



THE HUB CONNEXION

Department of Human Biology



UNRAVELLING THE MYSTERIES of the Human Brain

an interview with Dr Dorit Hockman
by Dr. Supratim Biswas

1. Background/Motivation

I was born and grew up in Johannesburg and moved to Cape Town in 2002 to study. Though I have lived in many places since then, I consider myself a Capetonian and I am so happy to call this incredible city my home. My background training is in the field of evolutionary developmental biology. My current research focuses on using techniques inspired by the field of developmental biology to expand our understanding of nervous system development, focusing mainly on the human brain. By studying the dynamics of gene regulation and expression over time, I am working to distil the core gene regulatory networks that guide cellular development, maturation and functioning in the nervous system.

2. About your Academic Journey

I did my undergraduate, Honours and Master's studies at UCT where I first started working in the field of evolutionary developmental biology. My first research project in this area explored how the genetic recipe that guides the mammalian limb development has been altered to allow the evolution of bat wings, which are essentially incredibly large hands. With this firm foundation in developmental biology, I went on to do my PhD as part of the Four Year Wellcome Trust Programme in Developmental Biology at the University of Cambridge. My PhD research explored the evolution and development of hypoxia-sensitive cells. My work on carotid development greatly expanded our knowledge of the molecular mechanisms of the hypoxia-sensitive glomus cell development and showed, for the first time, that Schwann cell precursors contribute to the developing carotid body glomus cells. My PhD also explored the embryonic origins of the proposed homologues of carotid body glomus cells: the

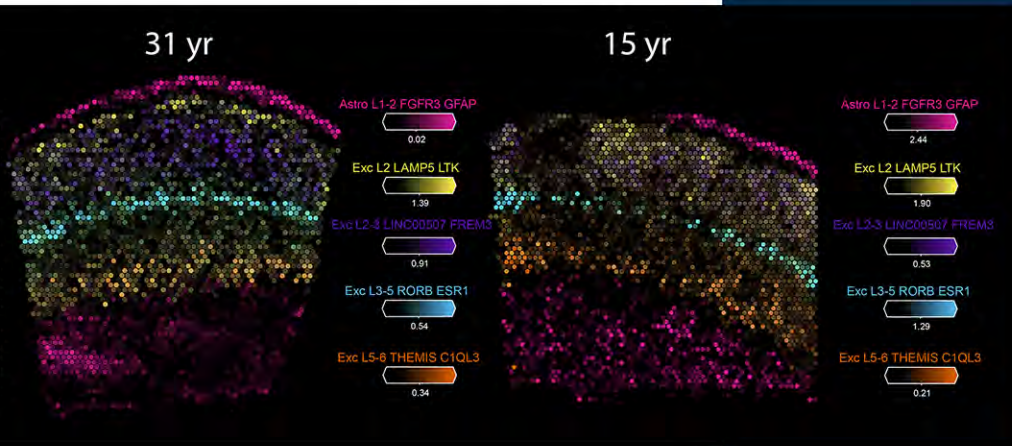
neuroepithelial cells (NECs) of aquatic vertebrate gills. Using lineage tracing in zebrafish, lamprey and frog, I showed that NECs and glomus cells do not share a common embryonic origin, refuting the hypothesis that they are evolutionary relatives. Schwann cell precursors contribute to the developing carotid body glomus cells. My PhD also explored the embryonic origins of the proposed homologues of carotid body glomus cells: the neuroepithelial cells (NECs) of aquatic vertebrate gills. Using lineage tracing in zebrafish, lamprey and frog, I showed that NECs and glomus cells do not share a common embryonic origin, refuting the hypothesis that they are evolutionary relatives. Schwann cell precursors contribute to the developing carotid body glomus cells. My PhD also explored the embryonic origins of the proposed homologues of carotid body glomus cells: the neuroepithelial cells (NECs) of aquatic vertebrate gills. Using lineage tracing in zebrafish, lamprey and frog, I showed that NECs and glomus cells do not share a common embryonic origin, refuting the hypothesis that they are evolutionary relatives.



