

Flurry of red gowns at June graduation

South African music icons Caiphus Semenya and Letta Mbulu to receive honorary doctorates

June graduation ceremonies at UCT, traditionally more modest events than their December counterparts, have always been marked by the predominance of postgraduate degrees awarded, particularly doctoral degrees. 2013 is no different and this week will see a flurry of red-gowned PhD graduands at the ceremonies. At the time of going to press, 75 PhD graduands were listed, up from 44 in June last year.

They are part of the total of 1 374 students from UCT's six faculties who will receive their diplomas, certificates or degrees during the four graduation ceremonies, split between 6 and 7 June. The figure is slightly up from the 1 340 students who graduated in June 2012.

Special guests

Guests at the June graduations will include Auditor-General Terence Nombembe, who will address the 10h00 ceremony on 6 June, and Minister of Science and Technology Derek Hanekom, who will address the 15h00 ceremony on the same day.

Honorary doctorates for duo

At 10h00 on 7 June honorary degrees will be conferred on South African icons Caiphus Semenya and Letta Mbulu for their contribution to music and role in the country's fight for democracy.

The honours recognise their achievements and reflect the respect and reverence they have engendered in communities that love their music and identify with their history and quest for freedom.

Apart from their international reputation as talented musicians, Semenya and Mbulu have, through their musical achievements, also served as unofficial cultural ambassadors for South Africa.

In 1981 Mbulu narrated *You Have Struck a Rock*, a documentary on African women's campaigns around non-violent disobedience. In the 1980s Semenya toured with the anti-apartheid musical *Buwa*. The couple returned to South Africa in 1990. In 2009 they were awarded the Order of iKhamanga in recognition of their excellent contribution to music and the struggle against apartheid.

Semenya is an accomplished musical director and composer, whose body of work includes conceptualising and conducting a Quincy Jones production at the Montreux Jazz Festival featuring several South African artists, including Mbulu and Hugh Masekela.

His compositions have been performed by music legends such as Cannonball Adderley, Harry Belafonte, The Crusaders, Lou Rawls and Nina Simone. He composed the African music for *Roots* and music included on *The Color Purple* soundtrack, which earned him an Emmy Award and a Grammy nomination, respectively.

Mbulu has recorded more than 20 albums on renowned labels with highly regarded producers. When she left South Africa for the United States of America in December 1964, she was already well established as a teenage star, having been featured in many big concerts, including the famous African Jazz and Variety Show, as well as the musical *King Kong*.

A protégée of Miriam Makeba, Mbulu went on to perform alongside other musical greats and is regarded by some as having the greatest voice of all the songbirds of the era.

UCT Book Award

At the 7 June afternoon graduation ceremony, the 2013 UCT Book Award will be presented to Sonja Loots for her novel *Sirkusboere*. (Meritorious Book Awards have been made to Carrol Clarkson for *J.M. Coetzee: Countervoices*, and to Fiona C Ross for her work *Raw Life, New Hope*.)

Loots' *Sirkusboere* tells the story, based on fact, of a group of traumatised, maimed and penniless veterans of the South African War (1899 to 1902) who were recruited in the aftermath of the war by legendary circus owner Frank Fillis to participate in a bizarre military spectacle at the 1904 World's Fair in St Louis, Missouri. Known as the Boer War Circus, it became one of the most popular events at the fair. The meticulously researched *Sirkusboere* is a story about trauma, diaspora, showbiz, freakery, racial discrimination, loss, displacement, rollercoasters and sport, and is described as "a wild bronco ride in history's rodeo".

UCT Creative Work Award

UCT Creative Works Award, which recognises major creative works (such as art works, performances, productions, compositions, architectural designs, and so on) produced by UCT staff within the past five years. This year Associate Professor Johann van der Schijff will receive this award for his catalogue 'Community Punching Bag'.

Van der Schijff is a senior lecturer at the Michaelis School of Fine Art where he teaches new media in the undergraduate degree as well as doing postgraduate supervision.

His sculptural/new media works have been exhibited nationally and internationally. His research interests are in the areas of computer-aided design and manufacturing techniques and the design of interactive systems.

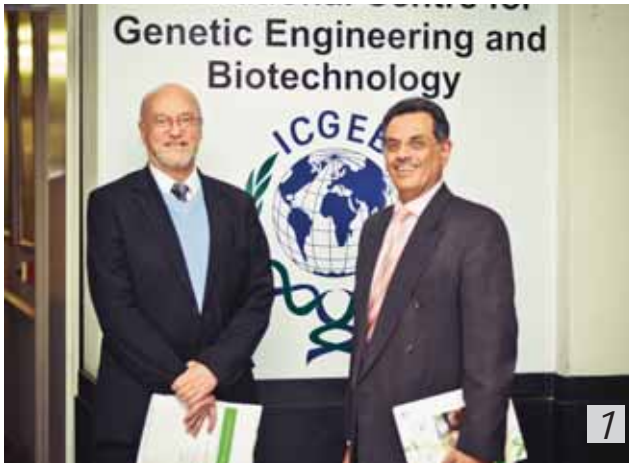
He says that growing up in South Africa and living in a violent country and continent, questions of power relations in society underlie much of his work, forcing the viewer into a position of choice in their engagement with his artworks. ■



Limelight: UCT will confer honorary doctoral degrees on Caiphus Semenya and Letta Mbulu, honouring their contributions to music and role in the country's fight for democracy.

UCT June graduation statistics

	2012	2013
Commerce	661	612
Engineering & the Built Environment	112	131
Health Sciences	106	138
Humanities	241	231
Law	107	98
Science	113	164
Grand total	1 340	1 374



news in pictures • news in pictures • news in pictures • news in pictures

1 A high-level delegation from the national Ministry of Science and Technology, headed by the Minister of Science and Technology, Derek Hanekom (left), visited International Centre for Genetic Engineering and Biotechnology (ICGB) Cape Town Component, based at UCT on 22 May 2013. The minister met the ICGB director, Professor Iqbal Parker and senior staff, after which they toured ICGB labs. It was the first time that Hanekom, pictured here with Iqbal, visited the ICGB since assuming his portfolio in 2012. The main purpose of the visit was to brief Hanekom on the activities of the ICGB Cape Town Component, discuss the operational agreement with the Department of Science and Technology, and share the vision for the Component's future activities.

2 Presentations by three UCT staff members were lauded at a conference about the higher education sector's role in driving social change. Pictured here are Judy Favish (director of Institutional Planning Department), Dr Janice McMillan (Centre for Higher Education Development) and Associate Professor Dee Smythe (Law) who delivered presentations at the conference in Barcelona in May, which was titled *GUNI 6th International Conference on Higher Education: Let's Build Transformative Knowledge to Drive Social Change*. GUNI was created in 1999 by UNESCO and the Universitat Politècnica de Catalunya after UNESCO's first World Conference on Higher Education.

3 Emeritus Professor Morna Mathias, formerly of the Department of Geology, celebrated her 100th birthday with friends and family on 20 May. She was born Frances Celia Morna Cameron-Swan, the granddaughter of the late Sir Joseph Wilson Swan, the English physicist and chemist who was most famous for producing an early electric light bulb before its invention by Thomas Edison. Sir Joseph also invented the dry photographic plate, an important improvement in photography and a step in the development of photographic film. Morna studied geology at UCT, after a taunt from her brother that the field was "too difficult for a woman". She was the first woman academic appointment in geology (there have only been two since then, in 2006 and 2010)

and the only woman associate professor of geology at UCT. Morna was awarded her DSc in 1956 and was elected a Fellow of the Royal Society of South Africa.

4 UCT master's student Mdu Kweyama was awarded the Marta Best Director Award for his adaptation of Mike van Graan's play, *Brothers in Blood* at the 2013 Setkani/Encounter Festival in the Czech Republic in April. Supported by strong showings from theatre and performance undergraduate students Daniel Richards, Matthew Trustham and Tarryn Wyngaard, the production received standing ovations and high praise from audiences and fellow participants. The festival brings together professionals and students from theatre schools across the globe. Kweyama credits the group's success to the UCT Drama Department's staff and students and to Associate Professor Christopher Weare in particular.

5 Twenty-seven senior citizens from the Rehoboth Age Exchange and GH Starke centres for the aged in Hanover Park ascended Table Mountain in the Cable Car on 15 May. Thanks to a group of UCT third-year physiotherapy students and their clinical educator, assigned to a clinical 'block' placement at the centre, this was a first visit to this wonder of nature for many of the group. The students provide individual client and group assessments, focusing treatment on specific modalities and group exercise classes. Fahmida Harris, clinical educator in the Division of Physiotherapy, said the day was a roaring success. "The students participated in a social responsibility project and enhanced their learning in the area of geriatric management. And the Rehoboth residents had a ball."

6 UCT graduates Nicholas Rice and Alice Meyer have been awarded 2013 Gates Cambridge Scholarships – considered among the most prestigious in the world. In September, Rice and Meyer will jet off to the University of Cambridge to pursue full-time postgraduate studies. The

scholarship focuses on academic excellence and is highly competitive. Applicants need to show leadership capability and a commitment to improving the lives of others. Of 3 500 applicants, only 90 were selected, 39 from the US and 51 from around the world. Rice said he had long believed improving the lives of others was "very important for those privileged enough to have advanced education. I knew I had to give it a shot."

7 If law is the bread and butter of attorney Siyaam Ally's life, fashion is the strawberry jam in between. The fashionista from UCT's Law Clinic was Runner-Up for Best Fashion Blog at the 2012 Blog Awards, just nine months after launching into the blogosphere. She calls it her 'personal style dairy' and it connects the seams of fashion, law and life. Ally is working towards a Master of Laws (LLM) degree in international law at UCT, having worked as an attorney in the litigation department at the UCT Law Clinic since 2006. She also runs a satellite clinic in Athlone where she supervises a team of final-year law students and candidate attorneys who meet and provide legal advice to clients from disadvantaged backgrounds.

