



Success is sweet for UCT graduates



GRAD EDITION

Be happy: Final-year health science students celebrate at their results bash.

Graduation celebrations got out of the blocks early at UCT with the health sciences results announcements. Scores of final-year health sciences students and their friends and families jived, cheered and whistled as pamphlets bearing their results rained down from the balcony at the Barnard Fuller Building on 27 November. There was a 100% pass rate

for the 2012 class qualifying as medical doctors. Nicola MacRobert (make that Dr MacRobert) is the gold medallist in the MBChB graduating class. She also won the Mary Robertson Prize for Excellence. The Mary Robertson Prize for Best Progress went to Nolukholo Ncete, who comes from a small school in the rural Eastern Cape.

She was not successful on her first application to medicine in 2005, but was admitted to her second choice, Speech Language Pathology. Ncete did so well in her first year that she was offered a place in medicine the following year, and passed her final year with a grade point average of 71.22%. Professor Mary Robertson,

who sponsors these two prizes, is a UCT alumna and eminent neuropsychiatrist. She was the first woman to receive a Doctor of Science in Medicine degree from UCT, and only the ninth recipient of this honour, rarely awarded and only to persons of 'exceptional academic merit' on the basis of original published work. Gold medallists from the other

departments are Lee-Anne Arendse in Audiology, Tessa Deboisee De Ricquebourg in Speech Language Pathology, Carolyn De Reuck in Occupational Therapy, and Brett Philips in Physiotherapy. The student pass rate in these departments ranged from 79% (Audiology) to 100% (Occupational Therapy). The students graduate on 12 December. ■

UCT to honour pioneers in the arts, science and law

At its December graduation ceremonies from 12 to 18 December UCT will award honorary degrees to five individuals who have made a significant contribution to their areas of knowledge and practice – and to society as a whole. They are pioneering physicist Professor Jonathan Ellis, Cape Town-born, world-renowned artist Marlene Dumas, Adrian Kohler and Basil Jones of the Handspring Puppet Company (one of the world's best known and respected puppet companies), and legal expert Nicholas 'Fink' Haysom.

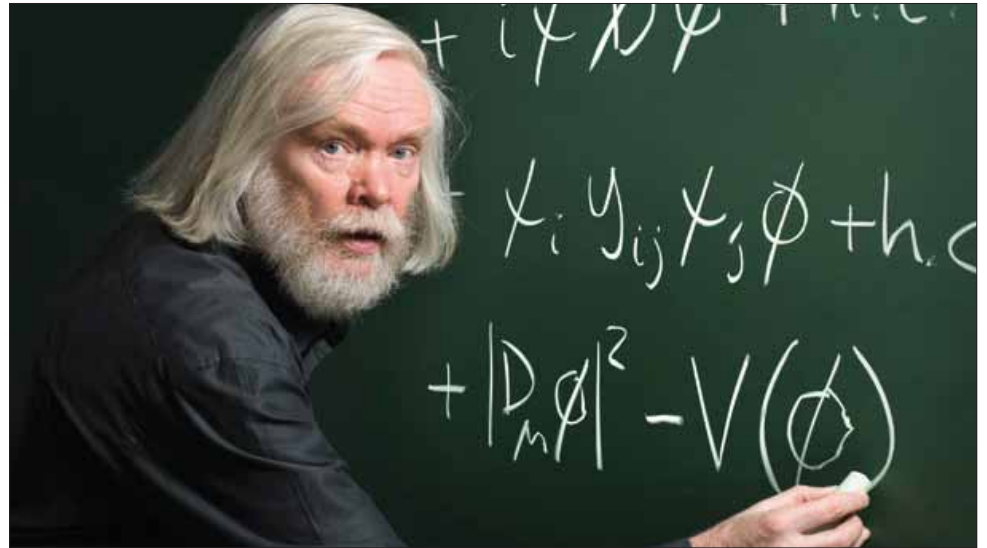
Jonathan Ellis: Doctor of Science

Born in 1946 in London, Ellis earned his PhD in theoretical particle physics from Cambridge University in 1971. After postdoctoral positions at the Stanford Linear Accelerator Centre and the California Institute of Technology, he joined the European Centre for Nuclear Research (CERN) in Geneva, Switzerland, where he was deputy leader of the Theoretical Physics division from 1979 to 1982 and from 1984 to 1987, and leader from 1988 to 1994. He is currently the Clerk Maxwell Professor of Theoretical Physics at King's College, London.

Ellis is one of the pioneers of research at the interface between particle physics, astrophysics, cosmology and quantum gravity. Our understanding of the world and its origins has

changed forever under his influence. In 1976 he proposed searching for gluons, the carrier particles of the strong interactions via 3-jet events in electron-positron annihilation. This search was then carried out three years later at the Deutsches Elektronen-Synchrotron (German Electron Synchrotron) or DESY laboratory in Germany, resulting in the discovery of the gluon.

UCT will confer an honorary doctorate in recognition of Ellis's exceptional and groundbreaking contributions to the understanding of fundamental physics and astrophysics, and for the numerous contributions he has made over the past decade to promote physics in South Africa, including the South Africa-CERN programme and the series of African Schools of Physics lectures.



Marlene Dumas: Doctor of Fine Arts

Widely regarded as one of the most influential painters working today, Dumas has continuously explored the complex range of human emotions in her work, often probing questions of gender, race, sexuality and economic inequality. Born in Cape Town in 1953, she completed her fine arts degree at UCT's Michaelis School of Fine Art in 1975 before attending the Ateliers '63 in Haarlem, Netherlands, for two years. She studied at the Psychological Institute at the University of Amsterdam in the Netherlands from 1979 to 1980.

Dumas' distinctive interest in and use of photographic sources in her painting has enjoyed sustained critical reception, as has her courage in handling sensitive topics of racial and sexual violence and mortality. Her work explores constructions of identity and the fluid

distinctions between the public and the private. Dumas' achievements were capped most recently by her major retrospective exhibition, *Measuring Your Own Grave*, at the Museum of Modern Art in New York. Her work is in collections in many countries.

Dumas possesses a rare generosity and commitment to art students and emerging artists alike. Over the years she has maintained a strong interest in young artists in the country of her birth, and has initiated many important events and supported many young artists materially, by mentoring and in other ways. When she received the prestigious David Röell prize from the Prince Bernhard Cultural Fund in 1998, she chose to share her winnings with the South African National Gallery to initiate Fresh, a developmental programme focusing on promising young South African artists.

Adrian Kohler and Basil Jones: Doctor of Literature

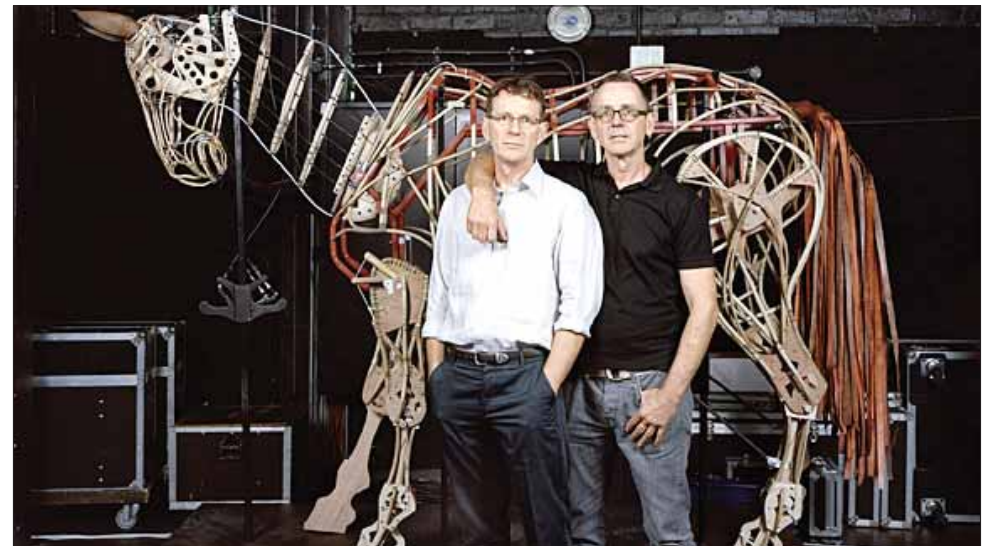
UCT will honour Adrian Kohler and Basil Jones for their outstanding contribution to contemporary theatre through the medium of puppetry. Both graduated from the Michaelis School of Fine Art at UCT in 1974. In 1981 they established the Handspring Puppet Company (initially with two other Michaelis graduates). It has since become one of the best known and respected puppet companies in the world, with a wide international reputation.