After my PhD, I moved to the University of Oxford to take on a Junior Research Fellowship position at Trinity College. There, my research involved developing and analysing novel transcriptome and chromatin accessibility datasets for the neural crest in the lamprey. Lampreys are considered “living fossils” with a body-plan that has remained consistent over at least the last 400 million years. By examining the gene regulatory network that guides neural crest development in lampreys, my post-doctoral research expanded our understanding of the evolution of the earliest neural crest. Importantly, this research identified novel neural crest enhancers, including elements controlling neural crest specification genes, Sox10 and TFAP2b, in vivo. During my post-doctoral years, I re-established my connection to UCT through the Sydney Brenner Post-doctoral Fellowship, which allowed me spend part of my time doing research at UCT in the Molecular and Cellular Biology Department.

worked to establish a ground-breaking new research programme exploring the molecular mechanisms of human brain maturation. This research has been made possible through a new collaboration between basic neuroscientists in the Department of Human Biology and Neuroscience Institute, working with neurosurgeons at local Cape Town hospitals. Together, we are investigating how dynamic cell type-specific gene expression programmes direct the growth and maturation of the human brain during the key periods of childhood and adolescence. To do this, we are using single cell transcriptomics, spatial transcriptomics and chromatin accessibility technologies to explore cell type-specific gene regulatory profiles in the human brain. A particular strength of this research is that it focuses on using tissue from local patient donors, ensuring that data from African populations is represented and incorporated into global efforts to understand and protect the human brain during key

Astro and Ex. Neuron



3. About your UCT Opportunity

I returned permanently to South Africa and UCT in 2018 to join the Division of Cell Biology and was made a permanent member of staff in 2019. Here, I am a Senior Lecturer in Embryology, teaching on a variety of Science and Health Sciences undergraduate courses and I am also the convenor of the Medical Cell Biology Honours programme. I greatly enjoy introducing students to the wonders of embryology, especially the first few weeks of development, showing them how organisms advance from being a single cell to amazingly complex creatures. re evolutionary relatives.

4. About your Accomplishments

Since returning to UCT, I have been awarded a highly competitive independent research fellowship from the Royal Society and grants from the NRF and Gabriel Foundation to fund my research programmes and provide student support. In particular, I have worked with my collaborators to raise funds from the NIH in order to establish the technology for cutting-edge single-cell transcriptome analysis in my laboratory.

5. About your Research area

Over the past four years, since returning to UCT, I have

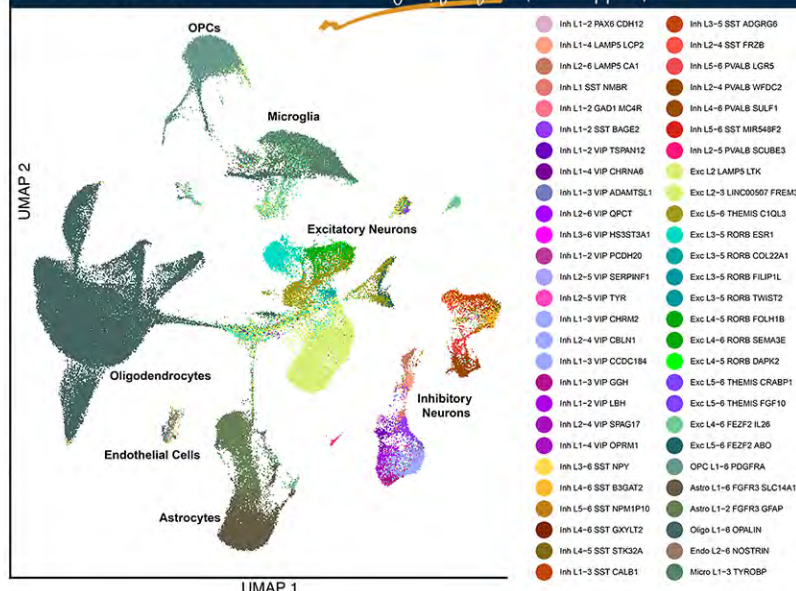
developmental periods. This is particularly important in the South African context, where the burden of infectious disease and traumatic brain injury in the paediatric population is very high.

6. Outside of work/hobbies

I love trail running and hiking, as well as taking cold dips in freezing Cape Town sea. I also love making art and I am always looking for artistic inspiration in my scientific work.

7. Who all are your Role models

I have had many mentors, supervisors and colleagues along my academic journey (too many to list here!) who have inspired me and supported me in my efforts to establish myself in academia. I still look to all of them to provide me with advice and encouragement as my career progresses. *I am so grateful for their support!*



The latter half of the 2023 academic year proved to be a busy period for the Division of Clinical Anatomy and Biological Anthropology (CABA) staff and post-graduate students in the Department of Human Biology. This was mainly because of their participation in the International Symposium of Morphological Sciences in August, and the World Anatomy Day Symposium in October.

The XXVIII International Symposium on Morphological Sciences (ISMS) was held from the 5th to the 8th of August 2023 at the Graduate School of Business of the University of Cape Town. This event hosted academics, researchers, and students from various disciplines of Anatomy across academic institutions, both local and abroad.

The event focused on different areas of Anatomy, such as Clinical Anatomy, Excellence in Education, Art in Anatomy, Neurosciences, Ethics, Evolutionary Biology, Comparative Anatomy, Cell Biology, Histology, Embryology, Developmental Biology, and Forensic Anthropology.

