
# GRADUATION CEREMONY

## *Faculty of Health Sciences*

SARAH BAARTMAN HALL

3 September 2024

# FACULTY OF HEALTH SCIENCES

## ORDER OF PROCEEDINGS

Academic Procession.

*(The congregation is requested to stand as the procession enters the hall)*

The Presiding Officer will constitute the congregation.

The National Anthem.

Welcome by the Master of Ceremonies.

Musical Item.

The Orator will present Professor Deborah Bradshaw to the Presiding Officer for the award of an honorary degree.

The graduands and diplomates will be presented to the Presiding Officer by the Dean of the faculty.

The Presiding Officer will congratulate the new graduates and diplomates.

The Master of Ceremonies will make closing announcements and invite the congregation to stand.

The Presiding Officer will dissolve the congregation.

The procession, including the new graduates and diplomates, will leave the hall.

*(The congregation is requested to remain standing until the procession has left the hall.)*

# NATIONAL ANTHEM

Nkosi sikelel' iAfrika
Maluphakanyisw' uphondolwayo,
Yizwa imithandazo yethu,
Nkosi sikelela, thina lusapho lwayo.

Morena boloka etjhaba sa heso,
O fedise dintwa la matshwenyeho,
O se boloke,
O se boloke setjhaba sa heso,
Setjhaba sa South Afrika – South Afrika.

Uit die blou van onse hemel,
Uit die diepte van ons see,
Oor ons ewige gebergtes,
Waar die kranse antwoord gee,

Sounds the call to come together,
And united we shall stand,
Let us live and strive for freedom,
In South Africa our land.

# HONORARY DEGREE

**Professor Deborah Bradshaw**

**Doctor of Science** *(honoris causa)*

UCT's Statement of Values describes the university as one that fully embraces an African identity; enhances the quality of life of individuals and communities; advances the public good through knowledge generation; and which is engaged with key challenges facing our society, nationally and globally. Professor Bradshaw passed her undergraduate and honours qualifications with diction. She trained as a mathematical statistician at the University of Natal (now known as University of KwaZulu Natal) and graduated with a BSc in Mathematics and Mathematical Statistics. She completed her BSc Hons in Mathematical Statistics from UCT and MSc 1978. In 1980 she furthered her studies during a study leave at the University of Oxford and completed a DPhil in Biomathematics in 1983.

From 1978-80, she worked for as a research officer at the South African Medical Research Council, before taking the study leave from 1980-1982. She returned to the SAMRC in 1983 as a biostatistician, becoming the Head of the Epidemiology and Biostatistics Division of the SAMRC's Centre for Epidemiological Research in Southern Africa (CERSA) in 1994. She established the SAMRC Burden of Disease Research Unit in 2000, an intramural research unit that aims to monitor health status and determinants in South Africa. She has been the Director of the Unit since its inception in 2000 and held the position until her formal retirement from the SAMRC in 2019.

Professor Bradshaw is an internationally acclaimed, and South Africa's foremost, biostatistician and epidemiologist. In her retirement, she is still research-active, and she was awarded the SAMRC's highest accolade: the President's Award for Exceptional Contributions to Medical Research. Professor Bradshaw's scholarship is of the highest order with an h-index of 73, over 22 000 citations, 10 000 of which have been in the last 5 years.

Her contributions to building capacity of future generations of epidemiologists and public health experts is seen through her formal supervision of many Masters dissertations and PhD theses, as well as informally mentoring and developing the staff with whom she has worked. She was instrumental in co-ordinating and leading the South African National Burden of Disease studies from the year 2000 and updated in 2006 and 2016 which has provided the essential data to understand both the epidemiological transition in South Africa; the links between poverty and health; and to inform public health interventions.

She has been involved - through memberships, collaboration, and participation - in an extraordinary number of task teams and expert advisory groups. She was an honorary professorial appointment in the Department of Public Health and Family Medicine at the University of Cape Town since 2015. She contributed to establish a WHO Family of International Classification (WHO-FIC) collaborating centre based at the Medical Research Council and was a member of the Health Metrics Network Technical Advisory Group.

Professor Bradshaw has been tireless in her championing for the most marginalised and vulnerable in our society; and fearless in her commitment to talking truth to power. For nearly half a century, she has committed her life to improving the health and lives of all South Africans. Her immense expertise-driven and public contributions to debates on, and formulation of, health policy in South Africa is a testament to her ability to work with all stakeholders (including national and provincial government) to advance the agenda of evidence-informed health policy to improve the lives of all South Africans.

**NAMES OF GRADUANDS/DIPLOMATES**

## FACULTY OF HEALTH SCIENCES

*Dean: A/Professor L Green-Thompson*

### HIGHER CERTIFICATE IN DISABILITY PRACTICE

Nabwire, Samalie
Ntshinga, Emihle Ruth
Ntshokola, Vuyiseka
Van Wyk, Lauren Linda

### ADVANCED DIPLOMA IN COSMETIC FORMULATION SCIENCE

Ketye, Sinebhongo
Smith, Sisipho

### DEGREE OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY

Baulackey, Kariema
Cassiem, Hanaan Layla Khan
Cloete, Christopher Marc
Gule, Sakhile Sandile
Gwanya, Lungiswa
Joseph, Amal
Kgongoane, Reabetswe Thato
Kungwane, Tshepang-Neo
Kunutu, Ntswakeng Evah
Mathys, Nathan Neville
Mokhachane, Reabetsoe Charity
Molusi, Mogopodi
Mukondeleli, Rofhiwa
Mzana, Yamkela
Ndlovu, Andile Myles
Ndlovu, Nontokozo
Notshe, Lwambeso
Ntini, Florence Muhluri Gosiame
Peters, Ammaarah
Rasila, Humbulani
Sibi, Amenta
Sipolo, Christopher Yamikani
Thompson, Bradley Christopher
Tshidavhula, Wavhudi

### DEGREE OF BACHELOR OF SCIENCE IN AUDIOLOGY

Jack, Siyamthanda
Sibisi, Mbali Thobeka
Wright, Jodie Shamonque

### DEGREE OF BACHELOR OF SCIENCE IN OCCUPATIONAL THERAPY

Nesengani, Nakisani Motheo
Nhlapo, Simphiwe Prudence
Strachan, Thouraan

### DEGREE OF BACHELOR OF SCIENCE IN PHYSIOTHERAPY

Nkosi, Pertunia

### DEGREE OF BACHELOR OF SCIENCE IN SPEECH-LANGUAGE PATHOLOGY

Chakane, Reneilwe
Deonarian, Richinka Damita Rajendra
Mninzi, Siwaphiwe Ovayo

### POSTGRADUATE DIPLOMA IN ADDICTIONS CARE

Dlongodlongo, Phakama Felicity

### POSTGRADUATE DIPLOMA IN CLINICAL PAEDIATRIC EMERGENCY CARE

Edelu, Benedict Onyekachukwu (with distinction)
Iloh, Ogochukwu Nneka

### POSTGRADUATE DIPLOMA IN CLINICAL PAEDIATRIC RHEUMATOLOGY

Kassa, Hanna Lishan (with distinction)

### POSTGRADUATE DIPLOMA IN EMERGENCY CARE

Abdelrazek, Khaled Mohamed
Ntumba Makolo, Huguette Lusamba
Sibanda, Mzayifani Clive

### POSTGRADUATE DIPLOMA IN FAMILY MEDICINE

Bass, Dominic

### POSTGRADUATE DIPLOMA IN HEALTH ECONOMICS

Chinogwenya, Winnet

### POSTGRADUATE DIPLOMA IN HEALTH PROFESSIONAL EDUCATION

Gretschel, Pamela Joy (with distinction)

### POSTGRADUATE DIPLOMA IN HEALTHCARE TECHNOLOGY MANAGEMENT

Jordan, Duncan Leroy
Mongwe, Nhlavutelo Ken
Noguba, Buyisiwe
Saini, Munshya Malensu

### POSTGRADUATE DIPLOMA IN PAEDIATRIC RADIOLOGY

Govender, Dashnee

### POSTGRADUATE DIPLOMA IN PALLIATIVE MEDICINE

Harilall, Bharita
Maleho, Sinalo
Moche, Nkadu Muriel
Mukendi, Basembe Christian
Petrova, Adriana Zhelyaskova
Radebe, Khululiwe Priscilla

### POSTGRADUATE DIPLOMA IN PESTICIDE RISK MANAGEMENT

Lolem, Lokolile Bosco

POSTGRADUATE DIPLOMA
IN TB-HIV MANAGEMENT

Mbedzi, Muneiwa
Mdlolo, Sakhile
Ncokazi, Khanyisa
Shungube, Pretty Noxolo
Xulu, Mxolisi Njabulo

DEGREE OF BACHELOR
OF MEDICAL SCIENCE HONOURS

Madi, Mapule
Majikijela, Andiswa (in the first class)
Pato, Yanga Bridgette
Phahlamohlaka, Cynthia Mogashoane

DEGREE OF BACHELOR OF
MEDICAL SCIENCE HONOURS
IN BIOKINETICS

Fischer, Gabbi
Mosavel, Thaakirah

DEGREE OF MASTER OF
CHEMICALS RISK MANAGEMENT

Kanema, Christopher

DEGREE OF MASTER OF MEDICAL
SCIENCE IN DIETETICS

Blacker, Megan Theresa (with distinction)

DEGREE OF MASTER OF
MEDICAL SCIENCE IN
GENETIC COUNSELLING

Bayley, Samantha Lee (with distinction in the dissertation)
Chetty, Nolene Priscilla (with distinction)
Ntanjana, Sesethu
Peerbhai, Nabeelah

DEGREE OF MASTER OF MEDICINE

Abshina, Fathi S S
Adjei, Alfred
Akpakan, Akanimo Effiong
Alashhab, Zakaria
Arnolds, Delroy Burton
Audley, Gordon George (with distinction in the dissertation)
Banda, Tayanjana Cecilia
Clegg, Liza (with distinction in the dissertation)
Cook, Tracy Leanne
Crookes, Charles Gerald
Da Costa, Nelson Manuel Pinto (with distinction in the dissertation)
Diab, Ahmed Ali
Dookhony, Koshlen
El-Boraei, Samah
Endres, Wilhelm Vicktor (with distinction in the dissertation)
Gamieldien, Hammaad Bin Faaik
Gaskell, Marlene
Hendricks, Moegamad Fahad
Hlako, Tebogo Clive
Hood, Kirsten Anne
Janse Van Rensburg, Juan William
Kariem, Maahir
Kashangura Majirija, Rufaro (with distinction in the dissertation)
Khamajeet, Arvin
Khiroya, Mitesh Satish
Kunfaa, Ernest Naanwin-Ib
Leech, Nicholas Bradley
Maina, Juliet Nyaguthii
Nadvi, Syed Safwan
Nkanuka, Yolanda Vuyokazi
Ohiagu, Shedrach Ikechukwu
O Meara, Ryan Mark
Oosthuizen, Katryn Nell Cobie (with distinction in the dissertation)
Raghubeer, Nishen
Rashid, Sakina Mehboob
Richardson, David Brian (with distinction in the dissertation)
Roux, Margaretha Magdalena
Sablay, Haseena Bibi
Schoeman, Elmari (with distinction in the dissertation)
Shirley, Samantha Robyn
Soni, Aayesha Jalaluddin
Sungay, Mohamed Yaaseen (with distinction in the dissertation)
Teyangesikayi, Gilbert
Tyhala, Brenda Bongiwe
Van Den Berg, Robert William (with distinction in the dissertation)
van Niekerk, Inette
Vorster, Miliça
Zitha, Eddy Mhlava (with distinction in the dissertation)

DEGREE OF MASTER
OF PHILOSOPHY

Abrahams, Dureyah
Abrahams, Zuleikha
Banda, Priscilla Gregory
Grevel, Carl Friedrich (with distinction)
Kambowo, Sophy Celine
Kuyokwa, John Mulinda
Maharaj, Zaineta Meharene (with distinction in the dissertation)
Marufu, Marshall Takudzwa
Naidoo, Adele Lauren Kaleigh
Ndondo, Nonhlanhla Lindelwe
Peters, Casey
Sakambana, Sinoyolo Buhle
Velcich, Carly (with distinction in the coursework component)

DEGREE OF MASTER
OF PHILOSOPHY IN BIOKINETICS

Ferreira, Natalia Francisca
Malan, Anna Rebecca (with distinction in the dissertation)

DEGREE OF MASTER OF
PHILOSOPHY IN CLINICAL
PHARMACOLOGY

Van Dyk, Jennie (with distinction)

DEGREE OF MASTER OF
PHILOSOPHY IN
EMERGENCY MEDICINE

Kabeya, Matamba Jean Benoit
Kamembela, Ilunga (with distinction in the dissertation)
Kotecha, Shahzmah Suleman
Pool, Albertus Johannes (with distinction in the dissertation)
Theunissen, Simone Stefanie (with distinction in the dissertation)

DEGREE OF MASTER OF
PHILOSOPHY IN PAEDIATRIC
ENDOCRINOLOGY

Manu, Ewuraa Abena Owusuaa

DEGREE OF MASTER
OF PHILOSOPHY IN
GYNAECOLOGICAL ONCOLOGY

Loggenberg, Francisca Elizabeth

DEGREE OF MASTER OF
PHILOSOPHY IN PAEDIATRIC
NEPHROLOGY

Adetunji, Adewale Elijah

DEGREE OF MASTER OF PHILOSOPHY IN PAEDIATRIC NEUROLOGY

Kandawasvika, Quetoline Gwendoline

DEGREE OF MASTER OF PHILOSOPHY IN PAEDIATRIC ONCOLOGY

Hlatywayo, Loyce Tafadzwa

DEGREE OF MASTER OF PHILOSOPHY IN PALLIATIVE CARE

Murray, Delene (with distinction)

