Health Sciences

**Internal AWARDS**

- UCT College Fellow status (Profs Raj Ramesar, Gary Maartens, Bongani Mayosi, Valerie Mizrahi, Keertan Dheda) and College of Fellows’ Young Researcher Awards (Drs Tolu Oni and Jonathan Peter).
- UCT Social Responsiveness award: Assoc Prof Roshan Galvaan, Liesl Peters (Occupational Therapy).

**External AWARDS**

- South African Medical Research Council (SAMRC) Scientific Merit Awards: Gold – Prof Gary Maartens and Prof Robert Wilkinson (medicine), Silver – Dr Jonathan Peter (medicine), Platinum – Prof Dan Stein (psychiatry and mental health).
- NRF Research Excellence Award for Emerging Researchers: Dr Ntobeko Ntusi (medicine).
- SzA3 Gold South Africa Medal: Prof Tim Noakes (human biology).
- Cancer Association of South Africa AG Oettlé Memorial Medal and International Agency for Research on Cancer Medal of Honour: Prof Lynette Denny (obstetrics and gynaecology).
- Union Scientific Prize: Dr Helen Cox (pathology).
- TW Kambule-NSTF Awards: 2014/2015 – Prof Dan Stein (psychiatry and mental health), Prof Jennifer Jelsma (health and rehabilitation), Assoc Prof Grant Theron (medicine); 2015/2016 – Prof Crick Lund (psychiatry and mental health), Dr Tolu Oni (public health), Dr Sudesh Sivarasu (human biology).
- HUGO Africa Award: Prof Raj Ramesar (pathology).
- Royal Society of SA John FW Herschel Medal: Emer Prof Robert Millar (integrative biomedical sciences).

**New AWARDS**

- Prof Tania Douglas, in biomedical engineering and innovation, and Prof Nonhlanhla Khumalo, in dermatology and toxicology

**Accredited journal units**

- 554

**Income raised by contracts**

- R764m

**NRF ratings**

- 135

**NEW NRF A RATINGS since June 2015**

- Prof Bongani Mayosi

**DST/NRF SARChI Chairs**

- 11

**NRF ratings**

- 11 A rated
HIGHLIGHTS from June 2015 to June 2016

**New leadership appointments**

Prof Bongani Mayosi, dean of Health Sciences.

Prof Harsha Kathard, head of new Dept of Health Sciences Education.

Prof Carolyn Williamson and Prof Ed Sturrock, heads of Depts of Pathology and Integrative Biomedical Sciences (evolved from Dept of Clinical Laboratory Sciences).

Prof Karen Sliwa, director of the Hatter Institute, first woman World Heart Federation president-elect (also first from Africa).

Prof Lee Wallis, head of Emergency Medicine, first International Federation for Emergency Medicine President from Africa.

Prof Linda-Gail Bekker, CEO of the Desmond Tutu HIV Centre (DTHC), first African woman International AIDS Society president.

**New initiatives**

SA's first hair and skin research laboratory (with Groote Schuur Hospital).

Cape Universities Body Imaging Centre (CUBIC).

**Significant research contributions**

A study by Dr Llewellyn Padayachy (surgery), with a leading Norwegian research institute, advanced the current static imaging method.

Research from the Francis Crick Institute and UCT, led by Dr Max Gutierrez and Prof Robert Wilkinson (director, Clinical Infections Diseases Initiative) could explain why people can be treated for TB hiding outside the lungs, recover, then get it again.

**POSTGRADUATES**

**(end-2015)**

1354 Master’s students

206 Master’s graduates

463 PhD students

58 PhD graduates

Highest number yet in 1 academic year

**Major research grants**

UCT and the University of Washington received a Bill and Melinda Gates Foundation grant to test a low-cost, simpler method of diagnosing TB.

Assoc Prof Jennifer Moodley (Cancer Research Initiative Director), Prof Iqbal Parker (integrative biomedical sciences) and Prof Bongani Mayosi (medicine) received international Newton Fund grants via the SAMRC.

Prof Lynnette Denny (head, obstetrics and gynaecology) received a SAMRC Clinical Cancer Research Centre grant and Prof Heather Zar (head, paediatrics and child health) a SAMRC Extramural Research Unit.

UCT received 10 National Institute of Health-MRC US-South Africa Programme for Collaborative Biomedical Research grants (Prof Carolyn Williamson, Assoc Prof Helen McMilleron, Prof Janet Hapgood, Assoc Prof Christopher Colvin, Dr Jo-Ann Passmore, Dr Catherine Riou, Assoc Prof Digby Warner, Prof Clive Gray, Assoc Prof Elmi Muller and Prof Robert Wilkinson).

**New UCT-accredited research groupings:**

Kidney Disease and Hypertension Research Unit (Prof Brian Rayner).

Neurosciences Institute (Prof Graham Fieggen).

MRC/UCT Unit on Child and Adolescent Health (Prof Heather Zar).

**POSTDOCS**

**(end-2015)**

117 up from 108 in 2014
DOCTORAL GRADUATIONS

Source: Doctoral Degrees Board

S. ADAMS (PUBLIC HEALTH)
A study to evaluate immunodiagnostic tests for tuberculosis infection and determinants of TB infection in a population of health care workers in the Western Cape of South Africa
Supervised by Professor K. Dheda and Professor R. Ehrlich

E. ALLEN (CLINICAL PHARMACOLOGY)
Optimising methodology for the elicitation of participant-reported data relating to drug safety in resource poor settings
Supervised by Professor K. Barnes

L. ATWOLI (PSYCHIATRY & MENTAL HEALTH)
Trauma and posttraumatic stress disorder in South Africa
Supervised by Professor D. Stein

F.K. BAIN (HUMAN GENETICS)
A molecular investigation of Huntington disease: origins of the mutation and current prevalence in South Africa
Supervised by Professor J. Greenberg and Dr M.R. Hayden

E. BARASA (HEALTH ECONOMICS)
Examining priority setting and resource allocation practices in county hospitals in Kenya
Supervised by Associate Professor S. Cleary

S. CLOW (MATERNAL & CHILD HEALTH)
The effect of a training and clinical facilitation programme for registered midwives in primary maternity settings with respect to managing labour: a pragmatic cluster randomised trial
Supervised by Professor G.H. Swingler

S. DALVIE (HUMAN GENETICS)
Genetic analysis of bipolar disorder and alcohol use disorder
Supervised by Professor C. Williamson, Professor R. Ramesar and Professor D. Stein

K. DITSE (MEDICAL MICROBIOLOGY)
Replication fidelity in the microevolution of mycobacteria
Supervised by Associate Professor D. Warner and Professor V. Mizrahi

K.A.M. DONALD (PAEDIATRICS)
Multimodal neuroimaging and early neurobehavioral and developmental correlates of alcohol-exposed infants in Cape Town
Supervised by Professor D. Stein

C.H.S. DRIVER (MEDICAL BIOCHEMISTRY)
The development of a radiolabelled macromolecule as a therapeutic agent for the treatment of cancer
Supervised by Associate Professor E.M. Meintjes, Professor R. Hunter and Dr J. Zeevart

J. DUARTE (MEDICAL BIOCHEMISTRY)
Proteomic studies on patient responses to chemotherapy, radiotherapy and immunotherapy in cancers
Supervised by Professor J. Blackburn

Z.L.A. DUBY (PUBLIC HEALTH)
Heterosexual penile-anal intercourse and HIV in five sub Saharan African countries
Supervised by Associate Professor C. Colvin

A.I. DZUDIE TAMDA (MEDICINE)
Predicting pulmonary hypertension and outcomes in patients with left heart disease
Supervised by Professor K. Sliwa-Hahnle and Associate Professor A. Kengne

J. FAN (BIOMEDICAL ENGINEERING)
Neuroimaging study of prenatal alcohol exposure effects on structural and functional connectivity in children
Supervised by Professor E. Meintjes and Dr P. Taylor

B. FANAMPE (MEDICINE)
Interferon-y aptamers for the diagnosis of extra-pulmonary tuberculosis
Supervised by Professor K. Dheda

J.M. FISHER (EXERCISE SCIENCE)
Revealing complexities within flat-water kayaking: injury prevention and biomechanical analysis
Supervised by Dr R. Tucker, Professor T. Noakes and Mr D. Karpul

M. GEIER (DISABILITY STUDIES)
Building communication interventions for children with severe disabilities on cultural resources: an action research enquiry
Supervised by Associate Professor S. Duma and Associate Professor T. Lorenzo

R. GOOSEN (MEDICAL BIOCHEMISTRY)
Towards personalised medicine: genomic profiling of primary colorectal carcinoma in South African cohort with a focus on molecular subtype discovery and characterisation
Supervised by Professor J.M. Blackburn

A. GRIMSRUD (PUBLIC HEALTH)
Loss to follow-up from South Africa’s antiretroviral treatment programme: trends, risk factors, and models of care to improve retention
Supervised by Professor B.L. Myer

C.J. HATTINGH (NEUROSCIENCES)
Structural neuroimaging in social anxiety disorder
Supervised by Professor D.J. Stein
J. HOARE (PSYCHIATRY)
A Diffusion Tensor Imaging and Neurocognitive Study of ART-naive and ART-treated Children in Cape Town
Supervised by Professor D. Stein

H.R. HOBBS (MEDICAL BIOCHEMISTRY)
Preparation and evaluation of polymer microspheres for enhanced lateral flow immunoassay; the case study for malaria.
Supervised by Professor J. Blackburn

P.W. HODKINSON (EMERGENCY MEDICINE)
Developing a patient-centred care pathway for paediatric critical care in the Western Cape
Supervised by Professor L. Wallis and Professor A. Argent

D.J. HUME (EXERCISE SCIENCE)
Mind the Gap: Brain-behaviour Barriers to Successful Weight Loss Maintenance
Supervised by Professor V. Lambert

T. JONGWE (MEDICAL VIROLOGY)
Construction and evaluation of three candidate vaccines expressing HIV-1 subtype C mosaic gag
Supervised by Professor A. Williamson

S.M. KASSIER (NUTRITION)
Weight status, health and life-style profile in overweight/obese black (Zulu) South African women and their potential to engage successfully with a health weight loss programme
Supervised by Professor M. Senekal

M.C. KIRKMAN (EXERCISE SCIENCE)
The reliability of 10 km treadmill time trial performance and the effect of different high intensity interval training strategies on 10 km running performance and associated physiological parameters
Supervised by Associate Professor A.N. Bosch and Professor M.I. Lambert

A.S. KOCH (MEDICAL MICROBIOLOGY)
Physiology of drug resistant mycobacteria: Implications for pathogenesis
Supervised by Professor D. Warner and Professor V. Mizrahi

N. KOEN (PSYCHIATRY)
Psychological trauma and posttraumatic stress disorder in a South African birth cohort study
Supervised by Professor D. Stein and Professor R. Ramesar

M. KULKARNI (BIOMEDICAL ENGINEERING)
Monte Carlo simulation of slot-scanning X-ray imaging systems
Supervised by Professor T. Douglas and Associate Professor F. Nicolls

M.-J.N. LAGUETTE (CELL BIOLOGY)
Characterisation of the 3’ UTR of the COL5A1 gene: implication for musculoskeletal soft tissue injuries
Supervised by Professor M. Collins and Professor S. Prince

K.N. LAKHA (ANATOMY)
Standards for epiphyseal union in South African children between the ages of 6 to 24 years using low dose x-ray (Lodox)
Supervised by Professor A. Morris

K.M. LARMUTH (MEDICAL BIOCHEMISTRY)
Angiotensin-converting enzyme cleavage of the Alzheimer’s beta-amyloid peptide
Supervised by Professor E. Sturrock and Ms S. Schwager

G.L. LAZARUS (MEDICAL PHYSICS)
Validation of monte Carlo-based calculations for small irregularly shaped intra-operative radio therapy electron beams
Supervised by Emeritus Professor E.R. Hering

M. LEBEKO (CELL BIOLOGY)
The use of in vitro 2d co-culture models to determine the optimal keratinocyte: melanocyte ratio to be used in the development of pigmented 3d skin model
Supervised by Associate Professor L. Davids

S. MAART (PHYSIOTHERAPY)
Disability in under resourced areas in the Western Cape, South Africa: a descriptive analytical study
Supervised by Professor J. Jelsma and Professor S.L. Amosun

H.M. MARANYANE (MEDICAL BIOCHEMISTRY)
Phosphoglucomutase 1 (PGM1) expression and regulation in cancer cells
Supervised by Associate Professor V. Leaner

M. MATJILA (OBSTETRICS & GYNAECOLOGY)
The role of kisspeptin and its cognate receptor GPR54 in normal and abnormal placentation
Supervised by Professor A. Katz

B.M. MUHIRE (BIOINFORMATICS)
Evolutionary impacts of secondary structures within the genomes of eukaryote-infecting single-stranded DNA viruses
Supervised by Associate Professor D. Martin

M. MUSVOSVI (CLINICAL SCIENCE & IMMUNOLOGY)
Systems analysis of the CD4 T cell response induced by the novel subunit tuberculosis vaccine, H11C31
Supervised by Dr T. Scriba and Dr A. Penn-Nicholson
K. NARAN (MEDICAL MICROBIOLOGY)
Elucidation of mechanisms of antibiotic subversion in Mycobacteria
Supervised by Associate Professor D. Warner and Professor V. Mizrahi

P.L. NARAYANAN (BIOMEDICAL ENGINEERING)
Development of a tool for automatic segmentation of the cerebellum in MR images of children
Supervised by Professor E. Meintjes

D. NEWMAN-VALENTINE (NURSING)
Transsexual women on the journey of sexual re-alignment in a hetero-normative healthcare system in the Western Cape
Supervised by Associate Professor S. Duma

V. OKUNGU (HEALTH ECONOMICS)
Towards universal health coverage: Exploring healthcare-related financial risk protection for the informal sector in Kenya
Supervised by Professor D. McIntyre

L.C. PADAYACHY (NEUROSURGERY)
Ultrasound as a non-invasive diagnostic tool in paediatric neurosurgery: Relationship between the optic nerve sheath diameter (ONSD) and intracranial pressure (ICP)
Supervised by Professor G. Fieggen

A. POORAN (MEDICINE)
The role of IL-4 and Th2-like cytokines in pulmonary tuberculosis
Supervised by Professor K. Dheda and Professor J. Blackburn

P. RUNCIMAN (EXERCISE SCIENCE)
Performance and fatigue characteristics of Paralympic athletes with cerebral palsy
Supervised by Professor W. Derman

G. SALAZAR OREJUELA (BIOINFORMATICS)
Integration and visualisation of data in bioinformatics
Supervised by Professor N. Mulder

M.S. SIRRY (CARDIOVASCULAR BIOMECHANICS)
Computational biomechanics of acute myocardial infarction and its treatment
Supervised by Associate Professor T. Franz

A.S. UHLMANN (PSYCHIATRY)
Neural correlates of deficits in affect regulation in methamphetamine dependence with and without a history of psychosis
Supervised by Professor D.J. Stein and Dr B.S. Spottiswoode

M. UYS (EXERCISE SCIENCE)
Socio-ecological influences on physical activity in primary school children: a view from South Africa
Supervised by Professor V. Lambert and Dr C. Draper

P.J. VAN ZYL (NEUROSCIENCE)
A study of the WKY as a rat model of depression
Supervised by Professor. V. Russell

K. VIJOEN (MEDICAL BIOCHEMISTRY)
A systems biology study of bacterially-associated colorectal cancer
Supervised by Professor J.M. Blackburn

D. VULETIC (PSYCHIATRY)
Imaging of cerebral glucose metabolism, functional connectivity and perfusion in methamphetamine dependence, with and without psychotic symptoms, compared to healthy controls: a PET and MRI study
Supervised by Professor D. Stein

T. WILLMER (MEDICAL CELL BIOLOGY)
The role and regulation of the T-box transcription factor 3 in soft tissue and bone sarcomas
Supervised by Associate Professor S. Prince

A. WONKAM (HUMAN GENETICS)
Burden of sickle cell disease and prenatal genetic diagnosis in Cameroon
Supervised by Professor R. Ramesar

Z. ZUHLKE (PAEDIATRICS)
Outcomes of asymptomatic and symptomatic rheumatic heart disease
Supervised by Professor B. Mayosi

V.E.M. ZWEIGENTHAL (PUBLIC HEALTH)
The contribution of public health medicine specialists to South Africa’s health system
Supervised by Professor L. London and Emeritus Professor W. Pick

PATENTS

Filed Applications


**Granted Applications**


Department of Anaesthesia and Perioperative Medicine

Research Report 2015

Head of Department: Professor Justiaan Swanevelder
Second Chair: Professor Robert Dyer

Departmental Profile

The Professor and Head of Department of Anaesthesia, Justiaan LC 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).

In recognition of the importance of the discipline of Anaesthesia in the field of Perioperative Medicine, during the course of 2015 the Faculty of Health Sciences approved the change of the name of our Department to “Department of Anaesthesia and Perioperative Medicine”. Professor Bruce Biccard was appointed as the lead clinician and Head of the Clinical Unit of Perioperative Medicine in the Department.

Two major Fellowships were established. Stortz sponsored the first, and Dr Ross Hofmeyr was appointed to the Airway Fellowship. The Draeger Company contributed towards a Fellowship in Simulation and Remote Learning, occupied by Dr Rowan Duys.

Airway research

2015 saw considerable advances in the Difficult Airway Facility, under the leadership of the incumbent of the Stortz Airway Fellowship.

Critical Care

In the field of septic shock, two projects are in progress. The first involves high dose Vitamin C in the management of haemodynamic failure, and the second relates to markers of oxidative stress in this condition. An international collaborative study is in progress on the attitudes of physicians to the withdrawal of therapy.

Obstetric Anaesthesia

This remains an important area of investigation. The project on spinal anaesthesia in preeclampsia has been completed. There is ongoing collaboration with the University of Washington in the field of echocardiography in preeclampsia. Prof RA Dyer, who is NRF B2 rated, leads this research team.

Laboratory Research

The Department was involved in several areas of research in 2015. Dr Miller is the clinician in charge of the laboratory. Lizel Immelman, our senior medical technologist, plays an important role in the teaching of the coagulation process. Ms Margot Flint was appointed as Research Assistant and is involved in several projects, working closely with Professor Biccard in the area of Perioperative Medicine. In the area of clinical fluid and coagulation research, three studies involved the use of TEG to examine coagulation in HIV parturients, in patients undergoing renal biopsy, and in patients with traumatic brain injury. There is considerable ongoing animal research. Dr M Miller and Ms M Flint are involved in an animal study of coagulation in a porcine model of acute liver failure, in collaboration with Dr C Senden of UCL. Transoesophageal echocardiography is being performed in baboons undergoing valve replacement. Several Departmental members have been trained in anaesthetising sheep as part of research on minimally invasive mitral valve insertion, in the Hatter institute, in collaboration with Professor Peter Zilla.

Collaboration

National collaboration has been strengthened, in particular with UKZN, where the management of obstetric spinal hypotension, specifically in the South African setting, is a focus. Important international collaborations were continued and expanded during 2015, with Dr A Roscoe (Papworth, Cambridge, UK), Professor E Sloth (Aarhus, Denmark), Professor C Ortner (Medical University of Vienna), Dr V Krishnamoorthy (University of Washington, Seattle), Dr B Buddeberg (St Georges, London, UK), and Professor Alicia Dennis (University of Melbourne), amongst others.
Departmental Statistics

Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>Professors</td>
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<tr>
<td>Associate Professors</td>
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<tr>
<td>Specialists</td>
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<td>Medical Officers</td>
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<tr>
<td>Technologists</td>
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<tr>
<td>Administrative and Support staff</td>
<td>6</td>
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<td><strong>Total</strong></td>
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Emeritus and Affiliated Staff

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<td>Emeritus Professors</td>
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<tr>
<td>Affiliated Consultants</td>
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Students

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<td>Doctoral</td>
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<td>Masters (Registrars)</td>
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<td>Undergraduate 4th and 5th year MBCHB</td>
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</tbody>
</table>

Research Fields and Staff

**SWANEVELDER, JLC.**
Transoesophageal and transthoracic echocardiography (see above). Laboratory work on local anaesthetic toxicity in mice, employing TTE.

**HADEBE N, SWANEVELDER J.**
Cardiac pre-conditioning.

**MILLER M, IMMELMAN L, FLINT M.**
Coagulation studies using thromboelastography and thromboelastometry.

**JOUBERT IA, PIERCY J, MILLER M.**
Septic shock, ICU Quality Assurance, liver failure model.

**DYER RA, VAN DYK D, REED AR, VORSTER A, TIMMERMAN K, RADEMEYER M, SWANEVELDER J.**
Obstetric anaesthesia:
Cardiac output studies during spinal anaesthesia in patients with preeclampsia; effects of fluid loading and vasopressors; the genetics of preeclampsia; effects of vasopressors on cord gases; spinal anaesthesia in the obese parturient; transoesophageal echocardiography, temperature changes during spinal anaesthesia. See also further MMed projects below.

**Red Cross Hospital:**
Management of burns in children; pain management in children; Case reports; Fluid management in children; Noninvasive haemoglobin measurement; Paediatric burns: Coagulation studies; Evaluation of the need for psychosocial services for paediatric burn patients at the RCWMCH.

**HODGES O.**
Coagulation in patients with paediatric burns.

**SWANEVELDER J, MYBURGH A, NEJTHARDT M, ROODT F, CLOETE E.**
Transoesophageal echocardiography in cardiac anaesthesia; Point of care TTE; Medical student education in ultrasound.

**LLEWELLYN R.**
Drug errors in anaesthesia.

**HOFMEYR R, ROODT F, DE VAAL A.**
Airway research.

**DUYS R.**
Simulation and remote learning in anaesthesia.

Contact Details

Postal Address: D23 Department of Anaesthesia and Perioperative Medicine, New Groote Schuur Hospital, Anzio Road, Observatory, 7925, South Africa

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GSH Telephone: +27 21 404 5004
Fax: +27 21 406 6589
Email: justiaan.swanevelder@uct.ac.za and robert.dyer@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/anaesthesia

RESEARCH OUTPUT

Chapters in books

Articles in peer-reviewed journals


Department of Health and Rehabilitation Sciences

Research Report 2015

Head of Department: Associate Professor Shajila Singh

Departmental Profile

The Department of Health and Rehabilitation Sciences is a multi-professional department, which offers undergraduate and postgraduate programmes in Audiology, Speech-Language Pathology, Occupational Therapy, and Physiotherapy. The department also offers postgraduate diplomas, masters and PhD programmes in Disability Studies and Nursing and Midwifery. The department is characterised by diverse research interests and boasts a high level of research outputs. Much research is related to poverty and inequality, and HIV and AIDS, with a particular focus on disability and social inclusion. There is a strong engagement in research regarding health-related quality of life and the International Classification of Functioning and Disability. The department is home to researchers in Physiotherapy, Occupational Therapy, Communication Sciences and Disorders, Nursing and Midwifery and Disability Studies. The department has also developed expertise in clinical education research, to enhance student learning at undergraduate and postgraduate levels.
Departmental Statistics

Permanent and Long-Term Contract Staff

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<tr>
<th>Position</th>
<th>Number</th>
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<td>Professor</td>
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<tr>
<td>Associate Professor</td>
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<tr>
<td>Senior Lecturers</td>
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<td>Part-time Lecturers</td>
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<td>Research Staff</td>
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<td>Clinical Educators</td>
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<td>Technical Support Staff</td>
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<td>Administrative and Clerical Staff</td>
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Emeritus and Honorary Staff

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<td>Honorary Research Associates</td>
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Students

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<th>Number</th>
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<td>Doctoral</td>
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<td>Masters</td>
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<td>PG Diploma</td>
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<td>Undergraduates</td>
<td>812</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>1037</strong></td>
</tr>
</tbody>
</table>

Research Fields and Staff

Permanent staff

**PROFESSOR SEYI AMOSUN**
Physiotherapy
Non-communicable diseases; Disability prevention, health promotion and wellness across lifespan; health professions education

**MRS ANTHEA BRINKMAN**
Communication Sciences and Disorders; Disability Studies
Rehabilitation service delivery, community based rehabilitation; health needs of people with disabilities in home and community settings

**DR HELEN BUCHANAN**
Occupational Therapy
Evidence-based practice; hand therapy; measurement instruments; occupational therapy for physical health conditions; clinical reasoning and reflection; education; occupation-based practice

**DR THERESA BURGESS**
Physiotherapy
Clinical and research ethics; clinical sports physiotherapy; muscle damage and endurance exercise

**ASSOCIATE PROFESSOR SHEILA CLOW**
Nursing and Midwifery
Midwifery; women’s health care; intrapartum care; mentorship

**ASSOCIATE PROFESSOR SINEGUGU DUMA**
Nursing and Midwifery
Health sector’s response to gender based violence, Sexual violence in different settings, forensic nursing, qualitative research.

**ASSOCIATE PROFESSOR EVE DUNCAN**
Occupational Therapy
Poverty, occupation and psychiatric disability; disability inclusion through participatory development in deep rural communities; Occupational therapy education

**DR GILLIAN FERGUSON**
Physiotherapy
Paediatrics, Motor Control and Rehabilitation; Physical Activity and Fitness Testing

**DR NICKI FOUCHE**
Nursing and Midwifery
Critical Care Nursing; Advanced Nursing Practice; End-of-life care/palliative care; Death and Dying (Thanatology); Curriculum Development; Phenomenology – especially Hedeggerian Hermeneutic Phenomenology

**ASSOCIATE PROFESSOR ROSHAN GALVAAN**
Occupational Therapy
Occupation-based community development practice; occupational justice; occupational choice; youth; OT curriculum and human rights

**MS PAM GRETSCHEL**
Occupational Therapy
Best Occupational Therapy practice for children and caregivers in a South African context

**MS ZERINA HAJWANI**
Occupational Therapy
Supported Employment of Persons with Psychiatric Disabilities; Employers and Employment Equity in South Africa; Occupational Justice within Forensic Psychiatry; Recovery and persons with psychiatric diagnosis.
**DR MICHAL HARTY**  
Communication Sciences and Disorders  
Augmentative and Alternative Communication (AAC); naturalistic developmental behavioural interventions for children autism and other developmental disabilities, and family-centred intervention practices (particularly parent training).

**MS CANDICE HENDRICKS**  
Physiotherapy  
Rehabilitation of sports-related orthopaedic and neuromusculoskeletal conditions

**DR BUSAYO IGE**  
Disability Studies  
Identity and student learning; teaching and learning

**PROFESSOR JENNIFER JELSMA**  
Physiotherapy  
Function in children with HIV/AIDS; health related quality of life; living conditions of people with disabilities; use of the ICF

**PROFESSOR HARSHA KATHARD**  
Communication Sciences and Disorders; Health Sciences Education  
Communication development and impairment; disability innovation; rehabilitation service delivery

**DR UNA KYRIACOS**  
Nursing and Midwifery  
Role of biosciences in clinical nursing education; vital signs monitoring, early warning/modified early warning score systems; ophthalmic nursing; intervention research: cluster RCTs; patient safety.

**PROFESSOR THERESA LORENZO**  
Disability Studies; Occupational Therapy  
Inclusive livelihoods development for disabled youth and women; disability inclusive sports, arts and recreation; monitoring and evaluation of community based rehabilitation; disability in higher education

**DR SORAYA MAART**  
Physiotherapy  
Public Health issues; People with disabilities: epidemiology, functioning, participation and access to services; Occupational Health interventions

**MS SHAMILA MANIE**  
Physiotherapy  
TB: cardio-pulmonary rehabilitation; Intensive Care Unit management

**ASSOCIATE PROFESSOR PAT MAYERS**  
Nursing and Midwifery  
Mental health; support and training for health care practitioners; human rights, ethics and care; task shifting.

**DR JUDITH MCKENZIE**  
Disability Studies  
intellectual disability in Africa: inclusive education; disability in migration and climate change; online teaching and learning; support to families with children with disabilities

**MS NIRI NAIDOO**  
Physiotherapy  
Neuromusculoskeletal conditions (including hand rehabilitation); Higher Education practice and assessment strategies. Childhood obesity

**MS VIVIENNE NORMAN**  
Communication Sciences and Disorders  
Paediatric dysphagia and early intervention

**DR MICHELLE PASCOE**  
Communication Sciences and Disorders  
Speech, language and literacy difficulties in children; Acquisition of Bantu languages.

**MS LUCRETIA PETERSEN**  
Communication Sciences and Disorders  
Otoxicity; otocoustic emissions; reliability and validity; Audiology; diagnostics; systematic review

**ASSOCIATE PROFESSOR ROMY PARKER**  
Physiotherapy  
Chronic pain and pain in HIV

**MS LIESL PETERS**  
Occupational Therapy  
Community development, human occupation and justice with a focus on issues related to vulnerability and vulnerable groups

**ASSOCIATE PROFESSOR LEOBOGANG RAMMA**  
Communication Sciences and Disorders  
Public Health Audiology

**ASSOCIATE PROFESSOR ELELWANI RAMUGONDO**  
Occupational Therapy  
Promoting childhood play in context; play, learning and development outcomes for children on anti-retroviral treatment; the politics of human occupation; occupational consciousness

**MS CHRISTINE ROGERS**  
Communication Sciences and Disorders  
Vestibular assessment and management; falls and fall prevention

**MRS CHERILEE RUTHERFORD**  
Communication Sciences and Disorders  
Adult and Paediatric Aural Rehabilitation, Music & Hearing loss, Telehealth, Hearing Aids & Amplification Technologies

**ASSOCIATE PROFESSOR SHAJILA SINGH**  
Communication Sciences and Disorders  
Dysphagia; adult motor speech; service delivery; linguistically relevant materials

**MS AMSHUDA SONDAY**  
Occupational Therapy  
occupational therapy identities, professional role
transitions, profound multiple intellectual disability, social inclusion

DR BRIAN WATERMEYER
Disability Studies
Disability in families living in poverty; Disability & mental health; Critical psychoanalysis & disability oppression; Disability, global human rights &citizenship; Sensory impairment, technology; right to information.

Clinical Educator Staff

MS FATEMAH CAMROODIEN-SURVE
Communication Sciences and Disorders
Early childhood intervention; parent training; clinical education

MS TRACEY-LEE CLOETE
Communication Sciences and Disorders
Public health audiology; developing programs for prevention and early identification of hearing loss; school-based screening services; health systems research

MS INGE CROY
Physiotherapy
Sports injuries and Rehabilitation; Clinical musculoskeletal injuries

MRS SHIREEN DAMONSE
Occupational Therapy
Paediatrics and school based occupational therapy

MRS NAILA EDRIES
Physiotherapy
Occupational health and wellness; promoting behaviour change; musculoskeletal injury management; evaluation and feedback methods to drive learning

MRS CELESTE EDWARDES
Communication Sciences and Disorders
Right hemisphere communication disorders intervention and referral pathways; cerebral palsy and communication

MS HANSKE FLIERINGA
Occupational Therapy
Physical health rehabilitation; child learning, play and development; work practice and community practice development. Student learning and augmented support; teaching and curriculum development.

MRS FAHMIDA HARRIS
Physiotherapy
Mental health; member profiles at senior service centres

MS NIKKI KEETON
Communication Sciences and Disorders
Higher education and clinical teaching

MS JANE LE ROUX
Communication Sciences and Disorders
Language and literacy development in grade 2 and 3 learners

MS LOREN LEWIS
Occupational Therapy
Education

MS TASNEEM MOHOMED
Occupational Therapy
Child learning development and play; autism spectrum disorder

MR MARC NAIDOO
Physiotherapy
Clinical education models and strategies; rehabilitation in neuro patients; soccer injury prevention

MRS ELRIETHA OLIVIER
Communication Sciences and Disorders
Cochlear implants; Bimodal fitting and FM use (Rehabilitative Technology); Balance disorders, Public Health: Audiology and Speech/Language Therapy

MRS DES SCOTT
Physiotherapy
Group teaching in clinical practice; paediatric clinical practice; Quality of life

MRS HEATHER TALBERG
Physiotherapy
Clinical education best practice models and guidelines; developing professional and reflective practitioners

MS FREDA WALTERS
Communication Sciences and Disorders
Fluency, community based rehabilitation; clinical education

Contact Details
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Website: http://www.dhrs.uct.ac.za
Edited books


Chapters in books


Articles in peer-reviewed journals


Jelsma, J.M. and Maart, S. 2015. Should additional domains be added to the EQ-5D health-related...


Tadyanemhandu, C. and Manie, S. 2015. Profile of patients and physiotherapy patterns in intensive care


Peer-reviewed published conference proceedings

engineering at Addis Ababa University and Jimma University in Ethiopia. Dr Sudesh Sivarasu was awarded the 3rd prize in the Emerging Medical Innovation Valuation Competition at the Design of Medical Devices Conference, Minneapolis, USA, for reScribe™. This UCT patent pending technology using a hand exoskeleton for hand writing rehabilitation in stroke patients was jointly developed with Yasheen Brijal and Dr Lester John. Dr Sivarasu was also a finalist of the Philips Innovations Fellow competition and has also filed international patents. The new 3T Siemens Skyra Magnetic Resonance Imaging (MRI) scanner at the Cape Universities Body Imaging Centre at UCT (CUBIC-UCT) was launched on 31 July 2015. This facility, which is a core facility in the Faculty of Health Sciences and the only research-dedicated MRI scanner on the continent, presents a collaboration between UCT, Stellenbosch University, the SAMRC and Siemens. The facility was funded through grants from the Technology Innovation Agency, the National Research Foundation, the Cancer Research Trust and the University of Cape Town. A new collaboration was initiated between Drs Jankiewicz and Meintjes with A/Prof Peter Torre from the School of Speech, Language and Hearing Sciences at San Diego State University to examine effects of HIV/ART on the neural circuitry involved in hearing. Prof Ernesta Meintjes and Drs Holmes and Taylor secured a number of grants from the NIH and the NRF, and Dr Alhamud as awarded an NRF Thuthuka grant. The MRI research group including Drs Alhamud, Robertson, Meintjes, Holmes and Taylor hosted a symposium “Introduction to Advanced Magnetic Resonance Neuroimaging Methods” at the 12th International Meeting of the Society of Neuroscientists of Africa in Durban. Staff and students within the Division presented their work at several national and international meetings. Dr Alhamud received a Magna Cum Laude Merit Award at the ISMRM for his presentation and a paper by PhD student Jia Fan and co-authors was featured as one of the top articles by the SAMRC. Dr Mutsvangwa’s journal article on automated statistical shape modelling was selected as featured paper in the IEEE Transactions on Biomedical Engineering. Several students and staff also visited to develop and strengthen collaborations with international Institutions. Dr Wumi Inyang was awarded a prestigious ‘Faculty for the Future’ Postdoctoral Fellowship of the Schlumberger Foundation. The division hosted several international visitors including Prof T Lazar Mathew from the PSG Institute of Advanced Studies in India, Prof Valérie Burdin and Dr Bhushan Borotikar from Télécom Bretagne, Drs Robert Cox, Gang Chen and Ziad Saad from the NIH, Assoc Prof Richard Edden from Johns Hopkins University, Prof André van der Kouwe from Harvard Medical School, Assoc Prof George Limbert from the University of Southampton, and Prof Michiel Postema from the University of Bergen.