Some members from CABA formed part of the Local Organizing Committee for this event. The following members presented their research at the symposium:

Prof Victoria Gibbon- "Intellectual property agreements for three-dimensional imaging research Research oversight and protection of African human data."

Dr Kentse Mpolokeng- "Using Mentimeter as an interactive tool to facilitate student participation in in-person lectures on anatomy."

Dr Elizabeth Dinkele- "Enthesal changes as markers of physical activity in southern African hunter-gatherers/herders from the Holocene."

Mr Jason Wagner- "The co-existence of anatomical variants in the hepatic arterial supply and biliary tree."

Ms Mbalentle Madolo (Master's student)- "Anatomical variations of the anterior communicating artery complex in a South African sample."

Ms Athi Baliso (PhD candidate)- "Utilising forensic case information to inform taphonomy research in the Western Cape, South Africa."

Mr Sandile Ntuli (Master's student)- "Morphological and histological analysis of vascular conduit options used for coronary artery bypass grafting."

On 13 October 2023, the Anatomical Society of Southern Africa (ASSA) held an online symposium to celebrate World Anatomy Day, which is celebrated on the 15th of October every year. The symposium provided a platform for postgraduate students from South African academic institutions to present their research. Among the presenters were three Honours students from CABA who

CABA REPRESENTS at ISMS and World Anatomy Day

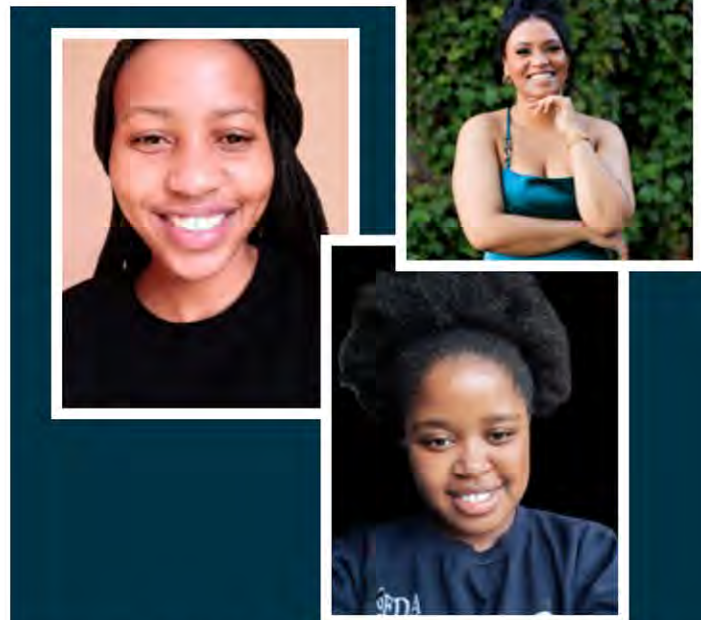
by Mrs Megan Petersen

presented segments from their Honours projects.

Ms Jami Maclean presented the results of her Honours project titled "The branching pattern of the left coronary artery in a South African population: a cadaveric study," supervised by Dr Kentse Mpolokeng, Ms Jessica Garlick, and Mr Jason Wagner.

Ms Mandisa Mabaso and Ms Refilwe Seleka presented segments of their Honours projects titled "The anatomical variations in the hilum structures and hilar arrangements on the South African cadaver samples" and "Morphological variations of lung fissures - South African cadaveric study," both supervised by Dr Kentse Mpolokeng and Mrs Megan Petersen.

All three students were grateful for the opportunity to present their research findings and were excited about their presentations.



Honours students present components of their Honours projects at World Anatomy Day Online Symposium. Mandisa Mabaso, Jami Maclean and Refilwe Seleka are enrolled as Honours students in the Division of Clinical Anatomy and Biological Anthropology at the University of Cape Town.

MRI IN AFRICA

by Dr. Fleur Warton

Staff and students from the MRI group recently travelled to Ghana to attend the first annual meeting of the Africa Chapter of the International Society for Magnetic Resonance in Medicine (ISMRM).

ISMRM, founded in 1994, is a scientific association which aims to promote research, technology and education in the field of magnetic resonance. Its thousands of members include physicists, engineers, clinicians and technologists. It hosts a large annual meeting each year, as well as smaller study groups and workshops on specific topics of interest. Within the society as a whole, smaller chapters have also been established based on geographical groupings, including multiple chapters in Europe and Asia and one for the Australia-New Zealand region. However, membership of ISMRM is geographically skewed, with the majority of members from the Global North. This is reflective of the imbalance in access to MR technology and education. A scarcity of adequate MR education in Africa has led to the loss of many who leave for education and work opportunities and do not return, perpetuating the lack of experts and training. The lack of representation from the African continent in meetings of MR experts can also lead to lopsided development and implementation of new technologies and discoveries, with the

technologies and discoveries, with the specific needs and contexts of a large proportion of the global population insufficiently considered.