DEGREE OF MASTER OF PHILOSOPHY IN PULMONOLOGY

Hassan Ahmed Zobair, Tarig

DEGREE OF MASTER OF PUBLIC HEALTH

Bagg, Kayla
Bradley, Kathleen Elizabeth (with distinction in the coursework component)
Bustamam, Amy
Chamuka, Paidashe
Chingwengwe, Martha
Conradie, Catharina Beatrix (with distinction in the dissertation)
Dambisya, Philip Mbulalina
Edusei, Marian Yaa Abrafi
Esack, Tasneem
Govender, Sudarshan (with distinction)
Kanganga, Desire Munyaradzi (with distinction in the dissertation)
Kassiem, Iman
Kgosi, Shatho Joy (with distinction in the dissertation)
Mahmoud Hussein, Yasmeen Nassr
Makamo, Nancy (with distinction in the dissertation)
Marshall, Amanda Adelheid (with distinction in the coursework component)
Mcizana, Thandokazi (with distinction)
Mennen, Mathilda Christina (with distinction)
Mosigi, Popo Refilwe Mercy Cheshe (with distinction in the dissertation)
Paul, Lissa (with distinction)
Phohlo, Nthabiseng Suzan
Pillay, Chriselda
Rhoda, Janice Lorean
Ruya, Natasha
Shuuya, Reginald Tuleni (with distinction in the dissertation)
Sithole, Siphesihle Mandisa
Tshilengu, Eunice Muya (with distinction in the dissertation)
Tsodzai, Rufaro Blessings (with distinction)

DEGREE OF MASTER OF SCIENCE IN AUDIOLOGY

Budden, Anne Rosemary
Mustapha, Gaafitha

DEGREE OF MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING

Eyasim, Muhammad Arshad (with distinction in the dissertation)
Farrell, Caitlin Natalie (with distinction)
Fouché, Sone (with distinction)
Hefer, Lehan Hayden (with distinction in the dissertation)
Lowan, Vongani Cliff (with distinction)
Mac Arthur, Anika (with distinction)
Maharaj, Sonam Vibha
Maiphetlho, Oreneile (with distinction)
Maqungu, Qhamani (with distinction in the dissertation)
Philpott, Joel Thabani (with distinction in the dissertation)
Reabow, Brandon Herbert (with distinction)
Sander, Grant Gordon (with distinction)

DEGREE OF MASTER OF SCIENCE IN EXERCISE AND SPORTS PHYSIOTHERAPY

Botma, Christa (with distinction in the dissertation)
Chetty, Megan Clare
Coppin, Andrew (with distinction in the dissertation)
Gani, Usraa
King, Jamie Michael (with distinction)
Manchip, Genine Anne (with distinction in the dissertation)
Mouton, Chanel (with distinction in the dissertation)
Nyazika, Blessing
Rhodes, Dominic Alexander
Verwey, Lianne (with distinction)

DEGREE OF MASTER OF SCIENCE IN MEDICINE

Ajibola, Gbolahan Ademola
Antoni, Anna (with distinction)
Brand, Batsheva Channa
Brazier, Christina Daniela (with distinction)
Buthelezi, Lwanda Abonga (with distinction)
Bvudzijena, Tatenda Lovemore (with distinction)
Chauke, Valencia Masego (with distinction)
Chetty, Ansuya (with distinction)
Chicken, Anika (with distinction)
Diseko, Karabo Mompati (with distinction)
Ezenwankwo, Elochukwu Fortune (with distinction)
Fajemisin, Emmanuel Adebowale (with distinction)
Francis, Peace Oghenerobo
Garlick, Jessica Chelsea
Golding, Cara Renée
Govender, Leegan (with distinction)
Jooste, Wayne
Katsukunya, Jonathan Nyasha (with distinction)
Kordom, Kelly (with distinction)
Kotze, Daniël (with distinction)
Kuhar, Ana (with distinction)
Lichaba, Reagobaka
Lusiki, Zizo (with distinction)
Mabizela, Nosipho Snenhlanhla (with distinction)
Mackenzie, Candice Kelly
Madolo, Mbalentle Yolanda
Malan, Lisa
Mbwambo, Orgeness Jasper
Mcinga, Kuhle (with distinction)
Sendagala, Idah
Singh, Jesmika (with distinction)
Stone, Marian
Thomas, Melissa Jane (with distinction)
Unterpertinger, Alessandra (with distinction)
Venter, Maryna
Visagie, Rowena Clare
Voegt, Chelsey Melissa
Welp, Kirsten (with distinction)
Willmore, Rhys
Yekelo, Babalwa

DEGREE OF MASTER OF SCIENCE IN PHYSIOTHERAPY

Banini, Sandra
Burger, Adri Marié
Labuschagne, Lisa

DEGREE OF MASTER OF SCIENCE IN SPEECH-LANGUAGE PATHOLOGY

Allie, Nasreen
Branfield, Samantha Carrie (with distinction)

DEGREE OF DOCTOR OF PHILOSOPHY

Abrahams, Bianca
Thesis Title: *The effect of bacterial vaginosis on HIV infection*

Bianca Abrahams completed her BSc, BSc (Hons) and MSc in Medical Biochemistry at UCT, and began full-time study towards her PhD in 2019. Bianca Abrahams' thesis investigates the causal relationship between Bacterial Vaginosis (BV) and HIV infection, two health concerns that primarily affect young women of reproductive age from low to middle income countries. *Gardnerella* species are one of the main bacteria associated with BV. Bianca Abrahams characterised 20 *Gardnerella* clinical isolates from women diagnosed with BV and cloned and purified the sialidase enzyme, NanH3. She went on to show that NanH3 enhances HIV infection *in vitro* and proposes that the enzyme reduces the repulsive force between the virus and the cell by removing the net negative charge associated with cell surface glycoproteins. This study provides insight into the molecular mechanism of how BV could increase the likelihood of HIV acquisition which, if inhibited, might prevent infection in vivo.

*Supervisor:* Associate Professor Z Woodman (Integrative Biomedical Sciences)
*Co-supervisor:* Dr B Kullin (Pathology)

Abrahams, Carmelita Bianca
Thesis Title: *Exploring a relationship between shifts in high-density lipoprotein (HDL) particles subclass distribution/functionality and cardiac function in doxorubicin (DOX)-induced cardiotoxicity*

Carmelita Abrahams completed her BSc (Hon)s and MSc Physiology qualifications at Stellenbosch University and commenced her PhD studies at UCT in 2019. Carmelita Abrahams' thesis used a translational approach to explore high density lipoprotein (HDL) changes as a possible mechanism underlying cardiac toxicity as a side effect of doxorubicin-based chemotherapy in breast cancer patients. In sera collected from black African breast cancer patients who received doxorubicin, she observed a shift in HDL particle subclasses and a loss in antioxidant properties that directly correlated with altered cardiac function. She then established an *in vivo* tumour bearing mouse model and observed that both cancer and doxorubicin treatment were associated with alterations in cardiac function and HDL particle subclass/functions. She further demonstrated that HDL particles lose their cytoprotective effect in the presence of doxorubicin. Her findings present a novel understanding on the role of HDL particles in the pathophysiology of doxorubicin-induced cardiotoxicity and suggest HDL particles as a promising therapeutic target to mitigate this effect in cancer patients.

*Supervisor:* Professor S Lecour (Medicine)
*Co-supervisor:* Dr N Woudberg (Medicine)

Agamah, Francis Edem
Thesis Title: *Investigating the multifaceted host contribution to COVID-19 disease risk, progression and treatment: an integrative multi-omics network-based approach*

Francis Agamah holds a Bachelor of Science in Biomedical Engineering from the University of Ghana, Ghana, and a Master of Science in Medicine specializing in Human Genetics from UCT. Francis Agamah's thesis investigates the role of host factors in COVID-19 severity and progression. Leveraging a novel multi-omics approach, he employs a network- based approach to integrate proteomics, transcriptomics, metabolomics, and lipidomics data and drug information. He begins by harmonizing patient clinical (meta)data across two independent studies and categorizing multi-omics experimental data. After constructing COVID-19 disease-state-specific omics graphs, he implemented a data-driven and hypothesis-driven random walk with restart network-based approach to make predictions leading to identifying critical discriminatory biosignatures and their associations with mild, moderate, and severe COVID-19 phases. He further investigated the hypothesis around the differential contribution of interleukin 6 and interleukin 6 receptors on COVID-19 progression. He further prioritizes FDA-approved potential drug repurposing candidates for mild, moderate, and severe COVID-19 disease stages. Overall, his research holds significant promise for understanding the complex multifaceted host's contribution to COVID-19 severity and developing personalized treatment strategies to improve disease management.

*Supervisors:* Associate Professor DP Martin (Integrative Biomedical Sciences); Professor ER Chimusa (Northumbria University); Professor PAC 't Hoen (Radboud University Medical Center, Radboud University)
*Co-supervisors:* Dr M Skelton (H3Africa Co-ordinating Centre); Dr THA Ederveen (Radboud University Medical Center, Radboud University)

Ahmed, Riham Kamal Ibrahim
Thesis Title: *Mathematical modelling of growth factor induced cell migration in 3D engineered matrices*

Riham Ahmed holds a BSc Honours in Mathematics and Computer Science from the University of Khartoum in Sudan and a Master of Science in Mathematics from the African Institute for Mathematical Sciences (AIMS) in Ghana.

Riham Ahmed's thesis reports on the development of a mathematical model for collective cell migration in three-dimensional environments that considers the mechanical and chemical interactions of the cells with the extracellular environment. She first derived a mathematical description of cell migration on a two-dimensional planar substrate based on the mechanical interactions of the cells with the substrate and with neighbouring cells. Thereafter, she extended the model to capture how a growth factor source affects the movement of the cells on the two-dimensional substrate. From there, she extended the mathematical algorithms to predict the movement of cells in a three-dimensional environment based on mechanical cell-matrix and cell-cell interactions and the chemical concentration gradient of a growth factor in the matrix. This model will be useful in the future in several biological disciplines, particularly in regenerative medicine where it will facilitate in silico design of tissue regrowth.

*Supervisor:* Professor T Franz (Human Biology)
*Co-supervisors*: Dr T Abdalrahman (Human Biology); Professor NH Davies (Surgery); Professor F Vermolen (Mathematics and Statistics, Hasselt University)

Ateko, Richmond Owusu
Thesis Title: *The prevalence of dysbetalipoproteinaemia in Ghanaian adults living in Accra*

Richmond Ateko holds a BSc in Biochemistry from the Kwame Nkrumah University of Science and Technology and a Master of Philosophy degree from the University of Ghana. He began his PhD study at UCT in the division of Chemical Pathology in 2019.

Richmond Ateko's thesis focuses on the prevalence of dysbetalipoproteinaemia, an uncommon yet highly atherogenic disorder, in Ghana. Employing polyacrylamide gradient gel electrophoresis (PGGE), he investigates whether there is an accumulation of remnant-sized lipoproteins, in the distinctive pattern associated with dysbetalipoproteinaemia, among the study participants. Additionally, he conducts a comprehensive assessment of the participants' glucose, creatinine, and lipid levels. This multifaceted approach enables him to not only explore the specific lipid patterns but also to analyse the broader metabolic context of the individuals involved in the study. Through these meticulous examinations, Richmond Ateko aims to contribute valuable insights to the understanding of dysbetalipoproteinaemia and its implications for cardiovascular health in the Ghanaian population. Moreover, the study sheds light on the utility of PGGE as an economical and practical screening tool for identifying dysbetalipoproteinaemia cases.

*Supervisor:* Dr DM Blackhurst (Pathology)
*Co-supervisors:* Professor D Marais (Pathology); Associate Professor DJ Blom (Medicine)

Awala, Amalia Naita
Thesis Title: *Establishing in vitro models of neuroinflammation to investigate neuroimmune responses in neurocysticercosis*

Amalia Awala obtained her BA in Neuroscience qualification from Luther College, USA. She began full-time study towards her MSc in Neuroscience at UCT in 2019; her work was upgraded to a PhD in 2021.

Amalia Awala's thesis established two in vitro models of neuroinflammation to investigate the neuroimmune responses in neurocysticercosis, a disease in which larvae of the tapeworm *Taenia solium* lodge into the human brain. To accomplish this, she elucidated mouse and human organotypic brain slice cultures as models of neuroinflammation. Using techniques such as immunofluorescence staining, molecular assays, and single-cell transcriptomics, she discovered that *Taenia* larvae are able to suppress the proinflammatory activation of microglia and astrocytes in the brain, preventing both the upregulation of key inflammatory genes, as well as the release of inflammatory molecules. Her findings demonstrate the *Taenia* larvae can powerfully modulate host immune responses, allowing them to thrive in the brain for extended periods without eliciting symptoms from the host. These findings present a significant contribution to the field and may inform the development of better treatments for neurocysticercosis and other central nervous system disorders.