The special genius of Jones and Kohler's work has been to bring their training at Michaelis and their imagination as artists and sculptors to bear on their interest in theatrical and performing traditions. Their collaboration with artists such as William Kentridge, and more recent-

ly with the Royal National Theatre's *Warhorse* project, has brought their work to international attention. The accolades they have received reflect the astonishment with which audiences have encountered the powerful assimilation of animated puppet-characters, sculpture, puppet-mastery, and performance.

Their work represents an original integration of art and performance that has come about through a formal understanding of three-dimensional art and a deep engagement with the power of sculpture and performance in Africa. Their ability to load the objects they make with extraordinary emotional range and dramatic power makes theirs a truly unique and innovative contribution to creative work in South Africa.

(Picture by Pieter Hugo.)



Nicholas Haysom: Doctor of Laws

Haysom has devoted his life to public service and the vindication of human rights, both in South Africa and internationally, but particularly in Africa. He graduated with a BA Hons from the University of Natal in 1975 and an LLB from UCT in 1978. He was admitted as an attorney in 1981 and joined the Centre for Applied Legal Studies at the University of the Witwatersrand, a pioneer institute engaged in academic research and education, but also in bringing precedent-setting cases in human rights. He published important research into the legal rights of farm workers and the violence employed by the security forces during the states of emergency. He was detained on several occasions, and banned.

In the 1990s Haysom was directly involved as both a negotiator and an advisor in the negotiation of South Africa's interim and final constitutions. He was appointed to represent the Constitutional Assembly and brief the legal

team in the Certification of the Final Constitution proceedings in the Constitutional Court. Between 1994 and 1999 he served as President Nelson Mandela's legal advisor; and at Mandela's request, worked as a peace facilitator in Burundi. He was subsequently called on to assist in facilitating the peace talks in Sudan. He helped draft and negotiate the groundbreaking Machakos Protocol, which formed the basis of the other protocols on wealth-sharing, power-sharing and security, and ultimately the Comprehensive Peace Agreement in 2005.

In 2005 Haysom joined the United Nations to head its Constitutional Support Unit in Iraq, and in 2007 he was appointed Political Director in the Office of the Secretary-General. He has advised missions on conflict in Afghanistan and Kosovo, and advised on constitutional processes in Tunisia. He continues to lecture and write on issues relating to conflict resolution and constitution-making, on which he is now regarded internationally as a leading expert. ■

The numbers are up for graduating students

They're going to come out in their finest finery, loved ones in tow, graduation gowns proudly draped around their shoulders. And, from 12 to 18 December, they will come in their thousands.

Well, 5,518* of them, anyway. (*The most up-to-date numbers available to *Monday Paper* at the time of going to print.)

Of these, the Faculty of Humanities will boast the largest contingent, well over 1,800, followed in descending order by the Faculties of Commerce (business leader Maria Ramos

will speak at one of the faculty's ceremonies, on 14 December), Engineering and the Built Environment, Science, Health Sciences, and Law. (See tables below.)

And to cap it all, UCT will celebrate the graduation of over 100 PhDs.

But the graduation ceremonies will allow UCT to celebrate not just the passing out of undergraduate and postgraduate students, but a number of other notable events as well. So, for example, UCT will award honorary degrees to five academic and public figures

who through their work have made their indelible marks on society: world-renowned artist Marlene Dumas, pioneering physicist Jonathan Ellis, legal expert Nicholas Haysom, and alumni Adrian Kohler and Basil Jones of the Handspring Puppet Company. (See related story on page 2.)

In turn, Professor John Higgins (15h00, 12 December), Dr Zelda Woodman and Dr Jeremy Wanderer (both in absentia) will be presented with Distinguished Teacher Awards, recognising their excellence in teaching.

The university will also present its Social Responsiveness Awards for 2012. These will go to Associate Professor Mohamed Adhikari (15h00, 12 December), for his service to his alma mater, Harold Cressy High School, through a number of heritage projects; and the Environmental Evaluation Unit (10h00, 17 December) for the work it does to enhance the governance of complex human-ecological systems through collaborative interdisciplinary research across natural resource sectors, mostly in poor and marginalised communities. ■

COMMERCE	Dec 2012*	Dec 2011
Diplomas & certificates	528	523
Bachelors	778	705
Honours	107	101
Master's	29	38
MBA	3	3
Doctoral	17	7
TOTAL	1,462	1,377

ENGINEERING & THE BUILT ENVIRONMENT	Dec 2012*	Dec 2011
Diplomas	8	7
Bachelors	551	502
Honours	104	121
Master's	122	134
Doctoral	9	10
TOTAL	794	774

HEALTH SCIENCES	Dec 2012*	Dec 2011
Diplomas	158	82
Bachelors	295	288
Honours	76	69
Master's	75	70
Doctoral	21	26
TOTAL	625	535

HUMANITIES	Dec 2012*	Dec 2011
Diplomas & certificates	369	469
Bachelors	980	918
Honours	350	368
Master's	99	94
Doctoral	15	15
TOTAL	1,813	1,864

SCIENCE	Dec 2012*	Dec 2011
Diplomas	3	0
Bachelors	387	313
Honours	170	162
Master's	69	59
Doctoral	39	23
TOTAL	668	557

LAW	Dec 2012*	Dec 2011
Diplomas	5	3
Bachelors	108	104
Master's	38	54
Doctoral	5	5
TOTAL	156	166





Double digits: Saul Nurick will be hooded by his dad, Prof Gerald Nurick, on 17 December, his 10th family hooding.

Ten out of 10 for Nurick clan

When Saul Nurick graduates with his MPhil in property studies on 17 December, it will take his family tally of UCT qualifications into double figures.

And for his father, Professor Gerald Nurick of the Department of Mechanical Engineering, it will be the sixth time that he will have the privilege of hooding a family member.

Nurick senior has hooded his wife, Dr Denise Roditi, business manager in the Division of Chemical Pathology. He did likewise twice for his youngest son Simon, and once for daughter Jessica. December will mark the second time he will drape a hood around Saul's shoulders.

Unfortunately, he couldn't hood himself when he obtained his PhD – the first of the family's 10 hoodings – in 1987! ■

Two bites of cherry for Smit

Hooding a family member His, by all accounts, a warm, fuzzy kind of thing to do. Renee Smit will have a second bite of the cherry when her son Gareth graduates with a BSocSc at the graduation ceremony on 14 December.

Smit, the academic development lecturer in the Department of Electrical Engineering, had the privilege of hooding her daughter Nikki, who finished her BSc in occupational therapy two years ago.

"As a family, we are excited and very proud of Gareth," Smit noted. "We are just sorry that Nikki is not here to share the day with us: she is working as an occupational therapist in Singapore."

Gareth will continue with his studies at UCT next year, doing an honours degree in philosophy. That probably means that Smit will have more hooding duties in the near future.

"We really enjoy UCT's tradition of allowing staff members to be involved with family members' graduations." ■

Family affair for rising music star

With a Laura Searle Prize and a spot on the Dean's Merit List no less than three times, Coila-Leah Enderstein is undoubtedly one of UCT's rising stars in the music field.

And on 15 December Enderstein will graduate with distinction (no surprise there) with a Bachelor of Music degree in western classical piano performance. And it's going to be a family affair.

Enderstein's mother, Billy Enderstein of the School of Actuarial Science, will hood her, and her daughter is excited about the occasion.

"It will be wonderful to be hooded by my mother," she said. "She has been involved with and has been close to me throughout my academic career at UCT, and I appreciate the opportunity to share the culmination of it all with her."

Next year she will pursue her honours studies in piano performance, and is set to stage a couple of performances at UCT in March and April. ■



Coila-Leah with mum Billy Enderstein.

Waldron continues tradition

Dr Howard Waldron of UCT's Department of Oceanography has made hooding a family member something of a tradition in recent years.

In 2009 he hooded son Jake when the latter graduated with a BA in film and media studies. Dad did the honours again last year when daughter Elizabeth received her BSc. And Waldron will continue the tradition at this December graduation when the selfsame Elizabeth is presented with her BSc (Hons) in molecular and cell biology.

"It is a great feeling to be hooding the second of my two children," Waldron commented. "It marks the end of something, and new beginnings as our children enter adulthood and the 'real world'."

In fact, UCT has become a home for the Waldron family, as Waldron's wife, Miranda, is a technical officer in the Electron Microscope Unit.

"We both love working at the university," says Waldron. "It has always been an institution that can hold its head high in a country where the political landscape has been and still is geologically tectonic."