In 2018, only 49 members of ISMRM were from Africa – 0.05% of the total membership. But those members dreamed of building MR capacity in Africa, of bringing experts and skills to develop local knowledge. At the 2019 Annual ISMRM Meeting in Montréal, Canada, a small group of African members strategized a way toward establishing an African Chapter, to promote inclusion of MR professionals from Africa and to develop collaborative opportunities. The Consortium for Advancement of MRI Education and Research in Africa (CAMERA) was established later that year to improve MRI training and develop a network of MRI users in Africa. Over the next four years, CAMERA built a framework for the inclusion of Africa in the international MRI community and established a network of clinicians, technologists, computer scientists, engineers and physicists in Africa. With funding from the Chan Zuckerberg Initiative to support the establishment of a Chapter and supported by a wide and active African MRI network, a petition was initiated in 2022 for the African Chapter of ISMRM. In January 2023, ISMRM leadership and MRI leaders from Africa met in Cape Town to plan the establishment of the Chapter. HUB staff members from CUBIC and the MRI group Ernesta Meintjes (Vice-Chair), Frances Robertson (Communication Representative) and Petronella Samuels (Regional Coordinator Southern Africa) formed part of the inaugural Governing Committee.

The first Annual Meeting of the African Chapter took place in Accra, Ghana, in late September this year. The meeting was preceded by a 2-day workshop which included lectures, master classes and roundtable discussions from African and international speakers. The



workshop covered topics including MRI physics, techniques and equipment, as well as discussions of different MRI modalities and their clinical applications. Several lectures addressed the topic of low-field MRI, an area of particular interest for Africa given its potential for making MRI accessible for research and clinical use in resource-scarce settings. Ernesta, Frances and Petronella contributed to the workshop, presenting lectures on various MRI modalities, including MR spectroscopy (MRS), diffusion tensor imaging (DTI), functional MRI and MR perfusion. Petronella, who is the Head Radiographer at CUBIC, organised and coordinated the masterclass for radiographers, which delved into the fundamentals, clinical applications and intricacies of handling artefacts in DTI and MRS. The workshop concluded with a comprehensive session on optimizing imaging parameters and emphasizing MR safety measures, essential for every MR radiographer.

The Scientific Meeting following the workshop took place over two days and was themed Advancing MRI technology in Africa: Fostering Innovation and Collaboration. The meeting featured educational and plenary addresses exploring technical and clinical aspects of MRI, given by experts visiting from Europe and the USA. The oral and poster sessions showcased work done by researchers from across Africa. These included a substantial contingent of postgraduates and staff from HUB, whose presentations covered a spectrum of the research areas in the MRI group.

Ndi Magondo discussed her development of a framework for graph theory analysis of functional connectivity within resting state networks in neonates, and Praise Matsekete presented a part of her Master's studies, a new tractography framework for investigating major white matter tracts using neonatal diffusion tensor imaging data. Isaac Khobo spoke on his work using brain imaging to predict future cognitive outcomes of children from low socioeconomic status households and communities, a tool which can be used to identify at-risk children who may benefit the most from early targeted interventions.

Joanah Madzime and Sonam Maharaj presented their work investigating brain changes in HIV. Joanah discussed the effects of HIV infection on the structure and function of the central auditory system in pre-adolescent children, while Sonam presented on her work in the same longitudinal cohort in adolescence, investigating brain metabolites using atlas-based MRS imaging. Ndi also presented on her findings in neonates with perinatal exposure to HIV and antiretroviral therapy (ART), showing that there are distinct alterations in white matter properties and organisation related to

maternal ART initiation in these neonates. Past HUB student Abdul Ibrahim also presented his work done on this cohort while completing his PhD, showing that maternal ART throughout pregnancy protects the caudate nuclei in exposed but uninfected neonates.

Oreneile Maiphethlo presented her Master's research showing preliminary evidence that prenatal maternal choline supplementation protects the white matter microstructure of infants born to heavy drinking women. In the poster sessions, Jia Fan showed his work investigating resting state functional connectivity in a longitudinal study of individuals with fetal alcohol spectrum disorders from childhood to adolescence. He and Soné Fouché also presented posters showing findings from their study of the effects of acupuncture treatment in ischemic stroke patients, with Jia's work looking at the effect of treatment on the default mode network and Soné's investigating the benefits and neural correlates of treatment on resting state functional connectivity.