DIVISION OF CELL BIOLOGY

Head of Division: Professor Susan Kidson

The Division of Cell Biology includes five academic staff members (Prof Susan Kidson (Head of Division), A/Prof Sharon Prince, A/Prof Lester Davids (promoted to level of Associate Professor in 2014) and Drs Robea Ballo and Liz van der Merwe), three technical staff (Ms Morea Petersen, Mrs Desiree Bowers and Ms Sandra Jordaan), 6 postdoctoral fellows, and about 45 postgraduate students. Areas of expertise in the division include cancer biology, drug development, biology of the skin, stem cell biology, development of the eye and eye diseases, pancreas regeneration and imaging. The division continues to attract honours students from across the country, and this year that name of the honours course was changed from Honours in Cell Biology and Honours in Medical Cell Biology. Twelve research papers were published and over 10 papers presented at international and local conferences including the AORTIC roadmap to Cancer Control in Africa (A/Prof Prince); Ass Prof Prince was the invited/keynote speaker for a number of conferences including the Pathology Research and Development Congress and CANSA Research in Action. Dr Davids was an invited speaker at the South African Dermatology Congress and South African Vitiligo Society and the South African Burns Congress. Prof Kidson was an invited speaker at the annual meeting of the SA Society of Neurosurgeons, and at the Stem Cell Bioethics and Law meeting in Pretoria.

The division and its students garnered a number of awards: A/Prof Davids received the SA-UK Newton Mobility award for collaboration with Oxford. Postdoctoral fellow Dr Deeya Ballim (from the Prince lab) was awarded the prestigious Marie Sklodowska-Curie Individual Fellowship for postdoctoral studies at the University of Bath where she is studying Waardenburg-Shah syndrome using a zebrafish model. Other student awards include Ms Tarryn Willmer and Ms Jenna Bloch, awarded first and second prize respectively at the annual departmental research day, and Dr Melissa Nel who was awarded first prize at the South African Society of Human Genetics. Drs Nancy Laguette, Tarryn Willmer and Maribanyana Lebeko graduated with PhDs, and Mr Fleury Nsole Biteghe with his MSc degree. Staff members were involved in the organization or participation of various workshops, including the Iran-South African Joint Workshop on Biotechnology (A/Prof Prince), a workshop in Sheffield to launch the International Woman’s network, and running
a writing skill workshop for SAWISE. (Dr van der Merwe). Staff and students participated in a variety of outreach activities, including radio interviews on specialist topics and school visits near and far, including Malmesbury, Clanwilliam) (Drs van der Merwe and Davids), as well as hosting of school learners Science in our Schools (SOS) programme (Dr Ballo). Dr Ballo co-authored an article in THE CONVERSATION on South African Laws governing stem cell research and gene editing. The division hosted a number of local and international visitors and students, including Dr Farisai Chidzwondo from the Department of Biochemistry, University of Zimbabwe and PhD students Ms Ania Szymf-Potapczuk (UWC), Ms Tania Davids (US), Ms Zenele Silla (UKZN) Mr M Harishanker (India) and MSc student Ms Eliza Mari Maliepaard (Netherlands).

DIVISION OF CLINICAL ANATOMY AND BIOLOGICAL ANTHROPOLOGY

Head of Division: Professor Graham Louw

For the Division of Clinical Anatomy and Biological Anthropology, 2015 was a year with several postgraduate student graduations, research presented at congress, obtaining some large research grants, among other research activities. Emeritus Prof Alan Morris was awarded NRF rated research support, a Leverhulme Visiting Professor Scholarship (which was used at the University of Cambridge) and a Humanitec Digitisation Grant. He made several short research visits to the University of Edinburgh, John Moores University Liverpool, Royal College of Surgeons London, The Natural History Museum London, Trinity College Dublin, University College Cork, and Royal College of Surgeons of Ireland, Dublin. Through his research travels he started a new collaborative project with Dr Jessica Thompson of Emory University, Atlanta, and Prof Ron Pinhasi of University College Dublin on “Revealing the cultural and genetic identities of ancestral central African populations through archaeology and ancient DNA in the Malawi highlands”. Prof Graham Louw, Dr Genev Gunston and Dr Jacqui Friedling went to the Anatomical Society of Southern Africa conference in Parys, along with several postgraduate students Francesca du Toit, Devin Finaughty, Marlie Greeff, Belinda Speed. Dr Gunston also attended the South African National First Year Experience and Students in Transition conference in Johannesburg. Dr Gunston also had an invited research visitor Dr Catherine Maud, a visiting lecturer from Deakin University Medical School, Geelong, Australia. Dr Maud is a psychiatrist, whose current research explores epigenetics and the role of oxytocin in perinatal biological mechanisms which have long-term implications for health. Dr Jacqui Friedling was awarded a NRF Thuthuka research grant and started a new national collaboration with the WITS Forensics Division, University of Witwatersrand. Dr Kavita Lakha obtained her PhD thesis entitled “Sequential changes in epiphyseal union in South African children between the ages of 6 up to 32 years using full body LODOX scans”. The following students completed their MSc dissertations, Carrie Clarke, Francesca du Toit, and Steven Randall, and the following students completed their BSc Honours, Laura Benetton, Chandra Longden-Thurgood, and Elizabeth Potter.

DIVISION OF EXERCISE SCIENCE AND SPORTS MEDICINE

Head of Division: Professor Estelle (Vicki) Lambert

Prof Estelle Lambert was awarded a grant from the NRF-DST Centre of Excellence in Food Security for a study entitled STOP-SA (Slow, Stop or Stem the Tide of Obesity in the People of South Africa) Neighborhood Food Environment. Dr Cathy Draper received the Newton Advanced Fellowship (with co-applicant Prof Gaia Scerif, University of Oxford) and a grant from the DST/NRF Centre of Excellence in Human Development Opportunity. Several other staff within the Division received research or travel grants from national agencies. Dr Swart and Prof Mike Lambert were awarded the research and sports medicine contract for the Old Mutual Two Oceans Marathon for a period of 5 years. Prof Mike Lambert received the merit award from SASMA for “exceptional contribution as editor-in-chief of the South African journal of Sports Medicine to sports and exercise medicine in South Africa. Several postgraduate students within the Division also received awards at national and international conferences.

The Division of Exercise Science and Sports Medicine enjoys active and productive collaborations with numerous national and international research groups. Members of ESSM also participated in an intra-Africa Research Collaboration, under the auspices of the African Physical Activity Network and Prof James Sallis, Active Living Research, University of San Diego. For the Western Cape on Wellness (WoW) health promotion initiative, a research and training collaboration was developed under the combined leadership of Professor Estelle Lambert, Dr Susan Bassett from the University of the Western Cape and Kashia Dickie from the University of Stellenbosch. Additional key collaborations were Prof Mike
Perhaps one of the seminal events for our division was the movement towards the development of a functionally-merged entity with the Sports Science Institute of South Africa. While the fruits of this merger have not yet been translated into research outputs in all areas, there are excellent examples of collaborative research outputs in rugby science, orthopaedics and sports medicine, and health promotion programme evaluation. This transition has also been noteworthy in that we have a change in staff complement with the appointment of two senior lecturers, Dr Yumna Albertus and Dr Jeroen Swart.

ESSM hosted many international and national visitors including Prof Greet Cardon, Ghent University, Scientific Chair for the Annual Meeting of the International Society of Behavioural Nutrition and Physical Activity which is being held in June 2016 in Cape Town, Dr Trina Hinkley, Deakin University, Prof Evert Verhagen, Willem Van Mechelen, Prof Joe Baker, York University, Canada, Dr Cordelia Carter, Yale University, Dr Benjamin Jones and Dr Kevin Till, Leeds Beckett University, Prof Andrew Jones, Exeter University, and Stuart Yale, Glasgow Warriors.

**DIVISION OF HUMAN NUTRITION**

**Head of Division: Associate Professor Marjanne Senekal**

Over the past year the Nutrition Division successfully organized and hosted a Continuing Professional Education (CPD) event for nutrition health professionals on “Obesity throughout the life cycle” to earn CPD points and update knowledge on obesity at different time periods in the life cycle. Division staff members further reviewed and provided input in the document, “Scope and competencies of the new nutrition professional” for the Health Professions Council of South Africa. Dr Janetta Harbron, Ms Sharmilah Booley and Ms Marieke Theron were part of a team that developed and provided content and scientific input on the South African Norms and Standards for Dietitians policy document commissioned by the Director of Nutrition, of the National Department of Health. Dr Harbron was a member of the committee that organized a breast feeding seminar entitled “Breastfeeding at work, the role of the workplace in the first 1000 days”, which was co-hosted by the Western Cape Department of Health during National breastfeeding week (1-7 August 2015). Furthermore, Dr Janetta Harbron delivered a presentation at the “Breastfeeding Seminar on Personal Experiences and Practical Information” on how to successfully express and continue breastfeeding when returning to work. Prof Marjanne Senekal was elected as chair of the scientific committee and Dr Harbron as a member of this committee for the 2016 National Nutrition Congress which will take place in Cape Town in September 2016. Ms Sharmilah Booley was elected to serve on the local organising committee for the International Society of Behavioural Nutrition and Physical Activity (ISBNA) conference, an annual international conference to be held in Cape Town 8-11 June 2016. She will be chairing an oral session and conducting a pre-conference workshop together with Dr Harbron and other members of the Division. Ms Booley, Ms Ebrahim and Ms Baheya Najaar attended the “Developmental Origins of Health and Disease” (DOHAD) conference held in Cape Town 8-11 November 2015. Ms Booley is also a member of research Collaboration with Wits, CDIA, UCT, University of Montreal: IINDIAGO (Integrated Intervention for Diabetes Risk after Gestational Diabetes (an integrated health system intervention aimed at reducing type 2 diabetes risk in disadvantaged women after gestational diabetes in South Africa). Ms Booley was awarded a NRF Thuthuka grant for use in 2016 and Ms Najaar received a UCT research start up grant. Ms Zarina Ebrahim served on the committee updating the Renal National Nutrition Policy Document. She also provided input to the “South African Norms and Standards for Dietitians” policy document with specific reference to renal diets. Ms Ebrahim presented a poster at the International Renal Congress March 2015 on “The Nutritional Status Assessment of Renal Transplant patients attending the Renal Transplant Clinic at GSH.” Ms Najaar attended the seminar “Breastfeeding at work, the role of the workplace in the first 1000 days”. Ms Najaar served on a health committee task team which is a collaboration of academia, NGOs and members of the provincial Department of Health where scientific information regarding health information and resources are developed for all stages of the lifecycle. Ms Marieke Theron worked with the Department of Health on the “Norms and Standards of Dietitians in SA” specifically with respect to the food service management component. She was also asked to be a member of a special task team working on the “therapeutic diet section” of the Norms and Standards document. This is a separate group that will liaise to finalise that section. Ms Najaar and Dr Steyn both received ad hominem promotions to senior clinical educator and to associate professor, respectively. In 2015, 12 honours students, 1 MSc (Med) (Celeste de Bruyn) and 1 PhD graduate (Suna Kassier) graduated in the Division.
In the Division of Physiological Sciences, Neurosciences have received a major boost in 2015: The newly founded International Brain Research Organization (IBRO) African Training Center for Advanced Neuroscience at UCT held its inaugural, and hugely successful, Advanced School on Epilepsy in December 2015. Major contributors to this IBRO School in the division were Drs Joseph Raimondo, Vinogran Naidoo and Prof Dirk Lang, who was appointed Local Coordinator of the IBRO Training Center at UCT. Emeritus Prof Vivienne Russell was appointed Chairperson of the IBRO Local Scientific Committee, and the article published as tribute to her contributions to Neuroscience (Journal of Neuroscience Methods 252) and her invited co-authorship on an article published in Nature (“Regional research priorities in brain and nervous system disorders”, Nature 527:S198-S206) are just some of her accolades in the past year. Prof Dirk Lang co-ordinated and led an international funding initiative for the creation of a world-class micro-imaging facility in the Faculty of Health Sciences, which has received at total amount exceeding R25 million from the NRF, the Wellcome Trust and the Wolfson Foundation. Dr Joseph Raimondo was awarded a Royal Society Newton Advanced Fellowship as part of a collaboration with Oxford University. He led a successful NRF-NEP application for a new electrophysiology and multi-photon imaging platform for the department; in addition he has been awarded funding as part of a collaboration with the Blue Brain Project in Lausanne Switzerland. Dr Raimondo also held a Royal Society funded 3-day neuroscience seminar featuring leading UK neuroscientists and their local counterparts in March 2015. Dr Vinogran Naidoo received a Research Development grant as a participant in the Emerging Researcher Programme at UCT and set up an international collaboration with Dr Alex Makriyannis (Northeastern University, USA) and Dr Ben Bahr (University of North Carolina, USA) investigating neuroprotective strategies against epilepsy. Several members of the Division (Drs Vinogran Naidoo, Joseph Raimondo and Prof Dirk Lang) became involved with designing a strategy for the newly established Neuroscience Institute at UCT. Academics and postgrad students in the Division published in internationally respected scientific journals and presented their work at local (Physiological Society of SA, SONA) and international conferences (Annual Meeting of the Society for Neuroscience) and workshops. As every year, the Division of Physiological Sciences made a substantial contribution towards the department’s teaching activities at undergraduate and postgraduate level. The intake and successful graduation of students in the Physiology Honours programme (convened by Prof Dirk Lang) reached an all-time high, and several MSc and PhD students graduated in 2015. Members of the Division also contributed to diverse outreach activities, e.g. visits of school classes to the department, work shadowing and career expos.

### Departmental Statistics

#### Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
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<tbody>
<tr>
<td>Professors</td>
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<tr>
<td>Associate Professors</td>
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<tr>
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<td>Research Staff</td>
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<td>Technical and Support Staff</td>
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<td>Admin and Clerical Staff</td>
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<td><strong>Total</strong></td>
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</table>

#### Emeritus, Honorary and Adjunct Staff

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<tr>
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<td>Adjunct Associate Professors</td>
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<td><strong>Total</strong></td>
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Students and Postdoctoral Fellows

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<th>Category</th>
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<td>Postdoctoral Fellows</td>
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<td>Doctoral</td>
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<td>MPhil</td>
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<td>Honours</td>
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<td>PG Diploma</td>
<td>17</td>
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<td><strong>Total</strong></td>
<td><strong>267</strong></td>
</tr>
</tbody>
</table>

Research Fields and Staff

Permanent and Long-Term Contract Staff

**PROFESSOR MALCOLM COLLINS**  
Head of Department; Molecular and genetic mechanisms, Musculoskeletal soft tissue injuries

**PROFESSOR TANIA DOUGLAS**  
Director, Medical Imaging Research Unit; Biomedical engineering, image processing, health innovation

**PROFESSOR SUE KIDSON**  
Head, Division of Cell Biology; Developmental biology; melanocytes and hypopigmentary disorders; eye development and glaucoma

**PROFESSOR VICKI ESTELLE LAMBERT**  
Head, Division of Exercise Science and Sports Medicine; Physical activity and metabolism

**PROFESSOR MIKE LAMBERT**  
Sports performance, training load, muscle adaptation, rugby science

**PROFESSOR GRAHAM J LOUW**  
Head, Division of Clinical Anatomy and Biological Anthropology; Human growth; medical education; skeletal analysis

**PROFESSOR ERNESTA MEINTJES**  
SARChI Chair in Brain Imaging; Director, Cape Universities Body Imaging Centre (CUBiC-UCT). Magnetic resonance imaging

**ASSOCIATE PROFESSOR ANDREW BOSCH**  
Effects of pre-exercise diet and supplements during exercise, Optimisation of performance of road runners

**ASSOCIATE PROFESSOR LESTER M DAVIDS**  
Senior Lecturer; Redox and antioxidant biology; skin cancer, pigmented disorders of the skin, vitiligo, hair follicle biology

**ASSOCIATE PROFESSOR THOMAS FRANZ**  
Head, Division of Biomedical Engineering; Cell and tissue mechanobiology, computational and applied biomechanics, cardiovascular diseases

**ASSOCIATE PROFESSOR DIRK M LANG**  
Head, Division of Physiological Sciences; Nervous system development; axon growth and regeneration; advanced light microscopy

**ASSOCIATE PROFESSOR EDWARD OJUKA**  
Role of CaMK in GLUT-4 regulation, NRF-1 and GLUT-4 regulation, Role of calcium in the regulation of mitochondria

**ASSOCIATE PROFESSOR SHARON PRINCE**  
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 YUMNA ALBERTUS**  
Senior Lecturer; Effect of rehabilitation on neuromuscular and motor control in spinal cord injuries and chronic disease

**DR KISHOR BUGARITH**  
Senior Lecturer; Physiology, neurobiology of stress, neurobiology of food intake

**DR CATHERINE DRAPER**  
Senior Lecturer; Development and evaluation of community-based health promotion interventions, with a particular focus on physical activity, Physical activity, gross motor skills, school readiness and executive function in early childhood

**DR GENEY GUNSTON**  
Senior Lecturer; Gross anatomy; clinical anatomy; medical education

**DR ASFREE GWANYANYA**  
Senior Lecturer; Cardiac pathophysiology, hypertrophy, ion channels

**DR JANETTA HARBRON**  
Senior Lecturer; Weight management interventions for obesity and other CDLs, Diabetes mellitus, Nutritional genomics; Sports nutrition

**DR LESTER JOHN**  
Senior Lecturer; Electromyography, electroencephalography, brain-computer interfacing, medical electronics & devices

**DR VINOGRAN NAIDOO**  
Senior Lecturer; Strategies in therapy of epilepsy
<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR MLADEN POLUTA</td>
<td>Senior Lecturer; Director, Healthcare Technology Management; Airborne infection control</td>
</tr>
<tr>
<td>DR DELVA SHAMLEY</td>
<td>Senior Lecturer; Upper limb morbidity in breast cancer, molecular effects of adjuvant therapies in cancer</td>
</tr>
<tr>
<td>DR SUDESIV SARAVASU</td>
<td>Senior Lecturer; Biomechanics, biomechatronics, medical devices &amp; rehabilitation engineering</td>
</tr>
<tr>
<td>DR CHARLES P SLATER</td>
<td>Senior Lecturer; Anatomy, medical education</td>
</tr>
<tr>
<td>DR NELIA STEYN</td>
<td>Senior lecturer; Non-communicable diseases and their risk factors; food security; research methodology</td>
</tr>
<tr>
<td>DR JEROEN SWART</td>
<td>Senior Lecturer; Injury prevention, cycling biomechanics, exercise and fatigue</td>
</tr>
<tr>
<td>DR LIZ VAN DER MERWE</td>
<td>Senior Lecturer; Ocular development and regeneration, vascular biology, pancreatic islet regeneration, 3-D microscopic image reconstruction</td>
</tr>
<tr>
<td>DR CHRISTOPHER WARTON</td>
<td>Senior Lecturer; Medical education, teaching materials, MRI analysis</td>
</tr>
<tr>
<td>MS ELM BADENORST</td>
<td>Lecturer; medical education, under-preparedness and academic performance</td>
</tr>
<tr>
<td>DR ROBEA BALLO</td>
<td>Lecturer; Cell biology and genetics, Genetics of vitiligo</td>
</tr>
<tr>
<td>MS SHARMILAH BOOLEY</td>
<td>Lecturer; 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)</td>
</tr>
<tr>
<td>MS LIEZL CORNELISSEN</td>
<td>Lecturer; Food science</td>
</tr>
<tr>
<td>MS CATHERINE DAY</td>
<td>Lecturer; Weight management, child development: Foetal alcohol syndrome, Adiponectin and its relationship with obesity, type 2 diabetes and cardiovascular disease</td>
</tr>
<tr>
<td>DR JACQUI FRIDELING</td>
<td>Lecturer; Skeletal biology; physical anthropology, forensic anthropology</td>
</tr>
<tr>
<td>DR JACOLENE KROFF</td>
<td>Lecturer; Physical activity and health; Validity, reproducibility and quality control of human energy expenditure measurements and body composition measurements</td>
</tr>
<tr>
<td>DR TINASHE MUTSVANGWA</td>
<td>Lecturer, 3D image reconstruction, statistical shape modelling</td>
</tr>
<tr>
<td>MR STEFAN STEINER</td>
<td>Lecturer; Biomechanics, biosciences</td>
</tr>
<tr>
<td>MRS MARIEKE THERON</td>
<td>Lecturer; Food service management, nutrition of vulnerable people</td>
</tr>
<tr>
<td>MS ZARINA EBRAMIN</td>
<td>Senior Clinical Educator; Renal nutrition</td>
</tr>
<tr>
<td>MS FIONA HERRMANN</td>
<td>Senior Clinical Educator; Risks for obesity development in SA communities, nutrition in palliative oncology, malnutrition in hospitalized patients</td>
</tr>
<tr>
<td>MS FATIMA HOOKEN</td>
<td>Clinical Educator; Nutrition related behaviour change interventions for prevention and management of chronic diseases of lifestyle in adults</td>
</tr>
<tr>
<td>MS KATHRYN MANNING</td>
<td>Clinical Educator; Chronic diseases of lifestyle</td>
</tr>
<tr>
<td>MS BAHEYA NAJAAR</td>
<td>Clinical Educator; Community nutrition, infant and young child feeding</td>
</tr>
<tr>
<td>MS KERRY SEXTON</td>
<td>Clinical Educator; Paediatric nutrition</td>
</tr>
<tr>
<td>Emeritus, Honorary and Adjunct Staff</td>
<td></td>
</tr>
<tr>
<td>EMERITUS PROFESSOR LAURISTON KELOWAY</td>
<td>Models of neuroinflammation, stress and brain function, in vivo and in vitro visual cortical mechanisms</td>
</tr>
<tr>
<td>EMERITUS PROFESSOR ALAN M G MURRIS</td>
<td>Human evolution; forensic anthropology, skeletal biology of early peoples in southern Africa; history of physical anthropology</td>
</tr>
<tr>
<td>EMERITUS PROFESSOR TIMOTHY NOAKES</td>
<td>Fluid and exercise, brain regulation of exercise performance, nutrition and health</td>
</tr>
<tr>
<td>EMERITUS PROFESSOR VIVIENNE RUSSELL</td>
<td>Neurophysiology: Development, stress, exercise and vulnerability to neuronal injury; Attention deficit hyperactivity disorder; Depression</td>
</tr>
<tr>
<td>EMERITUS PROFESSOR CHRISTOPHER (KIT) VAUGHAN</td>
<td>Mammography</td>
</tr>
</tbody>
</table>
PROFESSOR MATTHEW GLUCKSBERG
Honorary Professor; Biomedical engineering, respiratory physiology

PROFESSOR JOSEPH JACOBSON
Honorary Professor; Child development

PROFESSOR SANDRA JACOBSON
Honorary Professor; Child development

PROFESSOR DAVID KELSO
Honorary Professor; Low-cost diagnostics for infectious diseases in resource-poor environments

PROFESSOR ANURAG MAIRAL
Honorary Professor; Biodesign, health innovation, global healthcare

PROFESSOR WILLEM VAN MECEHELEN
Honorary Professor; Public health and sports injuries

ASSOCIATE PROFESSOR JULIA GOEDECKE
Honorary Associate Professor; Public health and obesity research

ASSOCIATE PROFESSOR GEORGES LIMBERT
Honorary Associate Professor; Skin mechanics, tissue regeneration

ASSOCIATE PROFESSOR WILLEM VAN DER MERWE
Adjunct Associate Professor; Orthopaedic research

DR LISA MICKLESFIELD
Honorary Senior Lecturer; Public health and early childhood development

DR BRUCE SPOTTISWOODE
Honorary Senior Lecturer; Magnetic resonance imaging

PROFESSOR EVERT VERHAGEN
Honorary Senior Lecturer; Sports injury research

DR JANINE GRAY
Honorary Lecturer; Biomechanics and injuries research

DR CLINT REDHEAD
Honorary Lecturer; Rugby research, injury management

DR WAYNE VILJOEN
Honorary Lecturer; Rugby research, injury management

Research and Scientific Officers and Research Associates

ASSOCIATE PROFESSOR ALISON SEPTEMBER
Chief Research Officer; Identification of the genetic risk factors underlying soft tissue injurie, elucidation of risk factors underpinning both injury and recovery of sports concussion

DR TERTIUS KOHN
Senior Research Officer; Skeletal muscle biochemistry of exercise adaptation, muscle fatigue and weakness

DR MICHAEL POSTHUMUS
Senior Research Officer; Genetics applied to performance and injuries, Sports orthopaedic research

DR DALE RAE
Senior Research Officer; Circadian rhythms and performance

DR LAURIE RAUCH
Senior Research Officer; Brain activity and cognitive stress

DR ALKATHAFI ALHAMUD
Research Officer; Magnetic resonance imaging

DR MARCIN JANKIEWICZ
Research Officer; Magnetic resonance imaging

DR DESHINIE KESWELL
Research Officer; NRF Career Fellow; Molecular and cellular aspects of obesity and type 2 diabetes

DR JOSEPH RAIMONDO
Research Officer; Cellular neuroscience, inhibitory synaptic transmission, ion dynamics, epilepsy, neurocysticercosis

DR FRANCES ROBERTSON
Research Officer; Neuroimaging: morphometry, FMRI and MRS techniques; neurodevelopment; prenatal alcohol exposure; HIV and antiretroviral treatment

DR JAMES SMITH
Research Officer; NRF Career Fellow; Diet, health, metabolism and exercise performance

MS NAFEESAH KARRIEM
Research Radiographer, Low-dose x-ray imaging

Postdoctoral Fellows

DR TAMER ABDALRAHMAN
Modelling of cellular and peri-cellular mechanics in myocardial infarcts

DR OLAWALE AJUWON
Antioxidant response and pigmentation in hypericin-photodynamic therapy induced cell death resistance in melanoma

DR REYNA DEEYA BALLIM
Molecular Biology, Cancer: 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 NAILAH CONRAD
Health innovation

DR JAMES BROWN
Injury prevention, catastrophic injuries, concussion, implementation, program evaluation, behaviour change

DR MARILIZE BURGER
Occupational injuries, carpal tunnel syndrome, upper limb disorders, tendinopathy, tendon and ligament injuries, genetic risk factors

DR KYLIE DE JAGER
Validation of non-invasive deep muscle EMG methods against invasive EMG techniques: Investigating the function of the popliteus muscle; Medical Device Development in South Africa: Network Analysis of Sectoral Collaboration; Automated Fluorescence Microscope for Tuberculosis Detection

DR RONALD DENDERE
Statistical modelling for 3D reconstruction of the proximal femur from 2D dual-energy X-ray images

DR GAURANG P DESHPANDE
Expression, function and cell biology of FAM111B, a novel protein associated with multi-system fibrosis

DR LINDIE DU PLESSIS
Effect of µ-opioids on the perception of anger, joy and fear in subjects who experienced early childhood trauma

DR JIA FAN
Effect of prenatal alcohol exposure on brain networks and connectivity.

DR SHARIEF HENDRICKS
Skill acquisition, performance, injury prevention, decision-making, motor control, technique analysis, biomechanics, performance analysis, long term player development, science visualization and communication

DR MARTHA HOLMES
Neuroimaging; neurodevelopment; HIV and antiretroviral treatment

DR OMOWUMI INYANG
Anatomical shoulder implant design

DR SERAH KIMANI
Molecular Biology, Cancer: Towards rational design of inhibitors targeting oncogenic transcription factors, TBX2 and TBX3

DR MARY-JESSICA NANCY LAGUETTE
Gene regulation, Genetic risk factors, Molecular mechanisms underlying soft tissue injuries

DR AKEEM LAWAL
Role of extracts of fermented rooibos tea (aspalathus linearis) induction of NQO1 expression in the oxidative and proinflammatory effects of diesel exhaust particles in systemic and vascular cells

DR GERALD MAARMAN
Cardiovascular Diseases (Cardiac failure, Hypertensive Cardiomyopathy, Right Ventricular Failure, Ischemia-Reperfusion Injury); The role of fructose in skeletal muscle-mitochondrial dysfunction and insulin resistance; Effects of long-term high carbohydrate/high fat diets on the heart

DR HLENGIWE PRETTY MADLALA
Carbohydrate metabolism, Diabetes; Kidney and cardiovascular function; Drug discovery / Indigenous medicine; Physiological signalling pathways as targets for therapeutic interventions

DR AMY MENDHAM
Mechanisms underlying insulin resistance in black South African women: lessons from an exercise intervention

DR MALEBOGO NGOEPE
Hybrid multiscale modelling in cardiovascular diseases and therapies

DR JADE PERES
Molecular Biology, Cancer: Regulation of TBX3 by the AKT signalling pathway and miRNAs in melanoma progression

DR FRANCES ROBERTSON
Neuroimaging: morphometry, FMRI and MRS techniques; neurodevelopment; prenatal alcohol exposure; HIV and antiretroviral treatment

DR MAZIN S SIRRY
Modelling of ventricular, myocardial and injectate mechanics from organ to sub-tissue scale

DR NICHOLAS TAM
Biomechanics of sport and health, injury prevention, sports performance, exercise physiology

DR PAUL TAYLOR
Neuroimaging; FMRI and DTI techniques, neuro-development; prenatal alcohol exposure; HIV and antiretroviral treatment

DR MONIKA UYS
Slow, stop or stem the tide of obesity in the people of South Africa (STOP-SA): Neighbourhood food environment

DR LAUREN WATSON
Stem cell model for spinocerebellar ataxia
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: malcolm.collins@uct.ac.za
Website: http://www.humanbiology.uct.ac.za

RESEARCH OUTPUT

Authored books


Chapters in books


Articles in peer-reviewed journals


Hill, J., Draper, C.E., de Villiers, A., Fourie, J.M., Mohamed, S., Parker, W. and Steyn, N. 2015. Promoting healthy lifestyle behaviour through the...


Peer-reviewed published conference proceedings


Department of Integrative Biomedical Sciences

Research Report 2015

Head of Department: Professor Edward Sturrock

Departmental Profile

The Department of Integrative Biomedical Sciences (IBMS) is based on the historic pre-clinical divisions of Medical Biochemistry and Computational Biology. It provides the foundation teaching and training in the preclinical years where core Biochemistry and Molecular Biology principals are taught in an integrated manner as part of patient orientated case studies. In addition, the department offers a course entitled Molecular Medicine that represent an opportunity to train a new cadre of young African clinician-scientists at the undergraduate level. It is open to 3rd year MBChB students who are enrolled in the intercalated MBChB/BMedSc(Hons) track and to students enrolled in the BSc(Med) programme. The Departmental academic activities are managed through an Executive Committee which is responsible for the operational functioning of the Department as well as for strategic and high-level planning and decisions. The ExCo comprises the HOD Prof E.D. Sturrock, the Deputy HOD Prof A. Katz, and the Heads of Divisions. IBMS is building capacity in scarce skills in South Africa including bioinformatics and large data analysis, as well as in integrative and multidisciplinary molecular sciences. It has current strengths both in undergraduate teaching, as well post-graduate training and research; and a strong National and African footprint in capacity development, education and service. The Department of Integrative Biomedical Sciences comprises three divisions: Chemical and Systems Biology; Computational Biology; Medical Biochemistry and Structural Biology.
Department of Integrative Biomedical Sciences

DIVISIONAL OF CHEMICAL & SYSTEMS BIOLOGY

Head of Division: Professor Jonathan Blackburn

Divisional Profile

The Division of Chemical & Systems Biology provides a specific focus on teaching, training and research in integrated ‘omics (including genomics, transcriptomics, proteomics, metabolomics & phenomics), synthetic biology and systems-oriented approaches to the description, diagnosis and treatment of the dynamic, complex cellular and molecular systems that underpin human disease phenomena. Our member groups are located within the Institute of Infectious Disease and Molecular Medicine (IDM) in the Health Science Faculty.

Our teaching, training and research bridges contemporary molecular medicine studies and the fields of biochemistry, chemical biology, systems biology and synthetic biology, combining physical, chemical, biological, synthetic, systems and biomedical concepts and techniques to describe amongst others molecular mechanisms of disease and to develop molecular interventions to diagnose and correct them.

Through 2015 there were 26 research postgraduate students registered Masters/PhD. The Division graduated 5 PhD and 1 MSc students during the course of 2015. During 2015 the Division and its’ affiliates published 31 papers in ISI-accredited science journals and had 3 granted patents.

Research includes the following focus areas:

- **Sturrock lab** – Angiotensin converting enzyme (ACE) structure activity relationships and development of ACE inhibitors (drug design) for treatment of hypertension, congestive heart failure, myocardial infarction and fibrosis.

- **Blackburn lab** – Application of functional proteomics for diagnostics, drug and vaccine development for infectious disease and cancers

- **Barth lab** – Research uses medical biotechnology such as antibody selection technology and protein engineering and expression to develop knowledge-based recombinant immunodiagnostics and therapeutics

- **Zerbini lab** – Regulation of gene expression by transcription factors, role of receptor tyrosine kinases in cancer malignancies, aberrant gene expression in carcinogenesis, alterations in signal transduction pathways and gene translocations

- **Mhlanga lab** – Gene Expression & Biophysics

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.