8 In its continued drive to keep students and staff safe in and around campus, UCT last week donated five bicycles to the Community Police Forum in Mowbray. The bicycles will be used to patrol the Mowbray residential area near UCT. Roland September, Risk Services Manager at UCT's Properties and Services, said that visible policing remains one of the best ways to ward off crime. It was hoped that bicycle patrols would help rid the area of the petty crime and would make police officers more accessible to what was happening on the ground, said September. The bicycles were handed over to Mowbray Community Police Forum member Simon Hayes (far right) and Mowbray SAPS's Lt. Col. Mary-Louise Dyers (centre left) by Properties and Services Executive Director, John Critien (centre right). Another five bicycles will be donated to the Rondebosch Community Police Forum this month. ■

Monday Paper to don a graduation gown of its own

While campus is abuzz with graduation glory at the moment, the *Monday Paper* will soon be experiencing a 'graduation' of its own.

As usual the newspaper will be taking a break over the mid-year vacation, but will re-emerge during July in its new guise as the *Monday Monthly* – a longer publication that offers a more in-depth read.

"We are very excited about improving the publication and finding new synergies with the online UCT newsroom," says executive director of communication and marketing, Gerda Kruger.

"Our intention is to expand *Monday Paper's* coverage of UCT's core business and to reposition the publication as a more thought-provoking and modern, exciting read that showcases the dynamic and creative work on campus in slightly more depth. We are simultaneously expanding the UCT online news to cover more daily breaking news, and we hope to cover more stories more frequently on this platform."

"Doing this will assist us in feeding more information about campus life to more audiences while optimising our existing resources. We believe these improvements will better serve our many readers around campus and further afield," adds Kruger.

The paper is being brought in line with the standards set by top educational institutions across the globe, and the revitalisation of the paper is taking place under the strategic guidance of renowned journalist and media expert Tanya Farber.

Farber has won four international awards for her journalistic expertise and brings more than a decade of newsroom experience with her to UCT. She has worked for the mainstream media in South Africa and has produced several publications for international bodies such as the United Nations and the Open Society Foundation.

She joined the team as head of Newsroom and Publications in May, and has since then conducted a thorough assessment of *Monday Paper*, its readership, its purpose and the best way forward.

It became clear that its role as a 'paper of record' had long since been usurped by its more dynamic and immediate counterpart online in the form of the 'Daily News' component of UCT's home page.

Research across the globe has shown that people with access to the internet are more likely to consume their daily news in that format because of its immediacy, while papers that offer a degree of analysis, insight and well-researched features are still able to engage and entertain readers.

As more and more people from across the world gain access to the internet, UCT's online news articles are gaining a wider readership.

Retha Deetlefs, Head of Online Communications in the Communication and Marketing Department, says sophisticated analytics enable one to accurately gauge visitors' interaction with news articles.

"We are able to see how many times an article is viewed, where the visitors are from, and how long they spend on a page. We can even tell which towns and cities visitors hail from. For instance, visitors from all corners of the world viewed the 'We Say: Enough!' campaign – literally from Cape Town to Helsinki, and from Los Angeles to Tokyo. We can gather this type of information about each online news article, whereas there is only anecdotal feedback for hardcopy articles."

"The number of page views per article allows us to measure the relative popularity of articles. For instance we know that the two most popular articles on the site so far this year are the World University Rankings, with 5 835 page views, and the 'We Say:



Tanya Farber, the new head of Newsroom and Publications

Enough!' campaign with 3 122 page views," adds Deetlefs.

Farber and her Newsroom and Publication team will not merely showcase the outstanding work or awards of academics, PASS staff and students on campus. The *Monday Monthly* will also give members of the campus community a voice in the form of an opinion page where people can share – in their own words – their latest work, or contribute to pertinent debates, in an accessible way.

"We can now raise the quality of the publication in tune with its new role in the form of the *Monday Monthly* – a role which many other print publications have had the pleasure of taking on since online sites started breaking news," she explains.

The photographs will also move away from the standard podium shots and into a more creative realm of feature photography, while each edition will also contain features and a double-page spread on a specific theme.

"This is an extremely exciting new chapter in the paper's long history," adds Farber, "and the Newsroom and Publications team is hard at work to produce a paper that reflects the brilliant minds of this university in an appropriate way. UCT is a wonderful incubator of thought, action and analysis, and any person on or off campus should be able to pick up our publication and take notice of this fact."

"We are also in the most fortunate position of not having to rely on advertising revenue to keep publishing," says Farber, "and so we have two forms of 'prime real estate': a dynamic online space that can work in synergy with a paper that isn't covered with too many adverts."

This means that the newsroom team, under Farber's management, can allocate stories that come in to a variety of different spaces, be they sections in the *Monday Monthly* or high-traffic spots online. ■

To streamline the system, the Monday Paper email address will fall away, and will be replaced by newsdesk@uct.ac.za so that all story ideas are filtered through one system and allocated accordingly

A little help from friends

Master's graduands Teresa Perez and Laura Winterton will graduate this week with distinctions for their dissertations, both rooted in community needs through groups that approached the UCT Knowledge Co-op Pilot Project for some practical help.

The co-op provides a channel for external constituencies to access knowledge, skills, resources and professional expertise within the university. At the same time, it provides an opportunity for students to find dissertation topics that address the needs of community groups – and taps into their expertise.

Community groups submit project ideas and the co-op tries to match ideas and expertise to appropriate research units at the university. Students involved in these projects conduct original research on the topic, or access existing research. In some projects students offer practical support in a service-learning setting. The co-op ensures that all partners involved in a project obtain a useful product.

Perez conducted research on the development practices of The Women's Circle (TWC). A small, local community-based organisation the TWC provides basic developmental skills to low-income residential areas.

Perez came to know about TWC through the UCT Knowledge Co-op. The TWC wanted help to further develop their approach to the facilitation of health and human rights workshops and basic skills training. In a negotiation process facilitated by the UCT Knowledge Co-op, TWC gained a volunteer to support them and Perez gained a research site for her thesis towards her master's in sociology.

"The partnership between Perez and The Women's Circle is a good example of how academia and community development can be integrated," said Barbara Schmid, project manager of the UCT Knowledge Co-op Pilot Project in the Institutional Planning Department.

Winterton, a master's student in Social Anthropology, partnered with the international NGO Médecins Sans Frontières (MSF – Doctors without Borders) in her dissertation research. Her qualitative ethnographic study looked at the psychosocial issues behind 'default' and 'adherence' among drug-resistant (DR) TB patients seeking treatment in Khayelitsha, to help develop a more nuanced understanding of the factors that affect a patient's ability to complete their treatment.

Winterton chose to explore this issue after having done research for her honours degree on the 'responsibilised' DR-TB patient seeking care in a de-centralised clinic. Her priority was to expand on the public health and social science literature on default and adherence as way to reflect the questions that patients and patients' families were asking.

She has subsequently received a Wellcome Trust studentship at the University of Edinburgh to continue with her work on DR-TB in South Africa for her PhD. ■

(For more information go to www.knowledgenco-op.uct.ac.za)



International honour: Prof William Bond.

Bond elected to National Academy of Sciences

William Bond, the Harry Bolus Professor of Botany in the Department of Biological Sciences, has been elected as a foreign associate of the United States' National Academy of Sciences (NAS), which celebrates its 150th anniversary this year.

Bond, an ecologist with an interest in the processes that control large-scale vegetation, is the fifth African scientist to have been elected to the academy. The NAS is an independent body of approximately 2 200 members and 400 foreign associates. Nearly 200 members of this prestigious body are Nobel laureates.

Bond and his colleagues in South Africa and elsewhere have shown that wildfires are a major force in shaping global vegetation – and have been for many millions of years.

"African vegetation is particularly interesting and challenging to study because of the complex interplay between climate, fire, large mammal herbivores, people – and increasing CO₂, the hidden hand of global change," said the National Research Foundation A-rated researcher.

Established by an Act of Congress signed by Abraham Lincoln in 1863, NAS is a private, non-profit society of distinguished

scholars. It provides independent, objective advice on matters related to science and technology. Scientists are elected by their peers to membership on the basis of their outstanding contributions to research.

Bond joins Professor Richard Cowling, a conservation biologist at Nelson Mandela Metropolitan University, as the only two current South African foreign associates of the NAS.

Africa (including Madagascar) has only four foreign associates. This year, Dr Meave Leakey from Kenya was also elected as an associate. ■

UCT finalists in the NSTF-BHP Billiton awards

Seven UCT scholars from six research units are finalists in the prestigious 2012/13 National Science and Technology Forum-BHP Billiton awards. This year, the NSTF celebrates its 15th awards, which recognise, acknowledge and promote excellence in the South African research and development community.

The Annual NSTF-BHP Billiton Awards event, launched in 1998, is the flagship project of the largest and most prominent multi-stakeholder representative forum for science, engineering, technology and innovation (SETI) organisations in South Africa.

The winners will be announced at the NSTF-BHP Billiton gala dinner in Johannesburg on 27 June.

UCT has finalists in the following categories:

To an individual for an outstanding contribution to SETI over a lifetime:

Professor Robert Millar, director of the UCT/MRC Receptor Biology Group and director of the Mammal Research Unit at the University of Pretoria; and

Professor Dan Stein, head of the

Department of Psychiatry and Mental Health and director of the MRC Unit on Anxiety Disorders at the University of Stellenbosch. (Pictured opposite)

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

Professor Graeme Cumming, Pola Pasvolsky Chair of Conservation Biology in the Department of Zoology; and

Professor Karen Sliwa-Hahnle, director of Hatter Institute for Cardiovascular Research in Africa, in the Department of Medicine, UCT, and director of the Soweto Cardiovascular Research Unit at the University of the Witwatersrand.

To a Researcher, for an outstanding contribution to SETI through Research Capacity Development over the last 5 to 10 years:

Professor Karen Sliwa-Hahnle.

To an Individual or a Team for an outstanding contribution to SETI

through Communication for Outreach and creating Awareness over the last 5 years:

The Aqualibrium Civil Engineering Team, which includes Associate Professor Kobus van Zyl of the Department of Civil Engineering.

To an Individual or a Team for an Outstanding Contribution to SETI through Research leading to Innovation:

The Adaptive Real-Time Internet Streaming Technology (ARTIST) Team (a collaborative effort between UCT, [Professor Gerhard de Jager and Associate Professor Mqhele Dlodlo] the CSIR, and East Coast Access).

