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.

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.
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

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 MCNAUGHTH, A.M.
Prosthesis with Underactuated Prosthetic Fingers.
PCT Patent Application 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/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

Expression of Proteins in Plants.
Divisional Patent Application China 201210488322.6

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.

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

Expression of Proteins in Plants.
National Phase Patent Application Europe 06740997.9

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 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 hydroxyethyl 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 Hospital 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.

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

LEWELLYN R.
Drug errors in anaesthesia.

Contact Details

Postal Address: D23 Department of Anaesthesia, New Groote Schuur Hospital, Anzio Road
Observatory, 7925, South Africa
UCT Telephone: SA (21) 406 6143
GSH Telephone:SA (21) 404 5004
Fax:SA (21) 406 6589
Email: justiaan.swanevelder@uct.ac.za; robert.dyer@uct.ac.za
Research output

Articles in peer-reviewed Journals


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, 13 MSc, 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor (HOD)</td>
<td>1</td>
</tr>
<tr>
<td>Chief Scientific Officer</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

Permanent Joint Academic Staff on NHLS Establishment

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
<td>2</td>
</tr>
<tr>
<td>Senior Lecturer</td>
<td>3</td>
</tr>
<tr>
<td>Lecturer</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Senior Lecturer</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Degree/Program</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>1</td>
</tr>
<tr>
<td>Master’s (MMed)</td>
<td>13</td>
</tr>
<tr>
<td>Master’s (MSc)</td>
<td>4</td>
</tr>
<tr>
<td>BSc Hon (Med Biochemistry)</td>
<td>1</td>
</tr>
<tr>
<td>Master’s (MPhil Paediatric Pathology)</td>
<td>1</td>
</tr>
<tr>
<td>Undergraduate (MBChB) Year 2</td>
<td>210</td>
</tr>
<tr>
<td>Undergraduate (MBChB) Year 3</td>
<td>214</td>
</tr>
<tr>
<td>Undergraduate (MBChB) Year 5 (Gynaecology)</td>
<td>192</td>
</tr>
<tr>
<td>Allied Health Sciences</td>
<td>124</td>
</tr>
<tr>
<td>Intercalated course</td>
<td>5</td>
</tr>
<tr>
<td>Elective students</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>768</strong></td>
</tr>
</tbody>
</table>

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.
Contact details

Division of Anatomical Pathology
Department of Clinical Laboratory Sciences
Level 4, Room 4.10, Falmouth Building
Faculty of Health Sciences
University of Cape Town
Anzio Rd
Observatory, 7925
SOUTH AFRICA
Tel: 021 406 6162
Fax: 021 404 7611
E-mail: Dhiren.Govender@uct.ac.za
Website: Anatpath.uct.ac.za

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 2012)
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 Nauea (04 December 2012)
Divisional Statistics
Permanent and Long-term Contract Staff

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>1</td>
</tr>
<tr>
<td>Emeritus Professors</td>
<td>2</td>
</tr>
<tr>
<td>Medical Natural Scientists</td>
<td>3</td>
</tr>
<tr>
<td>Medical Specialists</td>
<td>5</td>
</tr>
<tr>
<td>Administrative and Secretarial Staff</td>
<td>1</td>
</tr>
<tr>
<td>Technical Officers</td>
<td>2</td>
</tr>
<tr>
<td>Departmental Assistants</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>6</td>
</tr>
<tr>
<td>Master’s</td>
<td>3</td>
</tr>
<tr>
<td>M Med</td>
<td>5</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>214</td>
</tr>
</tbody>
</table>

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 aciduria 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)

Contact Details

Postal Address: Division of Chemical Pathology, Faculty of Health Science, Private Bag X3, Observatory, 7935
Telephone: +27 21 406 6192
Fax: +27 21 448 8150
E-mail: cpy-secretary@uct.ac.za
Web: http://web.uct.ac.za/depts/chempath/
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.

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.

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)
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

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral</td>
<td>2</td>
</tr>
<tr>
<td>Doctoral</td>
<td>5</td>
</tr>
<tr>
<td>Master’s</td>
<td>8</td>
</tr>
<tr>
<td>Honours</td>
<td>4</td>
</tr>
<tr>
<td>Undergraduate</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
</tr>
</tbody>
</table>

Contact details

Physical address:
UCT Computational Biology Group
Room N1.05
Werner Beit North Building Basement
Institute of Infectious Disease and Molecular Medicine
Anzio Rd
Observatory

Postal address:
UCT Computational Biology Group
Institute of Infectious Disease and Molecular Medicine
University of Cape Town Health Sciences Campus
Anzio Rd
Observatory
7925
South Africa
e-mail: info@cbio.uct.ac.za
web: http://www.cbio.uct.ac.za/
Tel: 021-406 6176
Fax: 021-650 6068

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head: Clinical Department/Professor</td>
<td>1</td>
</tr>
<tr>
<td>Head: Clinical Unit</td>
<td>1</td>
</tr>
<tr>
<td>Specialists</td>
<td>3</td>
</tr>
<tr>
<td>Medical Officer</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturer / Course Convenuer</td>
<td>1</td>
</tr>
<tr>
<td>Chief Medical Technologist</td>
<td>1</td>
</tr>
<tr>
<td>Medical Technologist</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and clerical</td>
<td>5</td>
</tr>
<tr>
<td>Admin &amp; Clerical (part-time)</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory Assistant</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Course</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s (M Med)</td>
<td>5</td>
</tr>
<tr>
<td>Biomedical Forensic Science (M Phil)</td>
<td>16</td>
</tr>
<tr>
<td>Undergraduate (MBChB) - Year 5</td>
<td>179</td>
</tr>
<tr>
<td>Undergraduate (LLB) - Final year</td>
<td>13</td>
</tr>
<tr>
<td>Special Study Module – Year 2</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>211</strong></td>
</tr>
</tbody>
</table>

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 Typtase; 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

Postal Address: Division of Forensic Medicine and Toxicology, P O Box 13914, Mowbray, 7705
Telephone: +27 21 406 6110
Fax: +27 21 448 1249
E-mail: june.mehl@uct.ac.za; lornaj.martin@uct.ac.za
Web: www.forensicmedicine.uct.ac.za
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

<table>
<thead>
<tr>
<th>Staff Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Staff</td>
<td>8</td>
</tr>
<tr>
<td>Associate Research Staff</td>
<td>2</td>
</tr>
<tr>
<td>Interns</td>
<td>7</td>
</tr>
<tr>
<td>Administrative</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

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)

Contact Details

Postal Address: Gender, Health & Justice Research Unit, Entrance 1, Level 1, Falmouth Building, Faculty of Health Sciences, UCT, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6024
Fax: +27 21 406 6020
E-mail: mrd-gender@uct.ac.za or kelley.moult@uct.ac.za
Web: http://www.ghjru.uct.ac.za

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:**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Clinical Service</td>
<td></td>
</tr>
<tr>
<td>Senior Specialists</td>
<td>2</td>
</tr>
<tr>
<td>Rotational Clinical Registrars</td>
<td>2</td>
</tr>
<tr>
<td>Senior Registrars</td>
<td>2</td>
</tr>
<tr>
<td>Chief Professional Nurse</td>
<td>2</td>
</tr>
<tr>
<td>Administrative and clerical staff</td>
<td>3</td>
</tr>
<tr>
<td><strong>Diagnostic Service</strong></td>
<td></td>
</tr>
<tr>
<td>Senior Pathologist</td>
<td>1</td>
</tr>
<tr>
<td>Pathologists</td>
<td>2</td>
</tr>
<tr>
<td>Pathologist part-time</td>
<td>1</td>
</tr>
<tr>
<td>Scientist</td>
<td>1</td>
</tr>
<tr>
<td>Pathology Registrars (Special and Clin Path)</td>
<td>7</td>
</tr>
<tr>
<td>Laboratory Manager</td>
<td>1</td>
</tr>
<tr>
<td>Medical Technologists</td>
<td>15</td>
</tr>
<tr>
<td>Technicians</td>
<td>4</td>
</tr>
<tr>
<td><strong>UCT Leukaemia Unit</strong></td>
<td></td>
</tr>
<tr>
<td>Scientist</td>
<td>1</td>
</tr>
<tr>
<td>Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Research Technologist</td>
<td>1</td>
</tr>
<tr>
<td>Clinical Research Co-Ordinator</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and clerical staff</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory assistants (medical school)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Students**