*Supervisor:* Associate Professor JV Raimondo (Human Biology)
*Co-supervisor:* Dr R Dangarembizi (Human Biology)

Aylward, Ryan Edward
Thesis Title: *Investigating kidney disease clinical epidemiology using routinely collected administrative data and proteomics*

Ryan Aylward graduated with a Bachelor of Medicine and Surgery in 2011. He has since worked in Internal Medicine, including the sub-speciality nephrology, in various South African hospitals. He was awarded a Cotutelle PhD scholarship by the Universities of Bristol and Cape Town in 2019.

Ryan Aylward explores the detection and characterization of kidney diseases using rule-based algorithms, and biological underpinnings of kidney disease progression using proteomic analysis in the United Kingdom, South Africa and Europe. He finds that the implementation of the National Health Services England acute kidney injury detection algorithm, embedded in English laboratories, appears to have been successful and alerts received by the UK Renal Registry are mostly consistent. He surmises that the epidemiological findings in Cape Town shed light on the burden and characteristics of people with kidney disease in the region and challenges to research with routinely collected data in complex health systems like South Africa. In older European people with advanced CKD, he finds that proteins related to scarring and the nervous and immune systems were associated with kidney function decline, potentially serving as markers of kidney disease progression and novel targets for treatment.

*Supervisors:* Emeritus B Rayner (Medicine), Professor FJ Caskey (Population Health Sciences, University of Bristol)
*Co-supervisors:* Honorary Professor N Tiffin (South African National Bioinformatic Institute, University of Western Cape); Dr K Birnie, Professor Y Ben-Shlomo (Population Health Sciences, University of Bristol)

Bayih, Samuel Getaneh
Thesis Title: *Self-navigated prospective motion correction of repeated 3D-EPI acquisitions for functional MRI applications*

Samuel Bayih holds a BSc in Electrical and Computer Engineering and an MSc in Biomedical Engineering from Addis Ababa University in Ethiopia. He joined the Imaging Science group in the Division of Biomedical Engineering at UCT in 2017 for his PhD studies.

Samuel Bayih's thesis focuses on tracking and correcting subject motion in real time during three-dimensional (3D) functional MRI (fMRI) acquisition. Despite recognised advantages in signal-to-noise ratio, speed and resolution, 3D sequences are seldom used for fMRI due to their greater sensitivity to motion. He develops a prospective motion corrected sequence for 3D fMRI that uses one (or two) subset(s) of the information being acquired during each volume acquisition to construct one (or two) low-resolution 'self-navigator' volume image(s). Using these self-navigator volumes, his sequence tracks motion throughout the acquisition and updates the imaging field-of-view whenever motion is detected. In both phantom and in vivo tests, and in the absence and presence of intentional motion, the self-navigated 3D sequence demonstrated accurate motion tracking and improved image and blood-oxygenation-level-dependent signal quality compared to non-navigated 3D and standard two-dimensional fMRI acquisitions.

*Supervisor:* Professor E Meintjes (Human Biology)
*Co-supervisors:* Associate Professor A van der Kouwe (Radiology, Harvard Medical School); Dr M Jankiewicz (Human Biology)

Carse, Sinead
Thesis Title: *Characterisation of surfactant protein A as a novel prophylactic means against oncogenic HPV infections*

Sinead Carse completed her BSc and BSc(Hons) qualifications at UCT, and graduated with an MSc in Medical Biochemistry at UCT in 2020. From 2020 to 2023 she studied full-time towards her PhD.

Sinead Carse's thesis focuses on the use of an innate immune molecule, surfactant protein A (SP-A), as a novel preventative means against human papillomavirus (HPV) infection, the causative agent of cervical and other anogenital cancers. She describes SP-A's broad-spectrum inhibition of multiple oncogenic HPV types in human keratinocytes in vitro and its ability to enhance immune recognition and HPV clearance by selected human innate immune cells. These results unveil SP-A's versatility and substantial influence on various HPV interactions with immune cells and keratinocytes and lay the foundation for future research into the development of alternative prophylactic interventions of HPV infection.

*Supervisor:* Associate Professor G Schäfer (Integrative Biomedical Sciences)

Davis, Roxanne Jade
Thesis Title: *A world of possibilities: an exploration of experiences of children with disabilities' participation in a surf therapy programme in South Africa*

Roxanne Davis holds an honours degree in psychology and communications and has been a registered psychological counsellor since 2013. She has been involved with ocean-based physical activity, community and disability initiatives in South Africa since 2016. She began full-time study towards her PhD in 2020.

Roxanne Davis' thesis contributes to the knowledge gap surrounding research on the effectiveness of surf therapy as a therapeutic tool for children with disabilities in South Africa, where large health inequalities exist. Her thesis explores the experiences of children with disabilities who participated in a surf therapy programme in the Western Cape, using a qualitative participatory research approach. The research design was a longitudinal exploratory case study underpinned by interpretive phenomenological analysis. The findings supports the promotion of mental, physical, social, and emotional health through a surf therapy programme for children with disabilities. Additionally, participation in the programme had an impact on reshaping participants' worldviews, and the development and mastery of new skills. The synthesis of findings from the children with disabilities, parents, professionals and individuals that delivered the surf therapy programme produced four key findings and three key implications of the study.

*Supervisor:* Professor T Lorenzo (Health and Rehabilitation Sciences)
*Co-supervisors:* Professor Y Albertus (Human Biology); Professor A Hunter (Nottingham Trent University, Sport Science)

De Vries, Elsje Maria
Thesis Title: *How can the process of professional identity formation of a gender-affirming practitioner inform medical curriculum change?*

Elsje Maria de Vries completed her MBChB at Stellenbosch University and her MFamMed at MEDUNSA. She started her PhD while working as a family physician in Heideveld and completed it in her position as the MBChB Programme Coordinator at the Nelson Mandela University Medical School in Gqeberha.

Elsje Maria de Vries's thesis analysed the process of how a health professional can become gender-affirming, in order to provide holistic and respectful care for transgender people. She listened to the stories of health professionals and medical students. They shared their journeys towards seeing and understanding the needs of trans people. They were able to see the human being, and this shifted the power relationship in their consultations. Others shared the hurt and frustration of a medical

education environment where often the person was not seen for who they were. Their stories showed a gap between the intended and experienced curriculum. The study highlighted that medical curriculum change should integrate gender-affirming healthcare in curricula with a focus on attitudes towards patients and incorporating the voices of transgender and gender diverse people.

*Supervisor:* Professor H Kathard (Health & Rehabilitation Sciences)
*Co-supervisor:* Associate Professor A Müller (Gender, Health and Justice Research Unit)

Dogbey, Dennis Makafui
Thesis Title: *Targeted delivery of exotoxin A and granzyme B for immunotherapy of solid tumours*

Dennis Dogbey completed his MPhil in Cancer Sciences at Stellenbosch University and began full-time study towards his PhD in 2021. Dennis Dogbey's thesis focuses on two bodies of work. First, the development and evaluation of chemically generated recombinant immunotoxin for the therapy of solid cancers. The study includes site selective bioconjugation of the two components expressed in their best host of expression leading to an innovative method of generating recombinant immunotoxin. The results show selective elimination of antigen positive cells in a concentration dependent manner. Secondly, the generation of targeted capsid modified vectors consisting of Adeno-associated viruses for the delivery of human granzyme B cytolytic gene. The study used computer-guided simulations to identify critical sites on the virus capsid for insertion of antigen specific antibody fragments and peptides. The results show selective killing of antigen positive cells at unprecedented low genome copy number. Altogether, findings from these proof-of-concept studies have advanced immunotherapeutic strategies for treating solid cancers.

*Supervisor:* Professor Dr Dr Stefan Barth (Integrative Biomedical Sciences)
*Co-supervisor:* Dr OA Akinrinmade (Integrative Biomedical Sciences)

Ebasone, Peter Vanes Kewir
Thesis Title: *Co-morbid cardiometabolic diseases among people living with HIV/ AIDS in Cameroon*

Peter Ebasone trained as a medical doctor at the University of Buea, Cameroon. He commenced his PhD training in Medicine at UCT in 2020, after working in many capacities on multiple research projects across Cameroon. Peter Ebasone's thesis investigates the complex relationship between HIV/AIDS, antiretroviral therapy (ART), and the prevalence/ incidence of cardiometabolic diseases (CMDs) including hypertension, type 2 diabetes mellitus, and obesity among people living with HIV (PLWH) in Cameroon. Analyzing data from over 14000 PLWH in Cameroon, he employs diverse methodological approaches to explore CMD prevalence/incidence and associations. He also estimates the global prevalence of CMDs in PLWH not yet started on ART and explores methodological approaches to mediation analysis and missing data handling in CMD research. His findings highlight a significant burden of CMDs, driven by older age, sex, and overweight/obesity. It also reveals a lower burden of CMDs in untreated PLWH worldwide. The thesis uncovers significant gaps in the methodology and reporting of missing data and mediation analysis in CMD studies. Ultimately, his work emphasizes the critical need for comprehensive healthcare strategies that concurrently address HIV/AIDS and CMDs in Cameroon.

*Supervisor:* Professor AP Kengne (Medicine)
*Co-supervisors:* Professor N Peer (Medicine); Professor A Dzudie (Medicine)

Esoh Kum, Kevin
Thesis Title: *Genomics of sickle cell disease and fetal hemoglobin in African populations*

Before joining the Human Genetics Division at UCT in 2020 for his PhD studies, Kevin Esoh Kum completed a BSc in Biochemistry from the University of Buea in Cameroon and an MSc in Bioinformatics from the Jomo Kenyatta University of Agriculture and Technology in Kenya. Kevin Esoh Kum's thesis focuses on finding better ways to improve the health of patients with sickle cell disease (SCD), most of whom have an African origin. He first examines the genetic evolution of the sickle cell mutation, showing that studying the co-evolution with other adaptively selected gene variants is important to fully appreciate factors influencing SCD severity. He then catalogs effective and transferable strategies that have been used in high-income settings for patient care and makes recommendations for patient care in sub-Saharan Africa. Finally, he screens the entire set of DNA information of patients of African descent with SCD from Cameroon, Tanzania, and the USA, discovering new genes that are associated with blood levels of fetal hemoglobin (HbF). The identification of HbF as the strongest modifier of SCD severity and the target of gene editing means that his work has tremendous potential towards discovery of new SCD therapeutic targets.

*Supervisor:* Professor A Wonkam (Pathology)
*Co-supervisor:* Dr J Morrice (Pathology)

Faure, Marlyn Collin
Thesis Title: *Inoculating individuals, exposing nations: Ebola vaccine trials and global health research in West Africa*

Marlyn Faure holds a BA, BTh, a BA (Hons.) in Sociology and an MSc degree from UCT. He has worked in various academic institutions and NGO contexts, with his work largely focussing on inequality and health. Marlyn Faure's thesis focuses on equity and international partnerships in global health. International partnerships are the most recent promise of health for all, especially in former colonised countries. His study focused on Ebola vaccine trials in Sierra Leone and Liberia. It was the first time both countries hosted clinical trials. Different international partners, including

universities, pharmaceutical companies, and governments, facilitated the vaccine trials. To understand the impact of the trials on host countries, he conducted an interview study, mainly with Sierra Leonian and Liberian researchers. His findings show that while vaccine trials were important for protecting individuals from Ebola, systems which protect populations are left exposed. These findings suggest that while equal partnerships give researchers what they need, they may hide structures which create inequalities. Partnerships can only deliver on their promises if problems in global health are seen as interconnected and shared.

*Supervisor:* Professor J de Vries (Medicine)
*Co-supervisor:* Professor M Parker (Ethox Centre, Nuffield Department of Population Health, University of Oxford)

Firfirey, Firzana
Thesis Title: *The relationship between genes associated with the pain pathways and the development of chronic shoulder pain and disability in South African breast cancer survivors*

Firzana Firfirey holds a BSc(Hons) and MSc in Biotechnology from the University of the Western Cape (2013) where she researched the role of genetics in Autism Spectrum Disorder in South African children. In 2016, she joined UCT and commenced her doctoral degree in the Division of Physiological Sciences.

Firzana Firfirey's thesis focuses on chronic shoulder pain and disability among South African breast cancer survivors (BCS), aiming to identify genetic contributors to pain variability. Through cross-sectional analysis of 252 BCS, she investigated associations between pain/disability symptoms, and polymorphism within candidate genes *(ABCB1, OPRM1, COMT)*, highlighting significant findings within a SA population. She also investigated the gene-gene interactions that unveiled complex associations impacting pain/disability. Furthermore, her bioinformatic exploration supported the genetic findings, shedding light on functional pathways. Overall, the study elucidated genetic influences on chronic pain/disability in a diverse BCS cohort, paving the way towards personalized pain management strategies and novel therapeutic developments in the future.

*Supervisor:* Associate Professor D Shamley (Human Biology)
*Co-supervisor:* Professor AV September (Human Biology)

Folasire, Oluyemisi Folake
Thesis Title: *Formative assessment of weight management and lifestyle factors in overweight/obese patients attending medical outpatient clinics at secondary hospitals in Ibadan, Nigeria, and feasibility testing of a weight loss intervention for the target population*

Oluyemisi Folasire holds a BSc and MSc in Human Nutrition, and MB., BS. (lb.), FWACP (Fam. Med.) from the University of Ibadan, Nigeria. She joined UCT in 2016 for her PhD studies. She works as a senior lecturer and clinician in Human Nutrition, University of Ibadan, Nigeria.