Divisional Statistics

### Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>Professors</td>
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<tr>
<td>Associate Professor Joint UCT/CSIR</td>
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<td>Junior Research Fellows</td>
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<tr>
<td>Departmental Chief/Senior Scientific Officer</td>
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<td>Administrative Staff</td>
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### Honorary Staff

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<td>Honorary Associate Professor</td>
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### Students and Postdoctoral Fellows

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<td>Postdoctoral Fellows</td>
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<td>Doctoral</td>
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<td>Masters</td>
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<td><strong>Total</strong></td>
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</tbody>
</table>
Research Fields and Staff

Professors

J M BLACKBURN
South African Research Chair
Proteomics and genomics for diagnostics, drug and
vaccine development for infectious disease and
cancers

E D STURROCK
FRSSAf & Fellow of UCT
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

S BARTH
NRF SARCHi Chair in Cancer Biotechnology
Medical biotechnology, antibody technologies,
protein engineering, immunodiagnostics, bioassay
development & integration

Honorary Associate Professor

LUIZ ZERBINI
Group Leader – Cancer Genomics

Associate Professor Joint UCT/CSIR

MUSA MHLANGA
Research group leader – Gene Expression &
Biophysics

Junior Research Fellow

NELSON DA CRUZ SOARES

Postdoctoral Fellows

NICOLETTE HENDRICKS
BRIDGET CALDER
MELISEW TADELE
CLEMENS HERMANN
SUERETA FORTUIN
LESHERN KARAMCHAND
MOUSUMI BANJERE
AFOLAKE AROWOLO
LAUREN ARENDSE
SHANKAR RAMACHANDRAN
DANIELLE LUCON
BRUNA DE ARAUJO LIMA
TED CHANG

Chief Scientific Officers

SYLVA SCHWAGER
Proteolytic processing of membrane proteins

ANDREW NEL
LC-MS based lipidomic analysis of breast milk
to evaluate the role of human milk factors in HIV
transmission

Senior Scientific Officers

Sriram Krishnan
Raman biosensors

Contact Details

Postal Address: Division of Chemical & Systems
Biology, Level 3, Room N3.06, Wernher Beit
North Building, UCT Medical School, Anzio Rd,
Observatory, 7925, Cape Town, South Africa
Telephone: +27 21 650 1595 (Administrator) and +27
21 406 6071 (Head)
Email (Head): jonathan.blackburn@uct.ac.za
Website: http://dev.chemsysbio.uct.ac.za
Department of Integrative Biomedical Sciences

DIVISION OF COMPUTATIONAL BIOLOGY

Head of Division: Professor Nicola Mulder

Divisional Profile

The Computational Biology (CBIO) Division, located within the Institute of Infectious Disease and Molecular Medicine (IDM), is the centre of Bioinformatics activities at the university. The mission of the CBIO Division is to become an exceptional, internationally recognized research and training center, addressing the challenges of bioinformatics capacity development in South Africa. The division performs bioinformatics research and provides training and services in the discipline.

Research focuses on infectious diseases from both the host and pathogen perspectives, particularly for TB and viral diseases. CBIO uses data mining and systems biology approaches to study the molecular biology and evolution of bacterial and viral pathogens and their interaction with their hosts. Through involvement in H3ABioNet, a pan African bioinformatics network for H3Africa, and the Human Heredity and Health in Africa (H3Africa) initiative, research has also focused on microbiomes, population genetics and GWA studies and the development of new algorithms to study the genetics of admixed populations.

CBIO has a large network of connections with other bioinformatics groups in Africa through H3ABioNet, and has ties with the African Institute for Mathematical Sciences (AIMS) by supervising student essays.

Training Activities: CBIO teaches a module for Molecular medicine students and several modules for the Health Science Honours programme. It also convenes 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. CBIO Graduations in 2015:

- Gustavo Salazar, PhD degree
- Brejnev Muhire, PhD degree
- Kayleigh Rutherford, Honours
- Florence Phelanyane, Honours
- Penelope Hay-Hartnady, Honours
- Sabina Stefan, Honours

CBIO hosted several interns in 2015, including: Phillip Magambo from Rhodes University; Hermina de Wit from Rhodes University; Elsa-Gayle Zekeng, University of Liverpool, and Zareen Baichoo, University of Mauritius. The CBIO group also runs short specialized workshops for researchers. In 2015 this included:

- H3ABioNet-AIMS Genome-wide Association Study Data Analysis Course (April 2015)
- GOBLET train the trainer workshop (November 2015)
- Practical Course on Gene/Protein Functional Networks and Interactomes (November 2015)
- Prof Mulder organized the 7-week national bioinformatics course for postgraduate students.

Bioinformatics Services: The CBIO IT team provides bioinformatics services and support to numerous researchers inside and outside UCT, as well as managing the server room which houses CBIO and other computing equipment.

Additional Achievements in the CBIO in 2015: Nicola Mulder once again was placed on the Thomson Reuters highly cited list in 2015. She was invited to join the Global Alliance Steering Committee, and gave invited talks at the eResearch conference in Cape Town, South Africa, the UCT Big Data meeting in Cape Town, and at the Intelligent Systems for Molecular Biology Conference in Dublin. She co-organized the ISCB Africa ASBCB Conference on Bioinformatics in Tanzania and was on the organizing committee for the Infectious Diseases and Global Health Conference in Cambridge. Darren Martin gave an invited talk at the Virus Evolution and Molecular Epidemiology Conference in Trinidad and Tobago.
Divisional Statistics

**Permanent and Long-Term Contract Staff**

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Professors</td>
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<td>Associate Professor</td>
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<td>Software Developer</td>
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<td>H3A BioNet Project Manager</td>
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<tr>
<td>Systems Administrator</td>
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</tr>
<tr>
<td>Training Coordinator</td>
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<tr>
<td>Administrator</td>
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<tr>
<td>Senior Secretary</td>
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<tr>
<td>H3Africa Administrator</td>
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<td>H3Africa Project Coordinator</td>
<td>1</td>
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<td><strong>Total</strong></td>
<td><strong>14</strong></td>
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**Honorary Staff**

<table>
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<tbody>
<tr>
<td>Honorary Senior Lecturer</td>
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**Students and Postdoctoral Fellows**

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<td><strong>Total</strong></td>
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**Staff**

**Permanent and Long-Term Contract Staff**

- **PROFESSOR NICOLA MULDER**  
  Head of Division
- **ASSOCIATE PROFESSOR DARREN MARTIN**  
  Associate Professor
- **GASTON MAZANDU**  
  Honorary Senior Lecturer
- **EMILE CHIMUSA**  
  Lecturer
- **NATASHA WOOD**  
  Lecturer

**Contact Details**

Postal Address: UCT Computational Biology Group, Institute of Infectious Disease and Molecular Medicine, University of Cape Town Health Sciences Campus, Anzio Road, Observatory, 7925 South Africa
Telephone: +27 21 650 5789
Email: info@cbio.uct.ac.za
Website: [http://www.cbio.uct.ac.za/](http://www.cbio.uct.ac.za/)
Department of Integrative Biomedical Sciences

DIVISION OF MEDICAL BIOCHEMISTRY & STRUCTURAL BIOLOGY

Head of Division: Associate Professor Virna Leaner

The Division of Medical Biochemistry and Structural Biology is a preclinical, basic science division in the newly formed Department of Integrated Biomedical Sciences 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 A/Prof Arieh Katz and Prof Bob Millar, Senior Scholar in our Division); the UCT Structural Biology Research Group (directed by Prof Trevor Sewell); members of the Institute of Infectious Disease and Molecular Medicine (IDM) at UCT (Profs, Meissner, Parker, Katz and Leaner); and the International Centre for Genetic Engineering and Biotechnology (ICGEB) (Prof Iqbal Parker).

Through 2015 there were 24 research postgraduate students registered for either Masters or PhD, and a further 13 Honours students were based in our division for the duration of their research projects (April – November) The Division graduated 2 PhD and 2 MSc students during the course of 2015. Together with various scientific and academic staff our postgraduate students and postdoctoral fellows continued to form the basis of a vibrant and ongoing research thrust and culture in the Division. In addition we teach at both under- and post-graduate levels. During 2015 the Division and its’ affiliates published 54 papers in ISI accredited science journals, 10 non-accredited journal articles.

Research activities of the Division cover five 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. Diagnostic, structure and function studies in the porphyrias and haem biosynthesis (Meissner lab – currently sited and staffed in the Dept. of Medicine)
5. 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)

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.

Divisional Statistics

Permanent and Long-Term Contract Staff

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Professors</td>
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<td>Associate Professors</td>
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<td>NRF Career Research Fellow</td>
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<td>Departmental Technical Support Staff</td>
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<td>Departmental Administrative Staff</td>
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### Emeritus, Affiliate and Honorary Staff

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<tbody>
<tr>
<td>Professor (Emeritus) appointed as Senior Scholar</td>
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<tr>
<td>Professor (working in affiliated Institution)</td>
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<tr>
<td>Honorary Professors</td>
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<tr>
<td>Emeritus Associate Professor</td>
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<td>Honorary Senior Lecturer</td>
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<td>Honorary Research Associate</td>
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<td>Honorary Lecturer</td>
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### Students and Postdoctoral Fellows

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<td>Postdoctoral Fellows</td>
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<tr>
<td>Doctoral</td>
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<tr>
<td>Masters</td>
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<td>Honours</td>
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<tr>
<td>Undergraduate students taking Med. Biochem courses</td>
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<td><strong>Total</strong></td>
<td><strong>977</strong></td>
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### Research Fields and Staff

#### Professors

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>P N MEISSNER</td>
<td>Haem biosynthesis, disorders of porphyrin metabolism</td>
</tr>
<tr>
<td>B T SEWELL</td>
<td>Structural biology related to regulation of glutamine synthetase in humans and the malaria parasite, nitrilases in the context of cancer, mycothiol synthetic pathway in <em>Mycobacterium tuberculosis</em></td>
</tr>
<tr>
<td>A A KATZ</td>
<td>Gonadotropin-Releasing Hormone (GnRH) receptors: function regulation and ligand receptor interactions; role of cyclooxygenases and prostaglandins in cervical cancer and uterine pathologies</td>
</tr>
<tr>
<td>R P MILLAR</td>
<td>(Life Fellow of UCT) Endocrine receptor and molecular biology</td>
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#### Professor (working in affiliated Institute)

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<th>Name</th>
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<tr>
<td>M I PARKER</td>
<td>(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</td>
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#### Associate Professors

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENVER HENDRICKS</td>
<td>Molecular biology of oesophageal cancer and development of novel chemotherapeutic drugs</td>
</tr>
<tr>
<td>VIRNA LEANER</td>
<td>Molecular mechanisms associated with the development and treatment of cervical cancer</td>
</tr>
<tr>
<td>CYNTHIA SIKAKANA</td>
<td>Medical education, Metabolism of xenobiotics</td>
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#### Honorary Professors

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>W-D Schubert, South Africa</td>
<td></td>
</tr>
<tr>
<td>CGP Mathew, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>KR Acharya, United Kingdom</td>
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#### Emeritus Associate Professor

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>L R Thilo</td>
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#### Honorary Senior Lecturer

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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</thead>
<tbody>
<tr>
<td>HENRY JABBOUR</td>
<td>G protein – coupled receptors in reproductive biology and HIV</td>
</tr>
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#### Honorary Lecturer

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>KJ Sales</td>
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#### NRF Career Research Fellows

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>JD Woodward</td>
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<tr>
<td>PJ Van Der Watt</td>
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#### Postdoctoral Fellows

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Kate Hadley</td>
<td></td>
</tr>
<tr>
<td>Joseph Rainmondo</td>
<td></td>
</tr>
<tr>
<td>Nina Holderness-Parker</td>
<td></td>
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<tr>
<td>Lisa Graham</td>
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#### Research Officer

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Georgia Schäfer</td>
<td>(Katz/Millar lab, IDM)</td>
</tr>
</tbody>
</table>

---

HEALTH SCIENCES 39
**Departmental Technical Support Staff**

Hajira Guzgay  
Roshan Ebrahim  
Xolani Nonzinyana

**Contact Details**

Postal Address: Division of Medical Biochemistry, Level 6, Room 6.07, Falmouth Building, UCT Medical School, Anzio Road, Observatory, 7925 Cape Town, South Africa  
Telephone: +27 21 404 7712 (Admin Assist)  
Fax: +27 21 406 6250 (Head)  
Email (Head): Virna.Leanner@uct.ac.za  
Website: [http://www.medicalbiochemistry.uct.ac.za/](http://www.medicalbiochemistry.uct.ac.za/)

**RESEARCH OUTPUT**

**Articles in peer-reviewed journals**


Cremer, C., Braun, H., Mladenov, R., Schenke, L., Cong, X., Jost, E., Brmmendorf, T.H., Fischer, R., Carloni, P.,


Fraser, G.L., Hoveyda, H., Clarke, I.J., Ramaswamy, S., Plant, T.M., Rose, C. and Millar, R.P. 2015. The NK3 receptor antagonist ESN364 interrupts pulsatile LH
secretion and moderates levels of ovarian hormones throughout the menstrual cycle. Endocrinology, 156(11): 4214-4225.


as low-cost, sensitive surface-enhanced Raman spectroscopy (SERS) substrates for analytical applications. Analyst, 140: 779-785.


Department of Medicine

Research Report 2015

Head of Department: Professor Bongani 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 19 clinical and service divisions, 10 major research units, and four affiliated departments of medicine at Mitchell’s Plain, New Somerset, Mitchell’s Plain District, George, Brooklyn Chest, II Military, and Victoria hospitals. 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: allergology and clinical immunology; porphyria; bone marrow, heart, kidney, and liver transplantation; cardiac electrophysiology; endobronchial ultrasound guided bronchoscopy; and double balloon enteroscopy for visualisation of the small bowel.

There are 109 registrars and senior registrars who are training in various disciplines, 38 of whom are from other African countries. The department produces formularies and guidelines that are used in most health facilities in South Africa, such as the South African Medicines Formulary and the Practical Approach to Care Kit (PACK).

Departmental Statistics

Permanent and Long-Term Contract Staff

| Professors | 19 |
| Associate Professors | 12 |
| Senior Lecturers | 29 |
| Lecturers | 28 |
| Administrative and clerical staff | 157 |
| **Total** | **245** |
Emeritus and Honorary Staff

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
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<tr>
<td>Emeritus Professors</td>
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<tr>
<td>Emeritus Associate Professors</td>
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<tr>
<td>Honorary Professors</td>
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<td>Honorary Associate Professors</td>
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<tr>
<td>Honorary Senior Lecturers</td>
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<tr>
<td>Honorary Research Associates</td>
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<td><strong>Total</strong></td>
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Students

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<td>Undergraduates</td>
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<td><strong>1346</strong></td>
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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
Email: nandie.makatesi@uct.ac.za
Website: www.medicine.uct.ac.za

Division of Cardiology

Head of Division: Professor Mpiko Ntsekhe

Divisional Profile

There are 2 clinical research streams in the Division of Clinical Cardiology: investigator-led cross-disciplinary collaborative research projects; and industry-funded multi-centre pharmacological and device-based interventional studies.

Within the first clinical research theme, focus areas of research over the last decade have included:
1. Pericardial disease
2. Rheumatic heart disease
3. Dilated cardiomyopathy
4. Arrhythmogenic right ventricular dysplasia
5. Impact of HIV and tuberculosis on Cardiac Disease in Africa
6. Cardiac disease in pregnancy

Industry-funded research conducted through the Cardiac Clinic research unit have focused on:
1. Novel pharmacological interventions to treat heart failure, atrial fibrillation, coronary artery disease and related risk factors
2. Device based interventions to treat coronary artery disease, rhythm abnormalities, heart failure, and hypertension
3. Prospective registries on infective endocarditis and atrial fibrillation

Permanent and Long-Term Contract Staff

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<th>Role</th>
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<td>Senior Lecturer</td>
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<tr>
<td>Research Fellows/Officers</td>
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<tr>
<td>Medical Research Officer</td>
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<tr>
<td>Registrars</td>
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<tr>
<td>Research Coordinator Cardiac Clinic</td>
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<tr>
<td>Research Nurse Cardiac Clinic</td>
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<td>Research Pharmacist</td>
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Emeritus and Honorary Staff

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<tr>
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<td>Honorary professor</td>
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<td>Honorary Lecturers</td>
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Students and Postdoctoral Fellows

<table>
<thead>
<tr>
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<tr>
<td>Postdoctoral Fellow</td>
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<td>Masters</td>
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<td><strong>Total</strong></td>
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</table>

Research Fields and Staff

**NTSEKHE, MN**
Director of the Cardiac Clinic Research Unit
Pericardial disease, impact of HIV/TB on cardiovascular disease, coronary artery disease; Burden of cardiovascular disease in sub-Saharan Africa; Prospective registries of cardiovascular disease

**MAYOSI, BMM – HEAD MAYOSI RESEARCH UNIT**
Head Mayosi Research Unit
Rheumatic heart disease, pericardial disease, cardiomyopathy, genetics of cardiovascular disease in Africa, global burden of cardiovascular disease

**SLIWA, K**
Director Hatter Institute for Research in Africa
Heart failure, cardiac disease in pregnancy and the peripartum period, rheumatic heart disease, global burden of cardiovascular disease

**CHIN, A**
Rheumatic heart disease, ARVC; Interventions to lower sudden cardiac death; Use of devices in heart failure, and diseases of rhythm abnormalities and pacing

**PANDIE, S**
Pericardial disease, coronary artery disease

**CUPIDO, B**
Rheumatic heart disease, congenital heart disease

**NTUSI, N**
Magnetic resonance imaging in heart muscle disease, pericardial disease, and inflammatory diseases of the heart, HIV and the heart

CHHIBA, M
(Discovery Fellow)
Immunology of Mycobacterium W

MOSES, P
(Discovery Fellow)
Natural History of HIV Cardiomyopathy

Contact Details

Postal Address: Division of Cardiology UCT, E-17/25, New Groote Schuur Hospital, Anzio Road, Observatory 7925
Telephone: +27 21 404 6084
Fax: +27 21 448 7062
Email: mpiko.ntsekhe@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/cardiology
Department of Medicine

Hatter Institute for Cardiology Research

Director: Professor Karen Sliwa-Hahnle

Institute Profile

Under the directorship of Professor Karen Sliwa, the Hatter Institute for Cardiovascular Research in Africa (HICRA) has been expanded from basic science to encompass more clinical research. Our focus is (1) to investigate cardiac disease interlinked with pregnancy (Cardiac Disease and Maternity Group); (2) to undertake African population studies with a focus on translational research (Heart of Africa studies); (3) to develop awareness projects linked to health education in South Africa and Africa (HEDU-Africa), (4) to study the mechanisms of protecting the heart against insults such as lack of blood flow (Cardiac Protection Group) and (5) to study the genetic basis of cardiomyopathy and other forms of heart disease (Cardiovascular Genetics Group).

Our vision is to facilitate national and international collaborations in its fields of expertise.

HICRA trains a number of Honours, Masters and PhD students in cardio-protection, cardiac signalling, cardiovascular genetics, acute heart failure, pulmonary arterial hypertension and translational preventative research. Several students from other African countries, including Mozambique, Nigeria, Burundi, Zimbabwe, Ruanda and Cameroon, are currently undertaking PhD training under the supervision of Professor Sliwa, Professor Lecour, Professor Mayosi and Professor Opie.

Institute Statistics

Permanent and Long-Term Contract Staff

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<th>Position</th>
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<tbody>
<tr>
<td>Director/Professor</td>
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<tr>
<td>Associate Professor</td>
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<tr>
<td>Clinical Staff</td>
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<td>Senior Lecturers</td>
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<td>Senior Researcher</td>
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<td>Research Staff</td>
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<tr>
<td>Laboratory Assistants</td>
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<td>Administrative and Clerical Staff</td>
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Emeritus and Honorary Staff

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<td>Honorary Professors</td>
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Students and Postdoctoral Fellows

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<td>Postdoctoral Fellow</td>
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<td>Masters</td>
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<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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</table>

Research Fields and Staff

**PROFESSOR KAREN SLIWA-HAHNLE**
(Cardiac Disease in Maternity and Heart of Africa studies)

Cardiac disease in pregnancy and heart failure.

**EMERITUS PROFESSOR LIONEL OPIE**
(Ischaemia)

Delineation of cellular and molecular mechanisms promoting cardiac protection

**PROFESSOR BONGANI MAYOSI**
(Genetics Group Leader)

Epidemiology, genetics, and treatment of non-ischaemic heart disease
ASSOCIATE PROFESSOR SANDRINE LECOUR
(Cardio protection Group leader)
Delineation of cellular and molecular mechanisms promoting cardiac protection with special reference to Tumour Necrosis Factor alpha

MS TASNEEM ADAM
The anti-aging molecules sirtuins and their role in cardioprotection

Contact Details
Postal Address: 4th Floor Chris Barnard Building, Faculty of Health Sciences, University of Cape Town, Private Bag X3, Observatory, 7925
Telephone: +27 21 406 6358
Fax: +27 21 650 4101
Email: Karen.Sliwa-Hahnle@uct.ac.za
Website: www.hatter.uct.ac.za

Department of Medicine
DIVISION OF HAEMATOLOGY AND UCT LEUKAEMIA UNIT

Head of Division: Professor Nicolas Novitzky

Divisional Profile
The clinical services are organised under the umbrella of the Department of Medicine, while the laboratory diagnostic sections are under the Department of Pathology and the National Health Laboratory Service. The Haematology section of the laboratory was accredited with SANAS 3 years ago and accreditation was confirmed last year.

Training is given at the level of Masters and PhD in cell biology. The Leukaemia Unit established within the division has now been approved by the University Research Committee as a research unit. 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 haemato poiesis, detection of minimal residual disease in patients with leukaemia, cellular therapies and stem cell transplantation.
Divisional Statistics

Permanent and Long-Term Contract Staff

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<th>Position</th>
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<tbody>
<tr>
<td>Professor</td>
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<td><strong>Clinical Service</strong></td>
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<td>Senior Specialists</td>
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<tr>
<td>Clinical Registrars</td>
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<tr>
<td>Senior House Officers</td>
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<tr>
<td>Chief Professional Nurse</td>
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<tr>
<td>Administrative and clerical staff</td>
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<tr>
<td><strong>Diagnostic Service</strong></td>
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<tr>
<td>Senior Pathologist</td>
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<td>Pathologist part-time</td>
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<tr>
<td>Scientist</td>
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<td>Pathology Registrars</td>
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<td>Laboratory Manager</td>
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<tr>
<td>Medical Technologists</td>
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<td>Technicians</td>
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<tr>
<td><strong>UCT Leukaemia Unit</strong></td>
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<td>Scientist</td>
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<tr>
<td>Research Officer</td>
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<tr>
<td>Research Technologist</td>
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<tr>
<td>Clinical Research Co-Ordinator</td>
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<td>Administrative and clerical staff</td>
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<tr>
<td>Laboratory assistants (medical school)</td>
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<td><strong>Total</strong></td>
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Students

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<tbody>
<tr>
<td>Doctoral</td>
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<td>Masters</td>
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<tr>
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<td>Honours</td>
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</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 syndromes; haematological malignancies

**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, Faculty of Health Sciences, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6154 / +27 21 404 3073
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Website: http://www.haematology.uct.ac.za/
Department of Medicine

DIVISION OF CLINICAL PHARMACOLOGY

Acting Head of Division: Professor Karen Barnes

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 through to pre-clinical and clinical development, pharmacokinetics, pharmacodynamics, pharmacogenomics, clinical trials, pharmacovigilance and pharmaco-economics.

The MRC Collaborating Centre for Optimising Antimalarial Therapy (CCOAT) headed by Prof Karen Barnes is at the forefront of translational malaria research that focuses on the development of new antimalarials and improving the availability, dosing and selection of antimalarial drugs, particularly in vulnerable populations (young children, pregnant women, and people with other diseases like HIV/AIDS or malnutrition).

Professor Gary Maartens runs a broad research programme focused on the clinical pharmacology of HIV and tuberculosis. A/Prof Helen McIlleron heads our clinical pharmacokinetic group, which conducts studies evaluating pharmacokinetic-pharmacodynamic relationships of anti-tuberculosis and antiretroviral drugs, and the interaction between them in adults and children. The pharmacometric laboratory, headed by Dr Paolo Denti, performs modelling and simulation of pharmacokinetic/pharmacodynamic analyses. Dr Karen Cohen runs a research programme on adverse drug reactions to antiretroviral and anti-tuberculosis drugs.

The analytical laboratory, run by A/Prof Peter Smith and Dr Lubbe Wiesner, plays a key research role for drug discovery and development, including measurement of drug concentrations in small animal models and in clinical trial participants. The interdisciplinary H3D Drug Discovery Centre based in the Department of Chemistry has embedded its research in parasitology, ADME and preclinical pharmacokinetics within the Division of Clinical Pharmacology. The analytical laboratory has been awarded funding as an International Pharmacology Specialty Laboratory from two different NIH groups (ACTG and IMPAACT).

Divisional Statistics

Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Position</th>
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<tbody>
<tr>
<td>Professors</td>
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<tr>
<td>Associate Professors</td>
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<tr>
<td>Chief / Principal Scientific Officers</td>
<td>9</td>
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<tr>
<td>Senior Lecturers / Senior Research Officers / Consultants</td>
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<tr>
<td>Research / Quality Assurance Managers</td>
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<tr>
<td>Medical Research Officers</td>
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<tr>
<td>Scientific / Scientific / Technical Officers</td>
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<tr>
<td>Editor (SAMF)</td>
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<td>Medicines Information Pharmacists</td>
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Honorary Staff

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Students and Postdoctoral Fellows

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<td>Postdoctoral Fellows</td>
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HEALTH SCIENCES 51
Research Fields and Staff

BARNES, K.I.
Antimalarial therapy: drug development, pharmacokinetic studies to inform optimal dosing in vulnerable populations, operational and policy research.

BLOCKMAN, M.
Rational and cost-effective prescribing of medicines; drug utilisation review; adverse drug reaction monitoring; drug policy and regulation; human research ethics.

COHEN, K.
Antiretroviral pharmacokinetics, adverse drug reactions, and effectiveness; HIV and non-communicable diseases; anti-tuberculosis drug-induced liver injury; adherence-resistance relationships in antiretroviral therapy

DENTI, P.
Pharmacokinetic and pharmacodynamic modelling of antiretroviral, anti-tuberculosis, and antimalarial drugs.

MAARTENS, G.
Adherence-resistance relationships in antiretroviral therapy; treatment algorithms for HIV-associated tuberculosis; tuberculosis preventive therapy for people living with HIV; pharmacogenomics and adverse drug reactions of antiretrovirals; HIV and non-communicable diseases.

MCILLERON, H.
Pharmacokinetic-pharmacodynamic relationships of anti-tuberculosis and antiretroviral drugs; pharmacogenomics; population pharmacokinetics; drug interactions between antiretrovirals and anti-tuberculosis drugs.

SMITH, PJ.
Pharmacokinetics of anti-tuberculosis and antiretroviral drugs; in vitro antimalarial assays, toxicology, drug development

WIESNER, L.
Pharmacokinetics and pharmacodynamics of new antimalarial and anti-tuberculosis compounds in small animal models; intracellular pharmacokinetics of anti-tuberculosis drugs; bioanalysis of clinical pharmacokinetic studies.

Contact Details

Postal Address: Division of Clinical Pharmacology, K45, Old Main Building, Groote Schuur Hospital, University of Cape Town, Observatory, 7925
Telephone: +27 21 406 6008
Fax: +27 21 448 1989
Email Administration: Ruwayda.Philander@uct.ac.za
Email Academic: Karen.Barnes@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/pharmacology
Department of Medicine

Division of Dermatology

Head of Division: Associate Professor Nonhlanhla Khumalo

Divisional Profile

The Division’s postgraduate training programme includes 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. Associate professor Khumalo was awarded a South African Research Chair by the NRF.

Divisional Statistics

Permanent and Long-Term Contract Staff

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

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Students

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Research Fields and Staff

ASSOCIATE PROFESSOR NONHLANHLA KHMALO

The epidemiology and treatment of hair and scalp disorders that uniquely affect individuals with afro-textured hair. International collaboration studies – scanning (and transmission) electron microscopy and amino acid analysis of hair. Developing useful hair classification for elucidating the relationship between the pathogenesis of alopecia and hair phenotype.

DR RANNAKOE LEHLOENYA

Molecular and genetic aspects of severe cutaneous adverse drug reactions.

Contact Details

Postal address: G23 Dermatology Clinic, Groote Schuur Hospital, Observatory, 7925, South Africa
Telephone: +27 21 404 3376
Fax: +27 21 447 8232
Email: dermatol@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/dermatology
Department of Medicine

DIVISION OF ENDOCRINOLOGY AND DIABETIC MEDICINE

Head of Division: Professor Naomi Levitt

Divisional Profile

The Division of Endocrinology and Diabetes Medicine hosts the Chronic Disease Initiative for Africa, which serves as a regional hub for developing and evaluating models of care and prevention for chronic diseases. Other research interests include the epidemiology of diabetes as part of the H3 Africa study; metabolic consequences of antiretroviral therapy; overlap between infectious and non-communicable diseases in low- and middle-income countries; Addison’s disease; thyroid carcinoma; prednisolone pharmacokinetics in tuberculous pericardial effusions; coeliac disease; impact of HIV on thyrotoxicosis; and the genetics of paraganglioma syndromes.

Divisional Statistics

Permanent and Long-Term Contract Staff

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<th>Role</th>
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<td>Professor (visiting)</td>
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<tr>
<td>Part-time senior consultant</td>
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<td>Diabetes Specialist Nurse</td>
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</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 antiretroviral therapy and the interaction between the overlap between infectious and non-communicable diseases in low- and middle-income countries.

**PROFESSOR K STEYN**

Hypertension health systems research, burden of chronic disease

**ASSOCIATE PROFESSOR I L ROSS**

National registry for Study of Addison’s Disease and polyglandular autoimmune syndrome

**DR J DAVE**

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
Email: liezel.fisher@uct.ac.za

Website: www.medicine.uct.ac.za/med/divisions/endocrine
Department of Medicine

DIVISION OF GERIATRIC MEDICINE/ THE ALBERTINA AND WALTER SISULU INSTITUTE OF AGEING IN AFRICA

Head of Division of Geriatric Medicine: Professor Marc Combrinck
Director of Institute of Ageing in Africa: Associate Professor Sebastiana Kalula

Institute Profile

The Albertina and Walter Sisulu Institute of Ageing in Africa (IAA) is a Cross-Disciplinary Group. The IAA represents a coalescence of institute-wide disciplines with a focus on ageing: specifically Geriatric Medicine; Geriatric Neurology; Geriatric Neuropsychology; and Old Age Psychiatry. The International Longevity Centre–South Africa is incorporated in the Institute. The vision of the IAA is to be an academic, clinical, research and policy centre of excellence and relevance in Africa. Its mission is to facilitate the delivery of the highest standard of inter-disciplinary, in-context training for health and allied professionals and evidence-based clinical and social care for older people, whilst undertaking appropriate research and audit upon which policy and planning for older persons may be based. The mission is achieved through inter-disciplinary partnerships and teamwork, and human resources development within current legal, ethical and financial constraints.

Institute Statistics

Permanent and Long-Term Contract Staff

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Honorary Staff

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Students

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Research Fields and Staff

PROFESSOR MARC COMBRINCK
Neurologist and William Slater Chair of Geriatric Medicine:
Neuro-inflammation and mechanisms of neuro-degeneration with specific reference to cognitive impairment in the elderly and in HIV-associated encephalopathy.

ASSOCIATE PROFESSOR SEBASTIANA KALULA
Senior lecturer Department of Medicine and Division of Geriatric Medicine
Epidemiology of falls in older people and quality of care.

DR LINDA DE VILLIERS
Senior lecturer Department of Medicine and Division of Geriatric Medicine
Quality, cost, resource utilisation and outcomes of stroke care.
ASSOCIATE PROFESSOR 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, neurobehavioural aspects of HIV, including adherence, depression and post-traumatic stress disorder (PTSD)

DR CELESTE DE JAGER  
Senior Lecturer in Clinical Neurosciences and Clinical Epidemiology  
Neurocognitive disorders (in particular Alzheimer’s disease) from a neuropsychological perspective

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

Department of Medicine
DIVISION OF HEPATOLOGY

Head of Division: Associate Professor Wendy Spearman

Divisional Profile

The Division is involved in a wide range of research activities and interacts with a number of international and local collaborators. The main research areas are: Viral hepatitis; HIV and liver disease; Drug-induced Liver Injury; Autoimmune liver disease; molecular characterisation of acute intermittent porphyric patients and correlating the genetic mutations with the clinical and biochemical presentations; and Acute Liver Failure and Development of bioartificial liver support devices.

Divisional Statistics
Permanent and Long-Term Contract Staff

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<th>Position</th>
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<td>Senior Lecturer / Research Officer</td>
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<td>Technical Support Staff</td>
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<td>Senior Registrar in Training</td>
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Students and Postdoctoral Fellows

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</table>
Research Fields and Staff

ASSOCIATE PROFESSOR CWN SPEARMAN
Liver transplantation, viral hepatitis, paediatric liver disease, acute liver failure and bioartificial liver support devices

ASSOCIATE PROFESSOR MW SONDERUP
HIV and liver disease, drug-induced liver injury, viral hepatitis, porphyria

DR M SETSHEDI
Hepatocellular Carcinoma, Drug-induced liver injury

Contact Details
Postal Address: Division of Hepatology, Department of Medicine, University of Cape Town, Medical School, Observatory, 7925
Telephone: +27 21 406 6394
Fax: +27 21 448 6815
Email: wendy.spearman@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/hepatology

Department of Medicine

DIVISION OF INFECTIOUS DISEASES AND HIV MEDICINE

(Parnters include Desmond Tutu HIV Centre, and the Clinical Infectious Diseases Research Initiative [CIDRI])

Head of Division: Professor Marc Mendelson

Divisional Profile

The Division plays a leading role in antibiotic stewardship activities in support of the national strategy framework for antibiotic resistance. The Division is also home to the Cape Town GeoSentinel Travel Surveillance Network Site and is a European Society of Clinical Microbiology and Infectious Diseases Collaborating Centre. The major research thrusts of the division are in HIV, Tuberculosis, and Antimicrobial Resistance. Specific research areas are outlined below:

Divisional Statistics

Permanent and Long-Term Contract Staff

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<th>Position</th>
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<tr>
<td>Associate Professor</td>
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<td>Registrars</td>
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Honorary Staff

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<td>Honorary Professor</td>
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<tr>
<td>Honorary Senior Lecturer</td>
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<td>Honorary Research Associates</td>
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</tbody>
</table>
Research Fields and Staff

PROFESSOR LINDA GAIL BEKKER

PROFESSOR CHRIS KENYON
Honorary Professor; HIV and gender dynamics. Emmonsiosis and fungal infections in HIV

DR TOM BOYLES
Senior Lecturer. Main research area surrounds rational use and development of diagnostics for infectious diseases, including rapid diagnostic tests for Ebola

DR HELEN STRUTHERS
Honorary Senior Lecturer; main research area in masculinity and HIV in MSM

DR PRUDENCE IVE
Registrar. Antiretroviral therapy clinical trials

DR ILAN SCHWARTZ
Honorary Research Associate; Emmonsiosis

DR SIPHO DLAMINI
Senior Lecturer; research interests in neglected tropical diseases, Hydatid Disease, Leprosy, antiretroviral drug reactions and Infectious Diseases Education

PROFESSOR STEVE LAWN (HONORARY)
HIV-associated tuberculosis. Tuberculosis and mortality within antiretroviral treatment programmes.