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>3</td>
</tr>
<tr>
<td>Master’s</td>
<td>3</td>
</tr>
<tr>
<td>Honours</td>
<td>1</td>
</tr>
<tr>
<td>MMEd</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>8</td>
</tr>
</tbody>
</table>

**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

**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

**Contact Details**

Postal Address: 6th Floor, Chris Barnard Building, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6154/404 3073
Fax: +27 21 448 8607
E-mail: Coleen.Fredericks@uct.ac.za
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

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>2</td>
</tr>
<tr>
<td>Emeritus Professors</td>
<td>1</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Research Staff</td>
<td>7</td>
</tr>
<tr>
<td>Chief Scientific Officer</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Secretarial Staff</td>
<td>2</td>
</tr>
<tr>
<td>Departmental Assistants</td>
<td>1</td>
</tr>
</tbody>
</table>

Part Time Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic Counselor Intern</td>
<td>1</td>
</tr>
<tr>
<td>Clinical Educator</td>
<td>1</td>
</tr>
<tr>
<td>Sessional Medical Officers</td>
<td>2</td>
</tr>
</tbody>
</table>

PGWC Personnel

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Specialist (F/T)</td>
<td>1</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>2</td>
</tr>
</tbody>
</table>

PGWC/UCT Personnel

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHLS Personnel</td>
<td></td>
</tr>
<tr>
<td>Discipline Specific Lab manager</td>
<td>1</td>
</tr>
<tr>
<td>Medical Technologists</td>
<td>8</td>
</tr>
<tr>
<td>Medical Scientist</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory Clerk</td>
<td>1</td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Professor</td>
<td>2</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral</td>
<td>3</td>
</tr>
<tr>
<td>PhD</td>
<td>16</td>
</tr>
<tr>
<td>Master’s</td>
<td>8</td>
</tr>
<tr>
<td>Honours</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
</tr>
</tbody>
</table>
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 Retardation; Bardet-Biedl Syndrome

MRS THERESA RUPPELT (NHLS)
Laboratory Manager: Cytogenetics

Contact Details

Postal Address:
Division of Human Genetics, Department of Clinical Laboratory Sciences, Level 3, Werner and Beit North Building; Institute for Infectious Diseases and Molecular Medicine, Faculty of Health Sciences, University of Cape Town, 7925, Observatory
Telephone: SA (21) 406 6297; Fax: SA (21) 406 6826/650 2010

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)**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>2</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>1</td>
</tr>
<tr>
<td>Research Staff</td>
<td>7</td>
</tr>
<tr>
<td>Technical Staff</td>
<td>6</td>
</tr>
<tr>
<td>Technical Support Staff</td>
<td>5</td>
</tr>
<tr>
<td>Administrative Staff</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
</tr>
</tbody>
</table>

**Students**

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral</td>
<td>12</td>
</tr>
<tr>
<td>Doctoral</td>
<td>19</td>
</tr>
<tr>
<td>Master’s</td>
<td>10</td>
</tr>
<tr>
<td>Honours</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
</tr>
</tbody>
</table>

**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 BROMBACKER, 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**

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 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 Trypanosome 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 - Unv 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. Fraueynhopher, Germany

Contact details
Tel: 406-6616
Fax: 406-6029
Email: dhuraiyah.abdullatief@uct.ac.za

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>5</td>
</tr>
<tr>
<td>Professor (emeritus) appointed as Senior Scholar</td>
<td>1</td>
</tr>
<tr>
<td>Professors on establishment but working in affiliated Institutions</td>
<td>1</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>3</td>
</tr>
<tr>
<td>Senior-Lecturers</td>
<td>0</td>
</tr>
<tr>
<td>Technical Support Staff</td>
<td>4</td>
</tr>
<tr>
<td>Departmental Assistants</td>
<td>3</td>
</tr>
<tr>
<td>Administrative Staff</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Professor</td>
<td>1</td>
</tr>
<tr>
<td>Honorary Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Honorary Senior Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Honorary Research Associate</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
</tr>
</tbody>
</table>

Students & Fellows

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral fellows</td>
<td>20</td>
</tr>
<tr>
<td>Research students</td>
<td></td>
</tr>
<tr>
<td>Doctoral</td>
<td>29</td>
</tr>
<tr>
<td>Master’s</td>
<td>24</td>
</tr>
<tr>
<td>Honours</td>
<td>11</td>
</tr>
<tr>
<td>Undergraduate students taking Med. Biochem courses</td>
<td>626</td>
</tr>
<tr>
<td>Total</td>
<td>710</td>
</tr>
</tbody>
</table>
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
COLLEN FLANAGAN, PHD CAPE TOWN
CYCLOOXYGENASES IN GYNAECOLOGICAL CANCERS

HONORARY RESEARCH ASSOCIATE

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 ABIE
SERAH KIMANI
LISELOTTIE 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
Division of Medical Biochemistry
Dept. of Clinical Laboratory Sciences
Level 6, Room 6.07, Falmouth Building
UCT Medical School
Anzio Rd
Observatory, 7925
Cape Town, SOUTH AFRICA
Tel: 021 404 7712 (Secretary)
021 406 6206 (Head)
Fax: 021 4066061
E-mail (Head): Peter.Meissner@uct.ac.za

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>3</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Clinical Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>1</td>
</tr>
<tr>
<td>Senior Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>1</td>
</tr>
<tr>
<td>Project Manager</td>
<td>1</td>
</tr>
<tr>
<td>Lab Manager</td>
<td>1</td>
</tr>
<tr>
<td>Data Management staff</td>
<td>1</td>
</tr>
<tr>
<td>Technical Support Staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Lecturers</td>
<td>2</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral</td>
<td>4</td>
</tr>
<tr>
<td>Registrars</td>
<td>3</td>
</tr>
<tr>
<td>Doctoral</td>
<td>7</td>
</tr>
<tr>
<td>Master’s</td>
<td>11</td>
</tr>
<tr>
<td>Honours</td>
<td>1</td>
</tr>
<tr>
<td>Undergraduates</td>
<td>407</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>433</td>
</tr>
</tbody>
</table>
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 WHITEAW
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

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

Postal Address: Division of Medical Microbiology, University of Cape Town, Medical School, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6727
Email: doris.moiola@uct.ac.za
Web: www.medmicro.uct.ac.za

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 a vibrant research programme focussing 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; Hepatitis 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 Williamson, 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 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

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>3</td>
</tr>
<tr>
<td>Academic</td>
<td>13</td>
</tr>
<tr>
<td>Research and Technical Support Staff</td>
<td>15</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Senior Lecturer</td>
<td>1</td>
</tr>
<tr>
<td>Honorary Research Associate</td>
<td>1</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMed</td>
<td>3</td>
</tr>
<tr>
<td>Postdoctoral</td>
<td>8</td>
</tr>
<tr>
<td>Doctoral</td>
<td>14</td>
</tr>
<tr>
<td>Master’s</td>
<td>15</td>
</tr>
<tr>
<td>Honours</td>
<td>3</td>
</tr>
<tr>
<td>Undergraduate (semesters 3-5)</td>
<td>407</td>
</tr>
</tbody>
</table>

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 Papillomavirus

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 ABRAMS  
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
Department of Clinical Laboratory Sciences

Research output

Authored books


Chapters in books


**Articles in peer-reviewed Journals**


widespread testing of HIV vaccine candidates at a clinical trial site in Pretoria, South Africa. AIDS Research and Human Retroviruses, 28(9): 1131-1138.