Oluyemisi Folasire's thesis focuses on addressing the increasing obesity prevalence in Nigeria. She first conducts a comprehensive formative assessment (quantitative and qualitative) of patients living with overweight/obesity (PLWO) attending medical outpatient clinics (MOPs) at secondary hospitals in Nigeria to inform the development of a culturally appropriate diet and physical activity weight loss (DaPWL) intervention. She then investigates the feasibility of the developed intervention in a sample of PLWO attending a MOP in a pre-post-test design trail, monitors intervention delivery, and interviews a sub-sample of completers and all health care personnel involved in intervention delivery. Triangulation of results provides strong support for good reach, acceptability, applicability, and intervention integrity of the intervention. A strong signal of effect is reflected in the significant reduction in weight, and significant improvements in dietary, physical activity, knowledge, and belief indicators. She recommends further testing of the DaPWL-intervention in a full scale randomized controlled trial.

*Supervisor:* Emeritus Professor M Senekal (Human Biology)
*Co-supervisor:* Associate Professor J Harbron (Human Biology)

Hellebo, Assegid Getahun
Thesis Title: *The economic burden, patients' well-being, and social determinants related to diabetes in South Africa*

Assegid Hellebo, trained as an economist, holds a Master's degree in Public Health, with specialisation in Health Economics from UCT. He commenced his PhD studies in 2021.

Assegid Hellebo's thesis addresses the rising figures of diabetes mellitus in South Africa (SA) and Sub-Saharan Africa (SSA) at large, where affected adults' population will double by 2045, with related impacts including increased mortality risks and reduced quality of life and productivity. Despite these substantial negative impacts, studies on determinants of diabetes-related well-being and productivity loss in SSA are lacking. The thesis assessed the economic and well-being impacts of diabetes, analysed productivity effects, explored social determinants on patient outcomes, and evaluated Health-Related Quality of Life. It did so through life table modelling, systematic literature reviews, and cross-sectional data analysis. The thesis findings show that in 2019, diabetes affected 9.5% of the working-age SA population, causing 669,427 excess deaths and a US$223 billion loss to the economy. Social determinants such as urban residency, education, and obesity influence self-care adherence. Gender, education, alcohol use, and mental health predict quality of life.

*Supervisor:* Dr OA Alaba (Public Health and Family Medicine)
*Co-supervisor:* Professor AP Kengne (Medicine and the South African Medical Research)

Hill, Lee-Devlin
Thesis Title: *Genetic risk factors for overuse and acute musculoskeletal injuries*

Lee-Devlin Hill graduated with a BSc (Med)(Hons) in Exercise Science from UCT before continuing with his PhD studies.

There is a growing body of evidence suggesting that inherited genetic elements predispose individuals to tendon and ligament injuries. Previous studies have investigated the association of several variants within collagen genes, which encode for structural components these tissues, with lower limb tendon injuries. The association of these collagen gene variants with rotator cuff tendinopathy (RCT) anterior cruciate ligament (ACL) ruptures has not been extensively investigated. Lee-Devlin Hill's thesis identifies important differences in the genetic profile of RCT, ACL and lower limb tendon injuries. Exploring these genetic loci may help us better understand the important similarities and differences in the aetiology of these common musculoskeletal injuries.

*Supervisor:* Professor M Collins (Human Biology)
*Co-supervisor:* Associate Professor M Posthumus (Human Biology)

Hume, Struan Robertson
Thesis Title: *Computational model of thrombosis in cerebral aneurysms for predicting clotting outcomes in flow diverter treated patient-derived geometries validated with novel PIV-based ln vitro clotting flow experiment*

Struan Hume holds a BSc in Mechanical Engineering from the Colorado School of Mines in the USA. After joining UCT in 2017 and receiving a MSc in Biomedical Engineering with distinction in 2019, he has continued with his PhD.

Struan Hume's thesis presents three studies that together detail a validated computational thrombosis model designed to predict pathophysiological clotting outcomes in patient aneurysms after endovascular flow diverter treatment. This model is validated by a novel *in vitro* Particle Image Velocimetry (PIV) -based clotting flow experiment wherein the flow-field is measured simultaneously to the formation of a fibrin clot. This research contributes to a key gap in validation methods for computational thrombosis models, which suffer from a lack of *in vivo* physiological clotting data with the detail required to reliably prove their accuracy. It furthermore sheds light on the potential significance of flow on the macroscale structure and growth of fibrin clots, as well as the non-Newtonian features of blood in macro-vessels. These findings have implications for future direct thrombosis models, emphasizing the need for further study in the field.

*Supervisor:* Associate Professor M Ngoepe (Mechanical Engineering)
*Co-supervisor:* Associate Professor WH Ho (Mechanical Engineering)

Iwase, Saori
Thesis Title: *Correlates of tuberculosis and non-tuberculosis morbidity and immunity in Sub-Saharan African HIV-exposed, uninfected infants*

Saori Iwase received her Bachelor of Science in Medical Life Science at Yokohama City University, Japan, and thereafter a Master of Medical Sciences from Kumamoto University, Japan, under the mentorship of Prof Yorifumi Satou.

Saori Iwase's thesis explores the possible biological reasons for higher risk of serious infections and deaths in infants born to mothers with HIV, even when these infants remain HIV uninfected (HIV-exposed infants). She compared tuberculosis infection rates in South African and Botswanan HIV-exposed versus -unexposed infants vaccinated with BCG and found they were equal. She then compared the gut microbiota in Nigerian and South African HIV-exposed versus -unexposed infants and it was similar. However, HIV-exposed infants had lower immune responses to tetanus vaccine, and the abundance of some gut bacteria correlated with vaccine responses. Finally, she developed a method to look at changes in the proteins that our DNA is wrapped around in chromosomes so it could be used to see if infants born to mothers with and without HIV have differences in these chromosome markers. Together, she uncovered possible mechanisms for the vulnerability of HIV-exposed infants.

*Supervisor:* Associate Professor H Jaspan (Pathology)
*Co-supervisor:* Dr A-U Happel (Pathology)

Jacobs, Ashley John
Thesis Title: *The role of antibodies in tuberculosis*

Ashley Jacobs completed his MBChB at the University of Pretoria and began his PhD at UCT in 2015. He has also undertaken work at Imperial College London and the University of Oxford towards his doctorate.

Ashley Jacobs' thesis explores the role of antibodies in the clinical settings of active tuberculosis (TB), HIV-1 coinfection, and BCG vaccination. He reports the generation and characterisation of patient-derived monoclonal antibodies (mAbs) against *Mycobacterium tuberculosis*. This allowed him to identify the antigenic target of one such mAb, and a putative role for driving inflammation in the absence of mycobacterial killing. He also shows that antibody responses against TB exist in people living with HIV who lack other markers of infection with *M.tb* or a history of previous TB. He extends his research towards developing flow cytometric assays in BCG vaccinated adults. Lastly, he describes how a subset of T cell independent IgM-producing B cells are impacted by TB. Taken together, this work contributes to better understanding the role of humoral immunity in TB.

*Supervisor:* Professor RJ Wilkinson (Medicine)
*Co-supervisor:* Professor H McShane (Nuffield Department of Medicine, Oxford University)

Kanyoka, Pride
Thesis Title: *Chlamydia trachomatis diversity and pathogenesis in young South African women, related to HPV prevalence and risk*

Pride Kanyoka completed his undergraduate degree at the Bulawayo Polytechnic and Harare Polytechnic in Zimbabwe and his MSc at Queensland University of Technology in Australia. He joined UCT in 2019 for his PhD with the Mucosal Infections Group.

Pride Kanyoka's thesis examines the impact of locally circulating *Chlamydia trachomatis* (CT) infections in young women on genital inflammation, and heightened human papillomavirus (HPV) risk, a causative agent for cervical cancer. To do this, he implemented a new multi-locus laboratory sequence typing approach, showing that both Chlamydia prevalence and persistence was high in the young women, with evidence of high genetic diversity of circulating strains as well as high prevalence of CT/HPV co- infections. CT infections and persistence was associated with increased genital inflammation and risk for infection with HPV, particularly HR-HPV types. Such high rates of CT and HPV co-infections raise concern for cervical cancer progression or risk of precancerous lesions, particularly because inflammation is a recognized co-factor for HPV cervical disease progression. The findings from this thesis strongly advocate that young women should be prioritised for sexually transmitted infection (STI) testing and STI-focused vaccine efforts should be expanded.

*Supervisor:* Professor J-A Passmore (Pathology)
*Co-supervisor:* Dr B Kullin (Pathology)

Kemp, Chadley Steven
Thesis Title: *Sleep, cardiometabolic health, and neurocognitive performance in esports players*

Chadley Kemp holds a BSc (Human Physiology & Anatomy and Biochemistry) and a BSc (Med) Honours (Exercise Science) from UCT. Having been engaged commercially in esports since 2014, his PhD was inspired by a personal interest in the impact of sleep and circadian rhythms on esports players' health and performance.

Chadley Kemp's thesis explores sleep patterns, cardiometabolic disease risk factors, and neurocognitive performance in adult esports players. It also profiles their 24-hour physical activity and light exposure patterns. The findings demonstrate that despite similar cardiometabolic disease profiles, esports players have a strong evening-oriented phenotype, with later sleep timing, greater exposure to light-at night, lower exposure to bright natural daylight, more sedentary behaviour, but superior neurocognitive performance compared to non-gamers. These elements, coupled with irregular, poor quality sleep, may place gamers on a trajectory for higher future cardiometabolic disease risk. While additional research is needed to unravel the complex interplay between sleep, lifestyle, and gaming behaviours, the findings of this thesis highlight the need for interventions targeting sleep- and circadian-disrupting behaviours in the esports community. The intention is for these data to be used to encourage policy reform within the esports industry through developing a framework to promote healthier gameplay standards.

*Supervisor:* Associate Professor DE Rae (Human Biology)
*Co-supervisors:* Associate Professor LC Roden (Molecular Biology, Coventry University); Associate Professor G Lipinska (Psychology)

Kruse, Elizabeth
Thesis Title: *Studying the mechanobiology of enveloped viruses and virus-like particles and their interactions with the host cell*

Elizabeth Kruse obtained a Bachelor of Science in Electro-Mechanical Engineering (Honours) and a Master of Science in Biomedical Engineering (Distinction) from UCT.

Elizabeth Kruse's thesis investigates the role of mechanical and morphological properties of human immunodeficiency viruses (HIV) and HIV-like particles in the physical interactions with human immune cells during virus engulfment. Using atomic force microscopy, she determines that the inclusion of influenza envelope proteins in HIV-like particles have a significant impact on the particle stiffness. She then develops a mathematical model of chemo-mechanical virus-cell interactions that allows predicting the physical force and energy involved in the complete engulfment of a virion by an immune cell. Finally, she develops a computational finite element model of virus-cell interactions. Using these models, she predicts that maturation of the HIV decreases the force required for virus engulfment and localized geometrical features of the immune cell's membrane substantially affect the engulfment mechanics. Elizabeth Kruse's findings provide directions for future experimental and computational research in virus-cell interactions in infectious diseases and drug delivery through nanomaterials.

*Supervisor:* Professor T Franz (Human Biology)

Longla Fobuzie, Bridget Ateh
Thesis Title: *Investigating how the learning needs of students with vision disability are understood and accommodated within mainstream secondary schools in Cameroon: a case study of one secondary school*

Bridget Longla Fobuzie completed her BA at the University of Yaounde, Cameroon and MA at De Montfort University, UK. Prior to pursuing a PhD in Disability studies in January 2017, she she taught in several secondary schools and currently serves as inclusive education adviser for a faith-based organisation in Cameroon.

Bridget Longla Fobuzie's thesis focuses on the inequalities in education provision for students with vision disability in comparison with their sighted peers. She investigates how role players understand the learning needs of students with vision disability and how such understandings shape education provision for these students. Using reports from a variety of data sources, she finds out that while teachers face challenges in

teaching students with vision disability, the environment in which teaching and learning take place are replete with barriers to learning for these students, in a mainstream school. Using her findings, she develops a framework for ensuring equity in education provision for students with vision disability.

*Supervisor:* Professor JA McKenzie (Health and Rehabilitation Sciences)

Lukwa, Akim Tafadzwa
Thesis Title: *An assessment of the utilisation of stokvels or rotating savings and credit associations to influence healthy eating in South Africa*

Akim Lukwa holds a BSc-Honours in Economics from Midlands State University and a Master of Public Health with specialisation in Health Economics from UCT. His journey towards a PhD began in January 2020.

Akim Lukwa's thesis explores the important role of community-based savings schemes (Stokvels) in promoting healthy eating choices and addressing food security challenges in urban South Africa. Using a mixed-method approach, he starts with a systematic literature review on Stokvels, followed by a stakeholder mapping analysis to understand diverse stakeholders' perceptions of Stokvels. Subsequently, a realist evaluation was conducted to understand the context and mechanisms influencing food purchasing decision-making in Stokvels. Finally, utilizing the discrete choice experiment methodology, the research investigated the factors influencing Stokvel members' decision-making regarding healthy food preferences. The findings of the research highlights how Stokvels can be leveraged to enhance nutritional choices, foster economic empowerment, and improve public health outcomes, especially among women in urban settings. His findings highlight the importance of shopping frequency, proximity to shopping outlets and transportation options as key factors influencing Stokvel members' healthy food procurement preferences and choices.

*Supervisor:* Dr O Alaba (Public Health and Family Medicine)
*Co-supervisors:* Emeritus Professor EV Lambert (Human Biology and Public Health and Family Medicine); Dr FA Wayas (Human Biology and Public Health and Family Medicine)

Lunjani, Nonhlanhla
Thesis Title: *Mechanisms of atopic dermatitis and allergy development in African (AmaXhosa) children between 12-36 months of age*

Nonhlanhla Lunjani holds an MBChB from the University of KwaZulu Natal and Diplomas in Child Health and Allergology from the Colleges of Medicine, South Africa. Before joining UCT, Division of Dermatology, as a PhD candidate, she worked as a clinician and researcher at Red Cross War Memorial Children's Hospital.