ASSOCIATE PROFESSOR GRAEME MEINTJES
TB-Immune Reconstitution Inflammatory Syndrome (TB-IRIS), mortality in HIV-tuberculosis coinfection, and cryptococcal meningitis.

PROFESSOR MARC MENDELSON
Clinical algorithms for HIV patients with suspected tuberculosis, HIV+/HIV+ renal transplantation, Epidemiology and diagnosis of travel-related infections; Antibiotic stewardship interventions.

DR KEVIN REBE
Senior Lecturer. Men’s Health Project – Cape Town. Recruitment and retention strategies for men having sex with men in HIV vaccine research; STDs in MSM; Hepatitis C in MSM

DR KATALIN WILKINSON
Senior Investigator Scientist at the National Institute for Medical Research, London (Medical Research Council UK), seconded to the Institute of Infectious Disease and Molecular Medicine. Research interest is the immunology of tuberculosis.

PROFESSOR ROBERT WILKINSON
Director of CIDRI, Wellcome Trust Senior Fellow (Chair of Infectious Diseases) at Imperial College London and an MRC Programme Leader at the National Institute for Medical Research, UK (both posts held at UCT). Major research interest is immunology of tuberculosis.

PROFESSOR ROBIN WOOD
Director of the Desmond Tutu HIV Centre. Clinical trials of novel antiretroviral drugs; HIV-associated tuberculosis; HIV modelling; large scale rollout of antiretroviral therapy at primary care; mortality within antiretroviral programmes; Tuberculosis transmission.

Contact Details

Postal Address: Division of Infectious Diseases and HIV Medicine, University of Cape Town, G16/68, New Building, Groote Schuur Hospital, Observatory 7925
Telephone: +27 21 404 5105
Fax: +27 21 406 6184
Email: marc.mendelson@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/infectious
The Department of Medicine houses the Division of Lipidology (Head: Associate Professor D. Blom) while the Lipid Laboratory is located within the Division of Chemical Pathology (Head: Professor A.D. Marais) in the Department of Pathology. The Division of Lipidology in the Department of Medicine performs clinical research including drug development studies with the pharmaceutical industry, and ultrasonography for assessment of carotid intima media thickness. The Lipid laboratory provides specialized diagnostic investigations including determination of lipoprotein particle size by non-denaturing gradient gel electrophoresis, ultracentrifugation and analysis of VLDL composition for the diagnosis of dysbetalipoproteinaemia and genotyping to detect mutations in the LDL-receptor, apolipoproteinE and lipoprotein lipase. More specialized investigations such as measurement of 7-dehydrocholesterol for the diagnosis of Smith-Lemli-Opitz syndrome, measurement of plant sterols for the diagnosis of sitosterolemia, cell culture and analysis of other genes are performed as required. Pharmaceutical studies investigate novel lipid modifying agents in severe hypercholesterolaemia, management of severe hypertriglyceridaemia, novel anti-diabetic therapies and studies of cardiovascular outcome with novel agents.

### Divisional Statistics

#### Permanent and Long-Term Contract Staff

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<th>Position</th>
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<tr>
<td>Associate Professor</td>
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<td>Medical Officers</td>
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<td>Contract Research Nurses</td>
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<tr>
<td>Contract Dietitian</td>
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<tr>
<td>Sonographers</td>
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<tr>
<td>Laboratory Technologists</td>
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<tr>
<td>Technical Support Staff</td>
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<td>Administrative Staff</td>
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#### Students

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<tbody>
<tr>
<td>Masters</td>
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### Research Fields and Staff

**PROFESSOR AD MARAIS**

Severe dyslipidaemias including Familial Hypercholesterolaemia, Homozygous Familial Hypercholesterolaemia, Dysbetalipoproteinaemia, Familial chylomicronaemia, Endothelial Lipase mutations and hyperalphalipoproteinaemia, Carotid intima-media thickness in dyslipidaemic patients, Anti-oxidant effects of wine, Plasma PCSK9 levels in familial hypercholesterolaemia

**ASSOCIATE PROFESSOR DJ BLOM**

Carotid intima-media thickness in dyslipidaemic patients, Dysbetalipoproteinaemia, Lipodystrophy, Anti-sense oligonucleotides for limiting LDL production in homozygous familial hypercholesterolaemia and refractory heterozygous familial hypercholesterolaemia, Microsomal triglyceride protein inhibition in homozygous familial hypercholesterolaemia, PCSK-9 inhibition for the management of severe hypercholesterolaemia, Lipid metabolism in patients with HIV infection receiving antiretroviral therapy, Glucocorticoid receptor polymorphisms in patients with Addison’s disease, Anti-oxidant effects of wine
Contact Details
Postal Address: Lipidology, 5th Level Chris Barnard Building, University of Cape Town, Faculty of Health Science, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6166
Fax: +27 21 406 6396
Email: elizabeth.phillips@uct.ac.za; dirk.blom@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/lipidology

Department of Medicine
DIVISION OF MEDICAL GASTROENTEROLOGY

Head of Gastrointestinal Clinic: Professor Sandie 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

<table>
<thead>
<tr>
<th>Permanent and Long-Term Contract Staff</th>
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<td>Lecturers</td>
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<th>Students</th>
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<tbody>
<tr>
<td>Masters</td>
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</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 SETSHEDI**
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
Email: sandie.thomson@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/gastroenterology

Department of Medicine

DIVISION OF OCCUPATIONAL MEDICINE

Head of Division: Professor Rodney Ehrlich

Divisional Profile

The Division of Occupational Medicine is a joint division of the School of Public Health and Family Medicine and the Department of Medicine at UCT. The Division runs the Occupational Medicine Clinic at Groote Schuur Hospital, provides diploma (DOH) training to medical practitioners and a postgraduate clinical specialisation in Occupational Medicine, and conducts research into occupational disease causation, risk and means of prevention, workers’ compensation, occupational health service provision, and the occupational health needs of health care workers.

Divisional Statistics

Permanent and Long-Term Contract Staff

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<th>Position</th>
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Honorary and Emeritus Staff

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Students

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Research Fields and Staff

EHRLICH, RI
Occupational lung disease in mining; tuberculosis in health care workers; worker’s compensation; social epidemiology

JEEBHAY, M
Occupational lung disease epidemiology and prevention with a specific focus on work-related asthma

BURDZIK, A
Occupational dermatology

Contact Details
Postal Address: School of Public Health and Family Medicine, Health Sciences Faculty, UCT, Anzio Rd, Observatory 7925.
Telephone: +27 21 406 6818
Fax: +27 86 566 2887
Email (Administration): Faranaaz.Bennett@uct.ac.za
Email (Academic): Mohamed.Jeebhay@uct.ac.za
Website: http://www.publichealth.uct.ac.za/phfm_occupational-medicine

Department of Medicine
DIVISION OF NEPHROLOGY AND HYPERTENSION

Head of Division: Professor Brian Rayner

Divisional Profile

The 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. There is active training programme for senior registrars in Nephrology and the unit is currently training 5 nephrology fellows.

The main research activities of the division are: Vitamin D and outcomes in SLE; Genetics of salt sensitive hypertension; Diabetic nephropathy and treatment of type 2 diabetes; Classification, genetics, prevalence and treatment of HIV associated nephropathy; Tenofovir nephrotoxicity; Physiological treatment of hypertension in indigenous people; Ethical consideration for dialysis rationing; Prevalence and outcome of acute kidney injury; Assessment of adherence to anti-hypertensive treatment through drug monitoring; Mesangiocapillary glomerulonephritis; role of methamphetamine use in hypertension and chronic kidney disease; Epidemiology of membranous nephropathy; Renal denervation for hypertension in transplant patients; Rapidly progressive glomerulonephritis; Diagnosis of Renal TB in HIV; Assessment of AV fistulas using MRI scanning; Transplant outcomes; Young hypertensives.
Divisional Statistics

Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
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<tr>
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<tr>
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Emeritus Staff

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<td>Emeritus Associate Professor</td>
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Students

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</table>

Research Fields and Staff

**DR ZUNAID BARDAY**
Kidney transplantation, renal denervation in kidney transplant patients

**ASSOCIATE PROFESSOR CHARLES SWANEPOEL**
Anaemia of CKD

**ASSOCIATE PROFESSOR IKE OKPECHI**
Lupus registry; mesangiocapillary GN, CAPD registry, Rapidly progressive GN

**DR NICOLA WEARNE**
HIV and kidney, tenofovir nephrotoxicity, CAPD registry, HIV and diseases of lifestyle, TB and the kidney

**PROFESSOR BRIAN RAYNER**
Ethical considerations for dialysis rationing, Acute Kidney Injury, Physiological treatment of hypertension, Tik, hypertension and CKD, Therapeutic drug monitoring in hypertension, Salt sensitive hypertension, Diabetic nephropathy, MRI scanning and AV fistulas, genetics of hypertensive nephrosclerosis

**DR J NAIDOO**
Rapidly progressive GN, Tenofovir nephrotoxicity, genetics of hypertensive nephrosclerosis

**DR BIANCA DAVIDSON**
Transplant registry, Peritoneal dialysis registry, and adolescent nephrology care.

**DR PHETO MANGENA**
Adolescent Hypertension

**DR TOYIN AMEH**
Membranous nephropathy

**DR ERIKA JONES**
Assessment of adherence to antihypertensive medication through therapeutic drug monitoring; Tik, hypertension and CKD; Physiological treatment of hypertension in Africa.

Contact Details

Postal Address: Division of Nephrology and Hypertension, E13 floor, New Groote Schuur Hospital, Observatory, 7925
Telephone: +27 21 404 3318
Fax: +27 21 404 5215
Email: GSH-E13-RU@westerncape.gov.za
Website: www.medicine.uct.ac.za/med/divisions/nephrology
Department of Medicine

DIVISION OF NEUROLOGY

Head of Division: Associate Professor Alan Bryer

Divisional Profile

We operate a general clinical neurology service at Groote Schuur Hospital. This provides a comprehensive range of clinical activities, including in-patient, consultative, and emergency services. Additionally, there is a clinical neurophysiology laboratory and a dedicated acute stroke unit, as well as specialised clinics for stroke, myasthenia gravis, motor neuron disease, HIV neurology, neurogenetic disorders, dystonia, and epilepsy.

Divisional Statistics

Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Role</th>
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<tr>
<td>Associate Professors (Full-time)</td>
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<td>Senior Lecturers (Full-time)</td>
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Students

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Research Fields and Staff

ASSOCIATE PROFESSOR A. BRYER
Cerebrovascular Disease; Neurogenetics

ASSOCIATE PROFESSOR J. HECKMANN
Myasthenia gravis and neuromuscular disease; HIV-associated neuromuscular disease, Neurogenetics

Contact Details

Postal Address: Division of Neurology, E8, New Groote Schuur Hospital, Observatory, 7925
Telephone: +27 21 404 3198
Fax: +27 21 406 6251
Email: alan.bryer@uct.ac.za
Website: www.medicine.uct.ac.za/med/divisions/neurology
Department of Medicine

DIVISION OF PULMONOLOGY

Head of Division: Professor Keertan Dheda

Divisional Profile

The Division of Pulmonology primarily serves the health needs of the population of the Western Cape, but also renders specialists services nationally. The Division has thus far trained 33 sub-specialists over the last 40 years, several of whom are high ranking international faculty. Clinical services include endobronchial ultrasound-guided biopsy (EBUS TBNA), bronchial thermoplasty, medical thoracotomy, exercise physiology, sleep medicine, a comprehensive suite of pulmonary function tests, allergology services (Professor Paul Potter).

The Division provides an active post-graduate programme in which several master’s and 6 PhD students are enrolled. The Division takes a particular interest in training clinician scientists and several physicians or pulmonologists have recently completed their PhD’s within Divisional research units. The Division contributes to the global health or training programmes of several national and international organisations, including the ATS, BTS, ERS, GINA, GOLD, PATS.

The UCT Lung Institute (UCTLI), now headed by Associate Prof Rod Dawson, is closely affiliated of the Division of Pulmonology. The UCTLI is a four storey facility within the Health Sciences faculty with 5 dedicated research Units: Lung Infection and Immunity Unit headed by Prof Keertan Dheda; Centre for Tuberculosis Research Innovation headed by Associate Prof Rod Dawson; Lung Clinical Research Unit headed by Associate Prof Richard van Zyl-Smit; Allergy Diagnostics and Research Unit headed by Prof Paul Potter; and the Knowledge Translation Unit headed by Associate Prof Lara Fairall.

Divisional Statistics

Permanent and Long-Term Contract Staff

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<th>Position</th>
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<td>Medical Officers</td>
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Emeritus and Honorary Staff

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Students

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Research Fields and Staff

Clinical and Research Staff

PROFESSOR KEERTAN DHEDA

Rapid diagnosis, including point-of-care tests, of tuberculosis and latent tuberculosis; epidemiology, treatment, and outcomes of drug-resistant tuberculosis; immunology of tuberculosis; HIV-associated tuberculosis; anti-tuberculosis adverse drug reactions; bronchial thermoplasty for asthma
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 in patients with rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), and auto-immune hepatitis; age-related bone loss; Clinical drug trials of the safety and efficacy of the newer biological disease-modifying anti-rheumatic drugs in RA and SLE; coxibs and cardiovascular outcomes; genetics of the Vitamin D receptor and its role in the pathogenesis of auto-immune diseases; 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. We have embarked on the ALUGEN project which comprises a registry of SLE patients and their follow-up. This study aims to document clinical features of SLE patients and to monitor ourxome.

Divisional Statistics

Permanent and Long-Term Contract Staff

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<td>Research Staff</td>
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<td>Nurse practitioner</td>
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Honorary Staff

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Students

Rotating Medical Registrar 2
Medical Officer 1
Total 3

Contact Details
Postal Address: J47 Old Main Building, Groote Schuur Hospital, Observatory 7925
Telephone: +27 21 404 5422/2131 or +27 21 406 6514
Fax: +27 21 448 3253
Email: melanie.burger@uct.ac.za; kallaa@iafrica.com
Website: www.medicine.uct.ac.za/med/divisions/rheumatology

RESEARCH OUTPUT

Chapters in books


Encyclopaedia entries

Articles in peer-reviewed journals


Boyles, T.H., Davis, K., Crede, T., Malan, J., Mendelson, M. and Lesoky, M. 2015. Blood cultures taken from patients attending emergency departments in South Africa are an important antibiotic stewardship tool, which directly influences patient management. BMC Infectious Diseases, 15: 410(7pp).


relationship studies around the core of recently identified antimalarial Imidazopyridazines. Journal of Medicinal Chemistry, 58: 8713-8722.


Mungwira, R.G., Nyangulu, W., Misiri, J., Iphani, S., Ng’Ong’Ola, R., Chirambo, C.M., Masiye, F. and Mfutso-Bengo, J. 2015. Is it ethical to prevent secondary use of stored biological samples and data derived from consenting research participants? The case of Malawi. BMC Medical Ethics, 16: 83(7pp).


prospective study of diagnostic accuracy and costs. Scientific Reports, 5: 12215(8pp).


patients living in the communities of South Africa: a qualitative study. Tropical Medicine & International Health, 20(9): 1155-1161.


Department of Obstetrics and Gynaecology

Research Report 2015

Head of Department: Professor Lynette Denny

Departmental Profile

Our Mission Statement

• To provide patient-centred high quality care to the women we serve
• To foster a climate of intellectual enquiry
• To pursue excellence in research at every level of care
• To help create a world-class African University

The Department provides secondary and tertiary level Obstetric and Gynaecological services to women who reside in the Cape Metro West and includes Groote Schuur Hospital, New Somerset Hospital and Mowbray Maternity Hospital with substantial outreach to level one institutions such as Maternity Obstetric Units, Community Health Clinics and District Hospital.

Despite the heavy clinical burden, research forms a critical component of the mission and vision of the department as an instrument for improving women’s health in general and contributing to global cutting-edge advances in women’s health. There are four sub-specialist areas recognized in O&G namely; Maternal-Fetal medicine, Gynaecological Oncology, Reproductive Medicine and Urogynaecology. Currently sub-specialist training is not funded by the Department of Health and training is funded either by the private sector or fellows come self-funded. Trainees graduate through the College of Medicine of South Africa.

While most of the research remains clinical, increasingly there is more molecular-based work being conducted, aimed at unravelling and understanding basic pathophysiological mechanisms underlying reproductive disorders. There is a laboratory within the department now capable of basic protein work, including western blotting and immunohistochemistry. Research is conducted at all levels of care and comprises participation
in large, international, collaborative trials, cutting edge national research projects, self-initiated local and collaborative studies, as well as smaller individual projects. In addition, our Undergraduate Teaching Unit continues to be 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.

More recently, the Head of Department, Professor Lynette Denny, was appointed the director of the SAMRC Gynaecology Cancer Research Centre. This centre consists of 12 cancer researchers, half located in basic science and half are clinicians. The grant is designed to stimulate transversal collaborative research and to put cancer research on the agenda. The Centre will also collaborate with institutions outside of Cape Town and is currently partnered with Walter Sisulu University. The grant is for five years.

The Department has a strong research collaborative network with leading international institutions such as the University of California San Francisco, the Institute for Transfusion Medicine, Yale, Kings College, the University of Edinburgh, Columbia University, New York, among others. A number of staff are on international boards and organisations such as World Health Organisation, International Urogynaecologic Society, International Gynaecological Cancer Society, International Federation of Gynaecology and Obstetrics (FIGO).

### Students

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### Research Fields and Staff

**PROFESSOR LYNETTE DENNY**

Cervical cancer: prevention in low-resource settings; natural history; precursors in HIV positive women. Other gynaecological cancers: management of endometrial, ovarian cancer and advanced vulval cancer. HPV: prevalence, types; HPV vaccination (prophylactic and therapeutic), HPV DNA genotyping

**DR SAADIQA ALLIE**

Obstetric hysterectomy; Teenage pregnancy

**DR TRACEY ADAMS**

Genetics of ovarian cancer and impact on survival, hereditary ovarian syndromes, quality of life in gynaecological cancer patients, HPV associated disease especially in HIV positive women

**ASSOCIATE PROFESSOR JOHN ANTHONY**

Thrombophilia; Eclampsia; Bioethics, echocardiography and cardiac disease in pregnancy

**DR KENDALL BROUARD**

Sexual function in women with Pelvic organ prolapse; Surgical outcomes following Pelvic organ prolapse surgery

**PROFESSOR SILKE DYER**

Infertility: health-services in low-resource settings; psychosocial consequences; Monitoring utilisation, effectiveness and safety of Assisted Reproductive Technology nationally, regionally and internationally

**DR AHMINAH FAHIER**

Mid upper arm circumference: a surrogate for body mass index for pregnant women?

**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. Assessor for confidential enquiries into maternal deaths nationally

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### Departmental Statistics

#### Permanent and Long-Term Contract Staff

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<th>Position</th>
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<td>Subspecialist trainees (full-time)</td>
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<td>Subspecialist trainees (part-time)</td>
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<tr>
<td>Postdoctoral and Research Staff</td>
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<td>Technical and Support Staff</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
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</table>
DR CHIVAUGN GORDON
Student-run SHAWCO clinics: why to students attend and how do they benefit? Intimate Partner Violence curriculum development; Teaching and learning around LGBT healthcare needs. Management of people infected with HIV

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; laparoscopic surgery, fistulae repair

DR KHATIJA KADWA
Audit of women managed with Cone Biopsy At GSH. Reproductive medicine

DR LYNELLE KENNETH
IUCD in HIV pos women

DR PIETER KRUGER
Urolastic bulking agent: “Efficacy and Safety of a Non-Degradable Bulking Agent in Women with Stress Urinary Incontinence: a Multi-Center Prospective Observational Study”; laparoscopic and prolapse surgery

MR JASON MARCUS
Maternal and newborn care, Safe Motherhood, Primary Maternity Care, Interdisciplinary education, Undergraduate Education, Emergency Obstetric Care, Emergency Obstetric Simulation Training.

DR MUSHI MATJILA

DR NOMONDE MBATANI
Uterine sarcomas: outcome of treatment; Treatment outcome and complications of gynaecological malignancy. Hereditary gynaecological cancer syndromes; management of advanced ovarian cancer, HPV vaccination

DR GREG PETRO
Clinical epidemiology; Haemorrhage and transfusion in the obstetric patient; Termination of pregnancy. Statistics, Level 2 head of O&G in Cape Metro – interest in health systems development

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. Retired but doing research into undergraduate education and skills development

DR CHANTAL STEWART
Fetal medicine; Women’s expectations of and attitudes to fetal anomaly scans; Preterm labour; Ultrasound screening for risk of pregnancy complications.

PROFESSOR ZEPHNE VAN DER SPUY (SENIOR SCHOLAR)
Contraceptive and interceptive development; Polycystic ovary syndrome; Reproductive failure; Premature ovarian insufficiency; Menopause; Nutrition and reproductive health; Genetics of benign gynaecological conditions; Quality of Life in reproductive disorders

DR HENRIETTE VAN ZYL
High risk obstetrics, with special interest in Diabetes in Pregnancy (Pregestational and Gestational), Fetal Medicine and Caesarean Sections – auditing skills & outcome; Gynaecological Endoscopic surgery

Sub-speciality trainees
Dr Nwabisa Giyose: Gynaecological Oncology [Life Healthcare Scholarship]
Dr Ayesha Osman: Maternal and Fetal Medicine [Life Healthcare Scholarship]
Dr Bothwell Guzha: Gynaecological Oncology [Supernumerary from Zimbabwe – self funded]
Dr Tebogo Deo: Reproductive Medicine [part-time]
Dr Paversan Archary: Reproductive Medicine [part-time]

Registered PhD Student
Dr Rakiya Saidu

Contact Details
Postal Address: Department Obstetrics & Gynaecology, H45 Old Main Building, Groote Schuur Hospital, Observatory, 7925
Telephone: +27 21 404 4485
Fax: +27 21 448 6921
Email: lynette.denny@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/obsgyn/about
### Chapters in books


### Articles in peer-reviewed journals


Department of Paediatrics and Child Health

Research report 2015

Head of Department: Professor Heather Zar

Departmental Profile

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. Other disciplines affiliated with the Department make up the School of Child and Adolescent Health.

Child health is a major challenge for South Africa and for the continent where there is high childhood mortality and preventable morbidity. There is an epidemic of infectious diseases as well as a large increase in non-communicable diseases in children such as diabetes and asthma. Chronic diseases are also increasing as childhood survival improves. The department has responded to these priorities with a wide breadth of clinical research activities and a substantial research output, especially in the areas of priority child health problems such as tuberculosis, pneumonia, infectious diseases and HIV.

In 2013, a new, expanded paediatric clinical research unit within the Faculty of Health Sciences, the Research Centre for Adolescent and Child Health (REACH) was opened at Red Cross War Memorial Children’s Hospital, as the existing unit had been outgrown. Current studies located in REACH include studies of childhood pneumonia, diarrhoea, pertussis, paediatric TB and of HIV-associated illness in adolescents. The centre comprises 80 staff members funded through international grant support (including the National Institute of Health (NIH) USA, Wellcome Trust,) and the Gates Foundation); is involved in the training of 48 postgraduate students from different departments (18 masters, 25 doctoral and 5 post-doctoral); and is host to several African healthcare professionals, building clinical and research capacity to improve child health in Africa. REACH serves as a central hub supporting satellite clinical research sites in secondary and community based facilities. The research program is locally responsive and globally relevant, addressing national priorities such as HIV, TB and childhood pneumonia; and fostering international, national and local collaborations. Directed by Prof Heather Zar, this centre is a remarkable partnership between RCWMCH, the Western Cape Health Department and the Department of Paediatrics, UCT, as well as other inter-departmental collaborations. REACH provides opportunities for training of South African and African health care professionals in clinical research, so building the next generation of academics and African leaders in child health.

In 2014 the Medical Research Council (MRC) awarded a unit in Child and Adolescent Health, the first MRC unit to be established in the Department. The MRC Unit on Child & Adolescent Health undertakes translational research focused on priority childhood diseases including TB, pneumonia and HIV and the intersection of infectious diseases and non-communicable diseases such as asthma. Research integrates perspectives from basic, clinical and population science. A flagship study is the unique longitudinal birth cohort study, the Drakenstein Child Health study, which investigates the antenatal and early life determinants of child health, with a focus on childhood pneumonia, and the impact of early infection on chronic disease. The unit is directed by Prof Heather Zar (Head of Department).

There are 4 NRF rated researchers in the Department including one A-Rated person.

Departmental Structure

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

Departmental Statistics

Permanent and Long-Term Contract Staff

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<tr>
<th>Position</th>
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<td>Associate Professors</td>
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<td>Senior Lecturers (full time)</td>
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<td>Senior Lecturers (part time)</td>
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<td>Administrative and clerical staff</td>
<td>20</td>
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<tr>
<td><strong>Total</strong></td>
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Emeritus and Honorary Staff

<table>
<thead>
<tr>
<th>Position</th>
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<tbody>
<tr>
<td>Emeritus Professors</td>
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<tr>
<td>Emeritus Associate Professors</td>
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<td>Honorary Senior Lecturers</td>
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Students

<table>
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<tr>
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<tbody>
<tr>
<td>PhD</td>
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<td>MSc</td>
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<td>MMed</td>
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<tr>
<td>MPhil</td>
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<td>PG Diploma</td>
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<tr>
<td>Undergraduate</td>
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</tr>
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<td><strong>Total</strong></td>
<td><strong>694</strong></td>
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Research Fields and Staff

J. AHRENS
Review of respiratory virus infections of children admitted to the PICU; Analysis of reasons for refusals or acceptance of patient referrals to the PICU

A.C. ARGENT
Critical illness; respiratory mechanics; electrical impedance tomography; severe respiratory disease; critical care practices; quality and safety of critical care; traumatic brain injury; HIV and critical illness; fluids in the critically ill; prevention of nosocomial infections; viral infections in PICU; paediatric cardiomyopathy/myocarditis; resource allocation; severe sepsis and septic shock; “Pathways to care” for critically ill children; training for healthcare workers working with critically ill/injured children

H. BARLOW
Nurses and Care; protocols of care and quality in healthcare

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

M. COETZEE
Improvement science in clinical paediatrics; models of paediatric nursing care; participative approaches – post-graduate curriculum development and clinical practice development

G COMITIS
Rheumatic fever and rheumatic heart disease; genetic basis of paediatric heart disease; cardiovascular health of patients on HIV therapy;
future cardiac health of normal children; burden of disease of paediatric heart disease; myocarditis and cardiomyopathy; echocardiography and outcomes post-cardiac surgery; cardiac MRI in paediatric heart disease

**ML Cooke**
General paediatrics and gastroenterology

**A. Davidson**
Paediatric brain tumours; Adapted therapy regimens for low and middle income countries; B-cell malignancy and other HIV-related cancers in children; Genetic syndromes predisposing to childhood cancer; Stem Cell Transplantation for Immunodeficiency

**C. Davis**
Paediatric critical care; nurse to nurse communication and the action research methodology.

**R. De Decker**
Rheumatic fever and rheumatic heart disease; the genetic basis of congenital and acquired heart disease; the cardiovascular health of patients on HIV therapy; the future cardiac health of normal children; operational research relating to the burden of disease of congenital and acquired heart disease in the Western Cape; myocarditis and cardiomyopathy

**R. De Lacy**
Cystic fibrosis; gastroenterology; liver transplantation

**S. Delport**
Abnormalities of growth; abnormal pubertal development; advances in diabetes care

**R. Diedericks**
Emergency paediatrics; Infectious Diseases

**K. Donald**
Developmental disabilities as they manifest and are managed in resource limited settings such as South Africa (including Cerebral palsy, Autism, Intellectual disability, genetic syndromes). Specific interests include the preventable causes of neurodisability such as alcohol and methamphetamine exposure, organophosphate poisoning and the neurological and neurocognitive complications of HIV

**R. Dunkley**
Learning from mortality; improving flow and bed management in the hospital to cope with the Surge season

**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

**C. Gray**
Food allergies and eczema

**M. Harrison**
Preterm outcomes; Neonatal respiratory disease; Hypoxic Ischaemic Encephalopathy

**M. Hendricks**
Rhabdomyosarcoma; Hodgkin’s lymphoma

**M.K. Hendricks**
Public health nutrition; children’s rights; community child health

**I. Hendry**
Post-graduate education; clinical nursing research and forensic nursing

**L. Henley**
Research ethics

**J. Hewitson**
Resource allocation and cardiovascular disease; Trisomy 21 and cardiovascular disease; surgical management of patients with a single ventricle

**A. Horn**
Hypoxic Ischaemic Encephalopathy and cost effective neonatal care

**Y. Joolay**
Neonatology

**M. Kibel**
Child Health generally (Community Paediatrics); and Childhood TB

**S.M. Kroon**
Mother-to-child transmission of HIV; Human Milk Banking

**A. Leonard**
Implementation research (evidence based practice and improvement research)

**M. Levin**
Genotypic and phenotypic features of allergic children; paediatric food allergy; atopic dermatitis; impact of demographic, environmental, nutritional and infectious influences on the expression of allergy and atopy; allergy and atopy in children with Vernal Kerato-conjunctivitis; communication issues in asthma and allergy management
J. LAWRENSON
Rheumatic fever and rheumatic heart disease; the genetic basis of congenital and acquired heart disease; the cardiovascular health of patients on HIV therapy; the future cardiac health of normal children; operational research relating to the burden of disease of congenital and acquired heart disease in the Western Cape; myocarditis and cardiomyopathy

L. LINLEY
Kangaroo mother care; HIE and the effect of head cooling; ethical issues in neonatal care

M. MCCULLOCH
Acute kidney injury in PICU; acute peritoneal dialysis; fluid management in emergency and PICU; Transplantation (Renal, Liver and Cardiac); Young Adult Transition; steroid withdrawal in transplantation; Takayasu’s arteritis; Atypical hemolytic uremic syndrome; Training of African Fellows in PICU/Nephrology and Challenges faced on return home

B. MORROW
Paediatric respiratory disease; nosocomial infections in the PICU; respiratory mechanics; cystic fibrosis; mechanical ventilation; paediatric cardiopulmonary physiotherapy; research ethics; advocacy; regional ventilation determinants; cystic fibrosis

R. MULOIWA
Pertussis in children with Respiratory Tract Infection

S. NAIDOO
Aeroallergen sensitisation and the prevalence of asthma; allergic rhinitis; and eczema in children with Vernal Keratoconjunctivitis; Evaluating acute asthma management in the medical emergency unit at Red Cross War Memorial Children’s Hospital in Cape Town, South Africa from 1 January 2013 to 31 December 2013; pilot study

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; childhood stroke

P. NOURSE
Peritoneal dialysis; glomerulonephritis including HIV; vasculitis

J. NUTTALL
Infants, children and adolescents with HIV infection and HIV/TB co-infection including early infant diagnosis; performance of HIV rapid tests in young children; drug dosing and pharmacokinetics; treatment failure and drug resistance; Antimicrobial stewardship

R. PETERSEN
Cerebral Palsy

M.S. RABAN
Neonatology

V. RAMANJAM
Phenotype, neuroimaging and neurocognitive characteristics of children with neurofibromatosis type I; DAX1 mutation; investigating the prevalence, comorbidities and responses to different forms of medical therapy for children and adolescents with ADHD

M. RICHARDS
General and Developmental Paediatrics

G. RIORDAN
Paediatric epilepsy; mitochondrial disease and ADHD

B. ROSSOUW
Cardiac critical care; dilated cardiomyopathy; ALCAPA

P. ROUX
Early Childhood Development and psycho-social aspects of care for children and adolescents with HIV/AIDS

S. SALIE
Sepsis; HIV; fluid resuscitation and ventilation

C. SCOTT
Paediatric Systemic Lupus Erythematosus; Juvenile Idiopathic Arthritis; Fibrodylosplasia Ossificans Progressiva; HIV Arthropathy; Juvenile Dermatomyositis and Childrens Rights; Takayasu’s Arteritis

A. SPITAELS
Paediatric endocrinology, metabolism and diabetes; social circumstances, diabetes control, intersex

C. THOMPSON
Follow-up of the high risk infant; HIE and the effect of head cooling

L. TOOKE
Neonatal research especially congenital infections; HIV and the care of the VLBW

A. VAN EYSSEN
Bone marrow transplantation

A. (NIKI) VAN NIEKERK
Neonatology and Neonatal cardiology; congenital infections

A. VANKER
Indoor air pollution and tobacco smoke exposure and the effects on lung health; Determinants of childhood respiratory diseases
K. Walker
Sydenham’s chorea: post streptococcal movement disorders; Point of care INR testing; Cardiac management of Duchenne’s Muscular Dystrophy; HIV encephalopathy and HIV associated neurocognitive deficits in children; Use of Methylphenidate and management of ADHD in HIV

A.T. Westwood
Coordination of health services; quality of health care; epidemiology, cystic fibrosis; gastro-enteritis; management of acute diarrhoea; causes of death among children; health systems for children with long-term health conditions; policy perspectives on children with long term health conditions

P. Wicomb
Medical Education

J. Wilmshurst
Spinal muscular atrophy; muscular dystrophies; peripheral neuropathies; congenital myopathies; complex epilepsies in childhood; video telemetry in paediatric neurology practice; ketogenic diet in epilepsy; co-morbidities of children with epilepsy; genetics of children with epileptic encephalopathies; neurofibromatosis; guidelines for management of epilepsy disorders; tuberous sclerosis complex; neurological manifestations of HIV; child neurology training and service capacity in Africa

M. Zampoli
Childhood respiratory infections; HIV-associated lung disease; Cystic fibrosis; respiratory manifestations of neuromuscular disease and Sleep medicine

H. Zar
Childhood TB (specifically new diagnostic strategies), childhood pneumonia, HIV-associated lung disease; childhood asthma. Drakenstein child lung health study. Prof Zar directs the MRC Unit on Child and Adolescent Health and the Research Centre for Child & Adolescent Health (REACH), located at Red Cross Childrens Hospital

K. Walker
Sydenham’s chorea: post streptococcal movement disorders; Point of care INR testing; Cardiac management of Duchenne’s Muscular Dystrophy; HIV encephalopathy and HIV associated neurocognitive deficits in children; Use of Methylphenidate and management of ADHD in HIV

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Department of Paediatrics and Child Health

Affiliated Disciplines

Allied Health Sciences

Unit Representative: Sameer Rahim

Department Structure

Manager [Head of Unit] of Allied Health Professionals: Dr Anthony Booyzen

HOD of each department:

• Dietetics: Shihaam Cader
• Occupational Therapy: Mereille Pursad
• Physiotherapy: Sameer Rahim
• Audiology: Colleen Cox
• Social Worker: Carla Brown
• Speech Therapy: Lezanne le Roux

Unit Profile

The Unit of Associated Paediatric Disciplines is multi-disciplinary, including all the paediatric therapy professions of Physiotherapy, Occupational Therapy, Dietetics/Nutrition, Speech Therapy, Audiology and Social Work. The Division undertakes undergraduate and postgraduate teaching and training in all aspects of paediatric care, both acute and chronic. The Division is active in conducting research in Paediatric fields, often collaborating with members of other Divisions. The individual departments also run departmental weekly and monthly CPD programs accredited by UCT. The division is actively involved in assisting with the development of local and National guidelines and is a resource nationally and internationally for the expertise held within the division.