Which we think is geo-speak for 'unsettled'! ■

Italian internship for MArch

Tariq Hassen, who will be receiving his master's degree in architecture (MArch Professional, with distinction) this month, says his dad, civil engineering laboratory manager Noor Hassen, was his greatest inspiration.

"It is through him that I learnt about the time and effort behind good craftsmanship and the design of objects. This is something I carried with me from childhood, and even executed in my final-year thesis," says Tariq.

Through his dad he was exposed to civil engineering, which he incorporated in his design strategies.

"His work has helped me to understand cross-over technologies and

strategies, which help bridge the gap between architect and civil engineer."

Among his honours are the Corobrick Architectural Student of the Year Award, and recently, the Renzo Piano Building Workshop Internship – six months in Genoa, Italy, with the renowned architect Renzo Piano.

"The internship introduces the new graduate to the technologies and applications of architecture that bridge the gap between their studies and the real world," says Tariq. "The Renzo Piano firm deals with detailing and structures we are not exposed to in Africa. European, Asian and American architecture involves different material palettes, and the opportunities to create high-end architecture." ■

Graduates-in-law

Okay, so the UK's got all those first-world bells and whistles. But Associate Professor Helen Scott, at the University of Oxford for a number of years, returned to South Africa and the Department of Private Law in 2009. At UCT she met tutor and research assistant Stephen Wagener, working on his PhD on the law of delict (that arm of the law dealing with civil wrong and compensation). They fell in love and married. In December, the couple will share another ceremony when Scott will hood Wagener, who has finished that PhD and is now based at the Cape Bar. Take that, (sometimes) functioning rapid transit system! ■



Assoc Prof Helen Scott with husband Stephen Wagener.

Dean to hood son

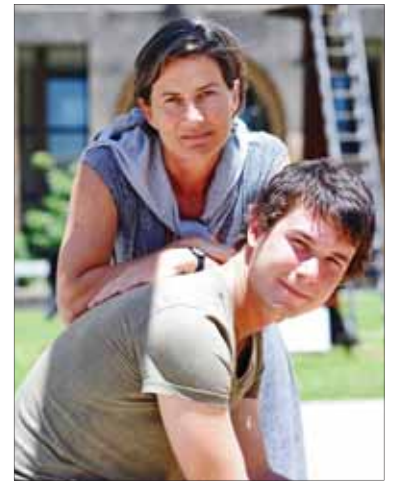
It often happens that children are not interested in following their parents' career paths. David Jeffery is no exception.

Both his parents have law degrees, with his mother, Professor Pamela 'PJ' Schwikkard, holding the most senior law position at UCT as the Dean of the Faculty of Law. Instead, Jeffery chose politics, philosophy and economics over jurisprudence and moot courts.

Luckily mom's not holding a grudge. On 15 December, Schwikkard will hood Jeffery when he steps up to the graduating podium to receive his BSocSc, with distinction.

"He did not want to study law – both his parents have law degrees and I think that was a deterrent," says Schwikkard.

But the family respected his decision, and the effort he's put into his



Dean of the faculty of law Prof 'PJ' Schwikkard, and son David Jeffery.

studies.

"He has made full use of the past three years, and we are extremely proud of him." ■

Double deal for Midgley

Professor Jeremy Midgley, of the newly-formed Department of Biological Sciences, will have his hands full at the December graduations.

On 13 December he will cap his daughter Amy, who is graduating with her BBusSci degree, and five days later he will hood another of his daughters, Danjelle, who is obtaining her LLB. Her previous degree was in music.

As is clear from their degrees, neither has so far shown any interest in following in their father's career footsteps in the life sciences. (He's based in the erstwhile Department of Botany.) But that may change soon.

Danjelle has decided to pursue a master's degree in environmental law, and is thinking of a career in being a prosecutor for the 'green scorpions', ie the Environmental Management Inspectorate. In turn, Amy will be doing a master's in resource economics, during which she will study methods to put a value on various environmental and biological resources.

"With a bit of luck, both will get to work with the environment, plants and animals," Midgley says. ■

Like father like son

You'll be forgiven the cliché when you say that law runs in the blood of the Hutchison family.

When David Hutchison graduates with his LLB on 18 December, he'll be joining an impressive list of law graduates from his immediate family. His elder brother, Andrew, is a senior lecturer in the Department of Commercial Law; his father, Professor Dale Hutchison, is a part-time lecturer in the Department of Private Law; and his grandfather was a magistrate.

At the graduation, Hutchison senior will hood a family member for the eighth (and probably last) time; the youngest son is planning to practise law, and the father will retire in a few years' time.

"We are excited about David's graduation," says Hutchison senior. "But it marks the end of the road for me." ■

Poet wraps up MA with distinction

When Richard Higgs – said by his supervisor, renowned poet Professor Joan Hambidge, to be a writer of “smashing poems” – receives his Master of Arts in Creative Writing degree this month, he will be achieving something rare: a distinction for his degree.

In his dissertation, Higgs – a project manager with UCT’s information and communications technology services department – studied the translation of poetry, using the constructs of detective fiction to illustrate the point that translating poetry can be construed as homicide.

The coursework was a volume of some of the poems he wrote in English and Afrikaans during the two years of the course. Titled *The Art of Dying/Binnedeur*, it deals mainly with the circular relationships that we have with mortality and art. It also blends in concepts from mathematics, science and philosophy, and relates them to our perceptions of death and of art.

Higgs has been penning poetry since he could first write, at about age six.

The MA in Creative Writing was all about refining his skills as a poet and the quality of his prose.

“I needed a deeply critical, impartial eye from an experienced poet, someone who could identify my strengths and weaknesses, and help

me to focus intensively on the work I needed to do. Also, having worked in the professional/corporate world for so long, I decided that my creative side needed some structure.”

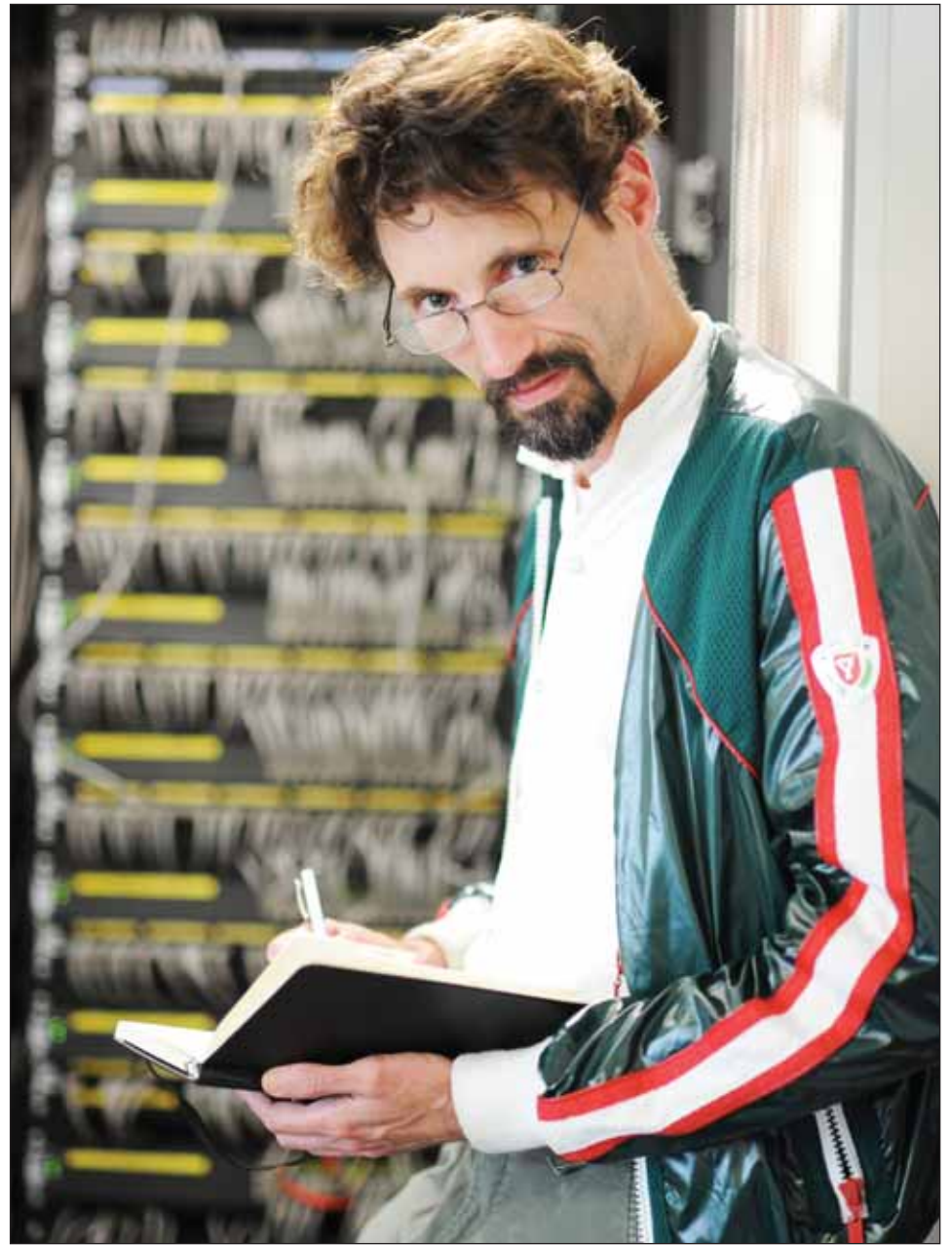
Higgs, who has a BA from Wits and an MA in Language Sciences from the University of Montpellier in France, says poetry does not exist in isolation.