Nieuwenhuizen, N., Kirstein, F., Jayakumar, J., Emedi, B., Hurdayal, R., 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.


Olesen, O.F. and Parker, M.I. 2012. Health research in Africa: getting priorities right. Tropical Medicine & International Health, 17(9): 1048-1052.


Paget, C., Ivanov, S., Fontaine, J., Renneson, J., Blanc, F., Pichavant, M., Dumoutier, L., Ryffel, B., Renaud, C.J.,


for HIV but not for cytomegalovirus-specific CD8+ T Cells. Journal of Immunology, 189(8): 3838-3847.


Peer-reviewed published conference proceedings


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. Naeeema 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 Madhi 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 (PALS A 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.


### Department Statistics

#### Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>2</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>9</td>
</tr>
<tr>
<td>Senior Lecturer &amp; Lecturer</td>
<td>20</td>
</tr>
<tr>
<td>Part-time Lecturer</td>
<td>4</td>
</tr>
<tr>
<td>Clinical Educator</td>
<td>24</td>
</tr>
<tr>
<td>Technical and Support Staff</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
</tr>
</tbody>
</table>

### Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>13</td>
</tr>
<tr>
<td>Master’s</td>
<td>128</td>
</tr>
<tr>
<td>Postgraduate Diplomas</td>
<td>58</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>633</td>
</tr>
<tr>
<td>Total</td>
<td>832</td>
</tr>
</tbody>
</table>

### 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 JELMSA
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 LEOBANG RAMMA
Noise and public health

ASSOCIATE PROFESSOR ELEWANI 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-SERVE
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

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
Postal address: Department of Health and Rehabilitation Sciences, Faculty of Health Sciences University of Cape Town, Anzio Road, Observatory, 7925 Telephone: +27 21 406 6401 Fax: +27 21 406 6323 E-mail: debra.adams@uct.ac.za Web: http://www.health.uct.ac.za/departments/shrs/about/

Research output
Chapters in books


Articles in peer-reviewed Journals


Master’s degrees (by research)


Dutton, M. 2012. The effects of scapulothoracic rehabilitation on shoulder pain in competitive swimmers. MSc Physiotherapy. Supervised by Burgess, T. and Parker, 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.


Olivier, O. 2012. A comparison of treatment protocols for infants with motor delay. MSc Physiotherapy. Supervised by Ferguson, G. and Jelsma, J.


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 Fulbright 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 Brijal 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 Dimatelas, 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

<table>
<thead>
<tr>
<th>Permanent and long-term contract staff</th>
<th>119</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors (1 Discovery)</td>
<td>13</td>
</tr>
<tr>
<td>Associate Professors (1 MRC)</td>
<td>6</td>
</tr>
<tr>
<td>Senior Lecturers (1 MRC)</td>
<td>14</td>
</tr>
<tr>
<td>Lecturers (including part-time)</td>
<td>15</td>
</tr>
<tr>
<td>Postdoctoral and Research Staff</td>
<td>32</td>
</tr>
<tr>
<td>Technical and Support Staff</td>
<td>24</td>
</tr>
<tr>
<td>Admin and Clerical Staff</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>119</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Students</th>
<th>1869</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>48</td>
</tr>
<tr>
<td>Master’s</td>
<td>76</td>
</tr>
<tr>
<td>M Phil</td>
<td>26</td>
</tr>
<tr>
<td>Honours</td>
<td>47</td>
</tr>
<tr>
<td>PG Diploma</td>
<td>23</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>1649</td>
</tr>
<tr>
<td>Total</td>
<td>1869</td>
</tr>
</tbody>
</table>

### Research Fields and Staff

**PROFESSOR LAURISTON KELAWAY**

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 ERNEST M. 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
Senior Lecturer; physiology, neurobiology of stress, neurobiology of food intake

MS DINAH CURLING
Lecturer (part-time) Division of Human Nutrition

DR LESTER M. DAVIDS
Senior Lecturer; redox and antioxidant biology; skin cancer, pigmentary disorders of the skin, vitiligo, hair follicle biology

MS ZARINA EBRABIM
Clinical Educator (part-time); Division of Human Nutrition

DR JACQUI FRIEDLING
Lecturer; skeletal biology; physical anthropology, forensic anthropology
DR JULIA H. GOEDECKE
RUESSM: Specialist Scientist, MRC; Obesity in relation to disease risk; Exercise metabolism and sports nutrition

DR GENEY GUNSTON
Senior Lecturer; gross anatomy; clinical anatomy; medical education

DR ASFREE GWANYANYA
Senior Lecturer; cardiac pathophysiology, hypertrophy, ion channels

DR JANETTA HARBRON
Lecturer; Division of Human Nutrition; Obesity and other CDL intervention, Nutritional genomics; Sports nutrition.

MS FIONA HERRMANN
Clinical Educator (part-time); Division of Human Nutrition, risks for obesity development in SA communities, nutrition in palliative oncology

DR LAUREN HILL
Lecturer; Division of Human Nutrition, clinical dietetics; critical care, nutrition in surgical gastroenterology, gastrointestinal dysfunction, parenteral and enteral nutrition, oxidative stress and antioxidants

MS FATIMA HOOSEN
Clinical Educator (part-time); Division of Human Nutrition

DR MARCIN JANKIEWICZ
MIRU: Lecturer. Cape Universities Brain Imaging Centre: Magnetic Resonance Imaging

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 NAJAA
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 BALIM
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
RUESSM: Research Officer: Biomechanics research, Manager of the Biomechanics Lab., electronics

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
RUESSM: Senior Research Officer: Circadian rhythms and performance; Commercial research division manager

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
RUESSM: Senior Research Officer. Molecular human genetics

DR JAMES SMITH
RUESSM: Research Officer: Diet, health, metabolism and exercise performance

DR JEROEN SWART
RUESSM: Honorary lecturer. Sport and Exercise Medicine

DR ROSS TUCKER
RUESSM: Central Governor research, Exercise training; Commercial Research division co-management
MRS HENDRIENA VICTOR
RUESSM: Chief Scientific Officer: HPLC analysis, Laboratory support

Contact Details
Postal Address: Department of Human Biology, Health Sciences Faculty, Observatory, 7925, South Africa
Telephone: +27 21 406 6235
Fax: +27 21 448 7226
Email: Lauriston.Kellaway@uct.ac.za
Web: http://www.uct.ac.za/departments/humanbio/

Research output

Authored books


Edited books

Chapters in books


Articles in peer-reviewed Journals


Peer-reviewed published conference proceedings


Patents


Doctoral dissertations

Burger, I. 2012. A control system approach to subject specific prospective respiratory motion correction in cardiac MRI. Supervised by Meintjes, E.M.

Cock, 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.


Master’s degrees (by research)


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.


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 component in 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.