Professor Danie Visser, Deputy Vice-Chancellor responsible for research, wished them well for the finals on 27 June.

“Each candidate and project has already done UCT proud. But we’re particularly proud of the work being done by these finalists in capacity building, mentoring, and outreach, which are essential to the growth of the thriving research community we are working to establish.” ■



New recognition for obsessive-compulsive and related disorders

This week saw the release of the American Psychiatric Association’s 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM).

The DSM is used throughout the world and this is the first revision in nearly two decades. Not surprisingly, it has received a good deal of media coverage across the globe.

Professor Dan Stein (pictured above) head of the Department of Psychiatry and Mental Health, and director of the Brain Behaviour Initiative at UCT, is one of the many international contributors to DSM-5.

An A-rated scientist, Stein headed the Sub-Work Group on Obsessive-Compulsive Spectrum disorders, and has published a number of papers on the DSM-5 revision process.

In one paper, co-authored with Professor Randy Nesse, a pioneer in evolutionary medicine from the University of Michigan, Stein and Nesse made the argument that some of the criticism of DSM-5 reflects overly high expectations.

“Behaviour is enormously complex and so it is not surprising that DSM-5 categories cannot be mapped onto specific biological abnormalities,” said Stein.

In a second paper, co-authored with Professor Katharine Phillips, from Brown University, who was on the DSM-5 Taskforce, Stein and Phillips noted that DSM-5 was the first edition of the manual where proposals were made available for public scrutiny during the revision process.

Stein and Phillips emphasise the value that consumer advocacy around certain Obsessive-Compulsive Spectrum Disorders played in this issue of the manual. It was very helpful to have stronger patient support for the changes proposed in this section.

Stein is pleased that Obsessive-Compulsive and Related Disorders will, for the first time, be a separate chapter in DSM.

Professor Christine Lochner, his University of Stellenbosch colleague in their MRC Unit on Anxiety and Stress Disorders, played a key role in leading field surveys in this area. These contributed to formulating the final diagnostic criteria.

Stein is hopeful that the improved diagnostic criteria will help encourage diagnosis and treatment of these prevalent, but often neglected, disorders which include body dysmorphic disorder, hoarding disorder, trichotillomania (hair-pulling disorder) and excoriation (skin-picking disorder).

Stein concludes: “In South Africa we focus a lot on medical conditions associated with mortality. But if one looks at morbidity, then psychiatric disorders such as obsessive compulsive disorder are among the greatest contributors to our national burden of disease. So it’s important that we develop expertise in this area as well.” ■



Prof Karen Sliwa-Hahnle has been nominated in two categories.



Nominee Prof Robert Millar.



Nominee Prof Graeme Cumming.



Nominee Assoc Prof Kobus van Zyl (as part of the Aqualibrium Civil Engineering Team).



Prof Gerhard de Jager (as part of the Adaptive Real-Time Internet Streaming Technology Team).



Assoc Prof Mqhele Dlodlo (as part of the Adaptive Real-Time Internet Streaming Technology Team).

SKA SA fellow is lead author of first scientific paper from KAT-7 results



First paper: Dr Richard Armstrong (right) and Assoc Prof Patrick Woudt. Armstrong is the first author of a scientific paper based on observations performed with South Africa's new KAT-7 radio telescope. Woudt and Prof Rob Fender (not in picture) of the University of Southampton, and a SKA visiting professor at UCT, are co-authors.

The first author of a scientific paper based on observations performed with South Africa's new KAT-7 radio telescope is alumnus Dr Richard Armstrong, a Square Kilometre Array (SKA) SA Fellow at UCT.

The paper, *A return to strong radio flaring by Circinus X-1 observed with the Karoo Array Telescope test array KAT-7*, has just been accepted by the prestigious journal, *Monthly Notices of the Royal Astronomy Society* (MNRAS). This follows a thorough peer review and referee process.

Two of Armstrong's co-authors are Professor Rob Fender, head of the Astronomy Group at the University of Southampton (UK) and an SKA visiting professor at UCT, and Associate Professor Patrick Woudt, deputy head of UCT's Department of Astronomy, also a UCT alumnus.

South Africa is constructing MeerKAT, the 64-dish radio interferometer that serves as a precursor to the SKA. UCT researchers are leading four of the approved MeerKAT Key Science Projects, representing a quarter of MeerKAT time.

One of these projects is the 3 000-hour ThunderKAT survey for astrophysical transients. Armstrong has been working on the design of this survey together with Fender and Woudt, the leaders of the ThunderKAT project. This will search for all types of radio bursts and flashes in KAT-7 and MeerKAT data on timescales from seconds to years.

Armstrong left the United Kingdom 18 months ago to join a steadily growing UCT radio astronomy group as a SKA SA Fellow. UCT and the Western Cape have become a preferred education destination for astronomers, drawing postdoctoral students and researchers from around the world.

"With the SKA and MeerKAT being developed on our doorstep, Cape Town is the hottest place to be in radio astronomy in the world at the moment," said Armstrong.

UCT is rapidly also becoming a hub for astronomical and astrophysics research in Africa, channelling resources and outreach to neighbouring countries. The

university is a partner in research projects involving eight other African countries, and has led research outreach to Mozambique and Ethiopia in recent years. The university's goal is to train future leaders in radio astronomy.

Armstrong obtained his BSc (Hons) in Electrical and Computer Engineering at UCT in 2006, after which he worked as a software developer in the UK. He went on to obtain a DPhil in astrophysics through a Dorothy Hodgkin Postgraduate Fellowship at the University of Oxford in 2011.

Publishing on this particular area of research for the first time, 29-year-old Armstrong says it is a great opportunity and honour to be working on a South African scientific instrument, and congratulates the MeerKAT engineering team on this milestone.

Woudt obtained his PhD in Astronomy at UCT in 1998 and has published 74 peer-reviewed journal articles (27 as first author). His teaching and research career at UCT spans more than 12 years and includes supervising various BSc Honours, MSc and PhD students. A member of the International Astronomical Union (IAU), Commission 19 (Astrophysics) of the International Union of Pure and Applied Physics (IUPAP) and the council of the South African Institute of Physics, Woudt is the co-principal investigator of ThunderKAT.

A member of the IAU, Royal Astronomical Society and the UK Institute of Physics, Fender has been involved in undergraduate and graduate teaching for over 15 years, including successfully supervising more than 10 PhD students. He currently chairs the SKA Transients Science Working Group. Fender is a world leader in the areas of accretion (primarily, but not exclusively, onto black holes) and wide-field searches for radio transients. ■

Good heads and hearts enhance education

Canadian scientists were the perfect partners for their South African peers in physics and space exploration, and the two countries have only begun to scratch the surface of what they could share and achieve together.

This was the contention of David Johnston, Governor-General of Canada, in his keynote address at a recent UCT panel discussion on international education and science collaboration.

The panel was comprised of Dr Bernard Fanaroff, project director of SKA (Square Kilometre Array) SA; Professor Eugene Cloete, deputy vice-chancellor, Stellenbosch University; Professor Ramesh Baruthram, deputy vice-chancellor, University of the Western Cape; Dr Amit Chakma, chair, World University Service of Canada and president and vice-chancellor of the University of Western Ontario; and Paul Davidson, president, Association of Universities and Colleges of Canada. The Master of Ceremonies was UCT acting vice-chancellor, Professor Thandabantu Nhlapo.

Johnston said South African and Canadian schools should forge alliances so that their teachers, researchers and students could work, study, share and learn together, regardless of their disciplines.

"Only then can our countries unleash the true power of the diplomacy of knowledge."

"Our two countries have already laid some valuable groundwork. Four Canadian universities have struck partnerships with schools, foundations and campaigns in South Africa. One of these South African partners is this wonderful place of learning, discovery and innovation – UCT."



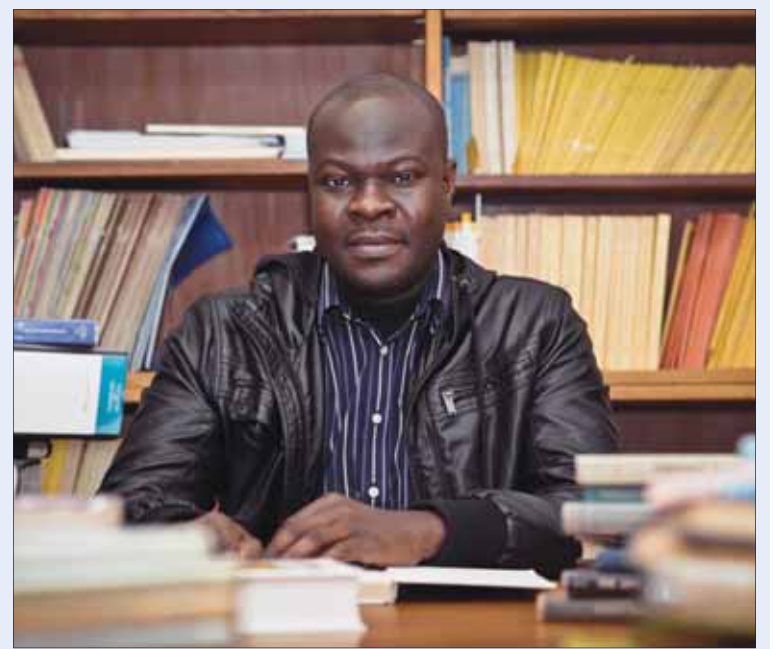
Heads and hearts: David Johnston, Governor-General of Canada, at a recent UCT panel discussion on international education and science collaboration.

Johnston invoked the words of Nelson Mandela that "a good head and a good heart are always a formidable combination", and said that like Mandela, he believed in "the formidable power of keen minds and kind hearts".

"Let's put our good heads and hearts together and uncover new insights about the vast expanses of space."

Chakma referred to a project called Grand Challenges Canada, which, he said, supported at least 11 projects in South Africa, most headed by South African scholars.