“What makes my poetic voice unique is a deep engagement with a very broad range of poetic and artistic traditions, as well as with the more linear sciences: mathematics, physics and medicine.”

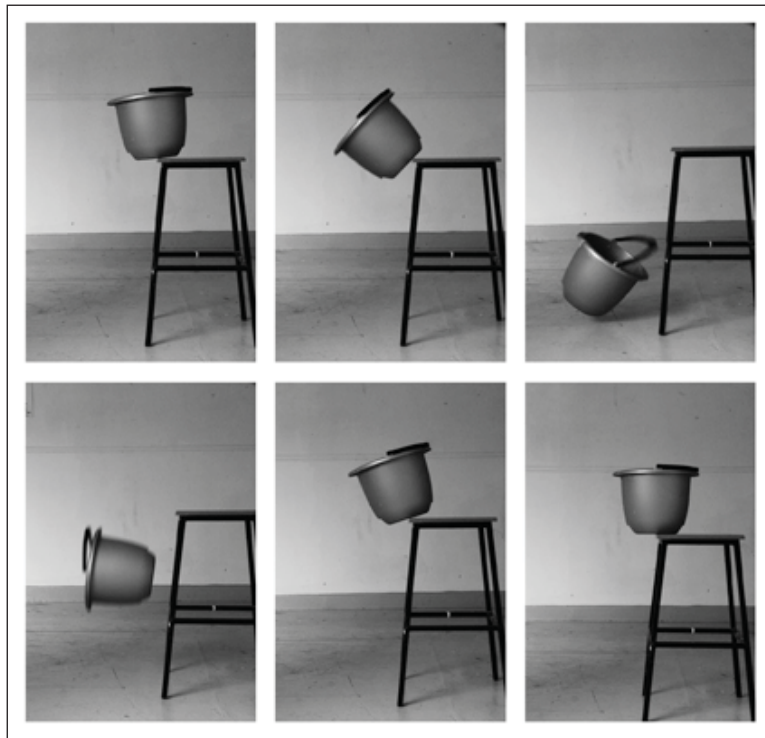
Those poets who have had an enduring impact on him include e e cummings, Uys Krige, Lucille Clifton, Federico Garcia Lorca, William Blake, and Edith Sitwell. The two contemporary poets he admires most are UCT’s ‘own’ Ingrid de Kok and the Irish poet Paul Muldoon (both of whom make cameo appearances in his volume).

Higgs believes there is a slow renewal of interest in poetry, partly thanks to social media, which make poetry much easier and cheaper to publish and access. This is not always a good thing, though, he adds.

“There’s a lot of really bad poetry that now has an outlet.” ■



Reflection: UCT ICTS project manager and poet Richard Higgs obtains his MA in Creative Writing with distinction, a rare feat.



Bucket list: Untitled photographic print by artist Liesl Potgieter.

Michaelis artists’ final work at grad exhibition

The Michaelis School of Fine Art hosts its annual Graduate Exhibition at the historical Hiddingh Campus from 5 to 19 December 2012, showcasing a broad selection of painting, sculpture, new media, print and photographic works by 52 newly-graduated artists.

A catalogue will be available to accompany the exhibition, which is on view in over 30 spaces on the campus.

This show is a culmination of the work of the four-year Bachelor in Fine Arts degree and the Postgraduate Diploma.

“As always, a range of exciting, ‘hot off the press’ works will be shown,” said Michaelis Galleries curator Nadja Daehnke.

“The annual graduation show has become one of the highlights of the Cape Town arts calendar. For art-lovers, it has become tradition to attend the exhibition opening to see the newest crop of talented and ambitious young artists – and to snap up some of their work at bargain prices.”

The exhibition will be open from Tuesdays to Saturdays from 11h00 to 16h00. ■

Yiddish/Afrikaans poet Olga Kirsch under the lens for PhD

When Thomas Minnaar wasn’t working towards a taxing PhD in Afrikaans, he doubled up as a copy editor on the tabloid newspaper, *Die Son Op Sondag*.

The two facets of his work with words may surprise on first meeting with the softly-spoken expert on the life and times of Olga Kirsch, the only Jewish poet to write in Afrikaans.

Kirsch was born and brought up in Koppies in the Free State. Her father had emigrated there from Lithuania, and though a Yiddish-speaker, brought his daughter up to speak English. Nevertheless, she wrote in Afrikaans, publishing several books of poetry in that language, as well as a volume of selected poems (she was only the second female Afrikaans poet to be published).

Minnaar says he chose Kirsch after reading an article about her in 1994, based on a new collection of her poetry. “Her poems struck me, and I decided to do my PhD on her.”

This German and Afrikaans major says Afrikaans has always been his passion. “It’s my mother tongue, and the one I know best.”

He says there is a purity to Kirsch’s poems that appealed to him.

“She was an old-school poet, who stuck to tried-and-tested structures in her writing; and she is unique, in that she is the only Jewish poet to write in Afrikaans.”

He talks of Kirsch’s “yearning to be belonged”, and says this comes through in her poetry. “She had an in-between voice. She was not quite an Afrikaner, but she spoke to the heart of Afrikaners.”

Kirsch wrote some of the first protest poetry in Afrikaans, against the nationalism that was taking hold in South Africa at the time. Her second volume of poems was published in 1948, the year the National Party came to power, and she emigrated to Israel that same year, partly as a protest against the Nats, although several other factors also played a part in this decision. One of these was that she was a Zionist, and wanted to help build the fledgling country.

Kirsch also published a book of English poems about



Unique voice: Thomas Minnaar’s PhD explores the works of Jewish poet Olga Kirsch, who wrote in Afrikaans.

her granddaughter, who died at the tender age of 10. Minnaar describes these poems as “very personal, and very sad”.

The most satisfying aspect of his research was the bits he translated from Yiddish.

UCT was a clear choice for his PhD.

“Joan Hambidge, the very famous Afrikaans poet, was my supervisor; and I chose her because she is formidable. She is the best there is.”

Of his tabloid life, Minnaar says he finds his job at *Die Son Op Sondag* “very satisfying indeed”.

“Working for a tabloid is a great escape.” ■

Biggest graduating class for chem eng

Chemical engineering is graduating its highest-ever number of students this year, close on 100; 25 more than last year, and 43 more than the year before.

Head of department Professor Jack Fletcher says one of the main reasons for this is that in 2009 the faculty enrolled a very large first-year class, of 160 students. This was partly due to the new admission criteria set for the new National Senior Certificate examination, and not having good benchmarks to work with at that stage.

"In other words," he says, "in 2009 we significantly overshot our target intake."

Another important reason for this large graduating class is that the department has been steadily improving students' success rates. Chemical engineering is arguably one of the university's toughest degrees.

"Of the 2009 intake to the mainstream programme, 44% are graduating this year," Fletcher adds. "This compares very well to our historical throughput in minimum time, which has been in the order of 30 to 35%."



Bumper crop: UCT is graduating its largest-ever number of chemical engineering students this month. The department has been steadily improving students' success rates, say Profs Jack Fletcher and Jenni Case.

Colleague Professor Jenni Case says that over the past few years a

number of measures have been introduced to help students succeed. These

include a successful first-year mentoring programme, a first-year class camp

and a second-year field trip.

Case, assistant dean for academic development in EBE, and in-house authority on academic development in the Department of Chemical Engineering, recently presented her inaugural lecture on the need to create a deeper understanding of student learning.