The Meeting was a wonderful opportunity to share the work being done by the MRI group – for many of the group their first time giving a talk at an international conference – and to meet other researchers from across Africa engaged in similar studies. Our representatives were very proud to see the advancement of MRI in Africa and hear of the Chapter's plans to improve MRI accessibility and research across the continent. Beyond the educational aspect, the conference embraced African culture, providing attendees with an opportunity to enjoy traditional dances, relish the delightful flavours of Ghanaian cuisine, and engage with the local community. These cultural elements added a unique and memorable dimension to the event. According to Frances, the conference was probably the liveliest and most colourful one she had ever been to, with musical entertainment and dancing and lots of photo opportunities, and participants encouraged to wear African dress. The MRI group attendees enjoyed the bright, vibrant atmosphere of the city and places they attended (despite the intense heat!) and found the people incredibly friendly and welcoming. Getting to try many local Ghanaian dishes was also a highlight: most group members discovered a love for the renowned jollof rice!

We look forward to attending future meetings of the African Chapter and building MR networks, capacity and knowledge across the continent. We are also excited for 2026, when the annual Meeting of ISMRM will be held for the first time in Africa, here in Cape Town.

HERO OF HUB

an interview with Jacques Jacobs
by Mrs Megan Petersen

1. Tell me about your career journey, from school to tertiary education or work and jobs before UCT and finally how you got your start at UCT.

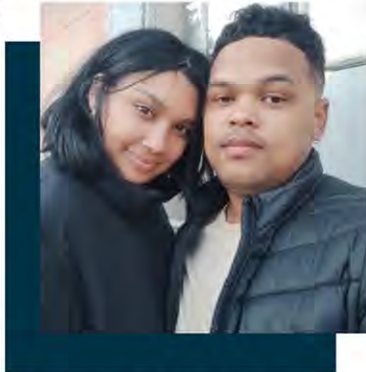
I attended school at Ravensmead High and matriculated in 2013. After school I had a retail job until I started working in the courier industry. In 2015 I started working at the state mortuary in Salt River until my internship ended and in 2018 I applied for a contract post in HUB/CABA and that is how I ended up at UCT.

2. Tell me about your time at UCT. When did you start? Was it in HUB? Tell us about the changes you have experienced in your time here. What stories do you have about your time at UCT. Feel free to give a few anecdotes about your time at UCT or some experiences if you have had while here.

I started working at UCT in 2018 on a contract basis and became a permanent staff member in 2019. I started in HUB and I am happy to say that I am still here and I'm enjoying every minute of it. Since I started here, I had a lot of different experiences which were all good experiences and for which I am incredibly grateful.

3. Who in the department, former or current has had the biggest influence on you? Could be the person who has helped you most or most inspired you.

My former colleague Deon Abrahams (retired) had quite an enormous influence on me when I started working here and when he was still around. He showed me everything I needed to know, and I followed him like a tail to absorb all the knowledge about the work before he retired. I am happy to say that I also have a great support system in my current colleagues: Shirees Benjamin, Michael Cassar and Megan Petersen - these are the people who always have my back and are always willing to help and give advice. Also, shoutout to the rest of the technical staff in the department.



4. Tell me about what motivates you?

I tend to look at everything from a different perspective and that is why anything can motivate me, whether it be my partner, nature, animals, my work, my colleagues, my family, sport or even music.



5. What do you feel are your greatest accomplishments while at UCT?

My greatest accomplishment at UCT was getting a promotion. This motivates me to work harder and be responsible and proactive in the workplace

6. What are your hobbies? What do you like to do outside of work?

My most enjoyed hobbies are taking scenic drives with my partner, Natalie (especially around the coast), playing with my dogs, watching rugby, baking and cooking, visiting a lot of different places like restaurants, cafés, shopping malls and markets.

7. Who are your personal heroes or people you admire?

My personal hero is my amazing 91yr old Grandfather. He gives the best advice and has been taking care of our family all by himself for the past 30-odd years since my granny's passing. He is resilient, strong, always happy with a profound sense of humour.



INTRODUCING

by Natalie Erskine

Introducing HPALS new director: Associate Prof Yumna Albertus

The Faculty of Health Sciences at the University of Cape Town is thrilled to welcome Associate Professor Yumna Albertus as the new Director of the Health, Physical Activity, Lifestyle, and Sports Research Centre (HPALS). Assoc Prof Albertus is a pioneering figure in the South African sports science landscape. Her expertise spans rehabilitation, neurophysiology, and biomechanics, and she leads the way in the biomechanics laboratory, conducting ground-breaking research in disability and high performance, as well as designing tailored biomechanics services for athletes and clinical populations. Notably, Assoc Prof Albertus's entrepreneurial spirit shines through her co-founding of Acino Technology, a UCT spin-off company committed to developing cost-effective technologies for human movement measurement, resulting in two registered patents.