Davidson told the panel one of the benefits of co-operation programmes between universities was that they gave students the opportunity to learn problem-solving and project-management skills. ■



Finding the Holy Grail: Obinna Umeh's PhD thesis, *The influence of structure formation on the evolution of the Universe*, was described by an examiner from Oxford as "a remarkable piece of work and one of the most impressive theses I have read".

Of dark energy, matter and cosmological parameters

Obinna Umeh lives in a world of dark energy, "spatial averaging" and "quantifying cosmological parameters", in a Universe filled with mystery, darkness and vast empty spaces. His PhD thesis, titled *The influence of structure formation on the evolution of the Universe*, was described by an examiner from Oxford as "a remarkable piece of work and one of the most impressive theses I have read".

One of his two UCT supervisors, Dr Chris Clarkson (the other was Emeritus Professor George Ellis), echoed these sentiments, describing the thesis as "excellent... one of his key results concerns substantial calculations which now allow us to estimate distances and brightnesses to distant galaxies to high precision".

Umeh says in cosmology there is a working assumption known as the Cosmological Principle (CP).

"This principle states that observers on Earth do not occupy a special place in the Universe. One could re-state this assumption by saying that the distribution of all forms of matter in the Universe is homogeneous (independent of position) and isotropic (independent of direction) on a scale much greater than the scale of our galaxy, the Milky Way."

Mathematically, he adds, the form of space time metric that satisfies this assumption is known as Friedmann-Lamatre-Robertson-Walker metric (FLRW).

"When we solve Einstein field equations (these equations describe interaction between massive objects of the kinds seen in the Universe) based on this metric and fit its prediction against some of the well-understood cosmological observations, we immediately notice that things do not add up if we consider only forms of matter visible to us.

"Hence, in order to reproduce the Universe seen when we point our telescopes at the sky, we are compelled to add two additional forms of matter, namely dark energy and dark matter."

His PhD considers what he calls "a mild breaking of the Cosmological Principle".

"We considered a situation where spatial averaging over the type of structures we see in the night sky (for example galaxies and clusters of galaxies) could reveal the type of Universe we observe on a large scale, thereby eliminating the need for dark energy."

Umeh has a strong background in theoretical physics/string theory, and says he is trying to carve a global niche in quantifying non-linear effects on all cosmological parameters, in readiness for the SKA (Square Kilometre Array) project.

Apart from being able to answer some key questions of great academic importance about backreaction in cosmology, the essence of Umeh's research is to establish a formalism for quantifying cosmological parameters in a Universe filled with all kinds of structures.

"My PhD results show that the dynamics of structures in the Universe have a non-negligible effect on how the Universe evolves and that if such an effect is not properly taken into account, it could jeopardise precision measurements of some of the cosmological parameters by the next generation of radio telescopes, like MeerKAT and SKA."

The Universe is not merely expanding, he says, but expanding at an ever-accelerating pace.

"About 70% of its rate of expansion is determined by dark energy and the larger percentage of the rest is determined by dark matter."

The thing that most fascinates him in cosmology is the existence of Cosmic Microwave Background radiation. This is the radiation that fills every corner of the Universe, left behind by events that took place in the early stages of its development.

"It opens our eyes accurately to what happened when the Universe was about 10 to 37 seconds old," says Umeh. "It is femtoseconds away from the Holy Grail of how we got here." ■



Around Africa

For the second year running, UCT has dedicated May to celebrating 'Internationalisation with an Afropolitan niche'.

Celebrating Africa Month included an assortment of seminars and lectures on key issues facing the continent, master classes with experts, student-run sporting events, art showcases and film screenings.

African identity, health and sustainability woven into Unibags

As part of Africa Month, there was an exhibition of 70 hand-made bags by first-year students of the Michaelis School of Fine Art in the Richard Luyt Room (iKhaya Day House) whose creations sought to bring together three concepts: African identity, health promotion messages, and sustainability.

The "Unibag" Competition, as



The Transformation Committee of the Office of the Vice Chancellor (OVC) hosted a workshop on 16 May. OVC UCT staff were invited to participate in creating a Unibag to stimulate critical thinking around our identities, position and roles in Africa. Pictured here is Norma Derby (IAPO) creating her Unibag.

it was known, emanated from a collaboration between the HIV/AIDS Institutional Co-Ordination Unit (HAICU) and the UCT Africa Month Committee under the chairmanship of Professor Thandabantu Nhlapo and Fabian Saptouw, a lecturer in Fine Art at Michaelis.

HAICU curriculum integration officer Sianne Abrahams explained the concept behind the collaborative creation of the Unibags was to allow students to come up with innovative ways of bringing together the themes of environmental awareness and health promotion in a way that marked Africa Month, and celebrated African heritage and culture in a positive way.

"We wanted students to learn about combining African iconography together with health promotion messages in a goal-oriented design task and thereby applying design theory in practice. The process of creating Unibags, using a variety of materials, enabled students to integrate their knowledge of health promotion theories and environmental issues in a tangible way," explained Abrahams.

Saptouw, who led the initiative, spoke on the plaza together with Nhlapo about the goals of the project, sharing the concepts with a wider UCT audience. Saptouw



The Unibag Competition at the iKhaya Day House attracted much attention. Seen here are holding some of the students' most innovative Unibags are (from left) Cal Volks (HAICU director), Sianne Abrahams (HAICU), Prof Thandabantu Nhlapo (DVC) and Fabian Saptouw (fine art lecturer).

and first-year fine art students have previously collaborated with HAICU's project officer, Lucina Reddy, designing installations at UCT around HIV AIDS and sexual concurrency, and HIV/AIDS stigma.

"It was gratifying to see that students rose to the challenge in

creative ways and were able to present messaging that promoted health in a way that did not just reproduce stereotyped images, but sought to provoke critical thinking about health and identities in Africa," said HAICU director Cal Volks.

Students used a variety of materials including barbed wire, plastic bags, animal dung and even mielie pap. Nhlapo, who judged the competition, reflected on the work saying: "This is Africa Month in a nutshell. These students performed beyond my wildest expectations." ■



Promise exhibition displays southern Africa's cultural heritage

Promise, an exhibition of pictures that "imagine everyday life – past and present – with a mixture of awe and excitement", opened at the Iziko South African National Gallery Annexe on 22 May. Developed by Dr Raël Salley, senior lecturer at UCT's Michaelis School of Fine Art and opened as part of UCT's Africa Month celebrations, "the aim of the exhibition is to commemorate and celebrate Black experience while provoking dialogue about the spiritual, material, intellectual, and emotional aspects of South Africa," according to the exhibition's website. The exhibition, which aims to "challenge inherited labels" by offering moments of "being and social belonging," is on show until 21 June 2013.

Football tournament is all about unity

UCT's second annual Africa Cup of Nations football tournament to celebrate Africa Month at UCT took place on 11 May. Four teams, each representing a geographical region in Africa, toiled and tackled in the sun to stake their claim to a glimmering golden trophy. Getting stuck into the shirt-swopping and dancing after the games was an enthusiastic deputy vice-chancellor Professor Thandabantu Nhlapo. "I am very pleased with this, because it shows exactly the kind of spirit we are trying to create with Africa Month," Nhlapo said at the prize-giving. West Africa won the final 2-0, but the united festivities and camaraderie after the final whistle showed that everybody felt like a winner.



in 31 days

A panel discussion inspired by African literary great Chinua Achebe, who passed away earlier this year, formed part of the closing proceedings of UCT's Africa Month celebrations on 24 May.

Acclaimed Nigerian author and international scholar Achebe, dubbed the 'grandfather of modern African literature', passed away in March, and the Africa Month Panel Discussion, hosted at the Golden Arrow Studio at the Baxter Theatre Centre, was titled *Things Fall Apart?*.

Hosted by Deputy Vice-Chancellor Professor Thandabantu Nhlapo, the discussion featured Professor Francis Nyamnjoh, head of department at Social Anthropology in the UCT School of African and Gender Studies, Anthropology and Linguistics; Professor Zodwa Motsa, the country director of the University of South Africa; Associate Professor Jane Bennett, director of the UCT African Gender Institute and Head: UCT School of African and Gender Studies, Anthropology and Linguistics; Dr Sanya Osha, research fellow at the Institute of Economic Research on Innovation at Tshwane University of Technology; and Emma Arogundade, senior researcher at the Human Sciences Research Council.

To show respect to Achebe (who was buried on 23 May in his home village of Ogidi in Anambra State), a moment of silence was held before the panellists shared some perspectives on his life and works, and his importance to the continent and African identity.

Nyamnjoh, who discussed Achebe's use of proverbs, noted that "in his proverbs, Achebe has left us with enough food for thought on power, politics, relationships and

Africa Month celebrations capped with tribute to Achebe



Tribute to a giant: (from left) Emma Arogundade, Dr Sanya Osha, Assoc Jane Bennett, Prof Zodwa Motsa and Prof Francis Nyamnjoh shared their insights into the life and work of the late Chinua Achebe.

encounters, to ensure that things do not fall apart in our continuous quest to be and become African in an ever-changing world.

"According to Achebe, proverbs bring out the universal in the particular and make words more palatable – they are 'the palm oil with which words are eaten'. Achebe uses these proverbs to share with his readers the Igbo cultural values and world views, as well as to domesticate, localise, indigenise or render culturally or contextually relevant the English language."

Bennett touched on her own experience as a child in then-Rhodesia (now Zimbabwe) at the time of the Chimurenga War, and called into

reference Achebe's short story *Girls at War*, which she described as "an extraordinary story for its time".

"There were in fact many girls at war on our continent, and Achebe's is one of the first of the very powerful stories that explore the politics of sex and gender in this context," explained Bennett.

Osha explored the various legacies of Achebe's engagements to isolate what makes him unique in global culture; his work as a literary artist, his work as a builder of institutions, and his contributions to public reasoning. The lasting contribution Achebe made, added Osha, was the way he said that we as Africans do not have to be apologetic

about our stories.