The division has presented at various local and international congresses. Sameer Rahim is currently the Secretary of the World Federation of Haemophilia Musculo-Skeletal Committee. The division also regularly hosts locally and nationally recognised
courses. Janine Verstraete lectures the 1st yr UCT Physiotherapy students. Mereille Pursad lectures 3rd year UWC students. The division is actively involved in supporting the training needs of all 3 Western Cape Universities by providing a clinical training platform. The division is involved in the training of the UCT Paediatric and Critical Nursing students, the dietetics department is also involved in the training of Nephrology nursing students. Shihaam Cader presented at the Critical Care Congress in July 2015.

Unit Statistics

**Permanent and Long-Term Contract Staff (PGWC)**

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**Students**

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<tr>
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<tr>
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<tr>
<td>Postgraduate students (nursing and allied health)</td>
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<td>APFP fellows</td>
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Physiotherapy had 1 APFP fellow for 6 months from Tanzania.

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. (graduated June 2014)

**SHAFFEEGAH NANA (SPEECH THERAPY)**
Master’s in Early Communication Intervention (course work)- Univ of Pretoria. (successfully completed, graduating April 2016)

**DES SCOTT (PHYSIOTHERAPY)**

**JANINE VERSTRAETE (PHYSIOTHERAPY)**
MSc Physiotherapy: Development of an English Health Related Quality of Life measure, for children under the age of 6, to be completed by proxy. (ongoing, currently upgrading to PhD)

**LIESELOTTE CORTEN (PHYSIOTHERAPY PHD STUDENT)**
The use of Assisted Autogenic Drainage in children with acute respiratory disease in a developing country, (data collection completed); review and profile of patients admitted to RCWMCH with pneumonia.

**SHIHAAM CADER (DIETETICS)**
[In collaboration with Edward Kija from Neurology] Bone metabolism abnormalities in children with Epilepsy at Red Cross War Memorial Children’s Hospital, Cape Town South Africa. (commence 2014); co-author article with Dr Shrish Budree and Dr Liz Goddard infant feeding practices in a South African birth cohort - A longitudinal study.

**TRACY HARRIS HORIZ (AUDIOLOGY)**
Masters in Public Health (University of Pretoria)

**MEREILLE PURSAD (OCCUPATIONAL THERAPY)**
[In collaboration with Prof Alp Numanoğlu, Prof Heinz Rode (Paed Surgery) and Nick Dankerlui, Karljin Blankers (research students, Erasmus University, Rotterdam, Holland)]
The prevalence of post burn pruritus and a cross-cultural validation of an itch scale for children in a South African setting.

**DEBRA MILLIGAN (MSC THROUGH COMMONWEALTH, NOT UCT)**
Wellbeing in Public Policy and International Development, University of Bath, United Kingdom

**ANRI HUMAN (PHYSIOTHERAPY PHD STUDENT)**
The effect of mechanical insufflation-exsufflation and inspiratory muscle training on clinical outcomes and health-related quality of life in paediatric and adolescent patients with neuromuscular diseases presenting with respiratory muscle weakness: a multi-centre trial.

**BERNADETTE SAAYMAN (DIETETICS MSC)**
Department of Paediatrics and Child Health

Affiliated Disciplines

DIVISION OF CHILD AND ADOLESCENT PSYCHIATRY, DEPARTMENT OF PSYCHIATRY AND MENTAL HEALTH

Head of Clinical Unit: Dr Wendy Vogel
Academic Lead: Professor Petrus de Vries

Unit Profile

The Division of Child & Adolescent Psychiatry (DCAP), is a subspecialty service in Child and Adolescent Psychiatry affiliated to Red Cross War Memorial Children’s Hospital and UCT Department of Psychiatry and Mental Health. The division offers clinical services, teaching, training and research. DCAP therefore works in close collaboration between the departments of Psychiatry and Paediatrics. It is based at 46 Sawkins Road, Rondebosch. The clinical services are offered by three main units: an Outpatient Unit (including infant mental health and neurospychiatry), a Consultation-Liaison Unit, and by the Therapeutic Learning Centre (TLC), an in-patient unit for children under 13 years. The out patient services see children and adolescents under the age of 18 years with complex mental health problems. The Division is very active in training across disciplines, ranging from medical students, psychiatric registrars (M.Med) to advanced nursing students and clinical psychology interns. The Division offers a two-year M. Phil. (Child and Adolescent Psychiatry) degree, which leads to registration with the HPCSA as a sub-specialist in Child and Adolescent Psychiatry. In addition, staff members in the Division supervise candidates for postgraduate degrees such as Master’s and Doctoral degrees.

Research at DCAP is organised around five main themes:

a) Centre for Autism in Africa – an interdisciplinary, inter-faculty research group with interest in building a research base for research about autism in Africa. Activities include tool development, translation, validation, training and implementation science approaches to interventions. In addition, the team is interested in use of technology, and in health/education systems for individuals with ASD. (Director: Prof Petrus de Vries).

b) Adolescent Health Research Unit – a UCT-accredited research unit with specific focus on health and health promotion in adolescents. The AHRU has five key research themes that include sexual and reproductive health, adolescent mental health, intimate partner violence, abuse and bullying, and health systems research. Recent activities included a large-scale intervention trial of a school-based education programme to reduce risk behaviours and intimate partner violence in 12-14 year olds in the Western Cape Province (Director: Prof Petrus de Vries; Co-director: A/ Prof Cathy Mathews).

c) Tuberous Sclerosis Complex Research Programme – an international research programme, specifically focusing on molecularly targeted treatments of TSC and the neuropsychiatry of TSC. Recent activities included development and validation of a checklist for the neuropsychiatric manifestations of the disorder (Lead: Prof Petrus de Vries).

d) Infant Mental Health Programme – A developmental research programme of parent-infant mental health work focusing on mentalisation and mentalisation-based interventions for high-risk families (Lead: A/ Prof Astrid Berg)

e) DCAP Research Development Programme – a staff research development programme. Activities include research development workshops, writing workshops and research capacity building in existing staff (Lead: Prof Petrus de Vries)
Unit Statistics

Joint Staff

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<tr>
<th>Position</th>
<th>Number</th>
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<tbody>
<tr>
<td>Professor</td>
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<tr>
<td>Emeritus Professor</td>
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<tr>
<td>Emeritus Associate Professor</td>
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<tr>
<td>Senior Lecturers</td>
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<td>Honorary Lecturers and Senior Lecturers</td>
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Permanent Provincial and Trainee Staff

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<td>Intern Psychologists</td>
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Registered Students supervised by DCAP staff

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<th>Degree</th>
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<tr>
<td>MSc Med (Neurosci)</td>
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<td>M.Med</td>
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<td>M.Phil</td>
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<td>PhD</td>
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<td>Other degrees</td>
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Other Research Staff affiliated to DCAP

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<tr>
<td>Associate Professor</td>
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<tr>
<td>Senior Lecturer</td>
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<td>Postdoctoral Fellow</td>
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<tr>
<td>Senior Scientists</td>
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<tr>
<td>Research Officer</td>
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<td><strong>Total</strong></td>
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</table>

Contact Details

Postal Address: Division of Child and Adolescent Psychiatry, 46 Sawkins Road, Rondebosch, 7700
Telephone: +27 21 685 4103
Fax: +27 21 689 1343
Email: dcap@westerncape.gov.za

Please refer to the Psychiatry and Mental Health Research Report for publications by members of the Division of 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>
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<tr>
<th>Position</th>
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<tbody>
<tr>
<td>Specialist</td>
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<td>Sub-specialist trainees</td>
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<td>Senior Lecturers (part-time)</td>
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<td>Lecturers</td>
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<td>Administrative staff</td>
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<td><strong>Total</strong></td>
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Emeritus Staff

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<tr>
<td>Emeritus Professor (part-time)</td>
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</table>
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

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<table>
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<tr>
<td>Professors</td>
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<td>Senior Lecturers (Snr Researchers)</td>
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<td>Lecturers (Researchers)</td>
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<tr>
<td>PASS (Administrative)</td>
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<td>PASS (Scientific and Technical)</td>
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<td><strong>Total</strong></td>
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Honorary Staff and Associates

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<tbody>
<tr>
<td>Honorary Professor</td>
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<tr>
<td>Research Associate</td>
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Students

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<tbody>
<tr>
<td>PhD</td>
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<tr>
<td>Masters</td>
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<td>Research intern</td>
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<tr>
<td><strong>Total</strong></td>
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</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

PROFESSOR RIA REIS
Honorary Professor; Transgenerational transmission of inequality, participatory approaches, parenting

LIZETTE BERRY
Senior researcher; Social policy, early childhood development, child protection, child poverty

AISLINN DELANEY
Senior researcher; poverty and inequality, socio-economic rights, social assistance, child protection

KATHARINE HALL
Senior researcher; social policy, Child poverty and inequality, social grants, households and mobility, indicators

LUCY JAMIESON
Senior researcher; child protection, child rights, participatory democracy, governance, law reform and policy development

JENNA-LEE MARCO
Researcher; child rights, social policy, child safety and protection, youth development and psycho-social adjustment

PAULA PROUDLOCK
Programme manager; child rights, legislative review, law reform; democracy & governance, socio-economic rights for children

STEFANIE ROHRS
Senior researcher; child rights, law reform & policy development, children & violence, sexual & reproductive rights

WINNIE SAMBU
Researcher; Food and nutrition security, child nutritional outcomes, living conditions, urban environments, poverty
ZULFAH ALBERTYN
Research assistant; Child mortality, injury, surveillance mechanisms, spatial modelling and sustainable development

BIRGIT WEYSS
Research associate; human rights, governance, child indicators, spatial disparities, child budgets

Contact Details
Postal Address: Children’s Institute, University of Cape Town, 46 Sawkins Road, Rondebosch, 7700
Telephone: +27 21 650 1473
Fax: +27 21 650 1460
Email: info@ci.org.za
Website: www.ci.org.za

Department of Paediatrics and Child Health

Affiliated Disciplines

PAEDIATRIC ANAESTHESIA
Head of Unit: Dr Rob Nieuwveld

Unit profile
The Unit of Paediatric Anaesthesia at the Red Cross War Memorial Children’s Hospital (RCWMCH) is a division of the Department of Anaesthesia at the University of Cape Town (UCT) and affiliated to the School of Child and Adolescent Health (SCAH), that is responsible for the provision of anaesthesia for all children, infants and neonates undergoing surgery or procedures at the RCWMCH and Maitland Cottage Children’s Home. This unit also provides acute, chronic and palliative pain 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 that falls under Paediatric Anaesthesia, run by Sister Angeline Schrikker. These include the resident Anaesthesia specialists and a number of other volunteers from nursing, child and family psychotherapists, child life specialists, aromatherapy, physiotherapy, and art therapy.

Staffing
The head of this clinical unit is Dr Rob Nieuwveld, with the following fulltime paediatric anaesthesia specialists: Dr Graeme Wilson, Dr Rebecca Gray, Dr Karmen Kemp, Dr Kotie Bester and Dr Heidi Meyer. Another three fulltime specialists rotate on a regular basis between Groote Schuur Hospital, Maitland Cottage Home 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. Dr Meyer and Dr Myburgh also teach on APLS courses.
Ms Melissa Williams provides much-needed administrative assistance to all members of this division. This has made a considerable difference to the efficient functioning of our paediatric anaesthetic faculty.

**Unit statistics**

**Permanent and long term Contract Staff**

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<thead>
<tr>
<th>Position</th>
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<tbody>
<tr>
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<td>Administrative assistant</td>
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**Emeritus and other Staff**

<table>
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<tr>
<td>Emeritus Associate Professor</td>
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<tr>
<td>Part-time Specialists</td>
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</table>

**Research Fields and Staff**

**EMERITUS 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

**ROB NIEUWVELD**
Anaesthesia safety, equipment, undergraduate teaching

**GRAEME WILSON**
Paediatric pharmacology, total intravenous anaesthesia techniques, target-controlled anaesthesia, cardiothoracic anaesthesia

**REBECCA GRAY**
Simulation in paediatrics and anaesthesia, Transfusion medicine, vascular access, premature infants, ultrasound applications, cardiacs, general paediatric surgery and burns

**KARMEN KEMP**
Cardiac anaesthesia, childhood malignancies, general surgery, teaching, regional anaesthesia and pain medicine

**KOTIE BESTER**
Ultrasound and echocardiography applications in paediatric anaesthesia, modalities for analgesia and sedation, interventional radiology and MRI

**HEIDI MEYER**
Morbidity and mortality in anaesthesia, regional anaesthesia, neonatal surgery, spinal and orthopaedic surgery, analgesia and sedation techniques for children

Supernumerary fellowships in paediatric anaesthesia have been running for a number of years and three Kenyan anaesthetists have trained here, with another anaesthesiologist from Kenya commencing in 2016, as well as numerous South Africans.

Funding is being sought to ensure sustainability for this training in paediatric anaesthesia.

A number of private paediatric anaesthetists do sessions at RCWMCH and Maitland Cottage Hospital, and these include Prof Jenny Thomas, Drs Anthony Aubin, Tony Butt, Patrick Purcell, Nicky Stilwell and Lance Thompson.

**Contact Details**

Postal address: Division of Paediatric Anaesthesia, Red Cross War Memorial Children’s Hospital, Klipfontein Road, Rondebosch, 7700, Cape Town, South Africa.
Telephone: +27 21 658 5183
Email: melissa.williams@uct.ac.za
Website: [http://www.anaesthesia.uct.ac.za/division-paediatric-anaesthesia](http://www.anaesthesia.uct.ac.za/division-paediatric-anaesthesia)

Research Output - Refer to the Department of Anaesthesia
Department of Paediatrics and Child Health

Affiliated Disciplines

PAEDIATRIC DERMATOLOGY

Head of Unit: Dr Carol Hlela

Unit profile

Dr Carol Hlela is the Head of Paediatric Dermatology at Red Cross Hospital and managing of Adult inpatients and outpatients with varied skin conditions. She is the division’s only consultant that runs the clinical service and is assisted by dermatology registrars from Groote Schuur Hospital for two clinics a week and also two sisters of Red Cross Hospital.

Current Studies

She completed 1. conducting a clinical trial at Red Cross entitled: Accessible and Affordable Moisturizers for Atopic Eczema, the 3AM Atopic Eczema Study. The aim of which is to find easily accessible moisturizers with a view to replace the standard of care regime. The intention of which is to empower patients and reduce the dependence on the health sector for moisturisers. Further completed research include: 2. Prevalence of HTLV-1 infection amongst blood donors in South Africa. Carol Hlela, Wendy Sykes, Marion Vermeulen, Edward Murphy. A collaborative project with the South African National Blood Services (SANBS).

3. Epidemiology of HTLV-1 infection in South Africa, the forgotten epidemic. Carol Hlela, Maia Lesosky, Diane Hardie, Ravi Moodley, Edward Murphy. A project conducted in partnership with the national health services laboratory (NHLS). She is also currently conducting her own research in the following areas:

- Formulating a National Multicentre Registry of Infective Dermatitis Associated with HTLV-1 (IDH), a collaborative project with the South African Dermatology Society of SA.

Student Supervision

1. Nonhlanhla Lunjani: Department of Dermatology, University of Cape Town. Project title: Mechanisms of Eczema and Allergy Development in Xhosa children

2. Nare Rakgole, PhD student-Virology Department, Sefako Makgatho Health Sciences University. Project title: Human T-cell lymphotropic virus type 1 (HTLV-1) -associated infective dermatitis (IDH) and the risk of adult T cell leukaemia/lymphoma (ATLL)

Project collaborations are with:

Prof Mike Levin from the Department of Allergy, University of Cape Town and the Switzerland based group of investigators including Drs. Akdis, Schmid-Grendelmeier and Weibel working on the research project entitled- Mechanisms of the Development of Allergy (SOS-ALL), which will aim to generate novel knowledge on the origin of the epidemic of IgE-associated allergic diseases, particularly mechanisms of initiation of allergy to propose early diagnosis, prevention and targets for therapy.
Department of Paediatrics and Child Health

Affiliated Disciplines

PAEDIATRIC NUCLEAR MEDICINE

Head of Unit: Dr Anita 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.

Unit Statistics

Permanent and Long-Term Contract Staff

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Emeritus Staff

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Students

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Department of Paediatrics and Child Health

Affiliated Disciplines

PAEDIATRIC PATHOLOGY

Head of Histopathology Unit: Associate Professor Komala Pillay

Unit profile

The Unit of Paediatric Pathology is primarily an NHLS laboratory service unit to Red Cross Children’s Hospital and provides paediatric and neonatal services to other Western Cape Health Care Institutions. The pathology service functions as an amalgam of three sub units comprising: Anatomical Pathology, Chemical Pathology and Haematology. Undergraduate teaching activities are largely undertaken through equivalent disciplines at Groote Schuur Hospital and the Medical School of the University of Cape Town to medical and physiotherapy students. Postgraduate teaching is undertaken to MPhil (Paediatric Pathology), MMed (in all the pathology disciplines), and MSc and PhD students at UCT. Research activities are related to laboratory aspects of child health and molecular mechanisms underlying paediatric disease. Research also undertaken through collaborative projects with clinical colleagues, mainly in paediatrics and paediatric surgery.

Unit Statistics

Permanent and Long-Term Contract Staff

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<tr>
<td>Associate Professors</td>
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<td>Lecturer</td>
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<td>NHLS Staff</td>
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<td><strong>Total</strong></td>
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Students

| Registrars | 3 |

Research Fields and Staff

DR LEE-ANNE PHILLIPS
Molecular genetics of paediatric leukaemias and neuroblastomas; paediatric myelodysplastic syndromes; haemophagocytic lymphohistiocytosis.

ASSOCIATE PROFESSOR KOMALA PILLAY
Pathology of skeletal muscle; brain tumours; lymphomas.

ASSOCIATE PROFESSOR 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
Telephone: +27 21 658 5209
Fax: +27 21 658 5206
Email: komala.pillay@uct.ac.za
Website: http://www.paediatrics.uct.ac.za/scah/clinicalservices/other/pathology
Department of Paediatrics and Child Health

Affiliated Disciplines

PAEDIATRIC RADIOLOGY

Head of Unit: Dr Tracy Kilborn

Unit Profile

A clinical radiology department providing imaging to all divisions in the School, performing a total of approximately 40,000 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

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Students and Postdoctoral Fellows

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</table>

Research Fields and Staff

T. KILBORN
Oncology, Neuro-imaging, HIV and TB, Pulmonary Imaging, Gastrointestinal

N. WIESELTALER
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
Telephone: +27 21 658 5104
Fax: +27 21 658 5101
Please refer to the Department of Radiation Medicine Research Report for publications by members of the Division of Paediatric Radiology.
Department of Paediatrics and Child Health

Affiliated Disciplines

PAEDIATRIC SURGERY

Head of Unit: Professor Alp Numanoglu

Unit Profile

The department functions as a tertiary and quarternery 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, trauma, organ transplantation, specialized hepatobiliary 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, surgical skills training, trauma care and prevention, liver and renal transplantation, renovascular hypertension, burns management, pain assessment and management, conjoined twins and common diseases of Africa including tuberculosis and HIV/AIDS.

Unit Statistics

Permanent and Long-Term Contract Staff

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<td>African Fellowship Training Programme</td>
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<td>Karl Storz Fellowship Programme</td>
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<td>Research Technologists / Social Worker</td>
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Emeritus and Adjunct Staff

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<td>Adjunct Professor</td>
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Students

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<td>Masters</td>
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<td>Undergraduate</td>
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</table>

Research Fields and Staff

PROFESSOR A. NUMANOGLU
Minimal invasive surgery; transplantation; HIV/AIDS and diseases of the gastro-intestinal tract; teaching with technology; web based outreach; neonatal surgery

DR S. COX
Burns; surgical aspects of necrotising enterocolitis and other childhood general surgical conditions; Intussuception; surgical oncology; surgical neonatal outcomes

PROFESSOR A.B. VAN AS
Traumatology; child accident prevention; vascular injuries
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. RODE
Burn and nutrition research; short bowel syndrome; HIV/AIDS; oncology and trauma

ADJUNCT PROFESSOR R.A. BROWN
Gastrointestinal surgery; surgical endoscopy; constipation and gastro-intestinal polyposis

DR D. VON DELFT
Laparoscopic & single port endoscopic surgery; thoracic surgery; surgical device development

DR R. ALBERTYN
Paediatric pain; rehabilitation and HIV/AIDS; web-based education

J. RAAD
Manometry and gastro-enterology

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
Telephone: +27 21 658 5012
Fax: +27 21 685 6632
Email: Noorunisa.Vollenhoven@uct.ac.za
Website: http://www.surgicalskills.co.za; http://www.paediatrics.uct.ac.za/scah/clinicalservices/surgical/surgery

Department of Paediatrics and Child Health

Affiliated Disciplines

POISONS CENTRE
Head of Unit: Dr Cindy Stephen

Unit Profile
The Poisons Information Centre (PIC) develops, 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 context. AfriTox is used in over forty state hospitals countrywide, and by both the poisons centres at Tygerberg Hospital and in Bloemfontein as the basis for poisons advice given to health workers and the public. It is also distributed to centres in Botswana, Ethiopia, Kenya, Mozambique, Zambia and Zimbabwe, as well as more recently in Dubai. AfriTox is also used by doctors on smart phones, tablets and laptops.

The Poisons Information Helpline of the Western Cape was launched on 1 June 2015 as a combined telephone service provided by staff at the Red Cross Hospital and Tygerberg Hospital PICs. This telephone service is available 24/7 to both healthcare workers and members of the public. It is answered by staff specialised in toxicology at both the Red Cross and Tygerberg Poisons Information Centres. Data from telephone calls are collected in the custom-designed TeleLog database which is based on AfriTox.

The PIC also collects clinical data on all children seen at Red Cross Children’s Hospital with known or suspected poisoning into an Access-based Clinical Database.
Unit Statistics

Permanent Staff

<table>
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<th>Position</th>
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<td>Medical officers (one full time, one 5/8th)</td>
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<tr>
<td>Pharmacists (one full time, one 5/8th)</td>
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<td>Administrative Assistant</td>
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<td><strong>Total</strong></td>
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</tbody>
</table>

Research Fields and Staff

All staff members are involved in data collection.

Dr Cindy Stephen is responsible for the TeleLog database and Dr Kate Balme for the Clinical Database.

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
Telephone: +27 21 658 5308
Fax: +27 21 658 5331
Email: poisonsinformation@uct.ac.za
Website: www.afritox.co.za

Department of Paediatrics and Child Health

Affiliated Disciplines

SOUTH AFRICAN TUBERCULOSIS VACCINE INITIATIVE (SATVI)

Head of Unit: Associate Professor Mark Hatherill

Unit Profile

The South African Tuberculosis Vaccine Initiative (SATVI), established in 2001, has developed into a world-class TB vaccine research group. State of the art immunology laboratories are located within the Institute of Infectious Disease and Molecular Medicine (IDM), and clinical research and community outreach projects are based at the SATVI field site located at Brewelskloof TB Hospital in Worcester.

Clinical Research

During 2015 the SATVI clinical and laboratory teams completed three Phase 1-2 trials of novel TB vaccines in adult and infant study populations; finished enrolment in two large Phase 2 TB vaccine trials, including a proof of concept efficacy trial of the GSK M72 candidate vaccine in TB-infected adults and a Prevention of Infection (POI) trial of the Sanofi H4 candidate vaccine and BCG in adolescents; and started recruitment for clinical trials of a recombinant BCG vaccine (VPM-1002) in newborns; a live attenuated Mycobacterium tuberculosis vaccine (MTBVAC) in adults and infants; and an adjuvanted subunit vaccine (ID93+GLA-SE) in recently treated TB patients.

We have made a concerted effort to diversify our TB research portfolio. After a lengthy preparation period, we enrolled our first participants into an AIDS Clinical Trial Group (ACTG) household contact study of multidrug-resistant TB patients. The study marks the first of several TB diagnostic and therapeutic studies in the SATVI pipeline.
The year ended on a high note, with the award of a multi-million dollar grant for a clinical trial that will test a screen and treat strategy to target preventive therapy for persons with a transcriptomic signature of risk for TB disease. CORTIS (The Correlate of Risk Targeted Intervention Study) will start in mid-2016. We also led a successful application to a joint SAMRC-NIAID call to establish the Clinical Research Unit for Advancement of Tuberculosis Biomarker-Targeted Interventions, part of the new RePORT SA network.

In 2015 we bade farewell to Dr Zameer Brey, who joined the Bill & Melinda Gates Foundation, and welcomed Dr Masooda Kaskar, who joined us from Novartis as the Chief Operations Officer.

Research output: 28 papers published

Awards, Prizes and Scholarships

Associate Professor Tom Scriba, Full Membership of the Institute of Infectious Disease and Molecular Medicine.

Dr Elisa Nemes, Senior Research Officer, selected for the International Society for the Advancement of Cytometry (ISAC) Scholars Program.

Dr Angelique Luabeya, Principal Investigator, awarded an European & Developing Countries Clinical Trials Partnership -TDR Clinical Research Fellowship.

Unit Statistics

Permanent and Long-Term Contract Staff

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<tr>
<th>Permanent staff</th>
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<tr>
<td>Fixed term contract staff</td>
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(Academic staff 8; PASS staff 102)

Students and Postdoctoral Fellows

| BSc | 1 |
| Masters | 6 |
| Doctoral | 2 |
| Postdoctoral Fellows | 8 |
| **Total** | **17** |

Research Fields and Staff

Research Staff

ASSOCIATE PROFESSOR MARK HATHERILL - DIRECTOR SATVI
TB vaccine development and testing; Epidemiology and diagnosis of TB in infants, adolescents and adults.

ASSOCIATE PROFESSOR THOMAS SCRIBA - DEPUTY DIRECTOR SATVI
Immunopathogenesis studies; TB vaccine development and testing; Correlates of risk of TB in infants and adolescents; adults; assay development.

DR HENNIE GELDENHUYS
TB vaccine development and testing, including novel administration of vaccines; Epidemiology and diagnosis of TB in infants, adolescents and adults.

DR ANGELIQUE LUBAYA
TB vaccine development and testing; Epidemiology and diagnosis of TB in infants, adolescents and adults.

DR MICHLE TAMERIS
TB vaccine development and testing; Epidemiology and diagnosis of TB in infants and adolescents; Drama as a vehicle for communicating research technology.

DR JUSTIN SHENJE
TB vaccine development and testing; Epidemiology and diagnosis of TB in infants, adolescents and adults.

DR 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.

DR ADAM PENN-NICHOLSON
TB vaccine development and testing; Correlates of risk of TB disease in adolescents; Assay development.

DR HELEN MEARNS
Analysis of immune responses to novel vaccine strategies against TB.

DR SARA SULIMAN
TB vaccine development and testing; Correlates of risk of TB disease in adolescents; Assay development.

DR VIRGINIE ROZOT
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.
DR MBANDI KIMBUNG
Correlates of risk of TB disease.

Contact Details
Postal Address: South African Tuberculosis Vaccine Initiative (SATVI), Wernher and Beit Building South, Anzio Road, Observatory 7925
Telephone: +27 21 406 6791
Fax: +27 21 406 6693
Email: kelvin.vollenhoven@uct.ac.za; a.september@uct.ac.za
Website: http://www.satvi.uct.ac.za

RESEARCH OUTPUT

Edited books


Chapters in books


Articles in peer-reviewed journals


Bergman, N. 2015. Neuroprotective core measures 1-7: neuroprotection of Skin-to-Skin Contact (SSC). Newborn and Infant Nursing Reviews, 15: 142-146.


food allergy: history, examination and in vivo and
in vitro tests. SAMJ South African Medical Journal,

van der Westhuizen, F.H., Sinxadi, P., Dandara, C.,
Smuts, I., Riordan, G.T.M., Meldau, S., Malik, A.N.,
Sweeney, M.G., Tsai, Y., Towers, G.W., Louw, R.,
Gorman, G., Payne, B., Soodyall, H. and Pepper,
M.S. 2015. Understanding the implications of
mitochondrial DNA variation in the health of black
Human Mutation, 36: 569-571.

van Toorn, R., du Plessis, A.-M., Schaal, H., Buys, H.,
Hewlett, R.H. and Schoeman, J. 2015. Clinicoepidemiologic
response of neurologic tuberculous mass lesions
in children treated with thalidomide. Pediatric

Vanker, A., Barnett, W., Nduru, P., Gie, R., Sly, P.D.
and Zar, H.J. 2015. Home environment and indoor air
pollution exposure in an African birth cohort study.

von Mollendorf, C., Cohen, C., de Gouveia, L.,
Naidoo, N., Meiring, S., Quan, V., Lindani, S., Moore,
D., Reubenson, G., Moshe, M., Eley, B.S., Hallbauer,
U., Finlayson, H., Madhi, S., ConkinL, L., Zell, E.R.,
Klugman, K.P., Whitney, C.G. and von Gottberg, A.
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among children less than 5 years of age in a high
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disease in HIV-exposed but uninfected infants aged
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Santer, R., Wassmer, E., Zschoke, J., Schiff, M., de
Meirleir, L., Alowain, M.A., Smeitink, J.A.M., Morava,
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**Department of Pathology**

**Research Report 2015**

**Head of Department: Professor Carolyn Williamson**

**DIVISION OF ANATOMICAL PATHOLOGY**

**Head of Division: Professor Dhiren Govender**

**Divisional 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 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’s research laboratory had 3 PhD, 2 MSc and 19 MMed during the reporting period. These service commitments are driven by the Division’s research laboratory that has 3 PhD, 2 MSc and 19 MMed during the reporting period. The Division’s research laboratory had 3 PhD, 2 MSc and 19 MMed during the reporting period. The Division’s research laboratory had 3 PhD, 2 MSc and 19 MMed during the reporting period.

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 Divisional staff are recipients of grants from the NRF, CANSA and NHLS Research Trust.
Collaborative Research

The Division has active collaborations internationally and continues to establish collaborations with other Academic Pathology departments in Africa.

There are internal collaborations with the departments of Surgery, Medicine, Cardiology, Obstetrics and Gynaecology, Radiation Oncology, Human Genetics and Medical Biochemistry.

Divisional Statistics

Permanent and Long-Term Contract Staff (on UCT Establishment)

<table>
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<tr>
<th>Position</th>
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<tr>
<td>Chief Scientific Officer</td>
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<tr>
<td>Administrative and Clerical Staff</td>
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Permanent Joint Academic Staff (on NHLS Establishment)

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<th>Position</th>
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<tr>
<td>Associate Professor</td>
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Honorary Staff

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Students

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</table>

Research Fields and Staff

**PROFESSOR DHIRENDRA GOVENDER**
Pathobiology of cancers, especially breast cancer, gastrointestinal tract cancer and HIV associated cancers.

**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.

**ASSOCIATE PROFESSOR KOMALA PILLAY**
Paediatric pathology, lymphoma and fine needle aspiration cytology.

**DR FRANCOIS BOTHA**
Renal pathology and electron microscopy

**DR DHARSHNEE CHERTY**
Lymph node pathology, lymphoma

**DR MAUREEN DUFFIELD**
Neuropathology, renal pathology and electron microscopy.

**DR MICHAEL LOCKETZ**
Gastrointestinal tract pathology.

**DR NAEEM OSMAN**
Soft tissue and bone pathology

**DR MICHAEL OTTO**
Breast, gynaecological and thyroid gland pathology and tissue microarrays.

**DR HUE-TSI WU**
Gynaecological and urological pathology and tissue microarrays.

Visitors

Professor Mary Sheppard (UK)
Dr Ann Nelson (USA)
Dr Brian Benatar (UK)
Professor M Tanko (Botswana)
Dr S Sayed (Kenya)

Contact Details

Postal Address: Room 4.10, Level 4, Falmouth Building, Faculty of Health Sciences, UCT, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6162
Fax: +27 21 404 7611
Email: Dhiren.Govender@uct.ac.za
Website: http://www.anatomicalpathology.uct.ac.za/
DIVISION OF CHEMICAL PATHOLOGY

Head of Division: Professor David Marais

Divisional Profile

The Division of Chemical Pathology integrates diagnosis, training and research in a platform comprising laboratories in Groote Schuur Hospital, Red Cross Children’s War Memorial Hospital, and the Falmouth Building at the University of Cape Town. Additionally, there is an overlap with clinical pathology training and research when these registrars rotate through chemical pathology.

Inherited metabolic disease assays are done at the Red Cross Hospital laboratory. Lipidology as well as other metabolic disorders undergo further investigation in the Falmouth Building, including cell culture and chromatography. Direct analysis in real time chromatography system is under development in the Falmouth Building. Clinical pathology training is coordinated by Dr F Omar. Funding is through contract research and the MRC for Lipidology. Most of the staff is supported by the NHLS. Some staff is on secondment from the provincial government and on soft money.

Divisional Statistics

Permanent and Long-Term Contract Staff (on UCT Establishment)

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<th>Position</th>
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<tr>
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Permanent Joint Academic Staff (on NHLS Establishment)

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Honorary Staff

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Research Fields and Staff

Permanent Staff

PROFESSOR AD MARAIS (UCT)
Head of Department; Chemical Pathology

DR GEORGE VD WATT (RED CROSS HOSPITAL)
Associate Professor

Senior Lecturers
Dr F Omar (NHLS)  
Dr D. Blackhurst (UCT)

Lecturers
Dr P. Fortgens (NHLS)  
Dr H. Vreede (NHLS)

Consultant
Dr C. Hudson (NHLS)

Medical Scientists
Dr J. King (NHLS)  
Dr J. McCarthey (Provincial Government)  
Ms. S Meldau (NHLS)
Division of Forensic Medicine & Toxicology

(Including the Gender, Health and Justice Research Unit)

Head of Division: Professor Lorna Martin

Divisional Profile

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 WCG: Health, Forensic Pathology Service. This is a fairly new programme of the WCG: Health, established in April 2006, when the responsibility of “mortuary services” was transferred to the Provincial Health Service from SAPS. We are responsible for the medico-legal investigation of death of all persons who die within the Metropol, an area comprising an estimated 6.2 million persons (mid 2015 estimates), 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 approximately 3600 autopsies per annum.