The large graduating class of chemical engineers is not only good for UCT, but also good news for the country, says Fletcher.

"UCT chemical engineering graduates are very highly regarded in the country, in both industry and commerce, and this cohort will go out to play a key role across a range of sectors."

He adds: "For a number of years now, black students have been in the majority in our graduating class; and this class continues that trend. Given the size of the class, we have noted proudly that we are the largest 'producer' of black chemical engineers in the country."

(Previous class sizes are: 2006: 59; 2007: 65; 2008: 68; 2009: 75; 2010: 57; and 2011: 75.) ■

Degree no pipe dream

When Congolese student Joel Bombile arrived in Cape Town a few years ago, it was with a head full of dreams and a vision of making a new life for himself. Apart from that, he had precious little.

He had almost no English, and even less money. Become a chemical engineer, one of the toughest degrees on offer at UCT? It seemed a pipe dream.

But this month Bombile is graduating – cum laude – with a BSc in chemical engineering, having been on the Dean's Merit List in his first and second years. (He learnt a few phrases in English in his first few weeks at UCT, but 'pipe dream' wasn't one of them.)

Shortly after arriving in Cape Town he joined an institution specialising in teaching English to non-English-speakers. He was only able to study for a month or so, however, before having to leave because of a lack of funds.

"But I listened to the news all day long, and read as much as I could.



Help from my friends: Chemical engineering graduand Joel Bombile arrived in Cape Town from the DRC several years ago with little English and few resources.

I finally registered to write the Test of English as a Foreign Language (TOEFL), and managed to do well enough to be considered for admission to UCT."

He remembers sitting in his first lecture, struggling to make sense of what was being said.

"My performance in the first semester of my first year suffered terribly because of language problems, but I was determined not to apply for extra time for the class assessments.

"I remained every day after class, studying in the basement of the chem eng building."

He received plenty of encouragement and support from Professor

Duncan Fraser, who delivered the first course he completed at UCT, and was also helped and guided by Professor Jenni Case while seeking financial support from the university.

"I have particularly enjoyed the support and friendship of Professor Peter Meissner and his family, who I met in my second year," says Bombile.

Having matriculated as the top student in DR Congo in 2006, he says he is obsessed with the idea of making a difference in the world through research.

He plans to study for a PhD in chemical engineering over the next few years, and is particularly interested in nanotechnology. ■

Oxford sojourn for MSc graduand MBewu

His dad is former director of the Medical Research Council, and his mom is a researcher in public health at the University of the Western Cape. Now he is graduating with an MSc in applied mathematics.

To top this, MBewu is now studying computational biology at Oxford in a course called the Life Sciences Interface. The course is for students from a physical sciences background, and provides a background to basic biology and computational biology before they embark on a PhD in a specific research area.

"I'm not 100% sure what my research topic will be, but it will probably be in modelling molecular pathways in the cell; that is, modelling chemical reactions within the cell using differential equations with a view to identifying the effects of all these pathways on the eventual behaviour of the cell," said MBewu. "This is really important, because there are myriad chemical reactions in the cell, and it's crucial to model these mathematically to analyse a large number of these dynamics."

He may also opt for research more closely linked to his MSc project at UCT with Professor Daya Reddy and Dr Sebastian Skatulla. His MSc entailed mechanically modelling the heart, following damage to the heart tissue.

"There's a large group here in Oxford with software that accurately models the electrophysiology (electrochemical dynamics) within the heart, and they are currently extending their work to include the mechanics of the heart," MBewu explains.

With his family background, he has always been exposed to health issues.

"But this (particular) field is really exciting, because it gives me an opportunity to combine my love for mathematics and computing with the wonder and complexity of biology."

With imaging technologies becoming ever more accurate and refined, he says we are "closer than ever to unlocking the mysteries of what makes life tick". ■



Against all odds: Luke Warner, who grew up at the Marsh Memorial Home, overcame considerable obstacles to obtain his honours in electrical engineering. Here he is congratulated by the home's principal, Steven Noorman.

From 'assassin' to electrical engineer

Luke Warner's story is one of inspiration and encouragement.

This month Warner graduates with his degree in electrical engineering *cum laude*, despite the setback of failing mathematics and physics in his first year.

From the age of seven Warner lived in the Marsh Memorial Home, a safe haven for children at risk. He matriculated from Pinelands High and initially wanted to be an assassin because it seemed "like a cool job".

In his first year, he not only struggled academically, but also had to work up to six nights a week to pay for his accommodation, transport and food. In his second year he secured a place in Smuts Hall residence.

Despite the considerable demands of his engineering de-

gree, Warner served in leadership positions in his department. He also mentored first-year electrical engineering students and served as a mentor in his res.

During the mid-year break in 2012, he worked as a resident teaching advisor on the LEAD Global programme, which exposes a group of diverse, high-achieving high school pupils from the US and the Western Cape to the fields of engineering.

"Find your purposes so you know where you are going," is the mantra he lives by. "Be humble and willing to know you make mistakes. Be generous – share your resources, your time and your education without expecting anything back."

Next year Warner will join Standard Bank in Johannesburg as a corporate and investment graduate. ■

Ticket to success thanks to a little help from friends

When Hlayisi Baloyi arrived in the big city from a dusty, non-descript village in northern Limpopo four years ago, sans an ID book, with nowhere to stay, no-one could have guessed just how well he was destined to perform.

His is a story of courage and determination, and of others' kindness towards a young man with not much except a fine intellect and dream to become a chemical engineer.

On 13 December, Baloyi will graduate with proud mom Asnath in the hall. Asnath has never been to a city before - and never flown in an aeroplane.

He hails from a tiny village called Mhinga, near Thohoyandou in northern Limpopo, and was the top student in the province when he matriculated at Basopa High School four long years ago, with 100% in maths and 99% in physical science.

Because he did not have a valid ID document, due to a problem at Home Affairs, he was unable to gain admission to a university.

Enter Jon and Hilary Kerr, from Claremont. Kerr got to hear about Baloyi's plight from a friend, former UCT graduate Garth Williams, who'd managed to get Baloyi a Mintek bursary and a place at UCT.

With only a week before the start of his study year - too late to get a place in residence - the Kerrs agreed to lodge the young man for a few weeks while Mintek sought permanent accommodation for him.

But how to fly him to Cape Town without an ID? Williams approached the office of the CEO of Kulula, who agreed not only to fly him to Cape Town without an ID, but to do it free of charge. (Kulula also paid for his and his mom's tickets to grad.)

"He arrived on Saturday 7

February 2009, tired, bewildered and lonely, but excited in a new city, a strange house, and over 1,700km as the crow flies from home," says Kerr.

A week's accommodation soon became a month, a term, a year; and now, over the past four years, the Kerrs "have had the pleasure of getting to know this quiet, studious and extremely hard-working young man".

Kerr says the family only realised in retrospect just how many challenges Baloyi faced in coming to study at UCT. "We did recognise early on, though, that he was very determined to succeed, and if that meant 16- to 18-hour days, seven days a week, he was going to get his degree no matter what. He just worked and worked."

But the last word goes to Baloyi: "From a rural school to UCT was a huge adjustment. The only town I had ever seen before was Pietersburg!"



Good news story: Hlayisi Baloyi (left) graduates as a chemical engineer after his dreams of studying at UCT were almost scuppered four years ago. (This photograph taken four years ago with classmates.)

Asked about the highlight of the past four years he says: "Being able to survive the intense pressure of

studying, and being exposed to computers for the first time in my life. Now I am a master of computers!" ■

French couple clinch PhDs, marriage – and a pair of daughters

They found a marriage officer on Gumtree, then got married, in secret, at the Aquarium in Cape Town – on April Fool's Day!

To top that, French couple Sofia and Renaud Stathopoulos will receive their PhDs this month, Sofia's on the molecular evolution of Olfactory Receptor (OR) genes across African mole-rat species, and Renaud's in bioinformatics, with a focus on gene expression deconvolution, which estimates cell proportions and cell-specific gene expression from high-throughput gene expression data such as microarrays or RNA sequencing. April fools? Not likely...

Sofia came to Cape Town from Florence, Italy, to do her honours in molecular and cell biology, because she wanted to gain experience in an English-speaking country that was not the US or the UK.

"I loved both UCT and the city. Once back in Europe, I met Renaud in Paris and we decided to move back here to do our PhDs. Renaud was working in mathematical finance at the time, and wanted to do something else, something more meaningful," she says.

"We really love Cape Town, and after five years, we feel that this is our home, where our two daughters were born.

We're very impressed by UCT."