Assoc Prof Albertus's academic prowess is equally noteworthy, with a C2 NRF rating. She has also nurtured the academic growth of numerous students, including 20 postgraduates, hosted Post-Doctoral Fellows, and is currently supervising four PhD and three MSc students. Her influence extends far South beyond the university, with leadership roles serving as Chair of the African Society of Biomechanics and on the Executive Board of the Albertus's appointment promises to usher in a new era of innovation and transformation in health, physical activity, lifestyle, and sports research.



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CELEBRATING EXCELLENCE

Jordan Leondiris's Biomechanics Triumphs

by Natalie Erskine



Jordan Leondiris, a dedicated Biomechanics PhD Candidate from the HPALS Research Group, focuses on the intricate mechanics of High Performing Cricketers. His research involves understanding the shoulder's force profile during overhead throwing and using EMG sensors to gauge deeper into the underlying motor activity elicited to execute throws under various fielding scenarios.

Recently, he received a prestigious Travel Grant to the 2023 ISB Congress in Japan in August, where he presented his research on "Holistic investigation of the overhead throw in elite and varsity cup cricketers: Throwing performance, EMG, and kinematic analysis." His exceptional work also earned him a spot as a finalist for the Young Emerging Researcher Award at the same conference.

Further adding to his accolades, Leondiris was awarded the Young Emerging Researcher Award at the South African Society of Biomechanics (SASB) Conference in Port Elizabeth. Exciting prospects lie ahead for Jordan Leondiris, and we eagerly anticipate the next chapter of his groundbreaking journey in the field of biomechanics.



HUB NEWS, ACHIEVEMENTS and Awards

There have been several fantastic achievements throughout the Department since our last issue which are worth celebrating.

Dr Kentse Mpolokeng received The Hanno Boon Award for best oral presentation on aspects regarding Medical Education at the International Symposium for Morphological Sciences that took place from 03 to 08 August 2023

Prof Vicky Gibbon was nominated for a Transferrable Successes award by the Department of Human Biology TEC

Master's student **Ms Mbali Madolo** received the 1st runner up in the ASSA award for best oral presentation by a young researcher Education at the International Symposium for Morphological Sciences that took place from 03 to 08 August 2023

Master's student **Ms Chelsey Voegt** presented findings from her MSc research at the 2023 50th Annual Meeting of the Canadian Association of Biological Anthropology (CABA-ACAB)

Edmund Wessels, a PhD candidate in Biomedical Engineering and a Junior Research Fellow within UCT MedTech / BMERC, jointly won the prestigious 2023 Africa Prize for Engineering Innovation for his gynaecological device FlexiGyn™. Edmund shared first place with Anatoli Kirigwajjo from Uganda.

UCT MedTech hosted the UCT Leeds MedTech Symposium 2023, which was jointly organized by the University of Leeds & University of Cape Town and brought together researchers and practitioners from medical technology, orthopaedics, and biomedical engineering. **Ms. Ansuya Chetty** was announced the overall winner with a fully paid 1 month research visit to University of Leeds.

Alexandra Lancaster, Lehan Hefer, Nicola Mason, and Raeesa Ismail, three Master's and one PhD UCT MedTech students, were selected for a prestigious student mobility program under the Erasmus+ program, which saw them studying at the University of Pisa, Italy, for a duration of three months.

Two UCT MedTech staff members delivered lectures at the Università di Pisa. Senior Technical Officer Sarah McEwan's lecture was titled "Overcoming Challenges in the South African MedTech Space: Navigating Regulatory Pathways and Processes for Success." Edmund Wessels' subject was "Flexigyn: The Process of Designing for Clinician and Patient".

Dr. Roopam Dey, Postdoctoral Fellow, visited Chukyo University in Japan. During this visit, Roopam had the privilege of exchanging valuable insights, introducing a fresh perspective, and imparting newfound expertise in the realm of USsEMG techniques.

UCT MedTech/BMERC successfully launched the UCT / merSETA Industrialization Fellowship. In response to the challenges posed by the pandemic, merSETA initiated the MediVentors Skills Development Programme, an endeavour aimed at supporting industrialisation in MedTech. Together with UCT and other key partners, this program has nurtured over 30 post-graduate and master's students and led to the development of the UCTVent BiPAP ventilator. Building on this success, merSETA and UCT have joined forces to transform the MediVentors Programme into an Industrialization Fellowship. This fellowship will empower students with additional "Industrialization Obstacle Management" training alongside their master's studies, fostering graduate employability, enhancing industrialization outcomes, and strengthening industry ties.