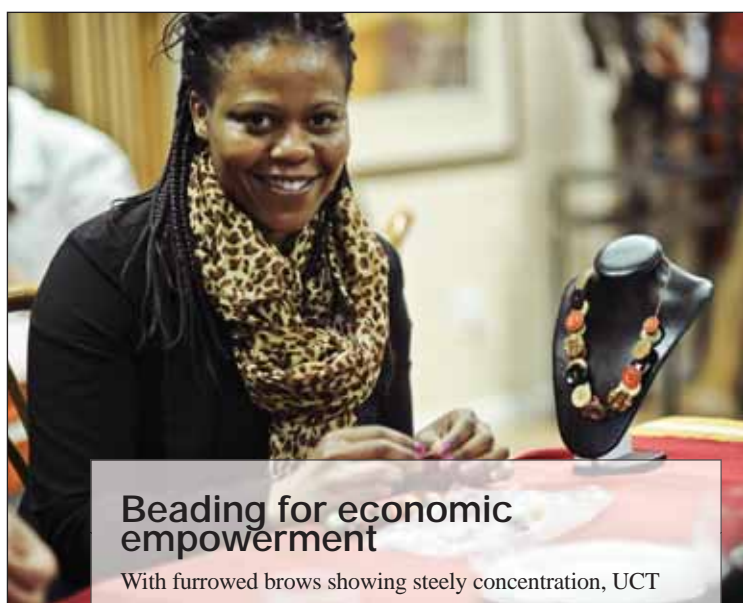
Arogundade said that "our stories are the cornerstone of our reality, but we also interpret reality through these stories. Achebe was aware of the dominant narratives of his time that shaped the colonial world, the narrative that colonialism was the arrival of the civilised world."

The panel discussion was the keynote event of the Africa Month celebrations, which culminated with the launch of the second book in the publication series *Celebrating Africa*. The book is a compilation of the papers presented at the Africa Day Panel Discussion in 2012, under the theme *African Culture, Human Rights and Modern Constitutions*. ■



Kramer's Got Talent

The gumboot dancers pictured here danced their way to victory at the second annual *Kramer's Got Talent* show, presented by UCT's Faculty of Law in conjunction with the university's Africa Month celebrations on 8 May. Everybody – from the academics to the cleaning staff – pitched in to make the show a feast of singing and dancing. It was about more than letting down hair, though, as a panel discussion about challenges and opportunities for African youth kicked off proceedings. "Hard work, but it was fun!" was how Liesel Collins, PA to the Dean of Law, described the event. *Kramer's Got Talent* also exemplified the inter-departmental collegiality at UCT, with the Department of Music lending a piano free of charge for use at the show and the School of Dance helping competitors prepare for the moment of truth.



Beading for economic empowerment

With furrowed brows showing steely concentration, UCT staffers put their dexterity to the test on 22 May at the second annual beading workshop, as part of UCT's Africa Month celebrations. Participants were taught how to make jewellery and crafts with beads and were also shown innovative ways to wrap headscarves. At the end of the day, everyone took home their colourful creation. The workshop was convened by Monkeybiz, a non-profit bead project that focuses on women's empowerment and health development in the most economically under-resourced areas of South Africa.

Treatment for the soul at health sciences concert

The staff and students of UCT's Faculty of Health Sciences typically recommend treatments of a different kind, but few things get the endorphins flowing like a good dose of excellent music. And the faculty obliged at the concert hosted by the Health Sciences Student Council (HSSC) on 17 May. Smooth singing from the choir (pictured), salsa-style dancing and melodious guitars were just some of the acts that provided welcome relief from Hospital Bend's white noise that usually punctuates the Medical Campus's atmosphere. The end-of-semester concert was held in celebration of UCT's Africa Month.



How Gitau got to Google

Revolutionary method finds jobs for skilled workers

A PhD student's ground-breaking technology solution has not only changed the lives of many skilled workers who couldn't find employment, but has also landed her a job with Google on African soil.

Shikoh Gitau, who hails from Kenya and graduates this week, devised a simple, yet revolutionary, approach to using mobile technology to connect skilled workers with prospective employers. It has met with such success that it is currently being rolled out nationally as a free service on a mobile network, and plans are also afoot for the programme to be rolled out across the rest of the developing world.

Gitau devised it in collaboration with staff in UCT's recently established Information and Communication Technologies for Development Centre (ICT4D).

The relatively inexpensive application, which matches unemployed workers with employers desperate for their skills, has enormous implications for the labour force in regions where unemployment is high.

This innovative way of using mobile technology to meet societal needs on the continent serves as just one example of the work being undertaken by the ICT4D Centre, which was launched by the UCT Department of Computer Science in 2009. Its staff and students are dedicated to finding suitable mobile solutions that meet the societal needs of people living in Africa. They work closely with communities to create and evaluate technology that is best suited to local conditions.

The centre has already produced an impressive portfolio of mobile apps and other innovations that provide solutions to health, education and labour sector issues. It is supported by the Hasso Plattner Institute (HPI) in Germany which provides

full bursaries for nine postgraduate students, many of whom are academics from elsewhere in Africa.

Engaging local people

"We share the philosophy that the best research outcomes occur if you engage local people to use ICTs to solve their own problems. Until now the question has been, how do you do that? The answer is to get academics from African countries to come to UCT to study ICT for development purposes, and then go back to their home countries and teach their own students," maintains the director of the centre, Professor Gary Marsden.

Marsden and his colleagues have seen many examples of how ICT developers, especially in the West, have built systems for developing countries but have failed to take local technology conditions into account. Examples of problems for roll-out include limited internet access, limited electricity supply, and many others.

The ICT4D Centre recognises the fact that, globally, only one billion people are estimated to have access to the internet via PCs. By contrast, there are 5 billion people who own cell phones – and many of them live in the developing world.

In a break from the norm, the centre also draws on the expertise available from other UCT faculties, including Commerce, Science, and the Humanities.

These collaborations are blazing new trails as a result, and Gitau's ground-breaking project was the result of such an interdisciplinary collaboration. The Kenyan postgraduate student began her research with a six-month stint at a Khayelitsha-based NGO called 'Learn to Earn'. Among the NGO's projects is one in which women train over several months to become seamstresses.



Where magic happens: (from left) Mohato Lekena (master's in computer science), Anja Venter (PhD in media studies), Sarah Brittan (master's in computer science) and Professor Gary Marsden (director of ICT4D Centre) at work in the lab.

Getting onto the Internet

Working with her Humanities supervisor – a visiting Microsoft researcher in Communication Studies at UCT – she conducted an ethnographic study of this group. "The fact was that people had phones that could get them onto the internet, but they weren't using it. So she spent six months on site with these ladies and trained them how to access the internet. Once she got them onto the internet she then asked them what they were most interested in, and what they would most like to find out," says Marsden.

Not surprisingly, their biggest concern was finding employment after completing their training course. Gitau then discovered that a host of clothing manufacturers were finding it difficult to appoint qualified staff. The reason was obvious: Most of these companies and NGOs were

advertising posts on the internet; and, as is the case in most of Africa, many potential workers didn't have access to the Web.

Consequently, Gitau and Marsden created a system that converted these internet job advertisements so that cell phones could access this information.

However, there was an additional hurdle. Employers wanted candidates to submit CVs, which was not possible on the cell phones the workers were using. Gitau addressed this by writing software that, through a series of questions – such as 'What is your name?' – allowed candidates to create and submit their CVs via their cell phones, explains Marsden.

Designing the right system

"Gitau's study popped up on Google's radar and the company granted her a very prestigious scholarship. She even received a

letter from the Speaker of Parliament congratulating her on her astonishing achievement – even though she's not South African!" exclaims Marsden.

Gitau has since been appointed to Google's User Experience Group in Africa, and her role is to explore the ICT needs of different groups throughout Africa and emerging markets, and design appropriate systems so that Google can meet those needs.

The story doesn't end there. The Praekelt Foundation, established by South African IT millionaire Gustav Praekelt, learned about the software and is in the process of up-scaling the system to make it available nationally, free of charge.

The system has now been rolled out in South Africa (<http://www.ummeli.com/>), and it is hoped that it will be made available in other African countries before too long. ■

Q&A with Shikoh Gitau



Monday Paper (MP): Why did you choose to enrol for your PhD at UCT?

Shikoh Gitau (SG): When I finished my BSc (Computer Science) in Kenya, all I wanted to do was change lives using technology. I had experienced and seen so much poverty, and I knew deep inside me that I wanted to do something about it. I looked at various institutions for a graduate programme that would offer me both the social and the technology angles. I remember coming across some work that Edwin Blake had done, and started reading some more, so I just applied. The fact that UCT was among the leading universities in terms of Computer Science research added the extra weight. I first joined UCT for my MSc, so when it came to doing my PhD it was really an easy choice. I wanted to do my research in Africa on solving an 'African Problem', and with Gary Marsden's help I got the HPI scholarship that enabled me to embark on my doctorate.

MP: What did you find was the most fulfilling part of your studies and research?

SG: My research was very fulfilling. In the two and a half years I was running it, I saw people's lives literally change in front of my eyes. There is a lady, who I will call Nancy, who from learning how to use the internet on her phone, went on to learn how to use computers, then went back to high school to matriculate. She passed, and she is raising her fees to go to college through a business she started. That, for me, is 'impact'! Even if my contribution was minimal, it gave her hope, and that is the most important thing any human being can ever have. I have so many other stories of this kind; but Nancy stands out, as she still emails me on the email address that I set up for her four years ago!

MP: When did you start working for Google, and could you briefly describe your current role?

SG: I started working for Google in December 2010. I was their first User Experience Researcher in Africa – that in itself was a great 'first' for me! I have since transitioned to cover the emerging markets, and my work entails talking to users, getting

insights either to inform new products, or to improve current products. It is an awesome opportunity to take a shot at changing the world using technology.

MP: How did you manage to balance your studies with your career?

SG: I started working after I had completed my research and had a full draft of my dissertation. The work was really intensive, and it took two years to rewrite and review the work with my advisors before it was ready for submission, it took a lot of commitment to actually get everything done. The finished output was something I am proud of.

MP: How does it feel to be graduating, and what is the best part about coming back to your alma mater?

SG: Getting a PhD is a dream come true, it is one of those things that I've wanted since I was a young child, so I am looking forward to this very much. I visit Cape Town every six months or so, and I love the city – okay, probably not during winter, but all the other times I love it! ■

UCT-trained – Africa bound

UCT alumnus and medical specialist from Sierra Leone, Dr James Russell, is among a growing number of UCT-trained African specialists who are establishing world-class medical services in their home countries.