They will be graduating on the same day because they are both attached to the Department of Molecular and Cell Biology.

The couple also opened a Capoeira school – Capoeira Cordao de Ouro South Africa, four years ago – which is thriving.

When they are not studying or enjoying Capoeira, this unusual couple is kept busy by their two daughters, Paola (3) and Dafne (eight months).

"They are amazing, although they kept us up at night for most of our PhDs," says Sofia. ■



Water-borne: Benjamin Biggs (in picture) and Carl Jacobs developed and tested an application that uses a solar-powered pump to facilitate the re-use of grey and/or rainwater at domestic household level.

Graduands explore practical uses for solar power

Four final-year civil engineering students who are graduating on 17 December created practical models of direct solar-powered systems which could play a part in conserving and protecting the environment.

The four are Carl Jacobs, Neta Isralls, Lee Richardson and Benjamin Biggs.

Jacobs and Biggs developed and tested an application that uses a solar-powered pump to facilitate the re-use of grey and/or rainwater at domestic household level.

"The project involved quite a lot

of practical, hands-on work," said Jacobs. "Building, testing and then seeing the results of the pilot system was very rewarding. The system can be scaled up to be used in industrial, commercial and/or retail applications."

This system has great potential in rural environments.

"It is generally the case that these areas do not have access to an electrical grid from which power can be sourced. The most common substitutes are diesel-powered generators. Although the capital cost is lower

(depending on the system's power requirements), the operation and maintenance costs can be four to ten times the net present cost of a solar-powered equivalent," he explained.

The water re-use system is easy to install, and requires very little maintenance.

Isralls developed a solar-based system to pump water for cooling commercial tunnels in which vegetables and plants are grown. Richardson built a solar-based system to pump water to a low-cost drip irrigation system. ■

Letter from a proud graduand to an 'anonymous' sponsor

I am about to graduate after six years of MBChB. I'm filled with anticipation as an era comes to an end. On brief reflection on my time at UCT, one theme pops to mind: financial difficulty. Medicine is one of the most expensive undergraduate degrees at UCT. There are books, clinical equipment, new wardrobes (board shorts and slip-slops simply will not do!), housing fees, food and other day-to-day sundries. I'll let your minds venture to the six-digit region.

At first there were bank loans, but even the interest on those became too steep. There are many options available for students and I exhausted them all. I applied, year after year, to government and private funders, but was never successful. Perhaps it was the misfortune of being grouped in the 'previously fortunate' category on the application form. The truth is, I do consider myself previously fortunate. Another truth is that, regardless, I couldn't pay my fees.

That's when I found the Alumni Office at UCT. Joan Tuff called me one day to say that an 'anonymous' sponsor wanted to help. The only thing I knew about this sponsor was that she is a UCT medical school alumna. This wonderful Godsend whom I called 'Sponsor' saw me through to the end. For the past three years I have received a very generous and helpful contribution from my Sponsor, whom I have now met and know as Marge.

My gratitude runs deep. Her assistance was not only financial. Her generosity helped me psychologically and emotionally and gave me the space to enjoy the med school experience more than I could have in



Deep gratitude: Nick Park Ross, MBChB graduand and recipient of financial help from an 'anonymous' donor.

financial crisis. I had opportunities to go on electives that I wouldn't have been able to fund. I bought textbooks. I had the freedom to relax and not stress about cash. Those were the secondary yet important spin-offs of Marge's help.

I had the fortune of meeting Marge recently. She called me up and we went to watch the Sharks play the Stormers at Newlands. I will keep my comments on the game to myself so as not to offend Marge!

Some reading this may feel moved to help other students out in a similar way. I encourage you to do so. Thank you, Marge, for the opportunities you gave me and for being so generous.

Sincerely,
Nick Park Ross

Space programme celebrates 10 years

A decade later, and suddenly the South African National Astrophysics and Space Science Programme (NASSP) seems not only well-timed, but downright visionary.

A direct outcome of the South African Astronomical Observatory's strategic planning exercise in 2000, the course was launched in 2003 as a combined degree programme between UCT (as host) and 12 other institutions. The Square Kilometre Array (SKA), the radio telescope now being developed in South Africa and Australia as part of a €1.5-billion international project, was little more than a dream – although the Southern African Large Telescope, or SALT, then still under construction in Sutherland, loomed on the horizon.

Today NASSP seems like a SKA academy. Initially, though, the programme was all about boosting the number of postgraduate students in the disciplines of astrophysics and cosmology, especially as the country's 'older' cadre of space scientists were nearing retirement age. In particular, South Africa was keen to produce black astronomers.

That first year, 2003, the programme registered 16 and six students respectively for the out-of-the-box honours and master's programmes. Most hailed from other corners of Africa.

Founding partners included the Universities of the Free State, Potchefstroom, Zululand, KwaZulu-Natal, Rhodes, the South African Astronomical Observatory and the Hartebeeshoek Radio Observatory. UCT would and still does host the honours programme, but master's and doctoral students would be affiliated to and based at other institutions.

In December this year, 19 honours students will graduate from UCT through NASSP, as well as one UCT PhD student. (As master's students graduate from their respective universities, those numbers are not yet known.)

From a sheer numbers perspective, NASSP has been a resounding success. It has graduated over 150 honours students, over half of them going on to doctoral studies. About one third of the graduates have been women. Understandably, the number of black South Africans coming through the

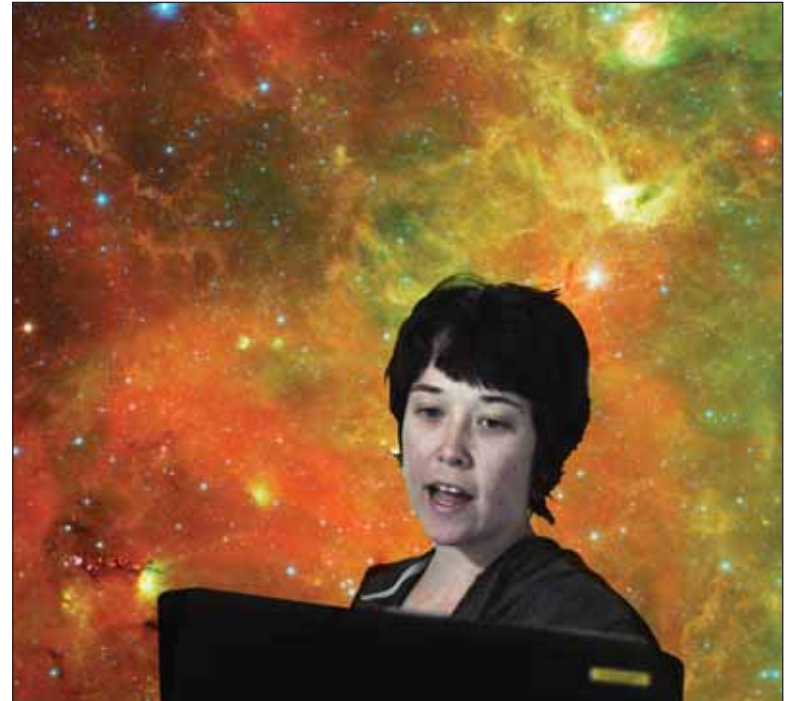
programme has not matched the numbers from other African countries; but UCT's astronomy department and the NASSP extended honours programme, run by Saalih Allie, is already setting that right.

"But overall I would say that we've done incredibly well, given where we started in 2003, but we'd like to do better," says the director of the postgraduate programme, UCT's Professor Peter Dunsby.

Those numbers could even improve. Plans are also afoot to set up another node – matching the one in Cape Town – in the north of the country. And other institutions are beginning to see NASSP as a blueprint for international collaborative programmes.

The SKA has further spotlighted the need to grow the country's human capacity in space sciences, adds SAAO director Professor Patricia Whitelock, principal research officer in UCT's Department of Astronomy and chairperson of the NASSP steering committee.

"There will be wonderful opportunities for students to use the combination of optical and radio facilities to study some of the most exciting problems of the moment,"



The future: Honours students such as Louise Steward were among those who presented papers – on everything from star formations and dark matter substructures known as subhaloes to the tracking of hurricanes – at the end-of-year NASSP presentations.

says Whitelock, "everything from looking for Earth-like planets around other stars to understanding the nature of dark energy."

Hard as it is to imagine, the second decade for NASSP could be even more groundbreaking than the first. ■

New taught master's in radar programme graduates first students

Radar technology made its name just before and during the Second World War.