The Division now has dedicated research laboratories in the Falmouth Building. We provide a clinical teaching neuropathology laboratory with a specialist neuropathologist, a forensic histopathology laboratory, a forensic entomology laboratory, climate control laboratory and forensic science laboratories. The Division has limited research activities due to our heavy investigative service load, but this is slowly increasing with our new M Phil offering in Biomedical Forensic Sciences.

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.

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 deaths of children, the role of drugs and toxins in deaths, and firearm injuries. We provide input into the Provincial Injury Mortality Surveillance System (PIMSS).
Divisional Statistics

Permanent and Long-Term Contract Staff

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<td>Head: Clinical Unit</td>
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<td>Medical Officer</td>
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<tr>
<td>Senior Lecturer / Programme Convener</td>
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<td>Lecturer</td>
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<td>Chief Medical Technologist</td>
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<td>Laboratory Assistant</td>
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Students

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<td>Biomedical Forensic Science (MPhil)</td>
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<td>Undergraduate (LLB) – Final year</td>
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<td>Special Study Module – Year 2</td>
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Research Fields and Staff

Permanent Staff

**PROFESSOR L.J. MARTIN**
Professor & Head: Clinical Department: Child Death Reviews; Management protocols for rape survivors; domestic homicide; Firearm and Nonfirearm Homicide in Cape Town; monitoring implementation of rape law reforms; domestic violence guidelines for the health sector; National study of female and children homicide in South Africa; identification of areas for quality improvements in preventable trauma deaths.

**DR G.M. KIRK**
Head: Clinical Unit & Senior Lecturer: Sudden deaths in sport; firearm injuries; death notification; drug-related deaths; forensic histopathology; history of forensic medicine

**DR Y.Y. VAN DER HEYDE**
Senior Specialist & Senior Lecturer: The effects of pre-natal alcohol exposure; paediatric mortality; animal bites in children; early adolescent suicide, child homicide including child abuse; sudden unexpected death in childhood including SIDS.

**DR L. LIEBENBERG**
Senior Specialist & Senior Lecturer: Firearm fatalities and final judicial outcome; aortic disease project; mast cell Tryptase; case studies – curious deaths; atherosclerotic disease prevalence in the Cape Town population; Lodox X-ray application in the forensic setup.

Supervisory projects: Marine decomposition; firearm deaths and judicial outcome; anaphylaxis – new histological stain for mast cells and eosinophils.

**DR M. HEYNS**
Senior Lecturer: Forensic Science; Educational Research; Gross Anatomy; Forensic Entomology; Blunt force trauma to the skull; Bloodstain pattern analysis; Entomotoxicology.

**DR I.J. MOLEFE**
Specialist & Lecturer: Epidemiology and analysis of injury patterns of femicide and rape homicide in Cape Town: A 10-year follow-up study; opportunistic screening for cervical cancer in rape patients; Hep B prevalence in rape patients; medical education in forensic pathology; forensic neuropathology: clinical course and outcome of patients with acute subdural haemorrhage.

**DR S. MAISTRY**
Specialist & Lecturer: Deaths on Table Mountain 2000-2011; Epidemiology, genetics and neurobiology of suicides at Salt River Forensic Pathology Laboratory 2005-2015; Genetics of mood disorders and suicide ideation; Burnt bodies; Genetics in victims of intentional organophosphate ingestion

**DR S. MFOLOZI**
Specialist & Lecturer: Development of the NecroChronometer: determining the post-mortem interval using a combination of three methods and location-specific weather information; Thanatochronometry (mathematical estimation of the interval of death).

**DR I.H. ALLI**
Specialist & Lecturer: Forensic odontology; Combatting human trafficking; Deaths from Explosions.

Research studies: The incidence of rape associated with taxi as a mode of transport, in a single Thutuzela Centre over a 5 year period; Grading the degree of difficulty of post-mortems.
DR M. DATE-CHONG
Specialist & Lecturer: Sudden Cardiac Deaths and Undetermined causes of death, Child Mortality, Quantification of Violence in cases of Homicide.

Contract staff

L.J. HEATHFIELD
Lecturer: Biomedical Forensic Science; molecular autopsies, sudden unexpected death, molecular phenotyping, next generation sequencing, forensic DNA profiling, body fluid identification

B. DAVIES
Specialist Scientist (Forensic Toxicology) & Lecturer: Postmortem toxicology; analyses and interpretations; Pesticide-related fatalities; Lean-six sigma efficiency in forensics; Toxicogenetics; Pharmacognosy; Novel Psychoactive Substances; Drug-facilitated sexual assault

Contact Details
Postal Address: Division of Forensic Medicine, P O Box 13914, Mowbray, 7705
Telephone: +27 21 406 6110
Fax: +27 21 448 1249
Email: june.mehl@uct.ac.za; lornaj.martin@uct.ac.za
Website: www.forensicmedicine.uct.ac.za

Gender Health and Justice Research unit

Director: Associate Professor Lillian Artz

Unit Profile

The GHJRU is an interdisciplinary research unit that unites scholars, NGOs and practitioners in pursuit of the elimination of violence against women and children in Southern Africa (and beyond). We develop and implement innovative, interdisciplinary research and social interventions to address violence against women and children in a variety of social, political and institutional settings. We have a proven history of empirical, evaluation and monitoring projects, many of which are well cited in the literature and are foundational studies in the areas of domestic violence, sexual offences and sexual and reproductive rights. We use our empirical research to develop well-informed, evidence-based advocacy positions to support legal and policy reform in South Africa and similarly situated countries.

The Gender, Health & Justice Research Unit draws together scholars from various disciplines, including criminology, forensic pathology, sociology, social work and psychology. The mission of the Unit is to improve service provision to victims of crime, violence and human rights violations, to facilitate violence prevention, and to promote access to justice in Southern and Eastern Africa through interdisciplinary research, advocacy and education.

The Unit aims to fulfil its mission by focussing on five core areas: Research Advocacy, Education, Training and Technical Assistance.

Unit Staff

Permanent and Long-Term Contract Staff

<table>
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<th>Role</th>
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<tbody>
<tr>
<td>Research Staff</td>
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<tr>
<td>Associate Research Staff</td>
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<tr>
<td>Interns</td>
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</table>
Research Fields and Staff

ASSOCIATE PROFESSOR LILLIAN ARTZ
Women, health and law reform; sexual offences; domestic violence; the medico-legal management of survivors of violence in conflict-affected and post-conflict states; incarcerated women; prison reform and torture prevention.

DR ALEXANDRA MULLER
Gender, sexuality and health; access to health care; gender-based violence; heteronormativity and health professions education; sexual and reproductive health rights; sexual and gender minority health; adolescent health and sexuality

HAYLEY GALGUT
Human Rights, Gender and Labour Law; gender-based violence; access to justice; intersectionality and transitional/transformational justice in conflict-affected and post-conflict states.

DR AISLING HEATH
Domestic violence in South Africa and child justice in post-conflict societies; the changing nature of donor funding in post-conflict countries; gender and ethnicity.

TALIA MEER
Gender-based violence; women’s rights; LGBTI rights; access to justice and disability rights.

KRISTEN DASKILEWICZ
Sexual and reproductive health and rights; sexual and gender minority health; termination of pregnancy and maternal health and rights

HARSHA GIHWALA
Sexual offences; gender and law; sentencing.

GRAY ASCHMAN (NEW YORK)
Protection of detainees’ and prisoners’ rights; improving the response to gender-based violence; changing societal attitudes towards gender and gender-based violence.

DR CARMEN CORRAL-BULNES
Gender-based violence, incarceration, women’s mental health, domestic homicide and aggressive behaviour in intimate relationships.

Administration
Lesiene Stott

Interns
Sarah Spencer
Valerie Grand-Maison
Marie Lunau
Kate McAuliff
Rebecca Smith
Rohini Aggarwal
Swantje Tiedemann

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
Email: GHJRUatUCT@gmail.com or Lillian.Artz@uct.ac.za
Website: http://www.ghjru.uct.ac.za

Research Associates

PROFESSOR JEANNE FLAVIN
(FORDHAM UNIVERSITY)
The impact of the criminal justice system on women; social and civil rights of women; sexual and reproductive rights.

PROFESSOR HELENE COMBRINCK
(UNIVERSITY OF THE WESTERN CAPE)
Disability law and policy; domestic violence and disability.

JILLIAN BUTTERWORTH (PRIVATE)
Survivors and perpetrators of sexual violence, with a focus on childhood sexual abuse; adolescent sexual perpetrators, assessment and rehabilitation of perpetrators of sexual violence.
DIVISION OF HAEMATOLOGY AND UCT LEUKAEMIA UNIT

Head of Division: Professor Nicolas 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 Pathology and National Health Laboratory Service (NHLS) multidisciplinary lab in C17-C21.

The laboratory continues to offer comprehensive diagnostic testing for the diagnosis and management of all haematological malignancies, genetic anaemias and coagulation disorders. 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 and referral samples from the Eastern Cape. Samples from private laboratories and the Eastern Cape are referred for flow cytometry and molecular diagnosis of haematological malignancies.

The routine and molecular haematology laboratories were again successfully accredited by SANAS.

Divisional Statistics

Permanent and Long-Term Contract Staff

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<th>Occupation</th>
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<td>Haematology Fellows</td>
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<td>Medical Registrars</td>
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<tr>
<td>Senior House Officers</td>
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<td>Chief Professional Nurse</td>
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<td><strong>UCT Leukaemia Unit</strong></td>
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<td>Scientists</td>
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Students

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</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
Thrombophilia; stem cell transplantation; Myeloproliferative disorders

DR JESSICA OPIE
Molecular biology of neoplasia; chronic myelogenous leukaemia; coagulation abnormalities

DR KAREN SHIRES
Molecular biology and diagnostics

DR SHAHEEN MOWLA
Burkitt’s lymphoma and HIV associated malignancies. Flow cytometry and molecular biology

MRS RYGANA ABDULLA
Cellular biology of neoplasia; clonogenic assays

Contact Details
Postal Address: 6th Floor, Chris Barnard Building, Anzio Road, Observatory, 7925
Telephone: +27 21 650 4513/404 3073
Fax: +27 21 448 8607
Email: Coleen.Fredericks@uct.ac.za
Website: http://www.haematology.uct.ac.za/

DIVISION OF HUMAN GENETICS
(Including the MRC/UCT Human Genetics Research Unit)

Head of Division: Professor Raj 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. The Division is also 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

### Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Position</th>
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<tr>
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<td>Senior Lecturers</td>
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<td>Chief Scientific Officer</td>
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<td>Administrative and Secretarial Staff</td>
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<td>Departmental Assistants</td>
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### Emeritus and Honorary Staff

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### Students and Postdoctoral Fellows

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### PGWC/UCT Personnel

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<tr>
<td>Genetic Counsellor</td>
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<td>Sessional Medical Officer</td>
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<td>Genetic Counsellor Interns</td>
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## NHLS Personnel

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<td>Discipline Specific Lab Manager</td>
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<tr>
<td>Medical Technologists</td>
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<tr>
<td>Medical Scientist</td>
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<tr>
<td>Laboratory Clerk</td>
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<tr>
<td><strong>Total</strong></td>
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</tbody>
</table>

## Research Fields and Staff

### PROFESSOR RAJ S. RAMESAR (UCT/PGWC/NHLS)

- Head of Division and Personal Chair
- Director: MRC Human Genetics Research Unit
- Chairman: NGO The Africa Genome Education Institute
- Principal Investigator: Genetics of Bipolar Disorder/Schizophrenia; Genetics of Retinal Degenerative Disorders; Molecular Genetics of Complex Disorders; Pharmacogenetics - Adverse Drug Reactions in Cancers

### EMERITUS PROFESSOR JACQUIE GREENBERG

- 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 WILMOT JAMES

### HONORARY PROFESSOR: CHARLES NOHUOMA ROTIMI

- Honorary Senior Lecturer: Dr. Sol Zieff

### PROFESSOR AMBROISE WONKAM

- Principal Investigator: Phenotypic correlation of sickle cell anemia to genotypic variations; Genetics of Deafness

### PROFESSOR COLLET DANDARA

- 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 Pathology, Level 3, Suite N3.14 Werner and Beit North Building; Institute for Infectious Diseases and Molecular Medicine, Faculty of Health Sciences, University of Cape Town, 7925, Observatory
Telephone: +27 21 406 6995
Fax: +27 21 650 2010
Email: Raj.Ramesar@uct.ac.za
Website: www.humangenetics.uct.ac.za

DIVISION OF IMMUNOLOGY
Head of Division: Professor Clive Gray

Divisional Profile
The Division of Immunology conducts a range of dynamic activities spanning basic, clinical and translational research to laboratory diagnostic testing in the National Health Laboratory Services at Groote Schuur Hospital. All activities are driven by our vision of “Driving Science to promote World Health”. Numerous staff are NRF rated and Full or Associate members of the Institute of Infectious Disease and Molecular Medicine (IDM), making up a large thrust of immunology research within the IDM. Collectively, research groups are funded from various sources, including the NRF, ALLSA, Claude Leon Foundation, PRF, DST, Wellcome Trust, MRC UK, European Union, Royal Society, World University Network, Sir Halley Stewart foundation, CIHR, IDRC, AXA Foundation, and the National Institutes of Health. 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 provides services for cross-matching and preformed antibody testing for solid organ and bone marrow transplantation and is accredited with the European Federation of Immunogenetics (EFI) and is the only such accredited laboratory in Africa. The Clinical Immunology and Allergy Laboratory perform routine diagnostic testing for autoantibodies and different allergies.

Divisional Statistics
Permanent and Long-Term Contract Staff (UCT/NHLS)

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<tr>
<th>Role</th>
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NHLS Personnel

| Discipline Specific Lab Managers | 2 |
| Medical Technologists | 5 |
| **Total** | **7** |

Students and Postdoctoral Fellows

<table>
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<th>Students and Postdoctoral Fellows</th>
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<tr>
<td>Postdoctoral Fellows</td>
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Research Fields and Staff

**PROFESSOR CLIVE GRAY**
Head and Chair of Professor of Immunology, Joint UCT/NHLS
Reproductive Immunology and Immune Ontogeny in HIV exposed infants and understanding the immunological mechanisms of medical male circumcision to prevent HIV acquisition

**PROFESSOR FRANK BROMBACHER**
Professor of Immunology
Immunology of infectious diseases, including Tuberculosis, African Trypanosomiasis, Leishmaniasis, Bilharzia and other Helminth infections

**PROFESSOR MUAZZAM JACOBS**
Joint UCT/NHLS Medical Scientist
Understanding host pathogen interaction and associated immune mechanisms that bring about protection against tuberculosis infection

**ASSOCIATE PROFESSOR WILLIAM HORSNELL**
Understanding host pathogen interaction and associated immune mechanisms that bring about protection against tuberculosis infection

**DR HEATHER JASPAN**
Investigating the impact of infant feeding modes on changes in the gut microbiome and how these alterations impact in vaccine immunity and immune activation in early infancy.

**DR JENNIFER CLAIRE HOVING**
Understanding host immune responses to disease with a particular focus on HIV-related fungal infections and *Mycobacterium tuberculosis*.

**DR ROANNE KEETON**
Investigating mechanisms of fungal infections to provide new insights into protective immunity

**DR RETO GULER**
Immunology of experimental Tuberculosis infection and non-coding RNA host-directed targets

**DR NAI-JEN HSU**
Understanding host pathogen interaction and associated immune mechanisms that bring about protection against tuberculosis infection

**Postdoctoral Fellows**

**DR SURAJ PARIHAR**
Investigating the use of Statins as treatment for TB infecton

**DR TIROYAONE BROMBACHER**
Neuro-immunological effects of Nippostrongylus brasiliensis on cognitive function

**DR MATTHEW DARBY**
Role of acetylcholine in regulating immunity

**DR RAMONA HURDAYAL**
The role of IL-4Rα signaling on cell-specific populations during cutaneous Leishmaniasis

**DR JUSTIN NONO**
Mechanisms of type 2 mediated diseases: Helminthiasis, Allergies and fibrotic disorders

**DR OUSMAN TAMGUE**
Identification of host microRNA as potential Drug targets against tuberculosis

**DR ANTHONIO ADEFUYE**
The impact of mother-infant feeding modes and matched/mismatched Human Leukocyte Antigen (HLA) on Infant Immune activation in HIV exposed uninfected infants at birth

**DR SELENA FERRIAN**
Identity of cellular biomarkers to predict multi-drug resistant TB treatment outcomes

**DR PAULIN ESSONE NDONGO**
An expression atlas on macrophage activation and perturbation by Mycobacteria Tuberculosis (MTB) using proteomics

**DR AIME MARCEL TOGO PASSO**
Retracting the early phylogeography and evolutionary dynamics of HIV-1 group M-virus

**DR EMILY TANGIE**
The effect of Plasmodium berghei infection on BCG-induced memory T cell and B cell immune responses against M. tb in wild type C57BL/6 mice

**DR NGIAMBUDULU FRANCISCO**
Immune regulation in kidney transplant recipients
DR MICHELLE FISHER
Elucidating the role of IL-4 in controlling Plasmodium chabaudi AS malaria infections in BALB/c mice:
A critical role for IL-4Rα responsive B-cells but not T-cells during recrudescence infection

DR KATIE VILJOEN-LENNARD
The Role of the Microbiome in HIV susceptibility in South African adolescents

Distinguished Visitors

BENJAMIN DEWALS
FARAH Faculty of Veterinary Medicine, Belgium

HARUKAZU SUZUKI
Riken Institute, Japan

DEBROSKI HERBERT
University of California

MURRAY SELKIRK
Imperial College, London

THERESA COETZER
University of Kwazulu Natal

MARIA GAGLIARDI
FCM Nova, Lisbon, Portugal

GUIDO FERRARI
Duke University, USA

MICHELLE LETARTE
International Union of Immunological Societies – IUIS

INGRID FAE
EFI Inspector, Univ. Vienna

SABINE SCHERER
EFI Inspector, Univ. Heidelberg, Germany

BERNHARDT RYFFEL
CNRS, Lyon, France

RICK KOUP
NIH Vaccine Research Center

TONY MOODY
Duke University, USA

SIMOM DRAPER
Jenner Institute, UK

YAW BEDIAKO
KEMRI, Kenya

MARIO ROEDERER
University of Oxford, UK

TOM HOPE
North Western University, Chicago

MICHAEL BETTS
University Pennsylvania

Contact Details

Postal Address: Division of Immunology,
Department of Pathology, Room 3.25 Falmouth Building, Health Sciences Faculty, Anzio Road,
Observatory 7925
Telephone: +27 21 406 6616
Fax: +27 21 406 6029
Email: dhuraiyah.abdullatif@uct.ac.za
Website: www.immunopaedia.org.za
DIVISION OF MEDICAL MICROBIOLOGY

Head of Division: Professor Mark Nicol

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 and in the diagnostic laboratory. The composition of the Division is complex with staff drawn from the University of Cape Town, Groote Schuur 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.

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 childhood febrile illness (pneumonia, meningitis and diarrhoea), the origin and evolution of the human microbiome, the development and evaluation of novel diagnostics for tuberculosis, the epidemiology of drug-resistant tuberculosis as well as the transmission and molecular epidemiology of drug resistant pathogens within our hospitals. 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. Research output has grown steadily over the past years, with 45 publications in 2015, including several manuscripts in the leading medical journals.

The Division is the academic home of the highly regarded Molecular Microbiology Research Unit (www.mrc.ac.za/mycobacteriology/mycobacteriology) headed by Prof. Valerie Mizrahi and A.Prof. 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 also hosts two Wellcome Trust Fellows (Dr Helen Cox, Intermediate Fellow and Dr Mamadou Kaba, Research Training Fellow).

Divisional Statistics

Permanent and Long-Term Contract Staff

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<th>Position</th>
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<td>Project Manager</td>
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<td>Lab Manager</td>
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<td>Data Manager</td>
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Honorary Staff

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Students and Postdoctoral Fellows

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</table>
Research Fields and Staff

Permanent Staff

PROFESSOR MARK P NICOL
Development and evaluating diagnostic tests for tuberculosis; the origin and evolution of the human microbiome in early childhood; aetiology and pathogenesis of pneumonia in children.

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.

PROFESSORS VALERIE MIZRAHI AND DIGBY WARNER
Investigate fundamental aspects of the metabolism and physiology of Mycobacterium tuberculosis of relevance to tuberculosis drug discovery and drug resistance.

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 PRENESHNI NAICKER
Epidemiology and Diagnosis of Leptospirosis. Epidemiology of Salmonella and Listeria monocytogenes infection.

DR NATALIE BEYLIS
Characterization of Mycobacterium tuberculosis isolates with discordant rifampicin susceptibility test results.

DR LOURENS ROBBERT
One health, one city, the extent of shiga-toxin producing E. coli in Cape Town.

DR CLINTON MOODLEY
Nasopharyngeal resistome in infants; design and validation of new molecular diagnostic tests; molecular typing and epidemiology of nosocomial infection; surveillance of multidrug resistant bacteria including carbapenem-resistant Enterobacteriaceae and vancomycin-resistant Enterococci.

DR SINDILE NTULI
Validation of a Panfungal polymerase chain reaction (PCR) assay for the detection and identification of medically important fungi isolated in a diagnostic laboratory.

DR CHAD CENTNER
Mycobacterial genomic diversity in blood and sputum isolates.

DR HAFSAH TOOTLA
The Pneumococcus Urinary Antigen Test Kit: Use in the laboratory for the presumptive diagnosis of pneumococcal bacteraemia.

Honorary Staff

PROFESSOR ANNE VON GOTTBERG
Studying meningococcal carriage and acquisition of carriage amongst university students in South Africa.

ASSOCIATE PROFESSOR NELESH GOVENDER
Understanding the epidemiology of serious fungal infections (including emerging antifungal resistance) through national surveillance and outbreak investigations; monitoring and evaluating public health interventions to reduce the burden of fungal diseases.

DR JOHN SIMPSON
Laboratory diagnosis of tuberculosis and identification of drug-resistance.

Fixed-term appointment staff

DR HELEN COX (WELLCOME TRUST INTERMEDIATE FELLOW)
Molecular epidemiology of drug resistant tuberculosis, including transmission and the acquisition of resistance; models of care for the treatment of drug-resistant tuberculosis; impact of new diagnostics for TB and TB drug resistance on patient outcomes.

DR ANNA COUSSENS
Identifying biomarkers of subclinical TB and protective immunity at disease sites; host-directed therapies for TB-HIV; defining mechanisms of HIV-induced cell death in TB-HIV.

DR LEMESE AH TOW EDRIES
The evaluation of inter-seasonal house dust microbiota in the Western Cape; molecular detection of Helicobacter pylori in stool of apparently healthy children; the role of Moraxella catarrhalis in the Nasopharynx of young children; Haemophilus influenzae colonization patterns in young children.

DR LINDY DICKSON-HALL
Optimising Health Systems to improve delivery of decentralised care for patients with drug resistant tuberculosis.
DIVISION OF MEDICAL VIROLOGY

Head of Department Pathology &
Head of Division of Medical Virology:
Professor Carolyn Williamson

Division 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. Research within the Division focuses on Human Immunodeficiency Virus (HIV), Human Papillomavirus (HPV), HIV and major co-infections, virus discovery and vaccinology. Research is performed within the Institute of Infectious Disease and Molecular Medicine and in the Groote Schuur NHLS diagnostic laboratory. In HIV prevention, transmission and pathogenesis, the Division has contributed to our understanding of viral determinants in eliciting broadly cross-neutralizing antibodies; HIV superinfection; the impact of mucosal inflammation and other sexually transmitted co-infections on HIV transmission; T cell immunity to HIV; and HIV vaccine development. Application of next generation sequencing technology has resulted in the discovery of novel HPVs and other viruses. Research projects also detect and characterise new potential pathogens in diagnostic samples, evaluate point of care technology for HIV viral load and early infant diagnosis and determine the epidemiology of hepatitis viruses. The Virology Diagnostic Laboratory is a SANAS accreditation facility within the NHLS. It provides a comprehensive service to 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.

Contact Details

Postal Address: Division of Medical Microbiology, University of Cape Town, Medical School, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6727 (Doris Moiloa)
Fax: +27 21 406 6210
Email: doris.moiloa@uct.ac.za
Website: http://www.medmicro.uct.ac.za

DIVISION OF MEDICAL VIROLOGY

Head of Department Pathology &
Head of Division of Medical Virology:
Professor Carolyn Williamson

Division 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. Research within the Division focuses on Human Immunodeficiency Virus (HIV), Human Papillomavirus (HPV), HIV and major co-infections, virus discovery and vaccinology. Research is performed within the Institute of Infectious Disease and Molecular Medicine and in the Groote Schuur NHLS diagnostic laboratory. In HIV prevention, transmission and pathogenesis, the Division has contributed to our understanding of viral determinants in eliciting broadly cross-neutralizing antibodies; HIV superinfection; the impact of mucosal inflammation and other sexually transmitted co-infections on HIV transmission; T cell immunity to HIV; and HIV vaccine development. Application of next generation sequencing technology has resulted in the discovery of novel HPVs and other viruses. Research projects also detect and characterise new potential pathogens in diagnostic samples, evaluate point of care technology for HIV viral load and early infant diagnosis and determine the epidemiology of hepatitis viruses. The Virology Diagnostic Laboratory is a SANAS accreditation facility within the NHLS. It provides a comprehensive service to 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.

Contact Details

Postal Address: Division of Medical Microbiology, University of Cape Town, Medical School, Anzio Road, Observatory, 7925
Telephone: +27 21 406 6727 (Doris Moiloa)
Fax: +27 21 406 6210
Email: doris.moiloa@uct.ac.za
Website: http://www.medmicro.uct.ac.za

DR MAMADOU KABA
Molecular epidemiology of infectious diseases
Study of human microbiome in health and disease conditions
Antibiotic resistance

Postdoctoral Staff

DR ELLOISE DU TOIT
Household dust microbial burden and the development of recurrent wheezing; breastmilk microbiome and metabolome and its association with wheezing; nasopharyngeal microbial community and its association with wheezing. All are part of The Drakenstein Child Lung Health Study, South Africa

DR VERONICA ALLEN
Rifampicin resistance in M. tuberculosis; the role of Moraxella catarrhalis in the nasopharynx of young children in the Drakenstein ChildHealth Study; TB diagnostics

DR VINAYAK SINGH
MM4TB

DR ATICA MOOSA
Smart screening for New TB drug discovery

DR GABRIELE MASHABELA
Vitamin B₂ metabolism in M. tuberculosis
### Divisional Statistics

#### Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
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<tr>
<td>Professor</td>
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<tr>
<td>Associate Professor</td>
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#### Emeritus and Honorary Staff

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#### Students and Postdoctoral Fellows

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#### Research Fields and Staff

### Permanent Staff

**PROFESSOR ANNA-LISE WILLIAMSON**  
HIV/HPV, poxviruses, vaccine development, microbiome

**PROFESSOR CAROLYN WILLIAMSON**  
Head of Department and of Division of Medical Virology.  
HIV diversity and pathogenesis; HIV-1 vaccine development, HIV cure

**ASSOCIATE PROFESSOR DIANA HARDIE**  
Head of Diagnostic Lab, viral infections in immunocompromised patients

**ASSOCIATE PROFESSOR JO-ANN PASSMORE**  
HIV/HPV Mucosal Immunology; genital tract, innate immunity, cytokine biomarkers, genital tract immune activation

**DR MARVIN HSIAO**  
Pathologist and Senior Lecturer, cytomegalovirus and molecular diagnostics

**DR STEPHEN KORSMAN**  
Pathologist and Senior Lecturer, Hepatitis B, molecular diagnostics and outreach

**DR WENDY BURGERS**  
Senior Lecturer, HIV Pathogenesis, HIV-TB co-infection, HIV vaccine immunology

### Contract Staff

**AABIDA KHAN**  
Senior Registrar and Lecturer

**NOKWAZI NKOSI**  
Senior Registrar and Lecturer

**ANNABEL ENOCH**  
Registrar and Lecturer

**DR GERALD CHEGE**  
Senior Lecturer and Senior Research Officer, HIV Vaccines

**DR CATHERINE RIOU**  
Senior Lecturer and Senior Research Officer, HIV T cell immunology, HIV/TB co-infection, HIV-viral co-infections

**DR MELISSA-ROSE ABRAMS**  
Lecturer and Research Officer, molecular biology of HIV, viral sequencing, fitness and pathogenesis studies

**DR ROSAMUND CHAPMAN**  
Lecturer and Research Officer, Vaccine vectors

**DR NIKI DOUGLASS**  
Lecturer and Research Officer, Pox viruses

**DR ZIYAAD VALLEY-OMAR**  
Scientist and Lecturer, Viral Watch, influenza surveillance program in the Western Cape

**DR ZIZIPHO ZIPOZAKE MBULAWA**  
Scientist and Lecturer, HPV

**DR LINDI MASSON**  
NRF Career Research Fellow and Lecturer, HIV transmission and disease; sexually transmitted infections; bacterial vaginosis; mucosal immunology; cytokines; inflammation

**DR TRACY MEIRING**  
NRF Career Research Fellow and Lecturer, Genital viral and microbial communities and their...
association with human immunodeficiency virus and human papillomavirus infection

Emeritus Professor

PROFESSOR KEITH DUMBELL
Pox viruses

Honorary Research Associates

PROF DAVID KATZENSTEIN
Treatment and evaluation of HIV infection

DR ERICA ANDERSEN-NISSEN
HIV vaccination and immunology

DR ALFRED BERE

Postdoctoral Research Fellows

DR SHAMEEM JAUMDALLY
Genital Mucosal Immunology

DR PHILIPPE SELHORST
HIV Pathogenesis and cell culture; Molecular biology

DR NATALIE STRICKLAND
The immune response to TB in HIV-TB coinfection

DR EVELINE KAAMBO
Genital Mucosal Immunology

Contact Details

Postal address: Division of Medical Virology, S3.23 Wernher Beit South Building, Anzio Road, University of Cape Town, Observatory, 7925
Telephone: +27 21 406 6983
Fax: +27 21 406 6682
Email: nyameka.mhlonyelwa-mona@uct.ac.za
Web: http://www.virology.uct.ac.za/

RESEARCH OUTPUT

Chapters in books


Articles in peer-reviewed journals


or increased function variants in cell death pathway genes differentially influence cervical cancer risk and herpes simplex virus type 2 infection among black Africans and the mixed ancestry population of South Africa. BMC Cancer, 15: 680(7pp).


Kasu, M. and Shires, K. 2015. The validation of forensic DNA extraction systems to utilize soil contaminated biological evidence. Legal Medicine, 17: 232-238.


Naidoo, N., Artz, L.M., Martin, L.J. and Zalgaonker, M. 2014. ‘A stitch in time may save nine’: a systematic


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Primary Health Care Directorate

Research Report 2015

Director and Chair of Primary Health Care: Professor Steve Reid

Directorate Profile

The vision of the Primary Health Care Directorate (PHCD) is a Health Science Faculty that promotes equity and equality in health care, guided by the principles of the primary health care approach. The Directorate aims to promote the primary health care approach in teaching, research, policy, health services provision, and community engagement undertaken by the Faculty of Health Sciences. Its objectives are to integrate a primary health care approach into the faculty’s undergraduate and postgraduate teaching, learning, and research. It does this by contributing to existing curricula and creating new teaching threads. It also achieves this by extending and developing the Faculty’s clinical teaching platform in rural and primary care sites; deepening community engagement within the health service and the faculty’s curricula; and by enhancing the recruitment and support of students of rural origin into the faculty. The PHCD Directorate not only supports diverse research interests within the Directorate, but actively supports initiatives aimed at increase inter-disciplinary research in health sciences while promoting intra-disciplinary research beyond the health sciences. The mission of the PHCD is to promote equitable, comprehensive, compassionate, and quality care at all levels of the health system by means of evidence-based practice and policy; active health promotion; community-based education; strategic partnerships; and ongoing critical teaching and research that engages with structures of power and privilege.
**Directorate Statistics**

**Permanent and Long-Term Contract Staff**

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**Honorary Staff**

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**Research Fields and Staff**

**Permanent staff**

**PROFESSOR STEVE REID**
Head of Department & Chair of Primary Health Care: Primary health care; health equity; human resources for health; medical education; family medicine in Africa; compulsory community service; rural health; community oriented primary care (COPC); community based education; student admission and selection processes; social accountability; arts/creativity and healthcare; medical humanities; resilience in youth & service providers

**MR JAMES IRLAM**
Senior Lecturer: Primary health care; evidence-based practice; climate change and environmental health; sustainable development

**DR CARLA TSAMPIRAS**
Senior Lecturer: Critical health and medical humanities; social histories of health particularly relating to histories of HIV and AIDS; disease and society in Africa; slavery and violence; intersections between gender, ‘race’, class, sexuality and health

**MRS JOHANNAH KEIKELAME**
Senior Lecturer: Primary health care; health promotion; community needs assessment; patient and carers perspectives on epilepsy

**MRS SARAH CRAWFORD-BROWNE**
Lecturer: Primary health care; psychological trauma; community based mental health programming; critical health humanities

**MR DEHRAN SWART**
Health Teaching Platform Manager: Community health; public health; health promotion; tobacco control; child energy related injuries

**MRS CHRISTOLENE BEAUZAC**
Site Facilitator: Health promotion and diabetes

**Contract Staff**

**MRS CLAUDIA NAIDU**
Research Officer: Collaboration for Health Equity through Education and Research; social accountability of medical graduates

**DR HERMANN REUTER**
Eden District CBE Coordinator: HIV/AIDS/ARVs and TB; primary health care; family medicine; health and human rights; treatment literacy curriculum development; rural health; public health; community health

**Honorary Staff**

**DR BEN GAUNT**
Honorary Lecturer: Primary health care; rural health; district health systems; community based healthcare & development; health systems research; multi-disciplinary healthcare; clinical services; medical education & outreach programmes; HIV/AIDS; obstetrics & gynaecology

**DR KARL DU PRE LE ROUX**
Honorary Lecturer: Primary health care; rural health; district health systems; community based healthcare & development; medical education & outreach programmes; clinical services; HIV/AIDS; obstetrics & gynaecology; nutrition research

**DR ROB BAUM**
Honorary Research Associate: Playwriting; theatre, speech, choreography & dance; movement therapy; inter-disciplinary arts research; African dance ethnography; creative arts

**DR LOUIS JENKINS**
Honorary Senior Lecturer: Primary health care; rural health; community health; obstetrics &
Contact Details

Postal Address: Primary Health Care Directorate, Old Main Building, Groote Schuur Hospital, E47-25, Observatory 7925, Cape Town
Telephone: +27 21 406 6031/6761
Fax: +27 21 406 6015
Email: cha.johnston@uct.ac.za
Website: www.primaryhealthcare.uct.ac.za

RESEARCH OUTPUT

Chapters in books


Articles in peer-reviewed journals


Department of Psychiatry & Mental Health
(Including the Adolescent Health Research Unit, the Alan J. Flisher Centre for Public Mental Health, the Brain-Behaviour Unit, the HIV Mental Health Research Unit, and the MRC Unit on Anxiety & Stress Disorders)

Research Report 2015
Head of Department: Professor Dan Stein

Departmental Profile

The Department of Psychiatry and Mental Health is firmly committed to strengthening the integration between services, teaching, and research. Clinicians in each of the Divisions of the Department (addiction psychiatry, child and adolescent psychiatry, liaison psychiatry, forensic psychiatry, general psychiatry, intellectual disability, psychotherapy, neuropsychiatry, psychopharmacology and biological psychiatry, 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 Adolescent Health Research Unit is located within the Division of Child and Adolescent Psychiatry, and is interested in 5 main themes: adolescent mental health, sexual and reproductive health of adolescents, intimate partner violence, health and education systems for young people, and abuse, violence and bullying. These are all highly relevant and powerful research themes in a South Africa and African context.