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

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>16</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>22</td>
</tr>
<tr>
<td>Senior Lecturers/lecturers Full-time</td>
<td>85</td>
</tr>
<tr>
<td>Administrative and clerical staff</td>
<td>37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>160</strong></td>
</tr>
</tbody>
</table>

#### Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Professors</td>
<td>7</td>
</tr>
<tr>
<td>Emeritus Professors</td>
<td>4</td>
</tr>
<tr>
<td>Honorary Associate Professors</td>
<td>3</td>
</tr>
<tr>
<td>Honorary Senior Lecturers</td>
<td>40</td>
</tr>
<tr>
<td>Honorary Research Associates</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59</strong></td>
</tr>
</tbody>
</table>

#### Students

<table>
<thead>
<tr>
<th>Degree</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>39</td>
</tr>
<tr>
<td>Master’s</td>
<td>122</td>
</tr>
<tr>
<td>Undergraduates</td>
<td>1134</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1295</strong></td>
</tr>
</tbody>
</table>

### Research Fields and Staff

*See Divisions and Research Units within the Department*

### Contact Details

**Postal Address:**
Department of Medicine,
Faculty of Health Sciences
University of Cape Town,
Observatory 7925,
Cape Town

Telephone: +27 21 406 6200
Fax: +27 21 448 6815
E-mail: faiza.pearce@uct.ac.za

### 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professors</td>
<td>1</td>
</tr>
<tr>
<td>Technical Support Staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

#### Research Fields and Staff

Associate Professor Stanley Ress
Immunology of tuberculosis; Autoimmunity

### Contact Details

**Postal Address:**
Clinical Immunology Laboratory,
H47 Old Main Building,
Groote Schuur Hospital,
Observatory 7925

Telephone: +27 21 406 6201
Fax: +27 21 448 6815
E-mail: stan.ress@uct.ac.za

### Department Of Dermatology

#### 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Emeritus Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers (full-time)</td>
<td>2</td>
</tr>
<tr>
<td>Senior Lecturers (part-time, 5/8)</td>
<td>2</td>
</tr>
<tr>
<td>(part-time, sessional)</td>
<td>4</td>
</tr>
<tr>
<td>Lecturer (part-time, 5/8)</td>
<td>1</td>
</tr>
<tr>
<td>(sessional, DOE funds)</td>
<td>1</td>
</tr>
<tr>
<td>Research Staff</td>
<td>4</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>4</td>
</tr>
<tr>
<td>Honorary Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>3</td>
</tr>
<tr>
<td>Master's</td>
<td>9</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>784</td>
</tr>
<tr>
<td>TOTAL</td>
<td>796</td>
</tr>
</tbody>
</table>

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 Lehloeny 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**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Professor (Visiting)</td>
<td>1</td>
</tr>
<tr>
<td>Social Scientist</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Naomi Levitt</td>
<td>Professor</td>
</tr>
<tr>
<td>Professor Krisela Steyn</td>
<td>Professor</td>
</tr>
<tr>
<td>Mrs Kathy Murphy</td>
<td>Social Scientist</td>
</tr>
<tr>
<td>Carmelita Sylvester</td>
<td>Centre Manager</td>
</tr>
<tr>
<td>Susan Botha</td>
<td>Administrative</td>
</tr>
</tbody>
</table>

**UCT Network Members**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Bangani Mayosi</td>
<td>1</td>
</tr>
<tr>
<td>Professor Eric Bateman</td>
<td>1</td>
</tr>
<tr>
<td>Professor Vicky Lambert</td>
<td>1</td>
</tr>
<tr>
<td>Professor Karen Silwa-Hahnle</td>
<td>1</td>
</tr>
<tr>
<td>Associate Professor Alan Bryer</td>
<td>1</td>
</tr>
<tr>
<td>Dr Tracy Kolbe-Alexander</td>
<td>1</td>
</tr>
<tr>
<td>Dr Lara Fairall</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Thandi Puoane (UWC)</td>
<td>Professor</td>
</tr>
<tr>
<td>Professor Bob Mash (Stellenbosch)</td>
<td>Professor</td>
</tr>
<tr>
<td>Professor Debbie Bradshaw (MRC)</td>
<td>Professor</td>
</tr>
<tr>
<td>Professor Carl Lombard (MRC)</td>
<td>Professor</td>
</tr>
<tr>
<td>Dr Thomas Gaziano (Harvard)</td>
<td>Adjunct Assistant Professor</td>
</tr>
<tr>
<td>Dr Kaushik Ramaya (Shree Hindu Mandal Hospital, Tanzania)</td>
<td>Senior Lecturer</td>
</tr>
<tr>
<td>Mr Jimmy Ledwaba (Provincial Government, Dept. of Health)</td>
<td>Other</td>
</tr>
<tr>
<td>Ms Unita Van Vuuren (Provincial Government, Dept. of Health)</td>
<td>Other</td>
</tr>
</tbody>
</table>

**NON-UCT Network Members**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor Thandi Puoane (UWC)</td>
<td>Professor</td>
</tr>
<tr>
<td>Professor Bob Mash (Stellenbosch)</td>
<td>Professor</td>
</tr>
<tr>
<td>Professor Debbie Bradshaw (MRC)</td>
<td>Professor</td>
</tr>
<tr>
<td>Professor Carl Lombard (MRC)</td>
<td>Professor</td>
</tr>
<tr>
<td>Dr Thomas Gaziano (Harvard)</td>
<td>Adjunct Assistant Professor</td>
</tr>
<tr>
<td>Dr Kaushik Ramaya (Shree Hindu Mandal Hospital, Tanzania)</td>
<td>Senior Lecturer</td>
</tr>
<tr>
<td>Mr Jimmy Ledwaba (Provincial Government, Dept. of Health)</td>
<td>Other</td>
</tr>
<tr>
<td>Ms Unita Van Vuuren (Provincial Government, Dept. of Health)</td>
<td>Other</td>
</tr>
</tbody>
</table>

**Contact Details**

Postal Address: J47 Floor, Old Main Building, Groote Schuur Hospital
Telephone: +27 21 406 6572
Fax: +27 21 406 6513
E-mail: Carmelita.Sylvester@uct.ac.za

**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 being 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Professor (visiting)</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Senior Registrar in Training</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
</tr>
</tbody>
</table>

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 patients with inflammatory bowel disease Metabolic consequences of antiretroviral therapy

Contact Details

Postal Address: Divisions of Endocrinology and Diabetic Medicine, Department of Medicine, Faculty of Health Sciences, Observatory, 7925
Telephone: +27 21 406 6140
Fax: +27 21 406 6513
E-mail: susan.botha@uct.ac.za

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers</td>
<td>5</td>
</tr>
<tr>
<td>Research Staff</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's</td>
<td>4</td>
</tr>
</tbody>
</table>

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 Setshed: Drug induced liver injury.

Contact Details

Postal Address: GI Clinic, E23, New Main Building, Groote Schuur Hospital, Observatory, 7925
Telephone: +27 21 404 3040
Fax: +27 21 447 0582
E-mail: sandie.thomson@uct.ac.za

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**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Clinical Service</td>
<td>1</td>
</tr>
<tr>
<td>Senior Specialists</td>
<td>2</td>
</tr>
<tr>
<td>Clinical Registrars</td>
<td>3</td>
</tr>
<tr>
<td>Senior House Officers</td>
<td>2</td>
</tr>
<tr>
<td>Chief Professional Nurse</td>
<td>2</td>
</tr>
<tr>
<td>Administrative and clerical staff</td>
<td>3</td>
</tr>
<tr>
<td>Diagnostic Service</td>
<td>1</td>
</tr>
<tr>
<td>Senior Pathologist</td>
<td>1</td>
</tr>
<tr>
<td>Pathologists</td>
<td>2</td>
</tr>
<tr>
<td>Pathologist part-time</td>
<td>1</td>
</tr>
<tr>
<td>Scientist</td>
<td>1</td>
</tr>
<tr>
<td>Pathology Registrars</td>
<td>5</td>
</tr>
<tr>
<td>Laboratory Manager</td>
<td>1</td>
</tr>
<tr>
<td>Medical Technologists</td>
<td>17</td>
</tr>
<tr>
<td>Technicians</td>
<td>4</td>
</tr>
<tr>
<td>UCT Leukaemia Unit</td>
<td>1</td>
</tr>
<tr>
<td>Scientist</td>
<td>1</td>
</tr>
<tr>
<td>Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Research Technologist</td>
<td>1</td>
</tr>
<tr>
<td>Clinical Research Co-Ordinator</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and clerical staff</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory assistants (medical school)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Students**

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>2</td>
</tr>
<tr>
<td>Master’s</td>
<td>3</td>
</tr>
<tr>
<td>MMed</td>
<td>2</td>
</tr>
<tr>
<td>Honours</td>
<td>1</td>
</tr>
</tbody>
</table>

**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

**Contact Details**

Postal Address: 6th Floor, Chris Barnard Building, Anzio Road, Observatory, 7925  
Telephone: +27 21 406 6154/404 3073  
Fax: +27 21 448 8607  
E-mail: Coleen.Fredericks@uct.ac.za  
Web: http://web.uct.ac.za/depts/haem/