Russell, who completed his cardiac ultrasound studies at UCT, remains the sole cardiologist at the main government hospital, in Freetown, Sierra Leone's capital. With help and advice from colleagues at UCT, he has established his country's first high-care unit for patients with heart disease, and also set up its first ultrasound service.

His facility has fast become a national asset, saving countless lives through the early detection of pericarditis – inflammation of the membrane around the heart, often caused by TB – in a country where the latter condition is one of the leading causes of death.

Building relationships

Head of UCT's Department of Medicine, Professor Bongani Mayosi, explains how UCT's association with Russell exemplifies his department's role in building both relationships and capacity in Sierra Leone and elsewhere in Africa.

UCT's research engagement with other African countries is profound, says Mayosi. He uses the example of UCT's links with Sierra Leone to illustrate how just one relationship can spur on a life-changing series of events.

When Mayosi's predecessor, the late Professor Ralph Kirsch, visited Sierra Leone in 2005 he was introduced to Russell – then a recently qualified doctor who exhibited enormous clinical ability and leadership qualities. Although Russell was extremely interested in cardiology, there was no service of that nature in Sierra Leone, so Mayosi contacted the World Heart Federation to secure funding to support Russell's training at UCT.

After completing his UCT studies in 2007, Russell returned to Sierra Leone and set about changing the face of healthcare in that country, establishing its first high-care unit and ultrasound service. As the country's only cardiologist, his contribution to Sierra Leone's healthcare was nationally acknowledged when he was named the country's Medical Doctor of the Year in 2008.

Addressing Africa's health needs

Russell is one of a vanguard of UCT-trained African specialists returning to their countries to practice, says Mayosi, who maintains that UCT's Department of Medicine is still in the formative stages of up-scaling the delivery of world-class health training for those committed to healthcare on the continent.

Russell and other continental counterparts are also members of the Investigation of the Management of Pericarditis (IMPI) Studies Network, which has invested tremendous resources to find solutions to managing pericarditis. Often caused by TB, this condition remains a major cause of death in Sierra Leone



UCT alumnus, James Russell (foreground) set up Sierra Leone's first high-care unit for heart patients, as well as the country's first ultrasound service.

and in many other African countries, including South Africa.

Russell currently heads the IMPI network's first randomised clinical trial in Sierra Leone to investigate pericarditis and Mayosi has received the personal thanks of that country's health minister for his role as the catalyst for this research development.

"We did not foresee this sequence of events, but the interaction between UCT and Sierra Leone has resulted in the establishment of a completely new service which continues to save countless lives. This is an inspiring example of the essence of Afropolitanism," says Mayosi.

Continental colleagues

Academics in the Department of Medicine are working together with their counterparts elsewhere on the continent to build a strategic and systematic approach to medical training and professional development in Africa – and the process is already making a positive impact on healthcare in the region.

In line with University's Afropolitan research and professional development objectives, the department continues to take pride in providing world-class undergraduate and postgraduate training and research, which is underpinned by a deep understanding of the health issues facing the continent, says Mayosi.

Aside from training new generations of South African medics, the department offers medical practitioners from the rest of Africa the opportunity to specialise, and makes a concerted effort to enable deserving candidates to train at Groote Schuur Hospital.

Comprehensive training

Mayosi and deputy head Professor Vanessa Burch head up the 500-strong department, which comprises over 30 divisions and units, making it one of the largest and most comprehensive departments of medicine in Africa.

"We are arguably the most complete department of medicine on the continent in terms of the array of

from the rest of Africa has steadily increased over the years and follows our commitment to integrate our work with our colleagues and counterparts in the sub-region and throughout Africa," he says.

International trainees go by the somewhat curious title of 'supernumerary' registrars. The terminology stems from the fact that posts for local registrars are numbered on the post establishment of the training institution (such as Groote Schuur Hospital) and funded by the SA government, while additional posts, funded by other governments or other sources are not numbered – hence the term 'supernumerary'.

There has been a marked growth in supernumerary registrars over the past few years. When Mayosi took over the reins as departmental head in the mid-2000s, there was only one 'supernumerary' medicine trainee at Groote Schuur Hospital. Currently there are over 35 posts occupied by registrars from other African countries. Just over 20 are training as general specialists, while the rest are training in sub-specialities.

Enhancing continental capacity

UCT's Department of Medicine remains one of a few medical departments in Africa engaged in a systematic approach to professional development in the areas of teaching and research.

Mayosi points to a trend whereby African doctors that train in the US, UK and Europe tend to remain working there. He believes this is partly because the type of training received there caters for the particular health needs of people in these developed countries, which may not be relevant to the health needs of Africans.

"African doctors who are coming to UCT to train almost always return to work in their home countries because they are a good fit for the type of healthcare needs in Africa."

Stellar work in medical education is also being undertaken by Burch, a National Research Foundation-rated researcher and a leader in medical education.

Burch is involved in a Pan-African project, funded by the Foundation for Advancement of International Medical Education and Research (FAIMER) Institute, which trains clinical educators. She is working closely with an Ethiopian university to develop a curriculum and train fellows from several countries in the region. The FAIMER Institute's two-year fellowship programme for health-profession educators gives participants the knowledge and skills to play a key role in improving health-profession education in institutions in their home countries.

Growing research networks

While Burch's work with FAIMER illustrates the Department of Medicine's engagement with building capacity in medical education, it also serves to support the growth of professional research networks.

"We believe our department provides a model for how to get on with the business of training people – at undergraduate and postgraduate level – and producing high-quality research," says Mayosi.

"It is our responsibility to create and maintain the type of training and health interventions that improve the quality of people's lives. We can do that by making sure that we use our capacity to ensure that our doctors, specialists and sub-specialists are trained appropriately to counter the diseases that occur on the continent.

"There is so much more that we can do, and so much more that doctors and academics from other African countries can offer us. Increasingly, we need to experience how different doctors are dealing with health issues in other countries." ■



UCT's Department of Medicine, led by its head Prof Bongani Mayosi (left) and deputy director Prof Vanessa Burch, are helping train a new generation of medics from South Africa and the rest of Africa to address health issues that are particularly prevalent on the continent.

Lack of genetic counselling posts costs dearly

Funding for vital genetic counselling services in the Western Cape (WC) will have dried up by the end of 2013 unless urgent plans are made to secure funding for these posts, says UCT's Professor Jacque Greenberg.

Presently, the Province has only three part-time, one-year contract posts; these being at Groote Schuur, the Red Cross Children's War Memorial and Tygerberg Hospitals.

"All of these contracts will expire by the end of 2013, after which there is no foreseeable renewal," said Greenberg, from UCT's Faculty of Health Sciences' Department of Clinical Laboratory Sciences in the Division of Human Genetics.

Genetic counselling is an integral part of healthcare service provision. It's estimated that roughly one in 19 South Africans has a genetic disorder, with a further one in 59 suffering from teratogenic consequences (skeletal malformations, growth retardation, or delayed mental development) of intrauterine exposure to infections, drugs/toxins, and importantly, alcohol. This is a very common teratogen, and about 5% of children born in the Cape's coloured community have foetal alcohol syndrome.

"Tragically, there is no immediate, sustainable funding for a comprehensive genetic counselling service in the Western Cape," says Greenberg. "This is an extremely unstable situation in which genetic counsellors, who form an important part of the clinical genetic service, remain in temporary employment. This has resulted in a lack of job security and career-path prospects, and total demoralisation. The predictable consequence is the loss of all our carefully trained genetic counsellors, which would be disastrous."

Too few counsellors

The UK report *Clinical Genetics Services into the 21st Century* (1996) recommends eight genetic counsellors per million people for developed countries. In contrast, the suggested Genetic Service plan for South Africa (SA) recommends two genetic counsellors per million, which is in keeping with the World Health Organisation and the US National Society of Genetic Counsellors recommendations.

Roughly, this translates to 11 genetic counsellors for the Western Province alone.

"As a realistic immediate goal, however, the Genetic Service plan for SA has recommended nine genetic counsellors for the 2012 to 2014 period in the WC – triple the number employed at the moment," said Greenberg.

Actress Angelina Jolie's decision to have a preventive double mastectomy has brought inherited disease and the need for sound

genetic counselling starkly into the foreground.

According to reports, Jolie's mother died of ovarian cancer; and the discovery that Jolie carries the BRCA1 gene mutation, which predisposes her to a much higher risk of breast and ovarian cancer, played a role in her decision.

It is in these situations that genetic counsellors fulfil a vital and valuable role.

From the laboratory to the family

Genetic counsellors like Frieda Loubser and Nakita Verkijk perform a valuable role in informing patients and their parents of their genetic risks once a clinical diagnosis has been made.

Genetic counsellors are health-care professionals registered with the Health Professions Council of South Africa who have specialised degrees (MSc in Genetic Counselling) and experience in medical genetics and counselling. Their work includes analysing family history information, interpreting information about specific disorders, discussing inheritance patterns, assessing and calculating the risk to individuals, and reviewing available options for testing or management with families.

"The results of genetic tests are often complex, with important predictive and familial implications," said Greenberg. "Genetic counsellors are trained to translate complex information into a language that patients can understand and use to make important decisions."

"Importantly, once a genetic diagnosis is confirmed, the genetic counsellor informs the patient, the parents, and the siblings of their own risks and the risk to future generations. In addition, the risks for other family members regarding the inherited condition in their family can now also be determined and discussed, so that individuals can make informed decisions regarding their healthcare and future reproduction options.

"Cancer genetic counselling specifically has been shown to have huge benefit in reducing morbidity and mortality, by identifying at-risk family members and offering increased surveillance and risk-reducing options," noted Greenberg.

"Another cost-saving factor is that genetic counsellors can refer for appropriate genetic testing in a practical and cost-effective way, thereby reducing the costs of tests to patients, medical aids and the Department of Health."