UCT MedTech / BMERC successfully organised the Manufacturing Robotics Challenge at the BRICS Future Skills Challenge 2023 at the Nasrec Expo Centre in Johannesburg.

Maureen Etuket won the 2023 Äänit Prize. She won \$80000 towards advancing social impact in Africa. Maureen Etuket is a PhD candidate and research coordinator at UCT MedTech/ BMERC, and Co-Director of Pumzi Devices in Uganda. Etuket and her team at Pumzi Devices have designed the SMART-PVD device, a volumetric drape which measures the amount of blood lost after childbirth. The drape will empower midwives to save the lives of new mothers who lose an excessive volume of blood after childbirth. The device provides evidence which enables medical decisions to be made quickly, preventing maternal death.

Prof Sharon Prince was the recipient of the PRINT program scholarship- Institutional program for Internationalization funded by the Coordination for the Improvement of Higher Education Personnel (CAPES). This allowed her to travel to the University of Sao Paulo as a Visiting Professor to teach in a postgraduate program on Advances in Pharmacology.

Prof Sharon Prince was a joint recipient of the UCT Vision 2030 grand challenges program along with **Prof Virna Leaner** and **Prof Stefan Barth**.

Prof Sharon Prince was also awarded a National Research Foundation (NRF) Competitive Programme for Rated Researchers grant.

Prof Sharon Prince has been awarded the SA / China (MOST) Joint Research Programme (JRP) application funded by the NRF in collaboration with Prof Zhi-Xiang Wu based at Henan University, China.

Awards and Achievements cont...

Claire Bellis (PhD Student) from the Prince laboratory, Division of Cell Biology, was awarded best speaker at the public communication of science competition hosted at the Faculty of Health Sciences, UCT.

Mr Jinming Bai (MSc candidate) and **Ms Anjani Rama** (MSc candidate) from the Prince laboratory, Division of Cell Biology were part of the teams that was awarded first and second place respectively in the SO/ME/DESIGN workshop organized by the University of Cape Town and University of Leeds.

Ms Alexa Rabeling from the Goolam laboratory received the UCT Faculty of Health Sciences Research Committee Best Publication Award (Postgraduate award, Basic Laboratory Sciences) for a paper entitled: "Cerebral organoids as an in vitro model to study autism spectrum disorders".

Dr Mubeen Goolam received :

- African Research Excellence Fund Towards Leadership Fellow
- SAMRC Self-Initiated Research Grant
- UCT Building Research Active Grant
- UCT Faculty of Health Sciences Faculty Research Equipment Infrastructure Grant
- UCT Enabling Grant Seeker Excellence Award
- Neuroscience Institute Gabriel Grant

Dr Dorit Hockman with her collaborators **Prof. Muazzam Jacobs, Assoc. Prof. Joseph Raimondo, Prof Anthony Figaji, Assoc. Prof. Ursula Rohlwick** and **Prof. Chris Dulla** received an NIH RO1 Award from the Department of Health and Human Services, National Institute of Neurological Disorders and Stroke for their project titled "Using Single Cell Biological Approaches to Understand CNS TB".

HUB Graduates Doctoral Graduates



December 2023

Supervisors: Prof. T Franz, Prof. NH Davies, Dr KL Sack, Dr MS Sirry

Thesis title: Investigation of cardiac mechanics and mechanical circulatory support therapies in peripartum cardiomyopathy using machine learning and patient-specific computational modelling.

Juliet Nagawa (PhD in Mechanobiology)



Supervisor: Prof. Sharon Prince

Thesis title: The status and role of the T-box transcription factor TBX3 in cervical cancer.

Saif Feroz Khan



Supervisor: Prof. Sharon Prince

Thesis title: The molecular mechanisms regulating the oncogenic functions of TBX2 in breast cancer.

Abid Ali



July 2023

Supervisors: Dr Martha Holmes, Dr Marcin Jankiewicz

Thesis title: Functional and structural analyses of the central auditory pathway in children exposed to and living with HIV.

Joanah Madzime (PhD in Neuroscience)



December 2023

Supervisors: Dr Martha Holmes, Dr Marcin Jankiewicz

Thesis title: Structural organization in 9-year-old HIV-infected children and HIV-exposed children.

Farai Mberi (PhD in Neuroscience)

Where the mind is without fear
and the head is held high
Where knowledge is free
Where the world has not been broken
up into fragments by narrow domestic
walls;
Where words come out from the
depths of truth;
Where tireless striving
stretches its arms towards perfection;

Where the clear stream of reason
has not lost its way into the
dreary desert sand of dead habit;
Where the mind is led forward
by thee into ever widening
thought and action-
into that heaven of freedom,
my father,
let my country awake.