**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.
### 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**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers / Research Officers</td>
<td>5</td>
</tr>
<tr>
<td>Senior Scientific Officer</td>
<td>2</td>
</tr>
<tr>
<td>Medical registrars</td>
<td>2</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

**Honorary Staff**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visiting Researcher</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturer</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

**Students**

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>3</td>
</tr>
<tr>
<td>Master’s</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

### 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.

### 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
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.

Contact Details
Postal Address: The Albertina and Walter Sisulu Institute of Ageing in Africa, Faculty of Health Sciences, University of Cape Town, L51, Old Main Building, Groote Schuur Hospital, Observatory 7925, Cape Town, South Africa.
Telephone: +27 21 406 6211
Fax: +27 21 406 6846
E-mail: iaa-institute@uct.ac.za
Web: http://www.instituteofageing.uct.ac.za

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 erythematosus (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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professors</td>
<td>2</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Emeritus Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior registrar</td>
<td>5</td>
</tr>
<tr>
<td>Part-time consultant</td>
<td>1</td>
</tr>
<tr>
<td>Medical officers</td>
<td>3</td>
</tr>
<tr>
<td>Medical registrars</td>
<td>3</td>
</tr>
<tr>
<td>PhD Students</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

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 naive patients

Contact Details
Postal Address: E13 Groote Schuur Hospital, Observatory, 7925
Telephone: +27 21 404 3318
Fax: +27 21 404 5215
E-mail: mmcadia@pgwc.gov.za

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 acute 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.
b. A Multi-center, Randomized Study comparing Thymectomy to No Thymectomy in Myasthenia Gravis- International study NIH funded. On advisory committee.
c. The psychiatric manifestations 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 Biology 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professors (Full-time)</td>
<td>4</td>
</tr>
<tr>
<td>Senior Lecturers (Full-time)</td>
<td>1</td>
</tr>
<tr>
<td>Lecturers (Part-time)</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
</tr>
</tbody>
</table>

Postgraduate Students

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Sc Hons</td>
<td>2</td>
</tr>
<tr>
<td>M.Sc</td>
<td>4</td>
</tr>
<tr>
<td>PhD</td>
<td>1</td>
</tr>
<tr>
<td>M. Med (Psychiatry)</td>
<td>1</td>
</tr>
<tr>
<td>M. Med (Family Med)</td>
<td>1</td>
</tr>
<tr>
<td>MA (Neuropsychology)</td>
<td>2</td>
</tr>
</tbody>
</table>

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

Contact Details
Postal Address: E8, New Groote Schuur Hospital, Observatory, 7925
Telephone: +27 21 404 3197/8
Fax: +27 21 406 6251
E-mail: alan.bryer@uct.ac.za

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 McIlneron 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>2</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>3</td>
</tr>
<tr>
<td>Senior Lecturer</td>
<td>3</td>
</tr>
<tr>
<td>Senior Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Medical Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Registrars</td>
<td>4</td>
</tr>
<tr>
<td>Research Fellow</td>
<td>1</td>
</tr>
<tr>
<td>Technical Support</td>
<td>10</td>
</tr>
<tr>
<td>Database Manager</td>
<td>1</td>
</tr>
<tr>
<td>Quality Assurance Manager</td>
<td>1</td>
</tr>
<tr>
<td>Information Pharmacist</td>
<td>4</td>
</tr>
<tr>
<td>Editor SAMF</td>
<td>1</td>
</tr>
<tr>
<td>Clinical Trial Monitors</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>7</td>
</tr>
<tr>
<td>Departmental Assistance</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>41</td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary professor</td>
<td>1</td>
</tr>
<tr>
<td>Honorary Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Honorary Research Associates</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4</td>
</tr>
</tbody>
</table>

Postgraduate Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral</td>
<td>1</td>
</tr>
<tr>
<td>Doctoral</td>
<td>13</td>
</tr>
<tr>
<td>Master’s</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15</td>
</tr>
</tbody>
</table>

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, P.J.
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.

Contact Details
Postal Address: Division of Clinical Pharmacology, University of Cape Town, K45, Old Main Building, Groote Schuur Hospital, Observatory, 7925
Telephone: (021) 406 6286
Fax: (021) 448 1989
Email: gary.maartens@uct.ac.za

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 gastrotoxicity. 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturer</td>
<td>1</td>
</tr>
<tr>
<td>Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Research Staff</td>
<td>2</td>
</tr>
<tr>
<td>Nurse practitioner</td>
<td>1</td>
</tr>
<tr>
<td>Administrative and Clerical staff</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Lecturers</td>
<td>3</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotating Medical Registrar</td>
<td>2</td>
</tr>
<tr>
<td>Medical Officer</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
</tr>
</tbody>
</table>

Contact Details

Postal Address:
J47 Old Main Building,
Groote Schuur Hospital,
Observatory 7925
Telephone: +27 21 404 5422/2131 or 406 6514
Fax: +27 21 448 3253
E-mail: melanie.burger@uct.ac.za; kallaa@iafrica.com

Department of Medicine

Research output

Chapters in books


Articles in peer-reviewed Journals


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.


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


replacement, presenting with retroperitoneal hematoma and successfully managed by percutaneous embolization and coiling. Catheterization and Cardiovascular Interventions, 80: 1002-1006.


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.


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 databases have been established which provide valuable information in maternal medicine, gynaecology 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>2</td>
</tr>
<tr>
<td>Associate Professors (full time)</td>
<td>2</td>
</tr>
<tr>
<td>Associate Professor (part time)</td>
<td>1</td>
</tr>
<tr>
<td>Adjunctive Professors</td>
<td>3</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>15</td>
</tr>
<tr>
<td>Lecturers (including part-time)</td>
<td>30</td>
</tr>
<tr>
<td>Postdoctoral and Research Staff</td>
<td>20</td>
</tr>
<tr>
<td>Technical and Support Staff</td>
<td>3</td>
</tr>
<tr>
<td>Admin and Clerical Staff</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>1</td>
</tr>
<tr>
<td>Master’s</td>
<td>35</td>
</tr>
<tr>
<td>PG Diploma</td>
<td>775</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>811</td>
</tr>
</tbody>
</table>

Research fields and staff

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 ZEPHIRNE 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 Steinhauser, 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

Professor Lynette Denny
Head: Department Obstetrics & Gynaecology
H45 Old Main Building
Groote Schuur Hospital
Observatory 7925
Tel: 27 21 404 4485 (secretary Jill Artlett) (w)
Fax: 27 21 448 6921
Email: lynette.denny@uct.ac.za

Research output

Chapters in books


Articles in peer-reviewed Journals


Peer-reviewed published conference proceedings


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 platform includes 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 multidisciplinary study that involves several departments and divisions in the Faculty of Health Sciences. 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

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>3</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>9</td>
</tr>
<tr>
<td>Emeritus Professors</td>
<td>6</td>
</tr>
<tr>
<td>Emeritus Associate Professors</td>
<td>10</td>
</tr>
<tr>
<td>Honorary Senior Lecturers</td>
<td>12</td>
</tr>
<tr>
<td>Honorary Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Senior Lecturers (full time)</td>
<td>30</td>
</tr>
<tr>
<td>Lecturers (full time)</td>
<td>7</td>
</tr>
<tr>
<td>Senior Lecturers (part time)</td>
<td>10</td>
</tr>
<tr>
<td>Lecturers (part-time)</td>
<td>11</td>
</tr>
<tr>
<td>Research Staff</td>
<td>62</td>
</tr>
<tr>
<td>Administrative and clerical staff</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>9</td>
</tr>
<tr>
<td>Master’s</td>
<td>47</td>
</tr>
<tr>
<td>MPhil</td>
<td>24</td>
</tr>
<tr>
<td>PG Diploma (Child Nurse Practice)</td>
<td>28</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>553</td>
</tr>
<tr>
<td>Total</td>
<td>661</td>
</tr>
</tbody>
</table>