Genetic team overloaded

The lack of posts also highlights the load carried by UCT's



Gene team: Prof Jacque Greenberg (middle) with genetic counsellors Frieda Loubser (left) and Nakita Verkijk.

clinical genetic team. They provide services to Groote Schuur and Red Cross, and also run outreach programmes that include the province's schools for learners with special education needs. Many clinics have a four-month waiting list. A similarly diverse range of patients is served by the clinical genetic team at Tygerberg Hospital.

Common disorders

Aside from foetal alcohol syndrome, common genetic disorders in South Africa include prenatal, paediatric and adult onset conditions such as chromosomal anomalies (Down syndrome), single-gene disorders (cystic fibrosis, haemophilia A/B, Huntington Disease) and multi-factorial conditions arising from genetic and environment factors (spina bifida).

Affected individuals span all ages, and nearly all medical disciplines encounter patients affected by genetic disorders.

(For an extended version of this story, with a case study, please go to <http://www.uct.ac.za/home/>) ■

Criminology project gains momentum

The Centre of Criminology was recently awarded a three-year National Research Foundation grant in support of its research programme.

The centre's programme is led jointly by its director, Professor Clifford Shearing, and Dr Deon Nel, a research associate at UCT's Department of Public Law and the Head of Biodiversity at WWF (World Wide Fund for Nature) South Africa.

The grant is part of a broader government programme, titled the *Fulcrum Institutions and Sustainability Programme*, that is investigating the responses of pivotal institutions – in the public, private and civil society sectors – to the widespread recognition that changes to earth systems are presenting significant environmental risks. These include, for example, flooding, fire and storm surges that are increasingly being linked to shifts in global climate systems.

The programme is organised into three principal components, each focusing on a different set of 'fulcrum' institutions.

Dr Lorena Pasquini, a postdoctoral fellow, leads the governmental component, which is focused at the municipal level. She is exploring the barriers and opportunities that local governments face as they adapt to environmental change.



Standing from left to right: Tom Herbstein, Antonia Sutter, Prof Clifford Shearing, Saul Roux, Dr Samantha Petersen, Maria Honig, Dr Lorena Pasquini and Oluwole Akinyeye. Sitting/kneeling from left to right: Teresie Hommersand, Vivienne Toleni, Emma Smith and Wambere Nyagah. Absent: Dr Deon Nel, Cameron Holley and Prof Jan Froestad.

According to Pasquini, "Municipalities are the level of government that is often closest to the ground with respect to these changes. How they respond is particularly significant in shaping society's adaptive and mitigative strategies."

Dr Samantha Petersen, a postdoctoral fellow on secondment

from WWF, heads the programme's resource industries component. Petersen highlights how resource industries play a crucial role in shaping society's impacts on earth systems through their processes of extraction, production and waste.

This component is currently focusing on commercial fisheries and the wine industry. One of

the issues being explored is the conditions under which companies, though in a competitive business environment, can work together to pursue shared values, such as preserving the value of a common resource.

The programme's insurance and financial component is led by Tom Herbstein, a doctoral candidate

at the Centre of Criminology. He explains how the insurance industry bears many of the costs associated with environmental disasters (such as flooding), while society's broader impact on the environment is often significantly influenced by the industry's investment and development decisions.

As with the other components, a major focus of this research is how influential institutions are responding to risks associated with environmental security – and insecurity – and how these institutions might act to promote more sustainable economies and lifestyles in the future.

As environmental changes fundamentally shift the global risk landscape, the way this landscape is governed will have profound consequences for the sustainability of earth's systems and the future security of people who depend upon them, maintains Shearing.

"Understanding and influencing these governance processes is, and will increasingly become, a vital concern for any society, and most certainly South Africa, as the 21st century unfolds," he adds.

This programme forms part of the NRF DST Global Change, Society and Sustainability Initiative. ■

Strengthening African democracies

Collaborative social science research undertaken by UCT's Democracy in Africa Research Unit (DARU) is helping strengthen African democracies by amplifying the voice of public opinion and building legislative capacity across the continent, according to the unit's director, Professor Bob Mattes.

DARU is housed within UCT's Centre for Social Science Research (CSSR) which comprises several research units dedicated to promoting systematic, evidence-based, interdisciplinary social science research, and building research capacity across Africa. CSSR units operate in several fields of study, most notably in globalisation, industrialisation, development, poverty, public health and, in the case of DARU, democratisation.

DARU is currently involved in two major research undertakings across Africa: the Afrobarometer and the African Legislature Project. The former comprises a broad consortium of members and serves as a barometer of public opinion in 20 African countries, while the latter investigates just how and why African legislatures function as they do, and the factors that enable some to play a significant role in democratic governance.

International donors

The Afrobarometer initiative was started by Mattes, Ghanaian academic E. Gyimah-Boadi, and American-based academic Michael Bratton in 2000, with funding from a variety of international donors. The rationale was to create an independent, non-partisan research project that measures the social, political, and economic atmosphere in Africa.

In the initial phase of operation, Afrobarometer surveys were conducted in 12 partner countries, and this rapidly grew to 20 participating countries. "The surveys are repeated on a regular cycle, and as a standard set of questions is posed, countries can be systematically compared and trends in public attitudes can be tracked over time. In the current phase we have expanded to 35 countries, and we now cover several North African countries as well."

Holding governments to account

Mattes explains that results are shared with decision-makers, policy advocates, civic educators, journalists, researchers, donors and investors, as well as with the general populace. He believes this knowledge is crucial to ensuring that governments have a better understanding of what their citizens want, and that legislatures and civil society are better able to hold governments accountable.

Afrobarometer currently has three core partner organisations actively involved on the continent in conducting Afrobarometer-related studies in different regions. These are the Centre for the Development of Democracy in Ghana, the Institute of Development Studies at the University of Nairobi and the Institute for Empirical Research on Political Economy in Benin.

Its two support partners are Michigan State University and UCT's DARU. Michigan State manages the website, data management and archiving, while DARU is responsible for capacity building. In this regard, DARU has been running Afrobarometer Summer Schools for participants from partner countries.

"We offer a very intensive set of courses concerning various aspects of African politics, as well as research design and an introduction to social statistics. We also provide guidance on how to write a research paper, and so on," says Mattes.

With assistance from the VC's Strategic Fund, the school is now called the CSSR / Afrobarometer Summer School and offers fellowships to 'non-Afrobarometer' scholars from social science departments across Southern Africa. The next one is scheduled for January and February 2014.

Adding value

Mattes says the Summer School's target audience can be divided into two main constituencies: "Political scientists, who understand the literature but don't have any quantitative skills, and social scientists who may have excellent quantitative

research skills but don't have any experience with the key issues and theories that lie behind the data they collect. However, we also enrol younger academics who need help on both scores."

He believes the CSSR / Afrobarometer Summer School has added value because it also offers substantive courses in special-interest content areas. "Among others, we have offered short courses on democratisation, participation, traditional leadership, legislatures, and the presidency in Africa. Participants have access to Afrobarometer and other data, and use it to answer relevant research questions."

"DARU's objectives here are to build the skills of a new generation of African scholars who can ask meaningful questions about their own societies and then have the skills to make use of the available data to answer them. We want this knowledge to be disseminated across the continent in such a way that it becomes a regular part of political debate, as well as used as a normal part of the political science curricula at universities across the region."

Mattes maintains the Afrobarometer has demonstrated that it is a force in democratic politics. "It both reflects and informs public opinion. More and more leaders are aware of it, and governments now feel they at least have to respond to our results. Ultimately it helps make governments become more accountable."

African Legislatures Project

Based at DARU, the African Legislatures Project (ALP) was modelled on the Afrobarometer project, but involves a wider range of different types of research and is run in collaboration with the Center for Legislative Studies at Bridgewater State College in Massachusetts, USA.

"We looked back at Afrobarometer and said that while we now know a lot about public opinion in African countries, that is only half the story of democratisation," Mattes says.

"The other half is whether Africa's political institutions have



Democracy in Africa Research Unit director, Prof Bob Mattes.

developed capacity and autonomy, or remain ineffective and inefficient. The legislature is probably the most important of these. It is given the unique task of making the laws, representing public opinion, and holding the executive to account through oversight. That is a very tall order, since these tasks often compete with one another."

Gauging performance

In order to understand the key success factors that determine a legislature's efficacy, ALP has developed a range of quantitative and qualitative measures of legislative performance. These enable scholars and watchdog organisations to gauge their legislature's performance, both in relation to other legislatures, and over a significant period.

"We have already found some very interesting differences in those

profiles. Some African legislatures are starting to reform and become more effective political players. The hypothesis was that institutional reforms are being driven by a group of younger, more educated MPs, and we've been able to support this hypothesis through surveys of MP attitudes," says Mattes.

The ALP also tracks the legislation and collects evidence about the performance of the key parliamentary committees in each country. "To strengthen democracy, we need to develop more autonomous and effective institutions which counterbalance the executive. In that way they hold the executive to greater standards of oversight. What we're trying to do is to figure out which key factors help to explain why particular legislatures have become more effective and have institutionalised more than others." ■

PhD graduand digs deeper into survey error



PhD graduand Reza Daniels.

Chapter in graduand Reza Daniels' PhD thesis has won him second prize in the Cochran-Hansen competition for best paper on survey research methods submitted by a young statistician from a developing or transition country.

The chapter, *Questionnaire design and response propensities for employee income microdata*, is part of his PhD thesis on income distribution with multiple sources of survey error. This concerns the sources of error that can affect income data arising out of the survey process.

Daniels is a lecturer in the School of Economics and a research associate in the Southern Africa Labour & Developmental Research Unit.

The Cochran-Hansen Prize is awarded to eligible individuals under the age of 40 every two years by the International Association of Survey Statistics, a division of the International Statistical Institute.

Household income and expenditure surveys provide government and organisations with a powerful tool to monitor development and inform policymaking. However, all surveys contain sources of error that can impact upon the reliable

analysis of collected data. Daniels' work attempts to provide a framework through which researchers can better understand which sources of error are most significant and how to deal with these sources of error.

"The design of household income questions in household surveys usually includes response options for actual income ranges, but also has 'Don't Know' and 'Refuse' options. The data of those who tick either of these options can be imputed if sufficient information about the characteristics of these respondents is available in the survey," said Daniels.