Six or so decades on, scholarly and industrial interest – and use – hasn't waned a bit. Quite the contrary, in fact. In 2015, indigenous radar in South Africa will be 75 years old, and to mark the occasion the country will get to host its first International Radar Conference that year.

The continued interest in the subject was also highlighted when UCT launched an international taught master's of engineering programme, with a focus on radar and electronic defence, at the beginning of 2011. Now that programme will celebrate the graduation of its first students when Stephen Middleton and Jurgen Strydom are capped in December.

It's a course that stands out for a number of reasons, explains course convenor Professor Michael Inggs, who leads UCT's Radar Remote Sensing Group (operating



Launch pad: Prof Mike Inggs (far left) with the inaugural international master's in radar technology class.

since 1988). For one thing, it was established at the behest of industry. And to show their commitment to the programme, the likes of the Council of Scientific and Industrial Research, aka the CSIR, and international partners and industry all chipped to get the course rolling and keep it going.

It's also international in other ways. Most of the students hail from other countries (it's hoped that soon, internationals will make up 75% of student numbers), as do the lecturers

– 'the best' teaching staff, drawn on because of their expertise in specific fields, have been recruited from Italy, the Netherlands, the UK and the US.

The modular programme was designed with non-residential and international students in mind. Students attend intensive week-long lectures and seminar's and then go off and work on projects and assignments on their own, communicating electronically with lecturers and supervisors every week. The programme culmi-

nates in a written examination.

The degree was established, in part, to keep recent graduates and those already in industry up to date with the latest developments in radar technology. Something like 60% of all research work in the geosciences involves some sort of radar technology, explains Inggs. Archaeologists use it to detect objects buried underground. Vegetation and land-use mapping has become dependent on radar. It has become an indispen-

sable part of disaster monitoring. Astronomers use it to observe objects in deep space. And let's not even talk of all its (sometimes dark and scary) military uses.

"There are just more and more applications being found every day," says Inggs.

Like the discipline itself, the course, just two years old, is expanding. Course partners have been encouraged to introduce their own specialisations into the programme, so Stellenbosch University has been running an advanced microwave antenna course for the programme, while the University of Pretoria has contributed a course on data fusion and tracking.

The programme has about 23 students registered currently, with another dozen or so expected to sign up in 2013.

A radar system wouldn't have to be all that sophisticated to pick up on that kind of growth. ■

First grads of intercalated programme set to revitalise clinical research



Pioneers: Students James Francis (third from left), Valmy Craffert (third from right), and Jacob Hoffman (second from right) are three of the four UCT students who will graduate with honours degrees in December as part of their intercalated MBChB/medical research studies. They were photographed with (from left) Dr Kevin Ho, medical director, Boehringer Ingelheim South Africa (BISA); Paul Stewart, former CEO, BISA; Prof Bongani Mayosi (middle); and (far right) Georg van Husen, new CEO, BISA, when the company announced its scholarships for the intercalated programme.

In finance and investment they would probably call it 'diversifying your portfolio'.

In the Faculty of Health Sciences, they call it an intercalated degree, which allows a select group of students – they have to be picky, because the programme is so demanding – to squeeze in honours and PhD research degrees while working on their MBChB degrees. This is part of the faculty's plan – ie the UCT Clinical Scholar Programme, funded by a Vice-Chancellor's Strategic Award and led by Professor Arie Katz and Professor Bongani Mayosi – to jog the production of clinical scientists over the coming years.

The faculty took their cue from European and US models, and a 2010 study by the Academy of Science of South Africa titled *Report on Revitalisation of Clinical Research in South Africa*.

Come the December graduation ceremonies, four of the five students who signed up for the inaugural Clinical Scholars Programme in 2011 will graduate from step two of the intercalated degree.

Step two – following on from step one, a course in molecular medicine that they had to include in the third year of their MBChB studies – is an honours degree known as BSc (Med) Hons, which Valmy Craffert, James Francis, Jacob Hoffman and Vinasha Ramasamy have now wrapped up. While there had been concerns

that the students wouldn't have the background in biological sciences for this honours degree, the four finished the course with aplomb – three managing first-class passes, the fourth scoring an upper second. Craffert and Hoffman were the best students of the BSc (Med) Hons programmes.

To do this degree, the four had taken a year's break from their medical degree. For 2013, Craffert, Francis and Hoffman will return to their MBChB studies, choosing to put off part three of the intercalated degree, a three-year PhD, until after graduating. But the research bug has bit Ramasamy, who had chosen to leave medical studies and go for a master's degree, and thereafter, doctoral studies.

"The top performance of the medical students in BSc (Med) Hons vindicates the proposers of this programme," says Katz, "and are a testament that the intercalated BSc (Med) Hons/MBChB programme will generate the future clinician-scientists that will lead and revitalise clinical research in SA."

The numbers are proof of that. Five students who did the molecular medicine course in the third year of their MBChB studies in 2012 have signed up for the BSc (Med) Hons degree in 2013, and over a dozen have applied for the intercalated programme for next year, hoping to kick-start their dual careers with the selfsame molecular medicine course. ■

Study on ageing goes beyond skin-deep

They say only mad dogs and Englishmen go out in the midday sun. These days, though, exposure to the sun at any time incurs the risk of skin ageing and even cancer.

Victoria van Kets, who is graduating with an MSc in medicine, specialising in cell biology, says skin ageing is mainly a result of regular sun exposure, which – although it is only noticeable after many years – is irreversible without intervention.

It can also lead to more serious health issues, such as skin cancer.

“The biggest fallacy,” she says, “is to think that someone is immune to the sun’s harmful rays because they ‘tan easily’, ‘never burn’ or have a darker skin tone. A healthy diet and lifestyle play a major role in how a person’s skin ages, but stopping the acceleration of skin ageing, and preventing the possible development of skin cancer, is simple: avoid the sun as much as possible.”

Van Kets’ research project looked at the cells in the dermal layer of the skin (fibroblasts) and their reactions to a treatment called photodynamic therapy. This was originally used to

treat non-melanotic skin cancers, and was found to cause a significant improvement in the overall appearance of the skin. This therapy involves the use of a chemical that absorbs a specific wavelength of light, delivered by a laser, to create transient reactive molecules believed to modulate cell signalling.

“The main issue with the treatments available for skin ageing are the variable responses of each individual to a (particular) therapy. Right now, there is no ‘gold standard’ to treat all types of skin ageing for every person – that would be the golden ticket to the Willy Wonka chocolate factory.”

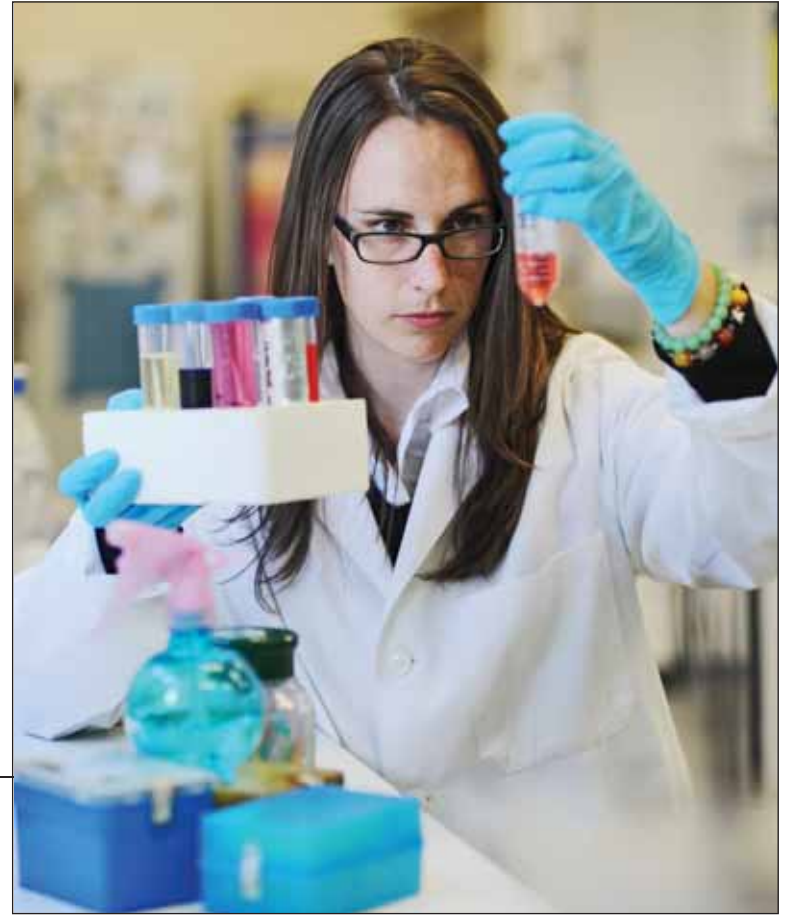
“My research focused on non-invasive therapies using lasers, which are gaining momentum as a treatment as they are relatively easy to perform; there is little or no downtime and the results are successful – albeit more subtle than surgery or chemical peels, which have the potential for serious side-effects.