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 interpersonal 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. D. ONALD**
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
and HIV associated neurocognitive 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 neurolology 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)

Contact Details
Postal Address: Department of Paediatric Medicine and Child Health, University of Cape Town, Red Cross Children’s Hospital, Rondebosch, 7700
Tel: +27 21 658 5324
Fax: +27 21 689 1287
Web: http://www.scah.uct.ac.za
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za
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 multidisciplinary, 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

<table>
<thead>
<tr>
<th>Level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master's</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
</tr>
</tbody>
</table>

Permanent and long-term contract staff (PGWC)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent staff (Full time)</td>
<td>33</td>
</tr>
<tr>
<td>Permanent staff (Part time)</td>
<td>2</td>
</tr>
<tr>
<td>Community service</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
</tr>
</tbody>
</table>

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 undertaken 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>4</td>
</tr>
<tr>
<td>Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Emeritus Professor</td>
<td>1</td>
</tr>
<tr>
<td>Honorary staff</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>

*MBChB students rotate through the Division

Students

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s</td>
<td>2</td>
</tr>
<tr>
<td>Registrars Junior</td>
<td>2</td>
</tr>
<tr>
<td>Registrars Senior</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
</tr>
</tbody>
</table>

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
Contact Details
Postal Address: Division of Child and Adolescent Psychiatry, School of Child and Adolescent Health, Red Cross Children’s Hospital, 46 Sawkins Road, Mowbray, 7700
Tel: +27 21 685 4103
Fax: +27 21 685 4107
Web: http://web.uct.ac.za/depts/ich
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor (part-time)</td>
<td>1</td>
</tr>
<tr>
<td>Emeritus Professor (part-time)</td>
<td>2</td>
</tr>
<tr>
<td>Specialist</td>
<td>2</td>
</tr>
<tr>
<td>Sub-specialist trainees</td>
<td>2</td>
</tr>
<tr>
<td>Senior Lecturers (part-time)</td>
<td>6</td>
</tr>
<tr>
<td>Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Administrative staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers (Snr Researchers)</td>
<td>6</td>
</tr>
<tr>
<td>Lecturers (Researchers)</td>
<td>0</td>
</tr>
<tr>
<td>PASS (Administrative)</td>
<td>4</td>
</tr>
<tr>
<td>PASS (Scientific and Technical)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Degree</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>3</td>
</tr>
<tr>
<td>Master’s</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>
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.

Contact Details
Postal Address: Children’s Institute, University of Cape Town, 46 Sawkins Road, Rondebosch, 7700
Tel: +27 21 689 5404
Fax: +27 21 689 8330/1287
E-mail: info@ci.org.za
Web: www.ci.org.za
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

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 undergraduate 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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Specialists</td>
<td>7</td>
</tr>
<tr>
<td>Registrars</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

Research fields and staff

**ASSOCIATE PROFESSOR JENNY THOMAS**
Acute and chronic pain management, palliative care, analgesia and sedation, burns, conjoined twins, paediatric trauma and orthopaedics, 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.

Contact Details

Postal address: Division of Paediatric Anaesthesia, School of Child and Adolescent Health, University of Cape Town, Red Cross War Memorial Children’s Hospital, Klipfontein Road, Rondebosch, 7700, Cape Town, South Africa.

Tel: +27 21 6585003 / 6585105
Fax: +27 21 6585183
Web: http://web.uct.ac.za/depts/ich
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

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 nuchae 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**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior specialist</td>
<td>1</td>
</tr>
<tr>
<td>Part-time specialist / Emeritus Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

#### Students

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registrars</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

#### 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

Postal address: Paediatric Nuclear Medicine, School of Child and Adolescent Health, University of Cape Town, Red Cross War Memorial Children’s Hospital, Klipfontein Road, Rondebosch, 7700, Cape Town, South Africa.
Tel: +27 21 6585367
UCT General enquiries: +27 21 650 9111
UCT web: [http://www.uct.ac.za](http://www.uct.ac.za)

## Department Of Paediatrics And Child Health

### Affiliated Disciplines

#### Paediatric Pathology

### 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

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>NHLS Staff</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>43</strong></td>
</tr>
</tbody>
</table>

#### Students

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registrars</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

### 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.
Contact Details
Postal Address: Paediatric Pathology, School of Child and Adolescent Health, University of Cape Town, Red Cross Children’s Hospital, Klipfontein Rd, Rondebosch, 7700
Tel: +27 21 658 5209
Fax: +27 21 658 5206
Web: http://web.uct.ac.za/depts/ich/
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

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
Tel: +27 21 658 5104
Fax: +27 21 658 5101
Web: http://web.uct.ac.za/depts/ich/
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>2</td>
</tr>
<tr>
<td>Emeritus Professor</td>
<td>3</td>
</tr>
<tr>
<td>Adjunct Professor</td>
<td>1</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>1</td>
</tr>
<tr>
<td>Career Paediatric Surgical Registrars</td>
<td>3</td>
</tr>
<tr>
<td>African Fellowship Training Programme</td>
<td>1</td>
</tr>
<tr>
<td>Karl Storz Fellowship Programme</td>
<td>1</td>
</tr>
<tr>
<td>Research Technologists / Social Worker</td>
<td>2</td>
</tr>
<tr>
<td>Administrative staff</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

#### Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>1</td>
</tr>
<tr>
<td>Master’s</td>
<td>3</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>168</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>172</td>
</tr>
</tbody>
</table>

### 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.

### Contact Details

Postal Address: Division of Paediatric Surgery, School of Child and Adolescent Health, University of Cape Town, Red Cross War Memorial Children’s Hospital, Rondebosch, 7700  
Tel: +27 21 658 5012  
Fax: +27 21 685 6632  
Web: http://www.surgicalskills.co.za; http://www.scah.uct.ac.za/clinicalservices/surgery.html  
UCT General enquiries: +27 21 650 9111  
UCT web: http://www.uct.ac.za
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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical officers</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
</tbody>
</table>

Research Fields and Staff

All staff members are involved in data collection

Dr Kate Balme is responsible for case data on poisoning.

Contact Details

Postal Address: Poisons Information Centre, School of Child and Adolescent Health, University of Cape Town, Red Cross Children’s Hospital, Klipfontein Rd, Rondebosch, 7700
Tel: +27 21 658 5308
Fax: +27 21 658 5331
Email poisonsinformation@uct.ac.za

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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s</td>
<td>4</td>
</tr>
<tr>
<td>PhD</td>
<td>5</td>
</tr>
<tr>
<td>Postdoctoral Fellows</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
</tr>
</tbody>
</table>
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.

Contact Details

Postal Address: Wernher and Beit Building South, Anzio Road, Observatory 7925
Tel: +27 21 406 6791
Fax: +27 21 406 6693
Web: http://www.satvi.uct.ac.za
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Department Of Paediatrics And Child Health

Research output

Edited Books

Chapters in books


Articles in peer-reviewed Journals


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.


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.


Nieuwenhuizen, N., Kirstein, F., Jayakumar, J., Emedi, B., Hurdayal, R., Horsnell, W., Lopata, A.L. and Brembacher, 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.


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 curricula
• 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 curricula
• 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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Honorary Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Junior Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Recruitment Officer: Rural Students</td>
<td>1</td>
</tr>
<tr>
<td>Health Teaching Platform Coordinator</td>
<td>1</td>
</tr>
<tr>
<td>Site Facilitators</td>
<td>3</td>
</tr>
<tr>
<td>NGO Facilitators</td>
<td>2</td>
</tr>
<tr>
<td>Site Coordinators</td>
<td>4</td>
</tr>
<tr>
<td>Facility Manager</td>
<td>1</td>
</tr>
<tr>
<td>Admin Staff</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
</tr>
</tbody>
</table>

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 LAURAINA VIVIAN  
Senior Lecturer: primary health care; medical anthropology; culture, psyche and illness; medical education; electromagnetic radiation health implications from cell phone technology

MRS JOHANNAH KEIKEKALAME  
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

Contact Details  
Cha Johnston  
Primary Health Care Directorate  
Old Main Building, Groote Schuur Hospital  
E47-25, Observatory, 7925  
Telephone: +27 21 406 6031/6761  
Fax: +27 21 448 5653  
E-mail: cha.johnston@uct.ac.za  
www.primaryhealthcare.uct.ac.za

Research output

Chapters in books


Articles in peer-reviewed Journals


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.