• The Alan J Flisher Centre for Public Mental Health is located with the Division of Public and Community Mental Health and addresses a range of questions in mental health policy, implementation science and epidemiology. It offers advanced training in public mental health, including a MPhil and PhD in Public Mental Health. The Centre currently conducts research in 9 low and middle-income countries in Africa and south Asia, including the Programme for Improving Mental health care (PRIME) (www.prime.uct.ac.za), the Africa Focus on Intervention Research for Mental health (AFFIRM) (www.affirm.uct.ac.za), and Emerging Mental Health systems in low and middle-income countries (EMERALD) (www.emerald-project.eu) 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. The Centre was granted WHO Collaborating Centre status in 2015.

• The Brain-Behaviour Unit (BBU) is located within the Division of Psychopharmacology and Biological Psychiatry, and the newly formed Neuroscience Institute. The BBU comprises 3 groups, the Psychiatric Genetics Group, the Psychiatric Neuroimaging Group, and the Psychiatric Neuroscience Group. More details of the aims, methods, and partners of the initial Brain-Behaviour Initiative (BBI), are available at – http://www.health.uct.ac.za/research/groupings/bbi/overview/

• The HIV Mental Health Unit is located within the Division of Neuropsychiatry. Its research focus is the neurobiology of HIV-associated neurocognitive disorders in children and adults; and neuro-behavioural aspects of HIV, including adherence, and interventions to improve care. The Unit is funded by the NIMH, EDTCP and MRC.

• The SU/UCT MRC Unit on Anxiety & Stress Disorders focuses on the psychobiology and management of anxiety and related disorders, including obsessive-compulsive and related disorders, and trauma- and stressor-related disorders. Taken together these conditions are the most prevalent psychiatric disorders in South Africa. The Unit is an extramural research unit of the South African Medical Research Council.
Departmental Statistics

Permanent and Long-Term Contract Staff

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<th>Position</th>
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Emeritus and Honorary Staff

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Students and Postdoctoral Fellows

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Research Fields and Staff

**ASSOCIATE PROFESSOR JACKIE HOARE**
Consultation-Liaison Psychiatry: Liaison psychiatry and HIV

**DR KERRY LOUW**
Consultation-Liaison Psychiatry: Liaison psychiatry and HIV

**MS LOUISE FENKEL**
Consultation-Liaison Psychiatry: Pain

**ASSOCIATE PROFESSOR SEAN KALISKI**
Forensic Psychiatry: Mentally ill offenders and femicide

**MS TANIA SWART**
Forensic Psychiatry: Mentally ill offenders and femicide

**DR PETE MILLIGAN**
General Psychiatry: mHealth interventions

**DR NEIL HORN**
General Psychiatry: Bipolar disorder

**DR HENK TEMMINGH**
General Psychiatry: Substance-induced psychosis

**DR ROBIN ALLEN**
General Psychiatry: Clinical audit

**PROFESSOR COLLEEN ADNAMS**
Intellectual Disability: Fetal alcohol spectrum disorder (FASD) neurobehaviour and brain imaging

**DR ADELE MARAIS**
Psychotherapy: Intimate partner violence

**ASSOCIATE PROFESSOR SHARON KLEINTJES**
Psychotherapy: Recovery in serious mental illness

**ASSOCIATE PROFESSOR JOHN JOSKA**
Neuropsychiatry: Neurocognitive disorders and neuropsychiatry of HIV, brain imaging and HIV, ARV initiation and adherence, improving coping in women with histories of sexual trauma, and screening for cognitive disorders

**DR CARLA FREEMAN**
Neuropsychiatry: Neurocognitive disorders and neuropsychiatry of HIV, brain imaging and HIV

**DR JONATHAN IPSER**
Neuropsychiatry: Neurocognitive disorders and neuropsychiatry of HIV, brain imaging and HIV; Psychopharmacology and Biological Psychiatry: Brain imaging

**DR HETTA GOUSE**
Neuropsychiatry: ARV initiation and adherence

**DR SAMANTHA BROOKS**
Psychopharmacology and Biological Psychiatry: Brain imaging

**DR DON WILSON**
Addiction Psychiatry: Substance use and anxiety disorders

**DR LISA DANNATT**
Addiction Psychiatry: Interventions

**DR CATHY MATHEWS**
Child and Adolescent Psychiatry: Adolescent Health

**PROFESSOR PETRUS DE VRIES**
Child and Adolescent Psychiatry: Adolescent Health, Autism Spectrum Disorders and related Neurodevelopmental Disabilities

**EMERITUS ASSOCIATE PROFESSOR ASTRID BERG**
Child and Adolescent Psychiatry: Infant Mental Health
RESEARCH OUTPUT

Chapters in books


Williams, M.F. and Wilson, D.A.B. 2015. Coping with loss: the bereavement process and adjustment disorders. In S.E. Baumann (ed), Primary Care
Articles in peer-reviewed journals


Cluver, L., Hodes, R., Toska, E., Kidia, K., Orkin, F.M., Sherr, L. and Meinck, F. 2015. HIV is like a tsotsi. ARVs are your guns: associations between HIV-disclosure and adherence to antiretroviral treatment among adolescents in South Africa. AIDS, 29(1): S57-S65.


HealtH ScienceS

171


Sharer, M., Cluver, L. and Shields, J. 2015. Mental health of youth orphaned due to AIDS in South Africa: biological and supportive links to caregivers. Vulnerable children and youth studies, 10(2): 141-152.


Stein, D.J. 2015. Antidepressant-placebo differences: is the glass half full or half empty? World Psychiatry, 14(3): 257-258.


Department of Public Health and Family Medicine

Research Report 2015

Head of Department and Director: Professor Mohamed Jeebhay

Departmental Profile

The School of Public Health and Family Medicine is a strong multidisciplinary department in the Faculty of Health Sciences at the University of Cape Town. Our 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 is organised into 8 disciplinary teaching and training divisions that include Public Health Medicine, Family Medicine, Occupational Medicine, Epidemiology and Biostatistics, Health Economics, Health Policy and Systems, Social and Behavioural Sciences, and Environmental Health. Three of these divisions, Public Health Medicine, Occupational Medicine and Family Medicine have a clinical service responsibility through joint appointments with Western Cape Government Department of Health viz. Directorate of Health Impact Assessment, Groote Schuur Hospital Occupational Medicine Clinic, Chief Directorate Metro District Health Services, respectively. The School also houses 4 URC accredited research centres / units: Centre for Infectious Disease Epidemiology & Research (CIDER), Centre for Environmental and Occupational Health Research (COEHR), Health Economics Unit (HEU) and the Women’s Health Research Unit (WHRU).

In addition to hosting two SARChI Chairs in ‘Health and Wealth’ (Prof Di McIntyre) and ‘Global Environmental Health’ (Assoc Prof Aqiel Dalvie), the School has 14 NRF-rated researchers, comprising 6 B-rated (Internationally Acclaimed Researchers): Prof Lucy Gilson, Prof Rodney Ehrlich, Prof Mohamed Jeebhay, Prof Leslie London, Prof Di McIntyre and Prof Jonny Myers; 4 C-rated (Established Researchers): A/Prof Diane Cooper, A/Prof Aqiel Dalvie, A/Prof Mary-Ann Davies, Dr Richard Matzopoulos; and 4 Y-rated (Promising Young Researchers): A/Prof Chris Colvin, Dr John Ataguba, Dr Leigh Johnson and Dr Tolu Oni.

Research outputs in 2015 included 268 peer-reviewed journal publications and book chapters (a 20% increase from 2014), ranking 3rd in the Faculty, contributing 14.4% of the Faculty output. Total research grant and contract income was R63,815,649 in 2015, representing a 6.9% decrease from 2014. Furthermore, in addition to publications, academic staff participated in a range of provincial, national and international public health and policy initiatives resulting in a number of technical and policy papers, as well as health promotion materials. These contributions 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 our advocacy to promote population health (http://www.publichealth.uct.ac.za/phfm_research-centres-units).

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 and health system strengthening considerations into public health policy and health systems practice receives attention in a number of publications. The School continues its role as a national leader in occupational and environmental health research with investigations into occupational allergy and asthma, pesticides, endocrine disrupting chemicals, hazardous metals and lung disease due to mineral dust. Finally, the question of health care financing and equity of resource allocation in health continues to occupy researchers in health economics. The School is also making a significant contribution to the development of health interventions (e.g. risk communication materials, translational science) based on research findings.
Departmental Statistics

Permanent and Long-Term Contract Staff

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Emeritus and Honorary Staff

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Students

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URC RESEARCH CENTRES / UNITS

Centre for Infectious Disease Epidemiology and Research (CIDER)

Established initially as a research unit in 2000, the Centre for Infectious Disease Epidemiology and Research has undertaken multidisciplinary research on priority infectious diseases in Southern Africa, in order to improve disease prevention and management. The Centre has strong links to service providers and policy makers at provincial, national and international levels, and a long track record of conducting operations research around service delivery challenges. It has a large staff complement of more than 80 academic, technical and field-based staff that includes epidemiologists, biostatisticians, mathematical modelers, social scientists and public health medicine specialists. The Centre operates major research hubs linked to primary care services in the Klipfontein-Mitchell’s Plain sub-district in Cape Town, and a data centre operated in conjunction with the Provincial Government of the Western Cape.

The current objectives of the Centre are to be a major centre of infectious disease epidemiology and related research in Southern Africa and internationally; to conduct public health research integrating laboratory, clinical, epidemiological, social science and health systems research into infectious diseases; to maintain 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; and to provide postgraduate level teaching and supervision in epidemiology.

Research Fields and Staff

Permanent Staff

PROFESSOR LANDON MYER
Director: Centre for Infectious Disease Epidemiology and Research; HIV prevention and treatment; maternal and child health; women’s health
ASSOCIATE PROFESSOR ANDREW BOULLE
Cohort studies; antiretroviral therapy; health information systems

ASSOCIATE PROFESSOR DAVID COETZEE
HIV/TB; Health care services; disease surveillance

ASSOCIATE PROFESSOR CHRISTOPHER COLVIN
Social aspects of HIV; community participation in health; maternal and child health

ASSOCIATE PROFESSOR MARY-ANN DAVIES
Deputy Director: Centre for Infectious Disease Epidemiology and Research; cohort studies; child health; paediatric HIV

DR MEG OSLER
Senior Research Officer; Electronic medical records systems; public health information systems

Research Staff

DR EMMA KALK
Senior Clinical Research Officer; Paediatric HIV

DR JASANTHA ODAYAR
Senior Clinical Research Officer; Health services for antiretroviral therapy; HIV/TB treatment

MR ANNIBALE COIS
Senior Research Officer; Chronic disease epidemiology; hypertension; latent variable models

DR MICHAEL SCHOMAKER
Senior Research Officer; Cohort analyses; imputation; causal modelling

DR Morna Cornell
Research Officer; Cohort analyses

DR LEIGH JOHNSON
Research Officer; Demographic & epidemiological modelling

MS GEMMA PATTEN
Research Officer; Cohort analyses

MS MEAGAN BOSLAND
Training Coordinator; Strategic Information

MS TAM SIN PHILLIPS
Study Coordinator; Maternal and Child Health

MS THOKOZILE MALABA
Study Coordinator; Maternal and Child Health

MR ROBIN BURLEY
Software Developer; Strategic Information

MS DOLPHINA COGILL
Data Manager; Cohort analyses

DR RENEE DE WAAL
Research Officer; Cohort analyses

MS ALEXA HEEKES
Data Manager; Cohort analyses

MS CLAUDINE HENNESSEY
Health Systems Support; Strategic Information

MS KATHERINE HILDEBRAND
Health Systems Support; Strategic Information

MS NICKY MAXWELL
Data Manager; Cohort analyses

MR JONATHAN EUVARD
Software Developer; Strategic Information

MR THEMBA MUTEMARINGA
Data Manager; Cohort analyses

MS AGNES RONAN
Project Manager; Maternal & Child Health

MR POLITE NDURU
Data Manager; Maternal & Child Health

DR KATHRYN STINSON
Epidemiologist; Cohort Analyses

MS NICKY TIFFIN
Epidemiologist; Cohort Analyses

DR PRISCILLA TSONDAI
Research Assistant; Cohort Analyses

MS AMY BUSTAMAM
Study Coordinator; Maternal and Child Health

MS NONTOKOZO LANGWENYA
Data Manager; Maternal and Child Health

MS RANGARIRI MATIMA
Research Assistant; Cohort analyses

MS JOLLY-ANN MAULIT
Research Assistant; Cohort analyses

MS KELLY NGUYEN
Study Coordinator; Maternal and Child Health

MR ALEX PEREZ
Research Assistant; Maternal and Child Health

DR ANDILE NOFEMELA
Technical Support; ARV Adherence Clubs

MS KIRSTY BRITTAIN
Data Analyst; Maternal and Child Health

MS VICTORIA IYUN
Study Coordinator; Maternal and Child Health

MS SEUN OLATUNBOSUN
Data Quality Officer; Maternal and Child Health

MS CHRISTA OOSTHUIZEN
Data Coordinator; Cohort analyses

MS EMILEE SMITH
Data Analyst; Maternal and Child Health
Honorary Staff

Honorary Research Associates
Dr Gilles van Cutsem
Dr Lynne Wilkinson

Honorary Senior Lecturers
Dr Nathan Ford
Dr David Pienaar

Visiting Professor
Professor Matthias Egger

Postdoctoral Fellow
DR AMY SLOGROVE
Paediatric & adolescent HIV; HIV exposed/uninfected infants

CENTRE FOR ENVIRONMENTAL AND OCCUPATIONAL HEALTH RESEARCH (CEOHR)

The Centre for Environmental and Occupational Health Research (CEOHR) has been a university accredited research centre since 1994. Between 2001 and 2005 it was accorded MRC research unit status. It was a World Health Organisation (WHO) Collaborating Centre for Occupational Health between 2005-2014. The CEOHR has for some years concentrated the most substantial concentration of skills in occupational and environmental epidemiology research in the country. 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.

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR AQIEL DALVIE
Director: Centre for Environmental and Occupational Health Research and SARCHI chair in global environmental health; Endocrine disruption, pesticides, air pollution, water pollution, climate change, asthma

ASSOCIATE PROFESSOR HANNA-ANDREA ROTHER
Deputy Director: Centre for Environmental and Occupational Health Research; Environmental determinants of health; chemicals/pesticides; climate change; risk management – exposures, perceptions, communication, reduction/mitigation; developing & evaluating interventions, policy analysis; environmental justice; innovative capacity building and engage learning methods
PROFESSOR RODNEY EHRlich
Occupational Medicine; Occupational lung disease in mining; tuberculosis in health care workers; worker’s compensation; social epidemiology

PROFESSOR MOHAMED JEEBHAY
Occupational allergens and asthma – risk factors and preventive approaches for work-related allergy and asthma. Occupational health services development, occupational health and safety law and worker’s compensation in South Africa

PROF LESLIE LONDON
Occupational neurotoxicity; pesticide hazards; fracking; vulnerable working populations; HIV at the workplace; ethics and human rights in occupational and environmental health; environmental justice

Research Staff

DR ZELDA HOLTMAN
Research Officer; Neurobehavioural effects of pesticide exposure; MRI scans and pesticide exposure; Suicide attempts and pesticide exposure

DR ROSLYNN BAATJIES
Research Co-ordinator; Occupational allergens and asthma – risk factors and preventive approaches for work-related allergy and asthma

MS SHARON FERGUSON
Research Administrator

Emeritus Staff

Emeritus Professor Jonny Myers

HEALTH ECONOMICS UNIT (HEU)

The Health Economics Unit (HEU) was established in 1990 and is an URC-accredited research unit which conducts high quality research in health economics and health systems. Our research focuses on supporting current efforts to transform the health system, both at the national policy level (particularly in terms of health care financing reform), and at the district and service delivery level. There is a strong emphasis on equity in our research, particularly to identify ways of promoting health system equity. Another area to which we contribute on an ongoing basis is the evaluation of cost-effectiveness of alternative diagnostic and treatment interventions for diseases of major public health concern, including TB, HIV, malaria and cervical cancer. A more recent area of work, which falls directly under the Chair in Health and Wealth, is exploring the social determinants of health within the South African context.

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR EDINA SINANOVIC
Director: Health Economics Unit; Economic Evaluation; Social Determinants of Health

PROFESSOR DIANE MCINTYRE
SARCHI chair in Health and Wealth; Universal Health Coverage and Health Financing; Social Determinants of Health

ASSOCIATE PROFESSOR SUSAN CLEARY
Governance, Social Determinants of Health, Economic Evaluation

Senior Lecturers

DR OLUFUNKE ALABA
Universal Health Coverage and Health Financing; Social Determinants of Health

DR JOHN ATAGUBA
Universal Health Coverage and Health Financing; Social Determinants of Health

DR AYAKO HONDA
Governance; Universal Health Coverage and Health Financing
Lecturer

MS VELOSHNEE GOVENDER
Governance; Universal Health Coverage and Health Financing; Social Determinants of Health

Research Staff

MS MARSHA ORGILL
Research Officer; Governance; Universal Health Coverage and Health Financing

MS VANESSA DARIES
Fieldwork Manager

MS LATIEFA ADAMS
Research Administrator

Research Contract Staff

MS NICOLA FOSTER
Junior Research Fellow; Economic Evaluation; Social Determinants of Health

MS LUCY CUNNAMA
Junior Research Fellow; Economic Evaluation

Postdoctoral Fellow

DR FILIP MEHEUS
Universal Health Coverage and Health Financing; Economic Evaluation

WOMEN’S HEALTH RESEARCH UNIT (WHRU)

The Women’s Health Research Unit (WHRU) was established in 1996 and enjoys local, national and international research standing especially in the areas of sexual and reproductive health and rights 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 with expertise in public health, epidemiology, sociology and anthropology. The Unit’s focus on women’s health and on gender and health is aligned with local and global challenges in addressing the health needs of women.

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR JANE HARRIES
Director: Women’s Health Research Unit; Sexual and Reproductive Health and rights, family planning and contraception socio-behavioural research

ASSOCIATE PROFESSOR JENNIFER MOODLEY
Director Cancer Research Initiative & Deputy Dean for Research, Faculty of Health Sciences

Research Staff

MS DEBORAH CONSTANT
Researcher; Sexual and Reproductive Health and rights, family planning and contraception, M Health

MS MARION BLOCH
Research Administrator

Emeritus and Honorary Staff

PROFESSOR DIANE COOPER
Honorary Professor

ASSOCIATE PROFESSOR CATHERINE MATHEWS
Honorary Associate Professor

ASSOCIATE PROFESSOR MARGARET HOFFMAN
Emeritus Associate Professor

DR CHELSEA MORRONI
Honorary Senior Lecturer
Divisions

Family Medicine

The Division of Family Medicine has its major research focus in operational matters relating to the clinical platform in the Metro District Health services in the Western Cape, under- and postgraduate medical education and Palliative Medicine. The Division has forged close linkages with the Health Impact Assessment Unit in the Western Cape Department of Health, with the Northern Tygerberg Sub-structure and other health facilities on the clinical teaching platform as well as with Kings College London where a close relationship exists in Palliative Medicine. We have recently established a working relationship with the Department of Family Medicine at the University of Minnesota in the USA.

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR DEREK HELLENBERG
Head: Division of Family Medicine; Operational research on clinical platform; Languages in the medical consultation for students and staff; Male Medical Circumcision

MS GALIEMA PARKER
Administrative Assistant

Senior Lecturers

DR GRAHAM BRESICK
Foundations & principles of primary care/family medicine; Behaviour change counselling/motivational interviewing; Primary care systems research/Primary Care Assessment Tool; Building primary care

DR ANGELA DE SA
General Clinical Medicine; Triage at primary care level; Chronic disease care

DR ELMA DE VRIES
Chronic disease management, Audit to improve chronic disease care, Access to health care for marginalized populations, Transgender Health

DR ABDUL ISAACS
Chronic Diseases especially Diabetes Mellitus and obesity; Evidence-based practice and Lean management

DR LIESL MORALES-PEREZ
Health education; Improving communication and personal skills of students; Improving e-learning resources for students

DR TSEPO MOTSOHI
General Clinical Medicine; Triage in Community Health Centres; Community Psychiatry

DR MOSEDI NAMANE
Health systems research at primary level; clinical engagement with Rheumatology by primary care workers in the community

DR TASLEEM RAS
Postgraduate health education in family medicine, doctor-patient relationships

DR BEVERLEY SCHWEITZER
Prevention and management of foot ulcers in patients with Diabetes, prevention of illness and promotion of health, patient-centred care, postgraduate training in family medicine

DR LIZ GWYThER (PART-TIME)
Convener: Palliative Medicine Programmes

DR ALAN BARNARD (PART-TIME)
Role of the family doctor in palliative medicine; evaluation of palliative care learning; palliative care in intensive care; health sciences education

DR RENE KRAUSE (PART-TIME)
Convener: Postgraduate Diploma in Palliative Medicine, ensuring access to palliative at all levels of care

Lecturers

DR NAZLIE BECKETT
Medical Education

MS LINDA GANCA
Palliative medicine

DR NOOR PARKER
Undergraduate medical education

DR FARZANAH BEGG (PART-TIME)
Undergraduate medical education; substance abuse

DR MICHELLE MEIRING (PART-TIME)
DR BRUCE CAMERON (PART-TIME)

Emeritus and Honorary Staff

Associate Professor Abdul Barday
Honorary Adjunct Associate Professor

Honorary Professors

Professor Richard Harding
Professor William Pick

Honorary Lecturers

Dr Steven Craven
Dr Jalaluddin Dhansay
Dr Bernard Grevler
Dr George Petros
The practice of Public Health Medicine focuses on the delivery of population-oriented services aimed at promoting the health of communities. The Division runs training for undergraduates in medicine and rehabilitation sciences, as well as a postgraduate specialisation in public health medicine, and conducts research in population-oriented public health contexts both in communities and in the health services.

**Research Fields and Staff**

**Permanent Staff**

**PROFESSOR LESLIE LONDON**
Head: Division of Public Health Medicine; Health and Human Rights; Alcohol Policy; Drug-resistant TB; Public health policy; Public Health Ethics

**ASSOCIATE PROFESSOR ANDREW BOULLE**
Infectious disease epidemiology; monitoring and evaluation

**ASSOCIATE PROFESSOR DAVID COETZEE**
Infectious disease epidemiology and related health systems/operations research

**MR KEITH FLANDORP**
Undergraduate Administrative Officer

**MS FARANAAZ BENNETT**
Postgraduate Administrative Assistant

**MS ABIGAIL PARENZEE**
4th Year Undergraduate Administrative Assistant

**Senior Lecturers**

**DR ISHAAQ DATAY**
Climate Change and Health; Sustainable Transport; Evidence-based practice

**MR JAMES IRLAM**
Professionalism; assessment in undergraduate training in health sciences

**MS LORNA OLCKERS**
Public Health Medicine specialist; Public Health education, Public Health practice; Health systems

**Research Staff**

**DR FEROZA AMIEN**
Oral Health, Interprofessionalism, HIV/TB services

**Honorary Staff**

**Honorary Professors**
Professor William Pick
Professor Thomas Rehle

**Honorary Associate Professors**
Associate Professor Lesley Bourne
Associate Professor Neo Morojele

**Honorary Senior Lecturers**
Dr Eric Goemaere
Dr Tony Hawkridge
Dr Sizulu Moyo
Dr Tracey Naledi
Dr David Pienaar
Dr Maria Stuttaford

**Honorary Lecturers**
Dr Glynis Denicker
Dr Juliet Evans

**Honorary Research Associates**
Ms Renate Douwes
Dr Nadine Harker-Burnhams
Dr Richard Matzopoulos
Dr Joanne McLoughlin
Dr Desiree Michaels
Dr Marlise Richter
Dr Chris Seebregts

**Visiting Professors**
Professor Laurel Baldwin-Ragaven
Professor Fons Coomans
Professor Stuart Whittaker
OCCUPATIONAL MEDICINE

Occupational Medicine is the branch of medicine concerned with the study, diagnosis, treatment and prevention of disease and ill-health attributable to work. The Division of Occupational Medicine is a joint division of the School of Public Health and Family Medicine and the Department of Medicine at UCT. The Division runs the Occupational Medicine Clinic at Groote Schuur Hospital, provides diploma (DOH) training to medical practitioners and a postgraduate clinical specialisation in Occupational Medicine, and conducts research into occupational disease causation, risk and means of prevention, workers’ compensation and occupational health service provision, and the occupational health needs of health care workers.

Research Fields and Staff

Permanent Staff

PROFESSOR RODNEY EHRLICH
Head: Division of Occupational Medicine;
Occupational lung disease in mining; Tuberculosis in health care workers; Worker’s compensation; Social epidemiology

PROFESSOR MOHAMED JEEBHAY
Occupational lung diseases epidemiology and prevention with a specific focus on work-related asthma

MS FARANAAZ BENNETT
Postgraduate Administrative Assistant

Contract Staff

DR AMY BURDZIK
Lecturer (Part-time); Occupational Medicine, Occupational Dermatology

Emeritus and Honorary Staff

Honorary Professor

PROFESSOR GAVIN CHURCHYARD

Honorary Senior Lecturers

Dr Shahieda Adams
Dr Greg Kew
Dr Sophia Kisting
Dr Shuaib Manjra
Dr Anne Raynal
Dr Jim te Water Naude
Dr Jack van Zyl

Honorary Lecturers

Dr David Knight
Dr Anita van der Walt
Dr Haidee Williams

Emeritus Professor

Professor Gail Todd
EPIDEMIOLOGY AND BIOSTATISTICS

The Division of Epidemiology & Biostatistics leads teaching and research around quantitative research methods in the Faculty. The Division has specific research foci related to longitudinal studies and life course epidemiology, maternal & child health, analytic tools for examining repeated and correlated health outcomes, and clinical applications of predictive and prognostic modelling methods. In addition, staff from the Division provide technical inputs into study design, conduct and analysis to quantitative research projects from across the Faculty, including clinical and laboratory disciplines, with long-term collaborative studies with the Departments of Paediatrics & Child Health, Medicine and Obstetrics & Gynaecology, as well as the Divisions of Medical Virology and Immunology. International research collaborations include collaborative projects with US, UK, German and Dutch institutions in these fields. The Division has a substantial teaching programme related to research methods, including undergraduate courses across the Faculty, research methods teaching modules for postgraduate students including the MPH programme, and extensive supervision of postgraduate research projects.

Research Fields and Staff

Permanent Staff

PROFESSOR LANDON MYER
Head: Division of Epidemiology and Biostatistics; HIV prevention and treatment; maternal and child health; women’s reproductive health; research methods

MR JORDACHE RAMJITH
Lecturer; generalized linear models; time-to-event methods; child health

Contract Staff

DR MAIA LESOSKY
Senior Lecturer; statistical theory; multidimensional data; predictive modelling; machine learning

Honorary Staff

Honorary Professors

Professor Carl Lombard
Professor James McIntyre
Professor Thomas Rehle

Honorary Senior Lecturer

Dr Tim Tucker

Visiting Professor

Professor Matthais Egger
HEALTH ECONOMICS

The Health Economics Division conducts policy relevant teaching and research in health economics and health systems. The key objective of the Division is to teach at the post-graduate level to develop capacity in health economics and related health systems research in Africa. The Division convenes the following programmes: a Masters in Public Health specialising in health economics, a PhD in health economics, a Post-graduate Diploma in health economics, and a post-doctoral programme in health economics. Our research maintains a balance between conceptual and applied research as well as between topics of local and international relevance, and focuses on four thematic areas of research, namely universal coverage and financing, governance and decision-making, economic evaluation and social determinants of health.

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR EDINA SINANOVIC
Head: Division of Health Economics; Economic Evaluation; Social Determinants of Health

PROFESSOR DIANE MCINTYRE
Universal Health Coverage and Health Financing; Social Determinants of Health

ASSOCIATE PROFESSOR SUSAN CLEARY
Governance, Social Determinants of Health, Economic Evaluation

MS LATIEFA ADAMS
Academic Administrator

Senior Lecturers

DR OLUFUNKE ALABA
Universal Health Coverage and Health Financing; Social Determinants of Health

DR JOHN ATAGUBA
Universal Health Coverage and Health Financing; Social Determinants of Health

DR AYAKO HONDA
Governance; Universal Health Coverage and Health Financing

MS VELOSHNEE GOVENDER
Lecturer; Governance; Universal Health Coverage and Health Financing; Social Determinants of Health

Postdoctoral Fellow

DR FILIP MEHEUS
Universal Health Coverage and Health Financing; Economic Evaluation
HEALTH POLICY AND SYSTEMS

The Health Policy and Systems Division has emerged in response to a global refocusing on health systems strengthening, and a parallel demand for practitioners and researchers with an understanding of health policy and health systems’ change.

Research Fields and Staff

Permanent Staff

PROFESSOR LUCY GILSON
Head: Division of Health Policy and Systems; strengthening complex health systems in ways that offer better public value, with particular concern for health equity; health policy implementation; health systems governance and leadership

Senior Lecturers

DR JILL OLIVIER
The integration of non-state health providers in health systems; community connection to systems; interdisciplinary research; multi-sectoral collaboration; organization culture and health communication

DR MAYLENE SHUNG KING
Child health; school health; childhood NCDs, leadership development

Research Staff

MS NIKHAT HOosen
Research Officer; Health systems and adolescent mental health; models of school health service provision for children with chronic health conditions

DR LEAnne BRADY
Junior Research Fellow; Health inequalities and health systems strengthening in low resource settings

MS LISA-MARIE SMITH
Research Administrator

Postdoctoral Fellows

DR DINTLE MOLOSIWA
Healthcare management; implementation research; health service delivery; maternal and child health; HIV/AIDS

DR GINA TEDDY
Governance and leadership in health; health policies and financing; implementation practices; leadership

development and workplace learning

Emeritus and Honorary Staff

Honorary Research Associate

DR RENE ENGLISH

Honorary Senior Lecturer

DR KAREN DANIELS

Senior Research Associate Emeritus

EMERITUS PROFESSOR JIM COCHRANE

Visiting Professors

Professor Teresa Cutts
Professor Gary Gunderson
Professor Uta Lehmann
Professor Helen Schneider
SOCIAL AND BEHAVIOURAL SCIENCES

The Division of Social and Behavioural Sciences coordinates the School’s teaching and research capacity in the social and behavioural sciences. This is a disciplinary area that is increasingly recognised as a critical element in fulfilling the broader mission of public health within the School, the Faculty, and by the public health community at large.

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR CHRISTOPHER COLVIN
Head: Division of Social and Behavioural Sciences; Social aspects of HIV; community participation in health; maternal and child health

ASSOCIATE PROFESSOR JANE HARRIES
Sexual and reproductive health and rights, gender and health, translational research

Research Contract Staff

MS ALISON SWARTZ
Lecturer and SASH Programme Manager; HIV and adolescence, qualitative research methods

MS ELEANOR WHYLE
Researcher; HIV and masculinity, community and health system engagement

MS ZARA TRAFFORD
Researcher; Community health workers, HIV support for postpartum women

MR MANDLA MJolo
Research Coordinator; HIV and community mobilization

MS APHIWE MAKALIMA
Research Administrator

Honorary Senior Lecturers
Dr Chelsea Morroni
Dr Dean Peacock

Honorary Research Associates
Dr Erin Stern
Dr Emile Venables

Visiting Professor
Professor Sally Guttmacher

Postdoctoral Fellows

DR MEGAN WAINWRIGHT
NRF Innovation Postdoctoral Fellow; Experiential dimensions of chronic illnesses; qualitative research methods

DR SARA COOPER
URC Postdoctoral Fellow; Global mental health, chronic illnesses

Honorary Staff

Honorary Professor

PROFESSOR DIANE COOPER

Honorary Associate Professors
Associate Professor Abigail Harrison
Associate Professor Mark Lurie
Associate Professor Catherine Mathews
ENVIRONMENTAL HEALTH

The key focus of the Environmental Health Division is to develop capacity in low and middle income countries (LMICs) particularly Africa, to address environmental health risks and reduce the associated burden of disease.

Research Fields and Staff

Permanent Staff

ASSOCIATE PROFESSOR HANNA-ANDREA ROTHER
Head: Division of Environmental Health; Environmental determinants of health, innovative capacity building and engaged learning methods, pesticides and chemicals risk management, risk communication, risk perceptions, climate change, developing and evaluating health interventions, policy analysis

ASSOCIATE PROFESSOR AQIEL DALVIE
Endocrine disruption, pesticides, air pollution, water pollution, climate change, asthma

MS PRECIOUS CANHAM
Administrative Assistant

Honorary Staff

Honorary Senior Lecturer
Dr Gamini Manuweera

Visiting Professors
Professor Thomas Arcury
Professor Sara Quandt

Contact Details

Postal Address: 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
Email: Carmen.Dekoker@uct.ac.za
Website: http://www.publichealth.uct.ac.za/

RESEARCH OUTPUT

Authored books


Chapters in books


Articles in peer-reviewed journals


Cornell, M., Johnson, L.F., Schomaker, M., Tanser, F., Maskew, M., Wood, R., Prozesky, H., Giddy, J., Stinson,


Grobler, L., Marais, B.J. and Mbunda, S. 2015. Interventions for increasing the proportion of health professionals practising in rural and other underserved areas. Cochrane Database of Systematic Reviews, 6: CD005314(8pp).