Nonhlanhla Lunjani's thesis reports on the mechanisms involved in the development of atopic dermatitis (AD) and allergies in early childhood in South Africa, with particular focus on the role of the immune response. She used detailed clinical data, molecular immune mediators, and RNA sequencing of peripheral blood mononuclear cells (PBMCs) to comprehensively describe that parental allergy plays a minor role in atopic dermatitis development in African children. In addition, African children with early onset AD follow the classical 'atopic march' trajectory and represent a high-IgE endotype. She also describes that early childhood immune maturation is significantly shaped by environmental exposures. Finally, she describes novel immune pathways that are activated in children with atopic dermatitis. These findings will be useful for the rational selection of immune targeting therapeutics in children affected by AD.

*Supervisor:* Associate Professor C Hlela (Paediatrics and Child Health)
*Co-supervisor:* Professor M Levin (Paediatrics and Child Health)

Machipisa, Tafadzwa Dianah
Thesis Title: *The genetics and genomics of rheumatic heart disease*

Tafadzwa Machipisa has a BSc in Biomedicine from Midrand Graduate Institute, a BSc (Hons) in Chemical Pathology from the University of Pretoria, and an MPhil in Maternal and Child Heath from UCT. She began her PhD in 2017 under the late Professor Bongani Mayosi's supervision.

Tafadzwa Machipisa's thesis emanated out of RHDGen, established as the first rheumatic heart disease (RHD) genetic registry, biorepository, and network in Africa. Tafadzwa's work in RHDGen has created a model for large-scale genetic studies in low- and middle-income settings, to understanding complex traits in African cardiovascular genetics. Her research is part of a continuing medical education course offered by the American Medical Association. She has addressed gaps in RHD genetics in Africa, identified candidate genetic regions for further exploration, and identified shared genetic risk factors in common with other global populations. Her findings will be valuable for informing future RHD studies and contributing to global meta-analyses efforts in the future. Ultimately, her work aims to improve the prevention, control, treatment, and eradication of RHD.

*Supervisor:* Professor M Engel (Medicine)
*Co-supervisors:* Professor G Paré (McMaster University); Professor B Keavney (University of Manchester)

Mlaza, Mihlali Vuyo
Thesis Title: *Marine-derived chromomycin A5: a novel strategy to treat TBX2-driven rhabdomyosarcoma*

Mihlali Mlaza holds a National Diploma from the Cape Peninsula University of Technology, and a BSc and MSc in Biotechnology from the University of the Western Cape. He joined UCT in 2018 to pursue a PhD in Medical Cell Biology.

Rhabdomyosarcoma is the most common soft tissue sarcoma of paediatric cancers, and its formation and progression are dependent on the

transcription factor, TBX2. Importantly, TBX2 has been identified as a novel therapeutic target to treat this disease. Recently, the marine derived anti-tumour antibiotic, chromomycin A5 (CA5), was shown to have strong binding affinity for TBX2. Mihlali Mlaza's thesis aims to determine if CA5 exhibits anti-cancer activity in Rhabdomyosarcoma and whether this involves the inhibition of TBX2. Using various in vitro and in vivo experimental techniques, he shows that CA5 induces potent and selective short- and long- term cytotoxicity in rhabdomyosarcoma cells and inhibits their ability to migrate. In addition, he demonstrates that the mechanism by which CA5 does this is through targeting TBX2 for degradation. His work identifies CA5 as a novel TBX2-targeting anti-cancer compound and reveals important insights into its mechanism of action.

*Supervisor:* Professor S Prince (Health Sciences: Research Directorate)

Moepeng, Meshack
Thesis Title: *Feasibility of hearing screening programmes in primary schools in Botswana*

Meshack Moepeng holds a Bachelor's (Hons) in Audiology from the University of Southampton, United Kingdom, and a Master's in Audiology from the University of Pretoria. He commenced his PhD in Audiology at UCT in 2019.

Hearing loss is a major barrier to effective learning among primary school learners. Hearing screening programmes for children are non-existent in Botswana, consequently, some children start school with an undetected hearing loss. Meshack Moepeng's thesis investigated the feasibility of implementing school entry hearing screening programmes within a Botswana context. The first part of his thesis explored the knowledge, perspectives, and attitudes of key stakeholders within the health and education sectors towards school hearing screening. This was followed by a scoping review of the literature to determine the most appropriate school entry hearing screening protocol for use in low-and middle-income country contexts, such as Botswana. This contextually appropriate protocol was then utilised to assess the feasibility of implementing a school entry hearing screening programme in the South-East District, Botswana. The findings of the thesis suggest that it is feasible to successfully implement hearing screening programmes for school entry learners in Botswana.

*Supervisor:* Professor L Ramma (Health and Rehabilitation Sciences)
*Co-supervisor:* Associate Professor S Singh (Health and Rehabilitation Sciences)

Molema, Kutlwano Antonette
Thesis Title: *An investigation of the molecular biomarkers associated with frontal fibrosing alopecia using proteomics and transcritomics*

Kutlwano Molema's completed her BSc and BSc (Hons) at North-West University (NWU), and then went on to complete her MSc (Med) at UCT, where she also commenced full-time PhD studies in 2019.

Kutlwano Molema's thesis reports novel transcriptomics and proteomics biomarkers associated with a primary scarring alopecia known as Frontal Fibrosing Alopecia (FFA), which mostly affects the scalp hairline and eyebrows in women. Despite its increasing prevalence, the pathogenesis of FFA remains poorly understood. In this study, RNA sequencing and liquid-chromatography coupled tandem mass spectrometry was used to investigate novel molecular biomarkers associated with FFA pathogenesis. These potential FFA biomarkers (80) were further pre-validated using matrix-assisted laser desorption ionization mass spectrometry imaging. These findings provide new insights into the molecular mechanisms underlying FFA and may pave the way for the development of new diagnostic and therapeutic strategies.

*Supervisor:* Associate Professor HA Adeola (Medicine)
*Co-supervisor:* Professor NP Khumalo (Medicine)

Motaung, Bongani
Thesis Title: *Biomarkers and cell phenotypes in TB patients with minimal or persisting lung inflammation post-anti-TB treatment and ex-vivo atorvastatin immunomodulatory effects on M. tuberculosis-infected PBMC*

Bongani Motaung obtained his qualification in BSc (Biochemistry and Microbiology) and BSc (Hons) (Microbiology) at the University of Fort Hare. He later pursued and completed his MSc (Molecular Biology) qualification at Stellenbosch University after which he joined UCT Faculty of Health Science in 2019 for his PhD studies.

Bongani Motaung's thesis evaluates immunological factors associated with persisting lung inflammation in successfully treated tuberculosis (TB) patients, through examining changes in cell phenotype composition and secreted biomarkers. He further investigates ex-vivo immunomodulatory effects of atorvastatin as a potential intervention for host directed therapy to regulate inflammatory state. Using Luminex platform and flow cytometry he shows differential regulation of secreted biomarkers and major cell populations between successfully treated TB patients presenting with or without persisting lung inflammation after completion of anti-TB treatment. This data will lead to future evaluation of atorvastatin efficacy in a phase IIB clinical trial to reduce lung inflammation and identify novel biomarkers for potential development of point of care test designed to screen persisting lung inflammation in successfully treated TB patents.

*Supervisor:* Professor R Guler (Pathology)
*Co-supervisors:* Professor F Thienemann (Medicine); Dr M Ozturk (Pathology)

Sibindlana, Mapheyeledi Rachel
Thesis Title: *Understanding violence within protest: a case study investigation of the Rhodes Must Fall Movement at the University of Cape Town (2015 – 2016)*

Mapheyeledi Sibindlana holds BSc and MSc degrees in occupational therapy from UCT. She was previously senior lecturer in the Division of Occupational Therapy at UCT and currently works as Head of People in the education technology industry.

Mapheyeledi Motimele's thesis is on understanding 'violence' within protest, focusing on the Rhodes Must Fall (RMF) protests at UCT between 2015 and 2016. She problematizes hegemonic understandings of 'violence' within protest, highlighting the contested nature of the term, and a lack of interrogation regarding the conditions, events, and incident(s) often described by authorities and the media as violent. The thesis argues for a critical-decolonial perspective, disrupting dominant understandings of violence, protest, human occupation, health, and well-being. She identified RMF at UCT (2015-2016) as a case of *colonial sovereignty*, a case about 'being' denied (humanity/dignity) and a case for *occupational role subversion*. Most significant to the field of health is her argument for health and wellbeing as a synthesis of access, belonging and agency. She hopes her research will inform the development of appropriate health services for student activists in the University and the broader higher education sector.

*Supervisor:* Professor E Ramugondo (Health and Rehabilitation Sciences)
*Co-supervisor:* Professor Z Matebeni (Nelson Mandela University Sexualities, Genders, and Queer Studies)

Mugo, Jacquiline Wangui
Thesis Title: *Disease population genetic simulation framework: towards application in modelling disease risk prediction and heritability rate*

Jacquiline Mugo completed her bachelor's degree in science (Mathematics) at the University of Nairobi, Kenya, and then completed a Masters by Coursework in Mathematical Science at Stellenbosch University, under the African Institute for Mathematical Sciences (AIMS).

Jacquiline Mugo's thesis reports the development of a simulation tool (FractalSIM) that generates realistic human genetic data for admixed populations, incorporating recombination, mutation, random mating, disease models, admixture, and natural selection. Simulated data generated using the tool was used to assess methods that try to identify the link between genetics and phenotypes relevant to human diseases. Few methods are able to manage data from admixed populations, and generally only from 2- or 3-way admixed individuals. Increasingly, individuals are mixing and interbreeding, resulting in populations with up to 5-way admixture (i.e., resulting from a combination of 5 ancestral populations). Therefore, Jacquiline Mugo's thesis reports the development of a novel computational method (JasMAP), which considers other factors that affect disease risk and can be applied to multi-way admixed populations. The tool was applied to disease data from a South African multi-way admixed population and uncovered novel genetic associations.

*Supervisor:* Professor N Mulder (Integrative Biomedical Sciences)
*Co-supervisor:* Professor E Chimusa (Northumbria University)

Nbonsou Tegang, Hervé Nicolas
Thesis Title: *Pseudo-Computed tomographic images synthesis from magnetic resonance images for orthopaedic applications*

Hervé Nbonsou Tegang completed his BSc in Fundamental Physics and a master's degree in engineering physics, both from the University of Yaoundé. He also obtained a second master's degree in mathematical sciences from the African Institute for Mathematical Sciences (AIMS), all of which were earned in Cameroon.

Hervé Nbonsou Tegang's thesis investigates, from a modelling and machine learning approach, how cross-modality image synthesis can be achieved in the context of limited access to data. The focus of the research is on the synthesis of Computed Tomography (CT) scans from Magnetic Resonance (MR) images. The work proposes a mechanistic method for paired data augmentation from a single pair of data and subsequently develops a data-driven generative model called the Volumetric Intensity Gaussian Process Model (VIGPM) to encode an image modality into a latent space. This framework aims to generate synthetic CT (sCT) images from patient Magnetic Resonance (MR) images. The sCT images have demonstrated efficiency in predicting accurate signal and visual perception information for orthopaedic applications compared to the ground truth CT images.

*Supervisor:* Associate Professor T Mutsvangwa (Human Biology)
*Co-supervisors:* Professor V Burdin (Image and Information Processing, IMT Atlantique); Associate Professor B Borotikar (Symbiosis Centre for Medical Image Analysis, Symbiosis International University)

Ncube, Stephanie Maria
Thesis Title: *The regulation of the T-box transcription factor TBX3 in Luminal A breast cancer*

Stephanie Ncube completed her BSc, B.MedSci (Hons) and MSc (Med) qualifications at UCT and began full-time study towards her PhD in 2020.

Stephanie Ncube's thesis focuses on determining the mechanisms through which the TBX3 protein, a known driver of breast cancer, promotes breast cancer cell migration. She demonstrates that TBX3 is overexpressed in ER positive breast cancer through transcriptional regulation by c- Myc and post-transcriptionally by the protein kinase B (AKT1) and interaction with the heat shock cognate protein 70 (Hsc70). She also shows that TBX3 interacts and cooperates with nucleolin to promote ER positive breast cancer cell migration through the upregulation of the epithelial to mesenchymal transition markers, N-cadherin, vimentin, and β-catenin; and demonstrates that disrupting the TBX3-nucleolin interaction through the nucleolin targeting aptamer AS1411,

reverses these effects. Finally, she identifies inhibitor of differentiation 1 (ID1), as a direct TBX3-nucleolin target gene and elucidates the molecular mechanism by which TBX3-nucleolin regulates this important player in ER positive breast cancer cell migration. This work reveals potential druggable targets to treat this disease.

*Supervisor:* Professor S Prince (Health Sciences: Research Directorate)

Ndhambi, Mikateko Florence
Thesis Title: *Early Lexical and Grammatical Development of Xitsonga Spoken in Giyani, Limpopo Using the Adapted Xitsonga MacArthur-Bates Communicative Development Inventory: Toddlers' Form – A Preliminary Study*

Mikateko Ndhambi holds a bachelor's degree in Speech-and-Hearing Therapy and a master's in management from Wits University. She has extensive experience in the health and education sectors and has been in academia since 2002. She is a lecturer in the Speech-Language and Audiology programme at Sefako Makgatho Health Sciences University.