Using sequential response models, a type of statistical model, Daniels analysed these responses to the employee income question in Statistics South Africa's October Household Surveys between 1997 and 1999 and Labour Force Surveys from 2000 to 2003.

"An analysis of this sort sheds light on the underlying response process," Daniels explained in his abstract. This is useful as an exercise to see if those who do not respond to the income question are systematically different to those who do respond.

Daniels said that the presentation of a second

follow-up income question that asked for a bracketed income range after the initial exact income question was not answered helped to overturn respondents' refusals – and that these respondents tended to be higher-income earners.

"In the sequential response models, initial non-response was therefore clearly correlated with predictors of income, but after the presentation of the bracket showcards, this correlate of income effect was removed. This suggested that final non-response was no longer a function of income," added Daniels.

This finding differs from earlier international research on this theme and has important implications for survey organisations and researchers interested in imputing plausible information for those who state that they don't know their income or refuse to provide an answer.

Daniels graduated from geography to developmental studies (his BSc and MA degrees in the fields are from the University of Auckland, New Zealand), and then survey methodology (University of Michigan, Ann Arbor, USA) to economics at UCT. ■

Wish you were here

How to complete your PhD and fall in love with Cape Town

Responding to the sightseeing aspirations of Pan-African postgraduates is just one way the School of Economics in the Faculty of Commerce is helping UCT students from the rest of Africa feel at home on the most southerly tip of the continent.

School of Economics alumnus Zani Müller recalls: "When I met Dale Mudenda, a second-year PhD student, he mentioned that he hadn't seen the sea yet. He had been in Cape Town for over a year. I quickly realised that this was quite common. He mentioned that many PhDs spend a substantial part of their lives in Cape Town, but never leave Rondebosch, Mowbray or Observatory."

All this is in the past, though. Today, the School makes an extraordinary effort to welcome students, especially those from the African Economic Research Consortium (AERC), which UCT hosts in conjunction with the universities of Dar es Salaam, Ibadan and Yaounde. The universities of Nairobi, Benin and Cocody (in Abidjan) also offer support to students on this unique taught-PhD programme.

Paula Bassingthwaighe, the School's postgraduate administrator, expounds on the value of the taught PhD: "The benefits are that the students are exposed to a wide array of techniques and methodologies, rather than immediately specialising. This means that the students obtain a good grounding in all the core subjects. In addition, they receive specialised training in their chosen field courses in a structured learning environment."

It is a novel blend of learning. For the first 18 months the students do coursework with Masters students. They then travel to Nairobi to complete electives, and then return to UCT start writing their theses, with the same demands as other doctoral students.

The value of this approach can be seen from the opportunities offered to graduates. They clinch the chance to work in governments across Africa, at Central Banks, the World Bank and at universities across the globe.

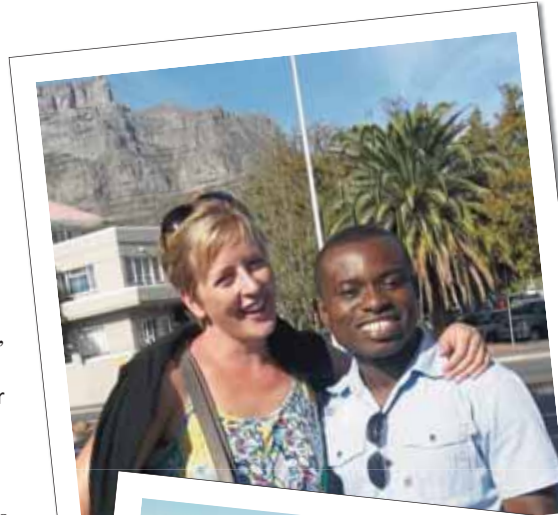
Bassingthwaighe is integral to the School's excursion programme, which has included train trips to False Bay as well as the CitiHopper Bus Tour of the Cape Peninsula.

Müller, the 'tour guide', picks up the story of how she became involved: "While doing the Masters in Economics (MCom) programme at UCT, I befriended a number of the PhD students who had just arrived in Cape Town. At that stage there were students from 10 different African countries: Kenya, Nigeria, Ghana, Swaziland, Zimbabwe, Namibia, Tanzania, Lesotho, Botswana and Mozambique."

"Initially, most of the students arrived at class looking flustered, after their long trek to Cape Town and the accommodation challenges they faced," says Müller.

Once accommodation was settled, she says, the next challenge was adapting to UCT's high standards. "The course content was very intense, for all of the students. For the PhDs it was also entirely different to what and how people had been taught in their studies previously. The PhD students were spending in excess of 16-hour-days on campus, organising study groups and asking UCT students for help: the price of failure is far too dear," Müller says.

"When I found out that Dale Mudenda had never seen the sea, we decided to launch a 'School of Economics Postgrad Simonstown Day'. We took the train out from Mowbray to Muizenberg, and walked alongside the sea, stopping for pictures. We had lunch at Kalkies at the harbour and got our toes wet in the tidal



Above
Alumnus and voluntary 'tour guide', Zani Müller with PhD student Chijioke Nwosu.



Bottom
PhD sightseers: (l-r) Chijioke Nwosu, Alarape Oyedokun, Zani Müller, Válgard Nyárd, David Khaoya, Rehema Msulwa, Ramaele Moshoeshoe.

pool. We chatted, explored the little shops and took many, many pictures.

"Although I am no longer at UCT, I recently ran into another PhD student, David Khaoya, who gave me a friendly handshake and proclaimed: 'We would like to go to Kirstenbosch, please.' So, on the Red Bus we went, for another unbelievably enriching day." ■

Smiles all round at SHAWCO Community Day

Candyfloss and live entertainment delighted scores of children at Manenberg Primary School on 14 May.

The youngsters were making the most of SHAWCO's Community Day in Manenberg, which kicked off celebrations of the student-run welfare organisation's 70th anniversary. SHAWCO uses one of the school's classrooms as its Manenberg Community Centre.

Deputy Vice-Chancellor Professor Crain Soudien, chairperson of the SHAWCO board of directors, told attendees that the centre was launched in the mid-2000s to coincide with SHAWCO its shifting focus to community-development work.

"We have a thriving operation here which is supported by the work of our students, and I want to really acknowledge their work, the extraordinary amount of time they spend working with young people," said Soudien.

The centre hosts the Performing and Visual Arts Projects, which involves UCT student volunteers helping primary and secondary school learners from the area develop communication and leadership skills through art and drama. The Manenberg Sports project, which sees more than 100 children participating in various sporting codes, again under the guidance of student volunteers, is also based at the centre.

The SHAWCO Manenberg Community Centre also houses a local crèche, family and child support services, serves as a pension collection point and recently opened an internet-equipped computer lab for use by pupils.

Ebrahim Kader, principal of Manenberg Primary School, paid tribute to his school's partnership with SHAWCO, which Greer Blizzárd, the organisation's fundraising, marketing and PR manager, described as "powerful and wonderful".

"One of the benefits of our partnership with SHAWCO is that they send students, some from overseas, to work at our school and share their expertise," said Kader. "Some of these students are studying to become psychologists, some are art students. We can tap into that expertise and make use of it."

"The children are being kept off the streets," he added.

While most of the youngsters soaked up the festive atmosphere outside, a panel discussion took place in the school's library (the size of two classrooms). Guy Lamb, director of UCT's Safety and Violence Initiative; Associate Professor Shanaaz Mathews, director of UCT's Children's Institute, and Baveena Nathoo, the Vodacom Change the World Volunteer at SHAWCO and former president of SHAWCO Education, joined Pelston on the panel. Soudien chaired proceedings.

Winning the war against violence has proved tough, argued Lamb, but international and South African research showed that investing in education interventions could result in safer communities.

"That's why SHAWCO is so important," said Lamb. "But – and SHAWCO has identified this – you can't really do anything if the classroom and the playground are battlegrounds and places where gangsters can walk freely. We need to create safe spaces."

While the battle to build safe communities continues, SHAWCO pushes on to the next 70 years of community development. ■



At the coal-face: Baveena Nathoo shared her experiences as a SHAWCO volunteer at the organisation's Community Day in Manenberg.

Chemistry graduand benefits from EDP and hard work

One UCT PhD graduand pays great tribute to UCT's development structures to her steady progress on her academic journey.

Prinessa Chellan, soon to graduate with a PhD in chemistry, was encouraged to apply for an Honours scholarship from the UCT Chemistry Department Equity Development Programme by the late Professor John Moss in 2006. Her application was successful, and Chellan hasn't looked back since.

"Without the support of the programme I would not have been able to complete my BSc Hons. Degree in what is arguably one of the top chemistry departments in Africa," says Chellan.

A UCT student since her undergraduate days, Chellan completed an MSc in organometallic chemistry in 2009. Her MSc project entailed the synthesis and characterization of thiosemicarbazone palladium(II) complexes for biological and catalytic applications.

Her doctoral studies built on that research, focusing on the synthesis of multimetallic/multinuclear PGM macromolecules prepared from porphyrins, thiosemicarbazones and other macromolecular Schiff base ligands which can be used for biological and catalytic applications.



Red gown beckons: Prinessa Chellan (centre) seen here with Deputy Vice-Chancellor Professor Crain Soudien (left) and Professor Susan Bourne, will graduate with a PhD in Chemistry in June.

The EDP programme, which also supported Chellan through her Master's and PhD studies, was about more than just subsidising tuition fees, she reports.

"This programme twice gave me the opportunity to present my research in the form of a departmental seminar. In 2011, the EDP programme provided me with a grant that enabled me to travel to the Universität Würzburg, Germany, where I learned new techniques that have expanded my skills as a synthetic chemist," says Chellan.

Professor Susan Bourne, head of department in UCT's Department of Chemistry, says the EDP got off the ground in 2001 after the department recognised a need to increase the number of disadvantaged students pursuing postgraduate studies.

"The EDP model operates by carefully selecting a cohort of black and female students and providing them with financial and other support through their postgraduate studies," explains Bourne. "The financial support is important as it enables students to concentrate on their studies unhindered by financial worries."

More than 50 postgraduate degrees have been awarded through this scheme, reports Bourne. ■