International Journal for Equity in Health, 14: 54(13pp).


Contact Details
Postal Address: Division of Nuclear Medicine, Groote Schuur Hospital and University of Cape Town, Observatory, 7925 Cape Town.
Telephone: +27 21 404 6747
Fax: +27 21 404 402
Email: Tessa.Kotze@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/radiation_med/nuclear_med/about

Department of Radiation Medicine

DIVISION OF RADIATION ONCOLOGY

Acting Head of Division: Associate Professor Jeanette Parkes

Divisional Profile

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 post graduate specialists training courses. Pre and post-diplomate instruction to radiographers and post-diplomate courses to nurses.
Full training in Radiobiology from undergraduate to honours, masters and doctoral level.
Provision of a comprehensive clinical radiobiological research facility.

Divisional Statistics

Permanent and Long-Term Contract Staff

JMS Staff

<table>
<thead>
<tr>
<th>Professor (chair)</th>
<th>Post vacant</th>
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University Staff

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<tr>
<th>Research Staff</th>
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<tr>
<td>Administrative/Clerical Staff</td>
<td>1</td>
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<td><strong>Total</strong></td>
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Joint Staff (UCT/PAWC)

<table>
<thead>
<tr>
<th>Position</th>
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<tr>
<td>Head of Clinical Unit</td>
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<tr>
<td>Senior Full-time Lecturers</td>
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<td>Lecturers</td>
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<td>Principal Medical Officers</td>
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<td>Sessional Medical Officers</td>
<td>2</td>
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<td>Medical Scientists</td>
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<td><strong>Total</strong></td>
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Honorary Staff

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<tr>
<th>Position</th>
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<tr>
<td>Honorary Lecturers</td>
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Postgraduate Students

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<th>Position</th>
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<tbody>
<tr>
<td>Registrars</td>
<td>8</td>
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<tr>
<td>Supernumerary registrars</td>
<td>10</td>
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<td><strong>Total</strong></td>
<td><strong>18</strong></td>
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</table>

Research Fields and Staff

Permanent Staff

Specialist Staff

ASSOCIATE PROFESSOR JEANETTE PARKES
Chief Specialist Radiation Oncology & Acting Head of Division Radiation Oncology and Senior Lecturer; Main interests – neurological tumours, paediatric tumours, bone and soft tissue tumours. Radiotherapy education, radiotherapy quality assurance

DR ZAINAB MOHAMED
Senior Specialist Radiation Oncology and Senior Lecturer; Main interests – Lymphoma, Myeloma, Melanoma, Kaposi’s sarcoma, medical ethics, clinical quality assurance

DR LEON VAN WIJK
Senior Specialist Radiation Oncology & Senior Lecturer; Main interests – Gynaecological tumours, intracavitary brachytherapy

DR BARBARA ROBERTSON
Specialist Radiation Oncology & Lecturer; Main interests – Thyroid, Oesophageal and Gastro-intestinal cancers, liver cancer, unknown primary cancers

DR JULIE WETTER
Specialist Radiation Oncology and Lecturer; Main interests – ocular tumours, skin cancers, Head and neck tumours, clinical oncology education, quality assurance in radiotherapy

DR SAMEERA DALVIE
Specialist Radiation Oncology Lung Cancer; Ear, nose and throat cancer, advanced radiotherapy techniques

DR T NAIKER
Specialist Radiation Oncology – Main interests – Breast cancer, Paediatric cancers, sarcomas, neurological cancers

DR DAVID ANDERSON
Specialist Radiation Oncology – Main interests – Urological tumours, breast cancer, unknown primary tumours, comprehensive cancer care, advanced radiotherapy techniques

Medical Officers

DR CINDY SHEPHERD
Principal Medical Officer Radiation Oncology; Main interests – Lung cancer, urological cancers, GIT cancers, thyroid cancers

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 B Williams
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 Nadia Mitchell (administrator)
Fax: +27 21 404 5259
Email: jeanette.parkes@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/radiation_med/radiation_onco/about/

Department of Radiation Medicine

DIVISION OF MEDICAL PHYSICS

Head of Division: Ms Hester Burger

Divisional profile

The key project for 2015 for the Division of Medical Physics was the collaboration with Varian Medical Systems and CPUT to set up a brand new practical radiotherapy training facility. The project allows for the use of a virtual training computer called the Seminar VERT system, specifically designed for Radiotherapy training. It allows students hands-on training on this 3D computer system, as well as a fully equipped radiotherapy treatment planning computer laboratory.

The curriculum and technology was tested during a dry-run course in June 2015, followed by a successful delivery of a full three week course in August 2015. Two teams each from Ghana and Zimbabwe attended the course, followed by three months of email based mentoring to implement clinical radiation oncology and medical physics protocols. The programme will continue in 2016.

The Division also took part in the Groote Schuur Hospital Innovations Grand Challenge project, and was awarded funding to pilot a Radiation Oncology optimization programme through the use of the locally developed “Time Machine” game board.

Other activities included:

- PhD students (2), one completed successfully in December 2015
- MSc student (2), one thesis submitted in December 2015
- National and international posters/presentations (21)
- Publications (11 abstracts published in European Journal of Medical Physics)
- External examiner/moderator (4)
- Contributions towards book chapters (3)
- Research and development collaboration projects (2)
Mr Christoph Trauernicht was awarded the South African Association of Physicists in Medicine and Biology and South African Bureau of Standards prize for the most outstanding research in the Radiation Dosimetry field.

Research Fields and Staff

Head of Department

H. BURGER
Modern Radiotherapy and Radiosurgery Treatments and Treatment Planning

Deputy Manager

C TRAUERNICHT
Nuclear Medicine and Brachytherapy

Assistant Managers (Medical Physics)

H MAC GREGOR
Radiotherapy and Advanced Techniques and Treatment Planning

T KOTZE
Diagnostic Radiology teaching and Radiation Protection

N JOUBERT (WILLEMSE)
Slot-scanning mammography Radiotherapy and Nuclear Medicine

N BRUWER
Access to Care Senior Researcher

Technical Staff

K BOTHA
Chief Radiographer

Mould Room

S TOVEY
Chief Radiographer

M HENDRICKS
Radiation Technologist

M MANUEL
Intern Radiation Technologist

Mechanical Workshop

RE HISCOCK
Artisan

Secretarial

M NOBLE
Senior Admin Clerk

Contact Details

Postal Address: 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
Website: http://www.health.uct.ac.za/fhs/departments/radiation_med/med_physics/about
Divisional Profile

The Radiology Division works closely with clinical colleagues and their patients in all the major specialties and subspecialties throughout the hospitals, both in service and academic capacities. Groote Schuur’s two multi-slice CT’s and new 1.5T MRI and angiography units are heavily utilised, especially for neurological, vascular, musculoskeletal and thoraco-abdominal problems. There is also protected access to the new UCT research 3T MRI. Groote Schuur and Red Cross Hospitals are able to book PET-CT scans at Tygerberg Hospital, with joint Radiology and Nuclear Medicine reporting.

The Red Cross Radiology department has recently undergone extensive renovations, and make good use of their excellent MRI and CT scanners.

Both New Somerset and Mitchell’s Plain Hospitals have their own CT scanners. Links with their radiologists are maintained, together with after-hours cover. Some of these radiologists rotate to Groote Schuur and Red Cross Hospitals to maintain expertise in advanced imaging. Sessional teaching occurs weekly at Victoria Hospital. The experience of our post-retirement sessional staff continues to benefit the Division.

Digital radiology, PACS and RIS is now fully established, allowing digital communication between the central and satellite hospitals.

There is continuing interest in supernumerary registrar posts both from within and outside the country.

Divisional Statistics

Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>UCT Staff</th>
<th></th>
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<tr>
<td>Professor and Head of Division</td>
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<tr>
<td>Digital imaging assistant part-time</td>
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JMS Staff

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Part-time JMS Staff

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<tr>
<td>Emeritus Professor</td>
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<td>Emeritus Associate Professors</td>
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Students

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<tbody>
<tr>
<td>Masters [registrars]</td>
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</tbody>
</table>

Research Fields and Staff

**PROFESSOR STEPHEN BENINGFIELD**
Hepatobiliary and interventional radiology, and computer applications in radiology.

**ASSOC PROF SALLY CANDY**
Neuroradiology (with a special interest in HIV-associated neuroimaging) and Magnetic Resonance Imaging

**DR NAZIR AHMED**
Cross-sectional, head and neck, and colorectal imaging

**DR E BANDERKER**
Paediatric Radiology

**DR RUFKAH GAMELDIEN**
Cross-sectional and breast imaging

**DR THARBIT HARTLEY**
Hepatobiliary, vascular, interventional radiology
DR TRACY KILBORN
Paediatric radiology

DR QONITA SAID-HARTLEY
High-resolution chest imaging, image guided biopsies, chest radiology and cardiac CT. In collaboration with the departments of cardiology and cardiothoracic surgery she is responsible for specialist imaging required for Trans-catheter Aortic Valve replacement (TAVI). GSH is one of only a few centres in Africa offering this highly specialised service

DR NICOLE WIESELTHALER
Paediatric radiology

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
Email: Steve.Beningfield@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/radiation_med/radiology/about

RESEARCH OUTPUT

Chapters in books

Articles in peer-reviewed journals


intradermal testing in diagnosis and management. Current Allergy & Clinical Immunology, 28(3): 210-212.


Department of Surgery

Research Report 2015

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 Michael Held, was a most successful collaboration between the Divisions. Professor Donald Hudson delivered the John Terblanche Lecture.

Department of Surgery

DIVISION OF GENERAL SURGERY

Head of Division: Professor Del Kahn

Divisional Profile

The six surgical firms within the Division of General Surgery are responsible for Hepatobiliary Surgery, Surgical Oncology/Endocrine Surgery, Colorectal Surgery, Upper GI Surgery, Acute Care 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.

Divisional Statistics

Permanent and Long-Term Contract Staff

<p>| | |</p>
<table>
<thead>
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<tr>
<td>Professors</td>
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<tr>
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Research Fields and Staff

Permanent Staff (Full-Time)

**PROFESSOR P NAVSARIA**
Trauma Surgery

**ASSOCIATE PROFESSOR A NICOL**
Trauma Surgery

**ASSOCIATE PROFESSOR P GOLDBERG**
Colorectal Surgery

**PROFESSOR EDUARD JONAS**
Hepatobiliary Surgery
ASSOCIATE PROFESSOR E PANIERI  
Surgical Oncology

ASSOCIATE PROFESSOR E MULLER  
Transplantation

DR M BERNON  
Hepatobiliary Surgery

DR A BOUTALL  
Colorectal Surgery

DR S BURMEISTER  
Hepatobiliary Surgery

DR L CAIRNCROSS  
Surgical oncology

DR GF MALHERBE  
Surgical Oncology

DR G CHINNERY  
Upper Gastrointestinal Surgery

DR JM DU TOIT  
Transplantation

DR S EDU  
Trauma Surgery

DR J KLOPPER  
Acute Care Surgery

DR C KLOPPERS  
Acute Care Surgery

DR NG NAIDOO  
Vascular Surgery

DR S RAYAMAJHI  
Acute Care Surgery

DR D THOMSON  
Critical Care

DR C WARDEN  
Acute Care Surgery

Contact Details
Postal Address: Division of General Surgery, University of Cape Town, Groote Schuur Hospital, J45, Old Main Building, Observatory 7925
Telephone: +27 21 406 6475
Fax: +27 21 448 6461
Email: melissa.mohamed@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/surgery/general

Department of Surgery

DIVISION OF OPHTHALMOLOGY

Head of Division: Professor Colin 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 and a masters in public health with a community eye health track is provided for Vision 2020 programme managers working in sub Saharan Africa.

Divisional Statistics

Permanent and Long-Term Contract Staff

| Professors | 1 |
| Honorary professors | 2 |
| Associate Professors | 1 |
| Senior Lecturers | 5 |
| Lecturers | 11 |
| Administrative Staff | 1 |
| **Total** | **21** |

Students

| Masters | 5 |
| Postgraduate diploma | 8 |
| Undergraduate | 187 |
| **Total** | **200** |
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.

ASSOCIATE PROFESSOR N. DU TOIT
Consultant Specialist, Groote Schuur Hospital. Anterior segment surgery, glaucoma, ocular trauma.

DR K. LECUONA
Consultant Specialist, Groote Schuur Hospital. Prevention of blindness in developing countries, lacrimal drainage disorders, inflammatory eye disease, ocular oncology.

DR T. POLLOCK
Consultant Specialist, Red Cross Children’s Hospital. Paediatric ophthalmology.

DR J. RICE
Consultant Specialist, Groote Schuur Hospital. Vitreo-retinal disease.

DR J STEFFEN
Consultant Specialist, Groote Schuur Hospital. Vitreo-retinal disease.

DR C. TINLEY
Consultant Specialist, Red Cross Children’s Hospital. Paediatric ophthalmology.

Permanent Staff (Part-Time)

DR E. ALBRECHT
Medical retina.

DR N COCKBURN
Oculoplastics

DR J. DE VILLIERS
Strabismus.

DR R. GROTTE
Paediatric ophthalmology

DR D. HARRISON
Oculoplastics

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

Postal Address: Division of Ophthalmology, University of Cape Town Medical School, Observatory 7925
Telephone: +27 21 406 6216
Fax: +27 21 406 6218
Email: colin.cook@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/surgery/overview/about
Divisional Profile

The Division of Orthopaedic Surgery continued to provide secondary and tertiary Orthopaedic services to the Western Cape and surrounding communities organized in the following sub-units: Trauma, Hands, Acute Spine Injury Unit, Spine Surgery Unit, Upper limb unit, Lower Limb unit and Orthopaedic Oncology. This comprehensive service is made possible with the input from enthusiastic sessional staff from private practice, highlighting the benefits of public-private partnerships.

This platform provides an excellent training experience for our 17 PGWC and 3 supernumerary registrars and 5 clinical sub-specialist privately funded fellows.

We continue to increase our elective surgical outputs with public-private collaboration and additional operating lists. This has significant improved our arthroplasty outputs with a positive impact on the waiting lists.

Our research capacity has been enhanced with the establishment of the Orthopaedic Research Unit (ORU) under the directorship of Dr Michael Held. We held the first Orthopaedic Research Day with local and international collaboration.

Clinical outreach was provided to Vredendal, Vredenburg, Eben Donges, Mitchell’s Plain and Victoria Hospitals was provided.

There was ongoing interaction with local sub-specialists to provide sessional support in service and training.

We were re-accredited as an AOSpine reference centre facilitating visits from abroad and funding to train local spine surgeons. We continue to run Arthroplasty and Upper Limb fellowship programs funded by private sources.

Divisional Statistics

Permanent and Long-Term Contract Staff

<table>
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<tr>
<th>Role</th>
<th>Count</th>
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<td>Professors</td>
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<tr>
<td>Consultants (GSH)</td>
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<td>Consultants (RXH)</td>
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Students

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<tr>
<td>MMed (registrars)</td>
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<td>MBChB (5 year module)</td>
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<td><strong>Total</strong></td>
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</table>

Research Fields and Staff

The Orthopaedic Research Unit (ORU) was established under the directorship of Dr Michael Held to consolidate our research into themes and allow a more co-ordinated approach.

www.oru.uct.ac.za

PROFESSOR ROBERT DUNN
Pieter Moll and Nuffield Chair and HOD
Spine infection, deformity and trauma

ASSOCIATE PROFESSOR STEVE ROCHE
Deputy HOD, Head of Adult Reconstructive Unit
Upper limb, student education, outcomes scoring

DR MICHAEL SOLOMONS
Head: Hand Unit
Hand infection, trauma, reconstruction

DR GRAHAM MCCOLLOM
Consultant
Foot and Ankle / General Trauma

DR DIX-PEEK
HOCU: Paediatric Orthopaedics
Paediatric trauma and reconstruction

DR NICHOLAS KRUGER
HOCU: Acute spine injury Unit
Spine trauma, general trauma

DR SITHOMBO MAQUNGO
HOCU: Orthopaedic Trauma Surgery
Pelvic / acetabular reconstruction and general trauma / Osteoporosis
DR MARITZ LAUBSCHER
Consultant
Lower limb deformity / trauma / sepsis

DR MARC NORTJE
HOCU: Lower limb arthroplasty
Hip and knee joint reconstruction

Contact Details
Postal Address: Division of Orthopaedic Surgery,
University of Cape Town, Medical School,
Groote Schuur Hospital, H49 Old Main Building,
Observatory, 7925
Telephone: +27 21 404 5108
Email: bernadette.priest@uct.ac.za
Website: http://orthopaedics.uct.ac.za/ and www.oru.uct.ac.za

Department of Surgery
DIVISION OF EMERGENCY MEDICINE

Head of Division: Professor Lee Wallis

Divisional Profile
Emergency Medicine is run as two academic Divisions (at UCT and SU) but has a single 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 hospitals. 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 post graduate programmes, with 20 PhD, 10 MSc, and over 50 MPhil students. In 2015, the Division produced 30 publications in peer-reviewed journals and contributed to 5 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 and 2 Senior Lecturers, plus joint and honorary staff; we have a Research Coordinator between SU and UCT. There are 9 honorary lecturers at SU and an additional 10 honorary lecturers at UCT. We have a permanent secretary and web resources manager.

Achievements
Faculty members in the academic division currently hold a number of international and national leadership positions within Emergency Medicine including:

• President International Federation for Emergency Medicine (Prof L Wallis)
• President African Federation for Emergency Medicine (Dr H Geduld)
• President: Emergency Medicine Society of South Africa (Dr R Dickerson)
• College of Emergency Medicine President (Dr R Dickerson), Secretary (Dr H Geduld) and 3 elected members of Council (Dr A Kropman, Dr K Vallabh and Dr S Lahri)
- African Journal of Emergency Medicine
Editors-in-chief (Dr SR Bruijns and Prof L Wallis) and editorial board members (Dr M Stander, Dr R Dickerson, Dr W Smith, Dr H Lamprecht and Dr K Cohen)

### Divisional Statistics

#### Permanent and Long-Term Contract Staff

<table>
<thead>
<tr>
<th>Role</th>
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<tr>
<td>Professor</td>
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<td>Senior Lecturers</td>
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<td>Research Staff</td>
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#### Honorary Staff

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#### Students

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<td>MPhil</td>
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<tr>
<td>MSc</td>
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| Undergraduate           | 3rd, 4th, 5th and 6th years |

#### Research Fields and Staff

##### Permanent Staff

**PROFESSOR LEE A. WALLIS**  
Head of Division (UCT, SU & WCG)  
Emergency care systems, triage, health policy

**DR HEIKE I. GEDULD**  
Head of Education (UCT & WCG)  
Medical education

**DR TYSON B. WELZEL**  
MPhil Programme Convenor  
Access to care, triage

**DR STEVAN R. BRUIJNS**  
PhD Programme Convenor  
Triage, trauma

### Contact Details

Postal Address: Division of Emergency Medicine, University of Cape Town, Medical School, Groote Schuur Hospital, J46 Old Main Building, Observatory, 7925  
Telephone: +27 21 944 9226  
Email: aileen.maas@uct.ac.za  
Website: www.emct.info
Department of Surgery

DIVISION OF NEUROSURGERY

Head of Division: Professor Graham Fieggen

Divisional Profile

The Division of Neurosurgery of the University of Cape Town is based at Groote Schuur Hospital and Red Cross Childrens Hospital, for adult and paediatric neurosurgery respectively. It provides a comprehensive neurosurgical service for patients from the Western Cape region of South Africa, but also treats patients referred from other parts of the country and further afield in Africa.

Registrars are trained here in all aspects of neurosurgery, with a particular emphasis on disorders common in a developing world context, while maintaining an international standard of excellence, supported by modern technology and worldwide collaborations. Trainees are exposed not only to general neurosurgical practice but also to a wide spectrum of subspeciality interests by experienced staff of international calibre. During their training, registrars are also equipped with the skills, and exposed to the opportunities, for research in a strong academic environment. The division is also committed to the training of doctors from other parts of the continent to enable them to return to their countries with much-needed skills.

Finally, the department has fostered a strong relationship with local neurosurgeons in private practice to ensure the best care of all patients, whether in a public or private healthcare context, to exposure trainees to all aspects of pathology and treatment, and to maintain the association of the local neurosurgical community.

Divisional Statistics

Permanent and Long-Term Contract Staff

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<td>Professor (HODiv)</td>
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<tr>
<td>Professor (HOCU)</td>
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<tr>
<td>Consultants Full time</td>
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<td>Registrars</td>
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<tr>
<td>Medical Officers</td>
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<td>Research Staff</td>
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<td>Admin Staff</td>
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<td><strong>Total</strong></td>
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</table>

Research Fields and Staff

Permanent Staff (Full time)

**PROFESSOR GRAHAM FIEGGEN**
Professor and Head, Division of Neurosurgery, UCT Faculty of Health Sciences, Groote Schuur Hospital and Red Cross Children’s Hospital: Paediatric Neurosurgery and Epilepsy and functional neurosurgery.

**PROFESSOR PATRICK SEMPLE**
Head of Clinical Unit and Head of Firm Groote Schuur Hospital: Pituitary surgery, Neuroendoscopic surgery and Neurointensive care.

**PROFESSOR ANTHONY FIGAJI**
Head of Paediatric Neurosurgery Unit and Head of Firm Red Cross Children’s Hospital: Paediatric Neurosurgery, Neurotrauma, Neurocritical care and Intraoperative Neurophysiology.

**ASSOCIATE PROFESSOR ALLAN TAYLOR**
Head of Neurovascular Unit and Head of Firm Groote Schuur Hospital: Cerebrovascular surgery, Neurointervention, Skull Base surgery and Radiosurgery.

**ASSOCIATE PROFESSOR DAVID LE FEUVRE**
Consultant Neurosurgeon Neurovascular Unit, Groote Schuur Hospital and MBChB Convener: Cerebrovascular surgery, Neuro-intervention and Neuro-oncology, Skull Base surgery and glioma surgery.

**DR SALLY ROTHEMEYER**
Consultant Neurosurgeon, Groote Schuur Hospital: Functional Neurosurgery (Epilepsy, pain and movement disorders) Neurooncology, Neuroendoscopy, Multidisciplinary Rehab Clinic and NeuroHIV.
Department of Surgery

DIVISION OF UROLOGY

Head of Division: Associate Professor John Lazarus

Divisional Profile

The Division of Urology renders a urological service to Groote Schuur Hospital, Red Cross War Memorial Children’s Hospital and Somerset Hospital. An operating list is done once per week at Eerste river Hospital, operating on Groote Schuur Hospital patients.

A Prof John Lazarus is head of Paediatric Urology at Red Cross Hospital and Dr Lisa Kaestner attends Somerset Hospital for ward rounds and outpatients. The operating list at Eerste River Hospital is done by a Senior Registrar assisted by Professor Johan Naudé (ex head of Division of Urology).

Undergraduate teaching is provided to 6th year medical students, who do a two week block in Urology. Postgraduate training is provided to Urology Registrars and also to supernumerary registrars. The members of our division make significant contributions at both local and international meetings. A number of our members have attended instructional courses both locally and overseas. The Division has maintained its productivity despite staff shortages and the financial crisis.

The Division is involved with two combined clinics - Urological Oncology Clinic (with Radiation Oncologists) and Female Continence Clinic (with Gynaecologists). We run a number of other specialised clinics - Adolescent Spinal Defects Clinic, Haematuria Clinic, Stricture Clinic, Erectile Dysfunction Clinic, Reconstructive Urology Clinic and Metabolic Stone Clinic.

Researchers

Dr Nelleke Langerak: Senior Research Officer
Dr Ursula Rohlwink: Postdoctoral Researcher

Contact Details

Postal Address: Division of Neurosurgery, H-53, Old Main Building, Groote Schuur Hospital, Observatory, 7925, South Africa
Telephone: +27 21 406 6213
Fax: +27 21 406 6555
Email: vuyiwe.bathaka@uct.ac.za
Website: www.neurosurgery.uct.ac.za
**Divisional Statistics**

**Permanent and Long-Term Contract Staff**

<table>
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<th>Position</th>
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**Students**

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<tr>
<th>Level</th>
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<td>Undergraduate (6th years)</td>
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**Research Fields and Staff**

**PROFESSOR 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

**Contact Details**
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Fax: +27 21 406 6122
Email: info@urology.uct.ac.za / shene.isaacs@uct.ac.za
Website: www.urology.uct.ac.za

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**Department of Surgery**

**DIVISION OF OTOLARYNGOLOGY**

(Including Red Cross War Memorial Children’s and New Somerset Hospitals)

**Head of Division: Professor Johannes Fagan**

**Divisional Profile**

The Division of Otolaryngology combines an academic hospital clinical service with university teaching, training and clinical 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 and specialist training of both local graduates and graduates from other countries. An outreach programme to outlying towns in the Western Cape supplements the training of students and primary health care workers in the fundamentals of ear care.

We continue to provide specialist training to supernumerary registrars from other African countries, always having 3-4 such trainees on our staff. We recently trained our 10th **UCT Karl Storz Fellow in Advanced Head and Neck Surgery** from Zimbabwe. Previous fellows are from Senegal, Nigeria, Ghana (2), Kenya, Uganda, Malawi, Rwanda and Tanzania. All have returned to teaching hospitals in their home countries. This fellowship training, the only such training in Africa, has made a significant contribution to the quality of head and neck care in Sub-Saharan Africa, and strengthened UCT’s connections with other African countries. A new fellowship programme in rhinology and sinus surgery was commenced under the leadership of A-Prof Darlene Lubbe in 2015. This is the only such fellowship in Sub-Saharan Africa.
Divisional Statistics

Permanent and Long-Term Contract Staff

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<tr>
<th>Role</th>
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<td>Professors</td>
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<td>Associate Professors</td>
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Students

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<td>Undergraduate</td>
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<tr>
<td>Karl Storz Fellow in advanced Head &amp; Neck Surgery</td>
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<tr>
<td>Karl Storz Fellow in Sinus and anterior skull base surgery</td>
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<td><strong>Total</strong></td>
<td><strong>231</strong></td>
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</table>

Research Fields and Staff

Permanent Staff

**PROFESSOR JJ FAGAN**
Major interest in Advance Head and Neck surgery in Africa and the Developing World.

**ASSOCIATE PROFESSOR D LUBBE**
Main interests in Rhinology and Skull Base Surgery. Tumours involving the sinonasal cavity, orbit and anterior skull base.

**DR GJ COPLE**
Expertise in Paediatric ENT with interests in hearing screening in neonates and children.

**DR T HARRIS**
Has a special interest in Otology, Neurotology and Lateral skull base surgery.

**DR E MEYER**
ENT specialist with a specific interest in endoscopic ear surgery, vestibular problems and BAHA surgery.

**DR S PEER**
Has a special interest in paediatric airways – endoscopic and open approaches to complex airway diseases in children.

**DR O EDKINS**
Clinical interests are in General ENT with a special interest in Sialendoscopy and Salivary gland disease.

Contact Details

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Website: www.entdev.uct.ac.za
Department of Surgery

CHRIS BARNARD DIVISION OF CARDIOTHORACIC SURGERY

Head of Division: Professor Peter Zilla

Divisional Profile

The Division continues to offer the full range of adult and paediatric cardiac and thoracic surgery services, catering to all forms of congenital heart disease, myocardial revascularisation, cardiac valvular repair and replacement surgery as well as thoracic aortic surgery and heart transplantation.

The Division’s transcatheter valve programme is now firmly established and the development of low cost TAVI solutions, appropriate to Sub-Saharan Africa, is being conducted by Strait Access Technology, a UCT startup company based within the Division’s Cardiovascular Research Unit. This initiative includes collaboration with the medical device industry and international academic units. Preclinical testing of prototype designs commenced in 2014 and 2015 saw proof of concept of deploying a replacement valve in a beating heart being achieved. Application for funding, additional to the 33 million Rand secured in 2014, is already well underway and anticipated in 2016.

Minimally invasive/minimum access procedures are well established with the number of mitral valve procedures approaching 70 cases. The first minimally invasive aortic valve replacement in South Africa is anticipated in 2016. Construction of a ‘hybrid’ operating theatre is nearly complete, although funding of imaging and other equipment is still being sourced.

The Paediatric subdivision at Red Cross Children’s Hospital held a week of staff training in May as part of its Extracorporeal Membrane Oxygenation (ECMO) project with visiting experts from Leicester and Birmingham in the UK. The tender for an ECMO machine was approved and a pilot clinical ECMO program anticipated for 2016.

In collaboration with the Department of Paediatric Cardiology, funding was obtained for the establishment of a new Digital Patient Management system to collate all patient data for both cardiology and cardiothoracic surgery, which will greatly streamline planning of surgery as well as representing an invaluable research tool.

Walter Sisulu Paediatric Cardiac Foundation funding allowed the establishment of an extra operating list. This program was only initiated in November 2015 but promises to have a significant impact in subsequent years. Already, more cases were performed in 2015 than previously.

The adult thoracic operating repertoire has been expanded to offer a broader base of treatment options for the community greater facilitated by the recent addition of video equipment for thoracoscopic, airway and upper GIT endoscopy work.

Within the Division’s Cardiovascular Research Unit, funding sources included the MRC (Competitive Programme for Rated Researchers and self-initiated research grants), bilateral (SA/India), Blue Skies and incentive funding from the National Research Foundation, the International Centre for Genetic Engineering and Biotechnology and the Royal Society. Application for the establishment of an MRC-funded Cardiovascular Research Centre of Excellence is also being sought.

The Biomaterials Group focused on drug and gene delivery from biomimetic hydrogel matrices and electrospun scaffolds for use in myocardial infarction and vascular graft applications. New collaborations were also initiated with Cambridge University on smart materials, and with ETH Zurich on the mechanics of materials used in transcatheter and tissue engineered heart valves. The Regenerative Medicine Group continued its focus on the treatment of myocardial infarction through therapeutic hydrogel delivery to the heart. In addition to very good results obtained in collaboration with an international collaborator into stem cell delivery, the group is investigating the delivery of genetic material (micro and silencing RNA) via injection of specifically formulated, in situ forming matrices. The Pathobiology group continued to research the possible role played by the response to residual bacterial antigen, present in abattoir-sourced pericardial tissue used in the fabrication of commercial bioprosthetic heart valves, in the subsequent mineralisation of the tissue. Evidence was obtained which suggested that non-enteric bacterial antigen, possibly teichoic acid, is implicated.

The Divisional Review undertaken in 2015 recognized the Division’s social responsiveness and outreach efforts to the rest of South Africa and Africa, including Nigeria, Zambia, and Namibia and its commitment to facilitate surgical units in Maputo, Dar-es-Salaam, Lusaka, Zimbabwe, and Nigeria. The low volume of operative work, imposed by provincial financial constraints, was recognized to impede sufficient “teaching” cases for registrar training although research was reported to represent a very strong focus of the Division.
Divisional Statistics

Permanent and Long-Term Contract Staff

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<tr>
<th>Position</th>
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<td>Professor</td>
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<td>Associate Professors</td>
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<td>Assistant Director</td>
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<tr>
<td>Senior Consultants</td>
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<td>Senior Medical Technologist</td>
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<td>Clinical Technologist/Perfusionists</td>
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Students and Postdoctoral Fellows

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Staff

Permanent Staff

**PROFESSOR PETER ZILLA**  
Head of Division

**ASSOCIATE PROFESSOR JOHAN BRINK**  
Clinical Director

**DR PAUL HUMAN**  
Research Director, Section Head Pathobiology

**ASSOCIATE PROFESSOR JOHN HEWITSON**  
Section Head: Paediatric Surgery

**ASSOCIATE PROFESSOR ANTHONY LINEGAR**  
Section Head: Thoracic Surgery

**ASSOCIATE PROFESSOR DEON BEZUIDENHOUT**  
Senior Lecturer, Section Head Polymer Sciences

**ASSOCIATE PROFESSOR NEIL DAVIES**  
Senior Lecturer, Section Head Biology and Regeneration

**DR ANDRE BROOKS**  
Senior Consultant

**DR JACQUES SCHERMAN**  
Senior Consultant

**DR TIMOTHY PENNEL**  
Senior Consultant

Contact Details

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Fax: +27 21 448 1145  
Website: [http://www.cts.uct.ac.za](http://www.cts.uct.ac.za)

Cardiovascular Research Unit

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Telephone: +27 21 406 6476/6385  
Fax: +27 21 448 5935  
Website: [http://www.cts.uct.ac.za/Cardiovascular_Research](http://www.cts.uct.ac.za/Cardiovascular_Research)
Department of Surgery

DIVISION OF PLASTIC SURGERY

Head of Division: Professor Donald Hudson

Divisional Profile

The Division of Plastic Surgery combines an academic hospital service, with university teaching, clinical training and research. The division also functions at Red Cross Children’s Hospital and pressures sores are dealt with at Eerste River Hospital. Specialist tertiary services are provided to patients of the Western Cape and beyond.

The Department is actively involved in a number of multidisciplinary which include:

1. head and neck cancer clinic
2. skin cancer clinic
3. melanoma clinic
4. transsexual clinic
5. combined breast clinic

Multi-disciplinary clinics at Red Cross Children Hospital include:

1. Cleft lip and palate clinic
2. Inter sex clinic
3. Cranio facial clinic
4. Congenital ear clinic
5. Congenital hand clinic

Teaching is provided to fifth year medical students PAMS, and specialist training of post graduates 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.

Prof DA Hudson was awarded a FACS and serves on the editorial board of

Plastic & Reconstructive Surgery

Dr K Adams has been active in advancing the care of the intersex patient.

Dr S Adams has successfully conducted a number of SMILE weeks at Red Cross Hospital- and also hosted an international leader in the field of Burns.

2 Registrars passed their final exams.

The Division continued to conduct research in breast reconstruction, complex wounds, paediatric plastic surgery, microsurgery and burns and a number of publications emanated from this.

Permanent and Long-Term Contract Staff

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<th>Category</th>
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Students

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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, South Africa.
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Fax: +27 21 406 6649
Email: rabia.alexander@uct.ac.za
Website: http://www.health.uct.ac.za/fhs/departments/surgery/overview/about

RESEARCH OUTPUT

Chapters in books


Articles in peer-reviewed journals