Mikateko Ndhamb's thesis explores young children's lexical and grammatical development within the Xitsonga language. Data were collected using the MacArthur-Bates Communicative Development Inventory (MB-CDI), a widely used parent report tool. Given that there are no language assessment tools for young children acquiring Xitsonga, she cross-culturally adapted the MB-CDI for Xitsonga-speaking toddlers in Giyani. Administration of the assessment revealed that Xitsonga's developmental patterns are consistent with general linguistic trends, but the language's complex morphology and use of agreement markers highlight the importance of understanding language development in our contexts before developing assessment tools and intervention strategies. Her findings have implications for speech and language therapists, early childhood development practitioners and primary healthcare professionals. They hold transformative potential for guiding collaborations with diverse professionals and communities, influencing the decolonisation of curricula, enhancing parent reporting, and shaping the advancement of future assessment methodologies.

*Supervisor:* Honorary Associate Professor M Pascoe (Health and Rehabilitation Sciences)
*Co-supervisor:* Associate Professor H Brookes (General Linguistics, Arts and Social Sciences, Stellenbosch University)

Ndibangwi, Polycarp
Thesis Title: *Targeted re-sequencing of a large South African cardiomyopathy cohort*

Polycarp Ndibangwi completed his BSc in 2008 at the University of Buea, in Cameroon. He then completed a postgraduate diploma and MSc in Chemical Pathology at Walter Sisulu University. He registered for his PhD in cardiovascular genetics at UCT in 2019.

Polycarp Ndibangwi's thesis investigates the cause of cardiomyopathy (heart muscle disease) in South African families with cardiomyopathy, with the aim to fill the gaps in knowledge that exist for this disease. These heart muscle diseases have devastating consequences and can severely impact patients' lives. The cause of heart disease is usually a "spelling mistake" or mutation in the DNA, which is inherited from one generation to the next. He has worked on 690 DNA samples, which is the largest cardiomyopathy cohort in Africa, and he used cutting edge targeted resequencing to find the mutation within these patients and their families. His thesis has filled many gaps in our knowledge on cardiomyopathy in South Africa. Through his research we are now able to offer genetic counselling to these patients and their families to assist them in better managing their disease.

*Supervisor:* Associate Professor G Shaboodien (Medicine)
*Co-supervisor:* Professor N Ntusi (Medicine)

Ngcobo, Silindile
Thesis Title: *Development and characterisation of a heparinised fibrin hydrogel as a delivery vehicle for regenerative medicine*

Silindile Ngcobo completed a BSc, BSc (Honours) and MSc at the University of Pretoria before joining UCT to pursue her PhD studies.

Silindile Ngcobo's PhD thesis presents two novel methods for successfully conjugating heparin to fibrinogen, while retaining fibrinogen's thrombin-based polymerisation, to form heparinised fibrin hydrogels. Through various *in-vitro* assays, Silindile Ngcobo shows that these heparinised hydrogels are anti-thrombotic, biodegradable, biocompatible and enable tissue invasion. She also demonstrates that heparinisation presents these hydrogels as favorable delivery vehicles as demonstrated by their reduced rate of biodegradation, and substantially increased angiogenic growth factor binding as well as sustained release. She further demonstrates that these hydrogels are improved differentiation matrices for adipocyte derived stem cells. These findings have implications in tissue repair for diseases and conditions such as chronic wounds, myocardial infarction, and osteoarthritis.

*Supervisor:* Professor NH Davies (Surgery)

Nguweneza, Arthemon
Thesis Title: *Risk factors associated with blood pressure variation in sickle cell disease in Cameroon*

Arthemon Nguweneza holds a BSc in Medical Bioscience from the University of the Western Cape, and an MSc in Epidemiology from Stellenbosch University. Before joining UCT, he worked for the Health Economics and Epidemiology Research Office (HE2RO) and the National Institute for Communicable Diseases in Johannesburg, South Africa.

Arthemon Nguweneza's thesis investigates risk factors associated with blood pressure variations in patients with sickle cell disease (SCD). To investigate the clinical characteristics,

epidemiological and genetic risk factors of blood pressure variations in SCD patients, he uses data and samples collected from nine hospitals in Cameroon. He validates the novel genetic polymorphisms predicted to be associated with blood pressure variation in SCD patients from Cameroon by analysing similar cohorts of patients from Senegal and Nigeria. Lastly, he combines data from Cameroonian and African American SCD patient cohorts to identify genetic polymorphisms associated with blood pressure variations in SCD patients. His research lays a foundation towards advancing our understanding of mechanisms that control blood pressure variations in SCD and highlights the importance of whole-genome based studies from diverse populations, particularly African populations.

*Supervisor:* Professor A Wonkam (Pathology)
*Co-supervisor:* Dr V Nembaware (Pathology)

Ntwatwa, Ziphozihle
Thesis Title: *An investigation of amygdala and hippocampal subregions and their relation to ageing in anxiety and related disorders*

Ziphozihle Ntwatwa completed her MSc in Biomedical Nanoscience at the University of the Western Cape. She began full-time study towards her PhD in the Department of Psychiatry at UCT in 2019.

Ziphozihle Ntwatwa's thesis investigates the relationship between structural brain volumes and complex psychiatric disorders in the context of brain aging. She applied a previously trained machine learning algorithm in large-scale MRI datasets to reveal patterns of whole and regional brain aging. Through her work, it becomes evident that differences in subfield volumes and brain age are not only influenced by psychiatric comorbidities but also by psychotropic medication use. Her work highlights the intricate interplay between brain aging and psychiatric disorders, hinting at potential avenues for future investigation.

*Supervisor:* Dr JC Ipser (Psychiatry and Mental Health)
*Co-supervisors:* Dr NA Groenewold (Psychiatry and Mental Health); Professor DJ Stein (Psychiatry and Mental Health); Professor J van Honk (Psychiatry and Mental Health)

Nyakato, Patience
Thesis Title: *Characteristics and outcomes of children, adolescents and young adults on antiretroviral therapy in Southern Africa, incorporating additional outcome ascertainment through linkage and tracing studies*

Patience Nyakato holds a BA in Statistics from Makerere University, Uganda, and an MA in Medical Statistics from the London School of Hygiene and Tropical Medicine. She joined the UCT School of Public Health as a research officer in 2017 and started her PhD studies in 2020.

Patience Nyakato's thesis reports characteristics and outcomes among 86,604 children and youth living with HIV in six Southern African countries. She examines virologic outcomes and loss to follow-up (LTFU) among South African adolescents, discovering substantial rates of early LTFU among older adolescents. Following this, she investigates outcomes among children and youth classified as LTFU at the health facilities using tracing in Lesotho, Malawi, Mozambique, Zambia and Zimbabwe and linkage to a health register in Western Cape, South Africa. The tracing reveals high unreported mortality, while the linkage reveals low mortality but many self-transfers. She then updates program-level mortality estimates by incorporating mortality from tracing and linkage studies. These findings offer valuable insight for decision-makers aiming to improve treatment outcomes among children and youth living with HIV. Additionally, the estimates contribute to projecting global HIV mortality among children and youth.

*Supervisor:* Dr M Cornell (Public Health and Family Medicine)
*Co-supervisor:* Professor M-A Davies (Public Health and Family Medicine and Health, Western Cape Government)

Nyambayo, Priscilla Patricia Munyaradzi
Thesis Title: *The use of m-Health active participant centred (MAPC) systems to improve surveillance of adverse events following immunisation (AEFI) in Zimbabwe*

Priscilla Nyambayo has honors in Pharmacology and Toxicology from Kings College London and MSc in Clinical Pharmacology from University of Zimbabwe. She is senior medicines regulator in Zimbabwe overseeing pharmacovigilance and clinical trials regulation, supporting international harmonization efforts in this field. She began a part-time PhD in 2018.

Priscilla Nyambayo's thesis investigated the use of a smart-message system (SMS)- Zm-STARSS as a means of directly approaching vaccinees and their caregivers to actively solicit information on adverse events following immunization (AEFI). She found this novel approach improved the detection and reporting of AEFI in pilot sites in Zimbabwe. The optimal benefit of such a system relies on also strengthening case investigation, causality assessment, case management and feedback to consumers and health professionals. Further, training and awareness initiatives addressing health professionals' and consumers' fear of victimisation as a result of reporting should be prioritized to further mitigate underreporting. She found that mobile phone technology costs and ensuring that the mHealth platform is compatible with all mobile service providers were also potential impediments. She concludes that this novel approach can improve early and increased detection and management of AEFIs, building consumer trust in vaccines and hence optimising their benefits.

*Supervisor:* Associate Professor U Mehta (Public Health and Family Medicine)
*Co-supervisor:* Professor M Gold (Adelaide Medical School, University of Adelaide)

Padayachee, Thesandree
Thesis Title: *A case study of factors influencing primary healthcare "Continuity of Care" for persons with disabilities*

Thesandree Padayachee holds an Hon Degree in Speech and Language Pathology (University of KwaZulu Natal) and a MSc in Evidence Based Healthcare and Health Technology Assessment (University of Birmingham, UK). She joined the School of Health & Rehabilitation Sciences to undertake a PhD in Disability Studies in 2017.

Thesandree Padayachee's thesis focuses on Persons with Disabilities and the factors influencing their experience of "Continuity of Care" in the health system. She used a case study design and applied a critical health systems lens to make visible the deep historical, cultural and contextual roots of poor "Continuity of Care". Her research included interviews with Persons with Disabilities, families, policymakers, primary healthcare managers, and community leaders, and discussions with NGOs working in the case study area. Policy analyses of five policies provided insights into the policy effects on "Continuity of Care." Institutional distrust; the medical model as a legacy of apartheid/coloniality; incoherence in policies supporting "Continuity of care" and poor user-centred design practices in delivering new innovations negatively impacted "Continuity of Care" for Persons with Disabilities. Positive influences included emergent community leadership, family resilience to navigate through treatment uncertainty and supportive servant leadership styles of healthcare providers.

*Supervisor:* Professor H Kathard (Health and Rehabilitation Sciences)

Perera, Shehani Pramodya
Thesis Title: *Assisted Partner Notification for HIV: a qualitative study of providers' and female patients' perspectives and experiences of assisted partner notification in Cape Town, South Africa*

Shehani Perera holds a BSW and MPH degree from UCT and began her studies towards a PhD in 2020.

Shehani Perera's thesis explores assisted partner notification (APN) for HIV, a contact tracing approach wherein providers help individuals diagnosed with HIV notify their partners. Her study examines interpersonal dynamics and communication within patient-provider relationships through the perspectives and experiences of HIV testing and counselling providers and female patients in Cape Town, South Africa. Her study highlights the realisation of healthcare rights and responsibilities in APN and explores the influence of religion and faith-based organisations on the process. Her study reveals that despite the absence of a formal APN intervention, patients and providers engaged in an informal process. However, various challenges were encountered, including power dynamics, gendered healthcare norms, and ambivalence around the involvement of religious institutions in the process. Using these insights, she developed the 'Six Pillars of APN' framework and argues that safe, successful APN hinges upon clear implementation guidance, trust-based relationships, agency, shared decision-making, and holistic service provision.

*Supervisor:* Dr Swartz (Public Health and Family Medicine)
*Co-supervisor:* Dr J Githaiga (Public Health and Family Medicine)

Peters, Liesl
Thesis Title: *Pathways, through opportunity, towards social inclusion: a multiple case study of young womxn in marginalising contexts in post-apartheid South Africa*

Liesl Peters holds a BSc and MSc in Occupational Therapy from UCT. Since 2006 she has contributed to developing new practice approaches in community development practice. She is currently a Senior Lecturer in the Department of Health & Rehabilitation Sciences at UCT.

Liesl Peters' thesis focuses on young womxn in marginalising contexts and how they craft pathways towards social inclusion, through opportunities. Her findings show that this occurs through a phenomenon called *making-a-life*: a set of interrelated processes that collectively contribute to an experience of prosperity. These processes correspond with one another to make social inclusion a likely possibility and are routed within a meshwork. The meshwork is formed through the connections between people in young womxns' lives. The meshwork improvises to use and create opportunities that contribute to social inclusion. This makes it possible for young womxn's agency to subvert the intentions of the modern/colonial post-apartheid context. The findings suggest that occupational therapy contributions focused on young womxn as individuals will not have the desired effect in promoting social inclusion. Instead, a reorientation of approaches is required to protect the integrity of the meshwork.

*Supervisor:* Professor R Galvaan (Health and Rehabilitation Sciences)
*Co-supervisor:* Emeritus Professor C Soudien (Education)

Rametse, Cosnet Lerato
Thesis Title: *Characterizing various aspects of the male genital tract barrier function and immunity*

Cosnet Rametse is a qualified medical doctor and was amongst the first UCT medical students to undertake the Clinician-Scientists Training (MD/PhD) Programme at its inception. During her medical studies, she completed a Bsc Hons in infectious diseases and immunology.

Cosnet Rametse's thesis examines barrier function and immunity within various anatomical sites in the penis, the glans, inner foreskin and shaft. It documents the prevalence of common asymptomatic sexually transmitted infections (aSTI) in local regions of the Western Cape and how these impact these factors. *In vivo* and *ex vivo* measures

reveal that the inner foreskin tissue site has the least intact barrier function. The density of immune infiltrates in the foreskin was associated with the presence of an aSTI. Furthermore, digital spatial profiling of macrophage and epithelial cells in the presence of an aST showed significant upregulation in expression of immune-related genes and downregulation in RNA translation. This enabled the identification of additional potential targets for STI prevention alternatives, including HIV-1.