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

<table>
<thead>
<tr>
<th>Title</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>3</td>
</tr>
<tr>
<td>Emeritus Professors</td>
<td>5</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>4</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>35</td>
</tr>
<tr>
<td>Lecturers</td>
<td>9</td>
</tr>
<tr>
<td>Research Staff</td>
<td>35</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Title</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers</td>
<td>8</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Professors</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Title</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral / Clinical Research Fellows</td>
<td>6</td>
</tr>
<tr>
<td>Doctoral</td>
<td>11</td>
</tr>
<tr>
<td>Master’s</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
</tr>
</tbody>
</table>
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 / Psychiatric Intensive Care Social inclusion (Pete Milligan), bipolar disorder (Neil Horn), phenomenology of psychosis (Henk Temmingh).

Intellectual Disability Fetal alcohol spectrum disorder 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)

Contact Details

Postal Address: UCT Department of Psychiatry and Mental Health, Groote Schuur Hospital, Observatory, Cape Town, 7925
Tel: +27 21 404 2174 or +27 21 4066566
Fax: +27 21 448 8158
Web: http://web.uct.ac.za/depts/psychiatry/
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Research output

Authored books


Edited books


Chapters in books


Articles in peer-reviewed Journals


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.


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):


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 Pfruticosa. Xenobiotica, 42(10): 989-1000.


discrimination and psychological well-being in the USA and South Africa. Ethnicity and Health, 17(1-2): 111-133.


Peer-reviewed published conference proceedings


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 Vredefort.

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 (S2A3) 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 Jeerbhay 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 the 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 seminar 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 Grimsmo 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 (Boule)
  - Organising committee for the 1st SA HIV Clinicians Society Conference in Cape Town (Boule)
  - 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 in 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 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 Goggins, 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
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 research field through conceptual and methodological development, with some monitoring and evaluation at the national 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, 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 new empirical research projects under the IRHAP banner. 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.

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.
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 IMPAQ QT 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 CHCs) 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 CHCs 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.

Health Sciences
School Statistics

Permanent and long-term contract staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>5</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>8</td>
</tr>
<tr>
<td>Emeritus Associate Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>8</td>
</tr>
<tr>
<td>Lecturers (including part-time)</td>
<td>13</td>
</tr>
<tr>
<td>Chief Research Officer</td>
<td>2</td>
</tr>
<tr>
<td>Clinical Senior Research Officer</td>
<td>1</td>
</tr>
<tr>
<td>Senior Research Officer</td>
<td>5</td>
</tr>
<tr>
<td>Research Officer</td>
<td>11</td>
</tr>
<tr>
<td>Research Assistant</td>
<td>9</td>
</tr>
<tr>
<td>Research Project Management Staff</td>
<td>8</td>
</tr>
<tr>
<td>Data Management staff</td>
<td>9</td>
</tr>
<tr>
<td>Facilitators</td>
<td>32</td>
</tr>
<tr>
<td>Admin and Clerical Staff</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>136</strong></td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Professor</td>
<td>7</td>
</tr>
<tr>
<td>Honorary Associate Professor</td>
<td>2</td>
</tr>
<tr>
<td>Honorary Senior Lecturer</td>
<td>6</td>
</tr>
<tr>
<td>Honorary Lecturer</td>
<td>17</td>
</tr>
<tr>
<td>Honorary Research Associates</td>
<td>11</td>
</tr>
<tr>
<td>Visiting Lecturers</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54</strong></td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>27</td>
</tr>
<tr>
<td>Master’s</td>
<td>212</td>
</tr>
<tr>
<td>PG Diploma</td>
<td>108</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>1625</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1972</strong></td>
</tr>
</tbody>
</table>

Contact details

School of Public Health and Family Medicine, Faculty of Health Sciences, University of Cape Town, Observatory, 7925, South Africa  
Telephone: +27 21 406 6300  
Fax: +27 21 406 6459  
Web: http://www.publichealth.uct.ac.za/

Research output

Edited books


Chapters in books


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.


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.


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


elvitegravir with an emphasis on resource-limited settings. HIV/AIDS, 4: 5-15.


therapy in sub-Saharan Africa: systematic review and meta-analysis. Tropical Medicine & International Health, 17(12): 1509-1520.


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 SIEBRTS 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

Contact Details

Division of Medical Physics, Groote Schuur Hospital/ University of Cape Town, Observatory, 7925 Cape Town
Telephone: +27 21 404-6240
Fax: +27 21 404-6269
Email: Hester.Burger@uct.ac.za

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.
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.
   • 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.
   • Provision of a comprehensive clinical radiobiological research facility.

Divisional Statistics
Permanent and Long Term Contract Staff

Joint Staff (UCT/PAWC)

<table>
<thead>
<tr>
<th>Position</th>
<th>Full time</th>
<th>Part time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Consultant</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Junior Consultant</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Senior Consultant</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

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

Contact Details
Division of Nuclear Medicine, Groote Schuur Hospital and University of Cape Town, Observatory, 7925 Cape Town.
Telephone: +27 21 404-6747
Fax: +27 21 404-3402
Email: Tessa.Kotze@uct.ac.za

Research Fields and Staff

Permanent and Long Term Contract Staff

JMS Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Full time</th>
<th>Part time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

University Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Full time</th>
<th>Part time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Staff</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Administrative/Clerical Staff</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>7</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>

Joint Staff (UCT/PAWC)

<table>
<thead>
<tr>
<th>Position</th>
<th>Full time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of Clinical Unit</td>
<td>1</td>
</tr>
<tr>
<td>Senior Full-time Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Principal Medical Officers</td>
<td>1</td>
</tr>
<tr>
<td>Sessional Medical Officers</td>
<td>3</td>
</tr>
<tr>
<td>Medical Officer</td>
<td>1</td>
</tr>
<tr>
<td>Medical Scientists</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Full time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Lecturers</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

Postgraduate Students

<table>
<thead>
<tr>
<th>Position</th>
<th>Full time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registrars</td>
<td>16</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

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 - Gyneacological 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**

**Contact Details**

Postal address: Division of Radiation Oncology, Groote Schuur Hospital & University of Cape Town, Observatory, 7925, South Africa  
Telephone: +27 21 404 4263/5  
Fax: +27 21 404 5259  
E-mail: Raymond.abratt@uct.ac.za

**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, interventional 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, interventional 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 Interventional radiology

DR GARY SUDWARTS
Cross-sectional, abdominal imaging and Interventional radiology

DR TRACY KILBORN
Paediatric radiology

DR ROBERT SEGGE
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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor and Head of Division</td>
<td>1</td>
</tr>
<tr>
<td>Administrative Staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

JMS Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Lecturers</td>
<td>4</td>
</tr>
<tr>
<td>Lecturers</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

Part-time JMS Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emeritus Professor</td>
<td>1</td>
</tr>
<tr>
<td>Emeritus Associate Professors</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
</tr>
</tbody>
</table>

Part-time UCT Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Assistant</td>
<td>1</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s [registrars]</td>
<td>24</td>
</tr>
</tbody>
</table>

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.

Contact Details

Postal Address: Division of Radiology, Room 16, C16, Groote Schuur Hospital and University of Cape Town, Private Bag, Observatory, 7935
Telephone: +27 21 404 4184 or 406 6426
Fax: +27 21 404 4185
E-mail: Steve.Beningfield@uct.ac.za

Department Of Radiation Medicine

Research output

Articles in peer-reviewed Journals


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 manages all the non-trauma surgical emergencies.