Rabindranath Tagore

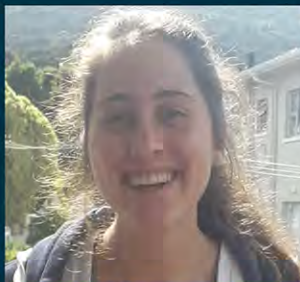
Master's Graduates



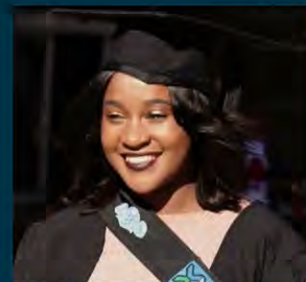
Atoosa Amel
Supervisor: Dr Mubeen Goolam



Simone Rossouw
Supervisor: Dr Mubeen Goolam



Christina Steyn
Supervisor: Dr Dorit Hockman



Ruvimbo Mishi
Supervisor: Dr Dorit Hockman



Aishah Olagunju
Supervisors: Dr Martha Holmes, Prof. Ernesta Meintjes, Dr Fleur Warton



Cayleigh Brown
Supervisors: Dr Frances Robertson, Prof. Ernesta Meintjes, Dr Jia Fan



Graeme Harris
Supervisors: Prof. Ernesta Meintjes, Mr Stephen Jermy

HUB New Appointee

Dr Thijs Verhoog has been appointed as a Junior Research Fellow in the Division of Cell Biology.



The Paradoxical Commandments

People are illogical, unreasonable and self-centered.

Love them anyway.

If you do good, people will accuse you of selfish ulterior motives.

Do good anyway.

If you are successful, you will win false friends and true enemies.

Succeed anyway.

The good you do today will be forgotten tomorrow.

Do good anyway.

Honesty and frankness make you vulnerable.

Be honest and frank anyway.

The biggest men and women with the biggest ideas can be shot down by the smallest men and women with the smallest minds.

Think big anyway.

People favour underdogs but follow only top dogs.

Fight for a few underdogs anyway.

What you spend years building may be destroyed overnight.

Build anyway.

People really need help but may attack you if you do help them.

Help people anyway.

Give the world the best you have and you'll get kicked in the teeth.

Give the world the best you have anyway.

Kent M. Keith

HUB Ad Hominem Promotions

Many congratulations to our members who have received a well-deserved Ad hominen promotion.



A/Prof Dale Rae
Associate Professor



Dr Mubeen Goolam
Senior Lecturer



A/Prof Janetta Harbron
Associate Professor



Prof Victoria Gibbon
Full professor



Ms Shirees Benjamin
Senior Technical Officer



Dr Supratim Biswas
Senior Scientific Officer

Education is not the amount of information that is put into your brain and runs riot there, undigested, all your life. We must have life-building, man-making, character-making assimilation of ideas. If you have assimilated five ideas and made them your life and character, you have more education than any man who has got by heart a whole library.

Swami Vivekananda

COUNSELLING SUPPORT (FOR UCT STAFF)

Independent Counselling and Advisory Services (ICAS)

Counsellors are available.

- **Call toll-free** for counselling 0801 11 39 45
- Send a **please-call-me** to *134*905#
- **Email:** uct@icas.co.za
- **Website:** hr.uct.ac.za/hr/benefits/org_health/counselling

Chat live with an **ICAS counsellor** via the online app, **ICAS On-the-Go** (Google and Apple downloads). **The code for UCT staff is UNI003.**

SOUTH AFRICAN DEPRESSION AND ANXIETY GROUP (SADAG)

- Access the **SADAG webinars and podcasts** for practical tips and coping skills
- **Call** 0800 17 11 71 (toll-free from a Telkom line 24 hours a day)
- Send an **SMS** to 31393 to request a **call-back**
- **Email:** office@anxiety.org.za for a counsellor to call you back
- Visit the **SADAG website** sadag.org for very useful information about how to cope with the daily stresses of working during the national lockdown
- Visit the **SADAG Facebook** page **Daily Expert Q&A from 13:00 to 14:00**
- **SADAG UCT Student Careline** 0800 24 25 26 (free from a Telkom line)

COUNSELLING SUPPORT (FOR UCT STUDENTS)

UCT Health Services for students

Tel: +27 (0)21 650 1020

Email: faranaz.murat@uct.ac.za

Website:

dsa.uct.ac.za/student-wellness/health-services/overview

UCT Counselling Services

Tel: +27 (0)21 650 1017

Email: lerushda.cheddie@uct.ac.za

Website:

dsa.uct.ac.za/student-wellness/counselling-services/overview

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