*Supervisor:* Emeritus Professor C Gray (Pathology)
Administrative Supervisor: Professor M Setshedi (Medicine)
*Co-supervisor:* Associate Professor H Jaspan (Pathology)

Rousseau, Elzette
Thesis Title: *Gendered lives, constrained choice and young african women's PrEP uptake and persistent use as a gender- responsive approach to HIV prevention*

Elzette Rousseau holds a BSc and MA degree in Research Psychology and joined UCT's Desmond Tutu HIV Centre (DTHC) in the Faculty of Health Sciences in 2018 for her PhD studies. She is a behavioural scientist at the DTHC involved in pre-exposure prophylaxis (PrEP) scale-up for young people.

Elzette Rousseau's thesis focuses on the factors facilitating and constraining adolescent girls and young women's (AGYW) use of HIV pre-exposure prophylaxis (PrEP) in South Africa and Kenya. This is the first work to consider 1) AGYW's decision-making along the PrEP-user journey from uptake to persistent use; 2) the role of sexual relationship power in AGYW's PrEP use; and 3) profiling AGYW PrEP-users based on their engagement with preferred tailored PrEP delivery models. Her thesis shows that AGYW are capable of deliberate decision-making to initiate PrEP for self-protection, however, they demonstrate diminished decision-making performance when their social environments become more complicated, impacting their continued PrEP use. This can be offset by tailoring services to be more accessible and utilisable. Overall, her research highlights the extensive complexity (internal and social) inherent in AGYWs' lived experiences as young women in Africa, demanding the implementation of tailored, community-based, supportive approaches to HIV prevention.

*Supervisor:* Professor L-G Bekker (Medicine)
*Co-supervisor:* Professor K Sikkema (Sociomedical Sciences, Columbia University)

Rousseau, Robert Pierre
Thesis Title: *Investigating the T cell-specific role of Interleukin-4 receptor alpha (IL-4Rα) in tuberculosis (TB)*

Robert Rousseau holds an MSc (Biochemistry) from Rhodes University, South Africa. In 2020 he commenced his full-time pursuit of a PhD in Clinical Science and Immunology at UCT.

Robert Rousseau's thesis reports on the role of IL-4Rα mediated signalling on T cells during tuberculosis infection. His findings include that absence of IL-4Rα on T cells results in a dysregulated immune response, including a delay in recruitment of T cells to the site of disease. Reduced T cells in the lung leads to impaired helper function, hindering the ability of macrophages to induce bactericidal programs. This in turn allows the pathogen to establish as shown by increased bacterial growth during both acute and chronic infection. A combination of increased bacterial burden and a "runaway" proinflammatory response drives tissue pathology during chronic infection, ultimately resulting in increased mortality. This potentially indicates that T cell-specific IL-4Rα mediated signalling is associated with severity of disease. These data are strongly suggestive IL-4Rα on T cells plays an important role in the immune response to TB.

*Supervisor:* Associate Professor S Parihar (Pathology)
*Co-supervisors:* Dr C Riou (Pathology); Professor F Brombacher (Pathology)

Scherman, Jacques
Thesis Title: *A novel trans-catheter heart valve system for low- to middle-income countries: Need assessment, surgical feasibility and preclinical translation*

Jacques Scherman holds an MBChB from the University of Pretoria and a specialist qualification as a cardiothoracic surgeon with the SA College of Medicine (FCS-Cardio). Before commencing his PhD studies, he worked for extended periods at the University Hospital Zurich, Switzerland to become an expert in transcatheter heart valve technologies.

Jacques Scherman's thesis focuses on addressing the disparity between rheumatic heart disease – a major health problem in Africa affecting hundreds of thousands of young patients every year – and the inadequate access these patients have to life saving heart valve surgery. He first demonstrates the unsuitability of contemporary replacement heart valves for patients from low- to middle-income countries. He then uses the insights of these background studies to establish a new animal model for UCT's own transcatheter heart valve, specifically aimed at allowing optimal heart valve surgery in the absence of cardiac surgical facilities and expertise. He also determines the anatomical exclusion criteria for the safe implantation of such a replacement heart valve. After optimising the implantation procedure for use under adverse circumstances, he obtained permission by the SA regulatory authorities to conduct a "first in human" trial based on the sound data of his thesis.

*Supervisor:* Emeritus Professor P Zilla (Surgery)

Serala, Karabo
Thesis Title: *Repurposing drugs that target the oncogenic TBX3 to treat pancreatic cancer*

Karabo Serala holds a BSc in Life Sciences and a BSc Hons and MSc in Biochemistry from the University of Limpopo. He joined UCT in 2021 to pursue a PhD in Medical Cell Biology.

Pancreatic cancer is a deadly disease with limited treatment options.

The oncogenic homologous transcription factors, TBX2 and TBX3, are highly expressed in pancreatic cancer tissues and there is indication that they may contribute to the progression of this neoplasm. Using 2D and 3D pancreatic cancer cell culture models, Karabo Serala's thesis shows that while TBX3 promotes pancreatic cancer cell proliferation and long-term survival, TBX2, enhances their migratory and invasive ability. These results indicated that TBX2 and TBX3 are important therapeutic targets for pancreatic cancer. To this end, he demonstrates that the commercially available drugs, Piroctone Olamine and Pyrvinium Pamoate, exhibit promising anti-pancreatic cancer activities; in part, through their ability to target TBX2 and TBX3. Because these drugs are already commercially available, they could potentially be applied immediately to impact the lives of patients with pancreatic cancer.

*Supervisor:* Professor S Prince (Human Biology)

Shabangu, Majahonkhe Mcebo
Thesis Title: *Investigating cell mechanics of HIV-associated Kaposi's sarcoma*

Majahonkhe Shabangu holds a Bachelor of Arts in Biomedical Engineering from Harvard University, Cambridge, United States of America, and a Master of Science in Biomedical Engineering (Distinction) from the University of Surrey, Guildford, United Kingdom.

Majahonkhe Shabangu's thesis investigates the cellular mechanics of Kaposi's sarcoma, an aggressive cancer prevalent in people living with HIV caused by infection with human herpesvirus-8 (HHV-8). He observes that cellular viscoelasticity is more robust in identifying early HHV-8 infection in human aortic and lymphatic endothelial cells than conventional methods used to date. He further observes a difference in the viscoelasticity of cells from Kaposi's sarcoma cutaneous lesions compared to normal skin cells from people living with HIV in South Africa. He demonstrates that the change in viscoelasticity of Kaposi's sarcoma cells correlates with patient-specific HIV viral load and CD4+ T-cell count. He also finds an association between the persistence of Kaposi's sarcoma cutaneous lesions during chemotherapeutic treatment and pre-treatment clinical and cellular biomechanical patient profiles. These findings demonstrate the potential of cellular mechanics for improved diagnosis and prognosis of Kaposi's sarcoma in vulnerable populations in low-resource settings.

*Supervisor:* Professor T Franz (Human Biology)
*Co-supervisor:* Associate Professor G Schäfer (Integrative Biomedical Sciences)

Sonka, Luveni
Thesis Title: *Designing a functional psoriatic 3D model for evaluation of Cape Floral plant extracts*

Luveni Sonka completed her BSc, BSc (Hons), and MSc qualifications at the University of the Western Cape and began her doctoral studies at UCT in 2017.

Luveni Sonka's thesis aimed to create laboratory models for evaluating plant extracts from the Cape Flora as potential treatments for psoriasis. Using a human keratinocyte cell-line, 2D and 3D psoriasis-like cell culture models were successfully created, and 30 Cape Flora plants extracts screened for their anti-psoriasis properties, identifying 3 lead plants. These plant extracts performed similar to, or better than standard treatment; in improving the hallmarks of psoriasis (differentiation, hyperproliferation and inflammation). Apart from creating a practical disease model for testing potential treatments, this thesis highlights the under-researched potential of the Cape Flora for disease management.

*Supervisor:* Dr A Arowolo (Medicine and the South African Medical Research Council)
*Co-supervisor:* Professor N Khumalo (Medicine)

Tavares Castro Lopes, Sofia
Thesis Title: *Women's empowerment: Fertility intentions and family planning practices in Mozambique*

Sofia Tavares Castro Lopes holds a BSc in Nursing and an MSc in Health and Development from Nova University Lisbon, Portugal. She is a researcher in Public Health focusing on women's health and gender issues.

Sofia Tavares Castro Lopes' thesis looks at the relationship between women's empowerment and fertility and family planning practices in Mozambique. Using the Demographic and Health Survey 2015 for Mozambique, she starts by identifying the areas in a woman's life in which empowerment takes place and how these influence fertility levels, childbearing intentions and the use and met need of contraceptives. Through in-depth interviews, she explores Mozambican women's experiences, views, and meanings of empowerment in relation to reproductive choices, describing factors that facilitate or hinder this process. Findings suggest that different empowerment areas play a distinct role in women's reproductive decisions. Exploration of possible pathways of empowerment, suggests that women with enhanced control over sexuality and sex, through information and education and awareness of their rights, results in improved reproductive lives. The study contributes towards refining women's empowerment concepts and measurements.

*Supervisor:* Associate Professor J Harries (Public Health and Family Medicine)
*Co-supervisors:* Dr D Constant (Public Health and Family Medicine);
Dr S Fraga (Institute of Public Health, University of Porto)

Tolla, Tsidiso Hildah
Thesis Title: *Exploring the influence of romantic relationships on adolescent boys' sexual and reproductive health attitudes and practices*

Tsidiso Tolla holds a master's degree in public health from UCT. Prior to her doctoral studies, she worked at the Human

Science Research Council (HSRC). Her research interests include adolescent sexual and reproductive health (SRH) rights, gender and sexuality and violence, including intimate partner violence (IPV).

Tsidiso Tolla's thesis explores adolescent boys' heterosexual romantic relationships, with a specific interest in gaining insight into how boys make meaning of their romantic relationships and how such meaning shapes sexual negotiation and decision making. She further investigates gendered power dynamics in adolescent boys' romantic relationships, seeking to understand how these shape boys' experiences and perceptions of IPV. Her findings reveal that sexual practices and attitudes are located in and influenced by the romantic relationship context and emphasise the importance of the romantic relationship as a context in which adolescents may choose to adhere to cultural and contextual norms or choose to challenge these. She concludes that taking romantic relationship contexts and their dynamics into consideration can inform the design of programmes that promote healthy adolescent dating and sexual relationships and improve the SRH, HIV and IPV of adolescents.

*Supervisor:* Adjunct Associate Professor CJ Colvin (Public Health and Family Medicine)
*Co-supervisor:* Dr. JN Githaiga (Public Health and Family Medicine)

Tsunga, Lucinda Panashe
Thesis Title: *Mental health and cognitive outcomes associated with early childhood violence exposure: a focus on children in low-middle income countries (LMICs)*

Lucinda Tsunga completed her BSc and BSc Hons qualifications at the University of Pretoria. She is a neuropsychologist, having completed her MA Neuropsychology qualification at UCT. She began full-time study towards her Cotutelle PhD in 2019 at UCT and the University of Bristol.

Lucinda Tsunga's thesis reports on the patterns of violence exposure among preschoolers in the Drakenstein Child Health Study (DCHS) in South Africa, examining its impact on their mental health and cognitive functioning. She found that 72% to 75% of children in the DCHS, aged 3.5 to 6 years, experienced some form of violence in their homes or communities. Furthermore, overall violence exposure, domestic victimisation, and witnessing community violence by 4.5 years were associated with increased internalising and externalising behaviour problems at age 5. Poly-victimisation was specifically associated with increased externalizing behaviours. Additionally, lifetime exposure to violence by 4.5 years was associated with poor selective attention, receptive language and nonverbal intelligence, at 5 years. Her thesis underscores the urgent need for interventions to reduce violence exposure and address its consequences in young children, highlighting the profound impact of early-life violence on mental health and cognitive development in high-violence contexts of LMICs.

*Supervisor:* Professor KA Donald (Paediatrics and Child Health)
*Co-supervisors:* Professor A Fraser (Population Health Sciences, University of Bristol); Associate Professor J Heron (Population Health Sciences, University of Bristol)

Van Den Berg, Karin
Thesis Title: *The intersection of the HIV epidemic and blood donation in South Africa*

Karin van den Berg is a medical doctor and graduate of the University of the Free State, where she obtained her MBChB and Master's in Medical Science in Transfusion Medicine. Her PhD journey started in 2018 while serving as the Medical Director of the South African National Blood Service.

Karin van den Berg's thesis confronts the vital issue of non-disclosure of HIV status and antiretroviral therapy use among blood donors in South Africa. Utilizing data from HIV-positive donors, she estimated the prevalence of undisclosed HIV status and antiretroviral therapy use. Her research includes comprehensive semi-structured, in-depth qualitative interviews with such donors, aiming to understand their motivations within the framework of existing blood donation policies. Additionally, her work critically assesses the impact of this non-disclosure on HIV recency testing algorithms and incidence modelling. Her findings have significant implications for enhancing the safety strategies of blood services both in South Africa and globally.