Contact Details

Division of General Surgery, University of Cape Town, Groote Schuur Hospital, J46, Old Main Building, Observatory 7925
Tel: +27 21 406 6475
Fax: +27 21 448 6461
UCT web: http://www.uct.ac.za
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. Vitreoretinal disease.

DR J STEFFEN
Consultant Specialist, Groote Schuur Hospital. Vitreoretinal 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 Community Ophthalmology.

PROFESSOR S LEWALLEN
Ophthalmologist. Director of Kilimanjaro Centre for Community Ophthalmology.

Contact Details
Division of Ophthalmology, University of Cape Town Medical School, Observatory 7925
Tel: +27 21 406 6216
Fax: +27 21 406 6218
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

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

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Senior Lecturers – Part-time</td>
<td>4</td>
</tr>
<tr>
<td>Lecturers – Full-time</td>
<td>5</td>
</tr>
<tr>
<td>Lecturers – Part-time</td>
<td>6</td>
</tr>
<tr>
<td>Administrative and Clerical Staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate FCS(SA) Orth &amp; MMed</td>
<td>19</td>
</tr>
<tr>
<td>Undergraduate MBChB</td>
<td>210</td>
</tr>
<tr>
<td>Bsc Physio/Occupational Therapy</td>
<td>30</td>
</tr>
<tr>
<td>Diploma in Orthopaedic Nursing Science</td>
<td>26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>260</strong></td>
</tr>
</tbody>
</table>
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)

Contact Details
Postal address: Department of Orthopaedic Surgery, H49 Old Main Building, Groote Schuur Hospital, Observatory, 7925, Republic of South Africa.
Telephone: +27 21 406 6157/8
Fax: +27 21 447 2709
E-mail: bernadette.priest@uct.ac.za

Divisional Statistics

Permanent and Long-term Contract Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>2</td>
</tr>
<tr>
<td>Research Staff</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
</tbody>
</table>

Honorary staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Lecturers</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>14</td>
</tr>
<tr>
<td>MMed/College</td>
<td>16 (16 Stellenbosch)</td>
</tr>
<tr>
<td>MMed supernumerary</td>
<td>6 (6 Stellenbosch)</td>
</tr>
<tr>
<td>MPhil</td>
<td>20</td>
</tr>
<tr>
<td>MSc</td>
<td>5</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>3rd, 4th, 5th and 6th years</td>
</tr>
</tbody>
</table>

Divisional Website: www.emergencymed.co.za
Telephone: +27 21 948 9908
Fax: +27 21 948 9909
Lee.wallis@uct.ac.za
Postal Address: Division of Emergency Medicine, University of Cape Town, Medical School, Groote Schuur Hospital, HS3 Old Main Building, Observatory, 7925
Tel: +27 21 948 9908
Fax: +27 21 948 9909
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Contact Details
Postal address: Department of Orthopaedic Surgery, H49 Old Main Building, Groote Schuur Hospital, Observatory, 7925, Republic of South Africa.
Telephone: +27 21 406 6157/8
Fax: +27 21 447 2709
E-mail: bernadette.priest@uct.ac.za

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 ROTHERMEYER, 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.

**Contact Details**

Postal address: H-53, Old Main Building, Groote Schuur Hospital, Observatory, 7925, South Africa
Tel: +27 21 406 6213
Fax: +27 21 406 6555
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

**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 other affiliated hospitals.
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 supernumery 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**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Lecturer</td>
<td>1</td>
</tr>
<tr>
<td>Senior Lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Administrative</td>
<td>1</td>
</tr>
<tr>
<td>Sessional Senior Lecturers</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

**Students**

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMed</td>
<td>5</td>
</tr>
<tr>
<td>Undergraduate (6th years)</td>
<td>187</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>192</strong></td>
</tr>
</tbody>
</table>

**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**

Postal Address: Division of Urology, Area E26, New Groote Schuur Hospital, Anzio Road, Observatory, 7925  
Telephone: SA (021) 406 6529  
Fax: SA (021) 406 6122  
e-mail: lesley.burke@uct.ac.za

**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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>1</td>
</tr>
<tr>
<td>Lecturers</td>
<td>5</td>
</tr>
<tr>
<td>Lecturers (part-time)</td>
<td>6</td>
</tr>
<tr>
<td>Audiologists</td>
<td>3</td>
</tr>
<tr>
<td>Administrative Staff</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s</td>
<td>9</td>
</tr>
<tr>
<td>Karl Storz Fellow in Advanced Head and Neck Surgery</td>
<td>1</td>
</tr>
</tbody>
</table>

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. COLEY
Paediatric ENT, ENT in primary care

E. MEYER
Otolaryngology; Paediatrics; Head and Neck

T. HARRIS
Otolaryngology; Head and Neck

O. EDKINS
Sialendoscopy; General ENT

Contact Details

Postal Address: Division of Otolaryngology, Faculty of Health Sciences, Anzio Road, Observatory, 7925
Tel: +27 21 406 6420
Fax: +27 21 448 8865
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

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

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>1</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>4</td>
</tr>
<tr>
<td>Senior Consultants</td>
<td>3</td>
</tr>
<tr>
<td>Senior Lecturer</td>
<td>2</td>
</tr>
<tr>
<td>Supernumerary Registrars</td>
<td>2</td>
</tr>
<tr>
<td>Surgical Registrar</td>
<td>6</td>
</tr>
<tr>
<td>Surgical Rotator</td>
<td>1</td>
</tr>
<tr>
<td>Senior Medical Officer</td>
<td>1</td>
</tr>
<tr>
<td>Senior Scientific Officer</td>
<td>1</td>
</tr>
<tr>
<td>Secretary</td>
<td>1</td>
</tr>
<tr>
<td>Medical Technologist Director</td>
<td>1</td>
</tr>
<tr>
<td>Senior Medical Technologist</td>
<td>2</td>
</tr>
<tr>
<td>Clinical Technologist/Perfusionist</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>28</strong></td>
</tr>
</tbody>
</table>

#### Students

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral</td>
<td>13</td>
</tr>
<tr>
<td>M.Med.</td>
<td>5</td>
</tr>
<tr>
<td>Master’s</td>
<td>8</td>
</tr>
<tr>
<td>Honours</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

### 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
Contact Details

Chris Barnard Division Of Cardiothoracic Surgery
D24, New Groote Schuur Hospital, Anzio Road,
OBSERVATORY 7925, Cape Town, South Africa
Tel: +27 21 406 6181
Fax: +27 21 448 1145
Web: http://www.health.uct.ac.za/departments/surgery/cardiothoracic/
UCT General enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za

Cardiovascular Research Unit

Room 3.13, Chris Barnard Building, Faculty of Health Sciences, University of Cape Town, Anzio Road,
OBSERVATORY 7925, Cape Town, South Africa
Tel: +27 21 406 6476/6385
Fax: +27 21 448 5935

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. transgender 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 burns.

Permanent and Long Term Contract Staff

<table>
<thead>
<tr>
<th>Permanent and Long Term Contract Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
</tr>
<tr>
<td>Senior Lecturers</td>
</tr>
<tr>
<td>Lecturers</td>
</tr>
<tr>
<td>Administrative Staff</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Students

<table>
<thead>
<tr>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
</tr>
<tr>
<td>Master's</td>
</tr>
<tr>
<td>Undergraduate</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

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

Contact Details

Postal address: Department of Plastic, Reconstructive & Maxillo-Facial Surgery, Room H53/69, Old Main Building, Groote Schuur Hospital, Observatory, 7925, Republic of South Africa.
Tel: +27 21 406 6415
Fax: +27 21 406 6649
UCT General Enquiries: +27 21 650 9111
UCT web: http://www.uct.ac.za
Department of Surgery
Research output

Chapters in books


Articles in peer-reviewed Journals


Deans Office: Health Sciences

Articles in peer-reviewed Journals

