROFESSOR LAURA CZERNIEWICZ
Educational technology in higher education; academics' and students' digitally mediated scholarship and educational practices; scholarly communication.

MS NOLUBABALO TYAM
Second language acquisition; second language teaching; intercultural communication; code-switching.

Contact Details

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Research output

Articles in Peer-reviewed Journals

Madiba, M.R. 2012. Language and academic achievement: perspectives on the potential role of indigenous African languages as a lingua academica. Per Linguam: A Journal of Language Learning, 28(2): 13-25.

Contributors

One Hundred Years of Health Sciences
Dr Tracey Kolbe-Alexander, Prof. Jonathan Blackburn, Prof. Keertan Dheda, Dr Yolande Harley, Prof. Vicki Lambert, Prof. Valerie Mizrahi, Prof. Dan Stein, Dr Katherine Sorsdahl, Prof. Carolyn Williamson, Prof. Heather Zar

Poverty and Inequality
Prof. Murray Leibbrandt, Prof. Diane McIntyre, Morné Oosthuizen

Our World at Risk
Emlyn Balarin, Dr Anja Boyd, Prof. Anusuya Chinsamy-Turan, Dr Åke Fagereng, Rob Little, Prof. Mark New, Britta Rennkamp, Matthew Scarborough, Prof. Judith Sealy, Prof. Les Underhill, Prof. Harald Winkler

Reaching for the Stars
Prof. Claude Carignan, Prof. Thomas Jarrett, Dr Jeff Murugan, Dr Amanda Weltman, Prof. Patrick Woudt

Every Drop Counts
Prof. Neil Armitage, Dr Kirsty Carden, Prof. Alison Lewis, Prof. Martine Visser

Sustainable Cities
Prof. Roger Behrens, Gordon Pirie, Prof. Vanessa Watson

Being Human
Prof. Carrol Clarkson, Prof. Ana Deumert, Prof. Carolyn Hamilton, Prof. Shamil Jeppie, Prof. Rajend Mesthrie

The Green Economy
Prof. Harro von Blottnitz, Prof. Rachel Wynberg

Engineering the Future
Prof. Hans Beushausen, Prof. Sue Harrison, Prof. Komla Folly, Prof. Genevieve Langdon

Law in Context
Prof. Jaco Barnard-Naudé, Prof. Hugh Corder, Prof. Salvatore Mancuso, Dr Sindiso Mnisi-Weeks, Prof. Hanri Mostert, Prof. Clifford Shearing, Prof. Dee Smythe, Prof. Danie Visser

Commerce Beyond the Numbers
Prof. Don Ross

Global Partnerships, Local ICT Solutions
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