*Supervisor:* Professor V Louw (Medicine)
*Co-supervisors:* Emeritus Professor G Maartens (Medicine); Emeritus Professor E Murphy (Laboratory Medicine and Epidemiology/ Biostatistics, University of California and the Vitalant Research Institute); Dr S Hughes (Vitalant Research Institute)

Van Der Laan, Louvina Elizabeth
Thesis Title: *Population pharmacokinetic modelling to optimise treatment for children with Rifampicin-resistant TB and HIV*

Louvina van der Laan holds MBChB (Stellenbosch University), DCH, and MPhil (Clinical Pharmacology, UCT – with distinction), degrees.

Louvina van der Laan's thesis focuses on characterising the population pharmacokinetics of high-priority drugs for rifampicin- and multidrug-resistant (RR/MDR)-tuberculosis (TB) and HIV treatment in children. She developed pharmacokinetic models to inform dosing for World Health Organisation (WHO)- recommended group A-C drugs, including levofloxacin, cycloserine (dosed as terizidone) and para-aminosalicylic acid, and key WHO recommended first-line antiretroviral drugs including abacavir and lamivudine and a historically key second/third-line drug, stavudine. She described important and clinically relevant covariate relationships and accounted for them when reviewing the current WHO dosing guidelines and proposing optimised dosing strategies for these antituberculosis and antiretroviral drugs. She highlights key methodological aspects of pharmacometrics in the broader context of paediatric drug development and TB and proposes novel

approaches and research going forward. It is a timely contribution to the literature on RR/MDR-TB and HIV treatment optimisation in children and will inform paediatric global dosing and regimen recommendations.

*Supervisor:* Professor P Denti (Medicine)
*Co-supervisors:* Distinguished Professor AC Hesseling (Paediatric Research, Stellenbosch University); Professor A Garcia-Prats (Paediatics and Child Health, University of Wisconsin-Madison)

Wessels, Edmund Grey
Thesis Title: *Development of a novel mobile flexible hysteroscopy system for outpatient procedures without general anaesthesia*

Edmund Wessels completed his BEng in Mechatronics at Stellenbosch University before beginning his postgraduate journey at UCT with a master's in biomedical engineering, which was upgraded to a PhD in 2018.

Edmund Wessels' thesis focuses on developing a novel hysteroscopy system, a device used by gynaecologists to diagnose and treat abnormal uterine conditions. He establishes a set of design requirements for a novel system that addresses the shortcomings of existing equipment. This guides his iterative prototyping process until a complete hysteroscopy system that undergoes verification and validation testing to determine its efficacy is produced. The verification testing confirms the device incorporated features to reduce cost, facility requirements, and patient discomfort according to the requirements. A comparative usability trial was then conducted to validate the function of the new device, which involved gynaecologists performing simulated procedures. The gynaecologists reported successful procedure outcomes and found the device equivalent to the existing standard system used. Overall, the device demonstrates a solution to shortcomings of hysteroscopy systems that, when addressed, could improve patients' access to procedures.

*Supervisor:* Professor S Sivarasu (Human Biology)

Wootton, Olivia
Thesis Title: *The genetics of cognition in Schizophrenia*

Olivia Wootton graduated with an MBChB from UCT in 2017, after which she completed her medical internship and community service. Olivia Wootton joined the Department of Psychiatry in 2021 for her PhD studies.

Olivia Wootton's thesis focuses on the common genetic determinants of cognitive function in people with schizophrenia as well as in the general population. In her research, she leverages novel or under-researched measures of cognitive performance to further understanding of cognitive impairment in schizophrenia. Her research begins with an exploration of the functional and clinical significance of within-individual variability in cognitive performance in a South African case-control study of people with schizophrenia. Next, she investigates the common genetic determinants of within-individual variability in cognitive performance using data from the UK Biobank, a large population-based biobank. Lastly, she uses cognitive data from the UK Biobank to estimate the overlap in the genetic basis of cognitive function and schizophrenia. Overall, her results implicate genes related to neurodevelopment and neuronal function in cognitive impairment in schizophrenia and may be used to inform future research aiming to derive mechanistic insights.

*Supervisor:* Dr S Dalvie (Pathology)
*Co-supervisors:* Professor DJ Stein (Psychiatry and Mental Health), Dr A Shadrin (Norwegian Centre for Mental Disorders Research, Institute of Clinical Medicine, University of Oslo)

# ACADEMIC DRESS

## OFFICERS OF THE UNIVERSITY

### *CHANCELLOR*

The Chancellor wears a gown made from dark blue silk. The front of the gown has facings down each side made of dark blue velvet embroidered with a gold floral design. The gown and sleeves are lined with pale blue silk and the sleeves are looped up in front with a gold cord and button. The yoke of the gown is edged with gold cord. The gown is worn with a square blue velvet hat with a soft crown and gold tassel.

### *VICE-CHANCELLOR*

The Vice-Chancellor wears a gown made from bright blue silk. The front of the gown has facings down each side and sleeve-linings of pale blue silk. The sleeves are looped up in front with a gold cord and button and the yoke of the gown is edged with gold cord. The gown is worn with a black velvet bonnet with a silver cord.

### *DEPUTY VICE-CHANCELLOR*

A Deputy Vice-Chancellor wears a gown made from dark blue silk. The gown has closed sleeves with an inverted T-shaped opening at the level of the elbow to free the arms. The front of the gown has facings of light blue down each side. The sleeves are lined with light blue and the yoke of the gown is edged with silver cord. The gown is worn with a black velvet bonnet with a silver cord.

### *CHAIR OF COUNCIL*

The Chair of Council wears a gown, of the same pattern as that worn by the Vice-Chancellor, made from light blue silk. The front of the gown has facings down each side and a yoke of dark blue. The sleeves are lined with dark blue and the facings and yoke are trimmed with gold cord. The sleeves are looped up in front with a gold cord and button. The gown is worn with a black velvet bonnet with a gold tassel.

### *MEMBERS OF COUNCIL*

Members of Council wear graduate-pattern gowns made from black silk. The front of the gown has 10cm wide, light blue facings down each side trimmed with dark blue cord. The gown is worn with a black velvet bonnet with a blue cord.

### *REGISTRAR*

The Registrar wears a gown made from black silk. The front of the gown has 10cm wide facings of blue silk down each side. The gown is worn with a black velvet bonnet with a white cord.

### *PRESIDENT OF CONVOCATION*

The President of Convocation wears a gown made from black silk and has long closed sleeves with an inverted T-shaped opening at the level of the elbow to free the arms. The front of the gown has facings down each side and sleeves of blue silk. The gown is worn with a black velvet bonnet with a blue tassel.

### *UNIVERSITY ORATOR*

The University Orator wears a gown of gold silk with bright blue silk facings and a yoke edged with gold cord. A black mortar board with a gold tassel is worn with the gown.

# ACADEMIC DRESS (continued)

## GOWNS

A plain black gown styled after the pattern of the Oxford scholar's gown is worn by diplomats, and Bachelor's, Honours and Master's graduands. Senior doctoral graduands wear a scarlet gown, with facings the colour distinctive of the faculty in which the degree is awarded. PhD graduands wear a scarlet gown without facings.

## HOODS

The hood is particular to the qualification and the faculty. Diplomates and Bachelor's grdauands wear a black hood lined with white and edged with the colour distinctive of the faculty. Master's graduands wear a black hood lined with the colour distinctive of the faculty and edged with white, except in the case of the hood for the MMed degree, which is edged with red. Senior doctoral graduands wear a hood of the colour distinctive of the faculty and a black velvet bonnet with a cord of the colour distinctive of the faculty in which the degrees is awarded. PhD graduands wear a hood of scarlet lined with black and a black velvet bonnet with a cord of the colour distinctive of the faculty in which the degree is awarded.

## DISTINCTIVE COLOURS

| | |
|---|---|
| Faculty of Commerce | Yellow |
| Faculty of Engineering and the Built Environment | Green |
| Faculty of Health Sciences | Red |
| Faculty of Law | Old gold |
| Faculty of Humanities | Blue |
| Faculty of Science | Purple |

# VISION AND MISSION
# UNIVERSITY OF CAPE TOWN

## Vision

An inclusive and engaged research-intensive African university that inspires creativity through outstanding achievements in learning, discovery and citizenship; enhancing the lives of its students and staff, advancing a more equitable and sustainable social order and influencing the global higher education landscape.

## Mission

UCT is committed to engaging with the key issues of our natural and social worlds through outstanding teaching, research and scholarship. We seek to advance the status and distinctiveness of scholarship in Africa through building strategic partnerships across the continent, the global south and the rest of the world.

UCT provides a vibrant and supportive intellectual environment that attracts and connects people from all over the world.

We aim to produce graduates and future leaders who are influential locally and globally. Our qualifications are locally applicable and internationally acclaimed, underpinned by values of engaged citizenship and social justice. Our scholarship and research have a positive impact on our society and our environment.

We will actively advance the pace of transformation within our University and beyond, nurturing an inclusive institutional culture which embraces diversity.

# OFFICERS OF THE UNIVERSITY

***Chancellor***
Precious Moloi-Motsepe, MBBCh DCH *Witwatersrand* Dip in Women's and Reproductive Health *Stellenbosch*

***Vice-Chancellor***
Matlagolo Mosa Moshabela, MBChB *Natal* Dip in HIV Man (SA) *CMSA* MMed *Limpopo (MEDUNSA)*
MSc *LSHTM* PhD *Witwatersrand* MASSAf

***Chair of Council***
Norman Martin Arendse SC, BA LLB *Cape Town* LLM *UCL*

***President of Convocation***
Naadiya Moosajee, BSc(Eng)Civ MSc(Eng) *Cape Town*

***Deputy Vice-Chancellors***
Jeffrey Murugan (Acting), MSc PhD *Cape Town*
Elelwani Ramugondo, BSc (Occupational Therapy) MSc (Occupational Therapy) PhD *Cape Town*
Linda Cynthia Ronnie (Acting), Adv Dip in Adult Ed MEd *Sheffield* PhD *Cape Town*

***Registrar***
Royston Nathan Pillay, BA HDE BEd MBA (Executive Programme) *Cape Town*

***Chief Operating Officer***
Mughtar Parker (Acting), (MCR) (SLCR) *Atlanta USA* B.Comm (Acc) *Western Cape*

***Deans of Faculties***

| | |
|---|---|
| *Commerce:* | Suki Lesley Goodman, BSocSc(Hons) MBusSc PhD *Cape Town* |
| *Engineering & the Built Environment:* | Alison Emslie Lewis, PrEng BSc(Eng)Chem MSc(Eng) PhD *Cape Town* FSAIChE FSAIMM MASSAf FSAAE FIChemE |
| *Health Sciences:* | Lionel Patrick Green-Thompson, DA FCA *CMSA* MBBCh MMed PhD *Witwatersrand* |
| *Humanities:* | Shose Kessi, PDBA *Witwatersrand* BA(Hons) *London* MSc PhD *LSE* |
| *Law:* | Danwood Mzikenge Chirwa, LLB(Hons) *Malawi* LLM *Pretoria* PhD *Western Cape* Practitioner of the High Court of Malawi |
| *Science:* | Hussein Suleman, MSc *Durban-Westville* PhD *Virginia Tech* |

***Dean of Higher Education Development***
Kasturi Behari-Leak, BA(Hons) HDE BEd *Durban-Westville* MEd *Cape Town* PhD *Rhodes*

***Director of the Graduate School of Business***
Catherine Duggan, BA *Brown* PhD *Stanford*

# JOIN UCT ALUMNI CONNECT

Today is not the end of your relationship with the university - its the beginning of a new phase in your continuing relationship with UCT. It's a journey you share with the global UCT community of over 200 000 alumni. Wherever you choose to go, fellow UCT alumni will be there. Join UCT Alumni Connect, our bespoke social networking site for alumni. Membership is free and provides access to a global network of like-minded professionals, innovators, thought leaders and entrepreneurs. Join our virtual alumni community today and enjoy these member benefits:

- Expand your professional network
- Stay in touch with your alma mater
- Connect with thousands of UCT alumni
- Locate UCT alumni in your area using mobile GPS
- Access career mentorship opportunities
- Share images from your reunions and alumni events
- View notifications of UCT events taking place in your city
- Access UCT Careers Service support

You can sign-up in less than 2 minutes, utilizing your Facebook, LinkedIn or email credentials. Visit www.uctalumniconnect.com or scan the QR code, then click on the 'Join' link to sign up. It is that easy. Membership verification is fast.

SCAN ME

To remain in contact with former UCT classmates and to keep abreast of important developments taking place at your alma mater, make sure that you update your contact details on our website: www.alumni@uct.ac.za. Here are some of the other ways you can stay in touch with us:

- Attend UCT alumni events hosted in your region
- Participate in the AGM of Convocation
- Join UCT Alumni Connect today
- Find and follow us on social media @UCTalumni
- Visit the Alumni Relations team in the Old Admin Building, located on UCT Lower Campus
- We love to profile our alumni. Email your news to: alumni@uct.ac.za

UCT benefits from a global network of alumni ambassadors, chapters and affinity groups, with an increasing number of volunteer networks across Africa. Our international UCT offices are focal points for leveraging institutional and research relationships, as well as donor opportunities. You can connect with one of our regional offices:

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**NORTH AMERICA**
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**CANADA -** Samantha Mandigora: info@uctcanada.ca

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**EUROPE**
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**AUSTRALIA**
Ruth Thornton: rjthornton1@bigpond.com

The Development and Alumni Department looks forward to meeting you. Join us at one of the many alumni events hosted around the world, on campus at a UCT public lecture, at UCT Summer School or at your class reunion. Let's stay connected.