“The products in development to treat skin ageing are moving towards targeting the molecular mechanisms

of the cell. This way they have the potential to reduce the appearance of wrinkles or unsightly pigmentation from inside the cell. However, it may take a while before these products are available to the general public, as research and development will take time to ensure the predicted outcomes are true and there are no bad side effects.”

Lasers, she says, “have the amazing ability to emit light of a specific wavelength with a certain power or energy. They are widely used in medicine and science due to the ability of molecules with a certain chemical structure to absorb a specific wavelength of light. This absorption can lead to many outcomes, one of which is the creation of reactive molecules able to transfer the absorbed light energy to other, nearby molecules or systems.” ■

Skin deep: Master’s graduate Victoria van Kets’ research looked at the cells in the dermal layer of the skin (fibroblasts) and their reactions to photodynamic therapy.



Empowered: Dell Young Leaders Snegugu Vilikazi (above/left) and Bianca Lawrence.

Dell leaders graduate

Two outstanding students from the Michael & Susan Dell Foundation’s Dell Young Leaders programme – which seeks to level the playing fields for high-potential but disadvantaged students – get their degrees this month.

Snegugu Vilikazi gets her BCom (accounting), while Bianca Lawrence graduates with a BSocSci (politics and gender studies).

The Dell Young Leaders Programme works with exceptional students who have a track record of overcoming adversity, and who have the potential to become leaders in their professional lives and communities.

The comprehensive support these students receive takes them through to graduation and into meaningful employment in their chosen professions. (The programme is currently offered at UCT and the University of Pretoria.)

Lawrence says the programme meant “hope, possibilities and endless opportunities”.

“In my first year, when I wasn’t part of the programme, I was constantly worried by financial burdens. Since my second year the Dell Young Leader’s Programme has provided me and my peers with more than just financial support. I was always supported through skills development sessions, outings, mentorship training, and other programmes.”

Vilikazi agrees. “The programme provides support for all aspects of a student’s life, including their academic and personal well-being. Dell provides all the resources a student needs for academic assistance, and even counselling, medical assistance and financial support.” ■



Family of alumni: The Grant household’s UCT graduates are Dr John Grant, his wife, Terri (second left), who gets her PhD this week, and daughters Taryn (left) and Nicole.

Dr John Grant, who earned his MBChB at UCT nearly 40 years ago, will share the title ‘Dr’ with wife Terri, head of the Professional Communication Unit in the commerce faculty, when she receives her PhD this week.

The Grant household is now chock-full of UCT graduates: daughter Taryn has a BA LLB and is a practising attorney, while daughter Nicole has a BA (Film and Media) and is in the movie business.

Grant’s thesis is titled *Scenario Pedagogy: A negotiated, multimodal approach to developing communication*

Disability studies to the fore in three MPhil theses

Three graduates of the Disability Studies Programme – including two ‘thesis twins’ – will receive their Master’s of Philosophy in Disability Studies on 18 December, their research underscoring the need to better understand the needs of disabled people.

Mpilo Booi and ‘thesis twins’ Fatima Essop and Chioma Ohajunwa adopted the motto “Nothing about us, without us” as the core of all they do.

Essop focused on parents’ and special-care workers’ understanding of ‘acceptance’ and ‘denial’ in relation to children’s intellectual disability. Ohajunwa looked at disability inclusion in teaching and research in the Faculty of Humanities. Booi researched community processes in policy implementation as these relate to access to health, education and social development services for the disabled.

Essop’s research provided insight into the concepts of ‘acceptance’ and ‘denial’ by exploring parents’ and special care workers’ understanding of these terms.

Ohajunwa’s research, focused on disability inclusion in the Faculty of Humanities curricula, was linked to a bigger, Vice-Chancellor-funded study, Disability in Research Enabling Curriculum Transformation (DIRECT), which surveyed all UCT faculties on the question of disability inclusion.

“My study explored whether disability is included, and how it is included, in the curricula of the Faculty,” said Ohajunwa. “Is disability seen as merely a health condition or impairment, or is it perceived as a much bigger socio-political issue?”

She and Essop were dubbed the ‘thesis twins’ because they share the same values and principles, and did everything together since their first day at UCT – this despite their very different backgrounds.

“When we started our theses, we agreed to write and submit together, no matter what, and we monitored each



Finishing together: Thesis twins Fatima Essop (left) and Chioma Ohajunwa are two of the three MPhil graduates in Disability Studies who will be capped this month. The third is Mpilo Booi (not in picture).

other’s progress and encouraged one another until we crossed the finish line together.”

Ohajunwa had a baby while writing her thesis, and her bosom pal held back on her own studies so that they could finish together.

Joined at the hip? It would certainly seem so! ■

Full house of UCT alumni

practices in higher education.

She reflects: “I coined the term ‘Scenario Learning’, but switched to ‘Pedagogy’ when I realised I was not interested as much in learning theory and the cognitive internalisation processes as I was in negotiated meaning-making. As pedagogy combines teaching and learning, I thought this would be a better fit. It’s a process I started over a decade ago in my computer science communication teaching, to enliven what might be considered

a boring add-on for these technically-minded students.

“It was so successful that I transferred the process of embedding an entire course in a set of scenarios to the Commerce Faculty in 2008, and that’s when I decided to follow the trajectory of the students’ development over the course. It was difficult to find a supervisor for this type of multi-disciplinary work, so I was thrilled when CHED’s Dr Arlene Archer finally agreed.”

Her work paid off, as the examiners

enthusied about the quality of her thesis, which was accepted without changes. Her examiners from the UK and the US were effusive in their praise.

This thesis, said one, is “an unusual and highly interesting instance in the contemporary development of the doctoral degree, as it fulfils the requirements of both a traditional PhD and a professional doctorate by offering a contribution to theory as well as tackling the fact that the world to be understood is changing in ways that demand new understandings, new ways of describing and analysing.” ■

New grant helps researchers understand how we fight TB

UCT's South African Tuberculosis Vaccine Initiative (SATVI) has secured a R41.6 million (US \$4.7 million) grant from the Bill & Melinda Gates Foundation for a project to learn how humans protect themselves against tuberculosis (TB).

About half a million new cases of TB occur in South Africa each year. Worldwide, 1.4 million people die from TB each year. New vaccines are needed to prevent the disease, as are better diagnostic tools and new drugs. Progress toward these interventions requires a better understanding of how our bodies fight TB. This is the goal of the funded project, which will be led by Professor Willem Hanekom, SATVI director.

"We are delighted about the funding, which will allow us to use the most modern and innovative laboratory tools to address our scientific questions," he said.

The researchers aim to discover "signatures of risk of TB disease" – in lay terms, indicators or markers that can be measured in blood long before a person develops TB, to indicate if that person is at risk of disease. Once these markers are known, it is anticipated that treatment programmes could then target persons at risk to prevent disease. Identification of the markers will also provide insight into mechanisms our bodies use to fight TB; in turn, this information may be used to develop new vaccines, diagnostics and drugs.

The project will be a collaborative effort between seven African and five European/US research groups. Over the past seven years, these groups have enrolled and followed persons from households of TB patients at multiple African sites. Blood samples were collected during this time. Persons who developed lung TB during follow-up were identified. Stored blood samples from these TB cases, and from matched controls (persons who did not develop TB), will now be retrieved to look for differences that may indicate risk of TB disease. UCT, Stellenbosch University, Seattle Biomed from the United States of America, and the Max Planck Institute for Infection Biology in Berlin, Germany will play prominent roles in the analysis of the blood samples.

The project will complement and build on two other projects already ongoing at SATVI: these studies aim to identify signatures of risk in different research populations. The Bill & Melinda Gates Foundation has already contributed at least R52 million (US\$6 million) towards the funding of these projects. ■

Lens on protection: SATVI director Prof Willem Hanekom will lead a Bill & Melinda Gates Foundation-funded project to determine how humans protect themselves against TB.



Social responsiveness awards for grad

In many ways, the Social Responsiveness Colloquium in November was a celebration of how initiatives involving engagement with external, non-academic constituencies enrich research and teaching.

So Guy Lamb gave a progress report on the university's Safety and Violence Initiative, Dr Jonathan Clark gave an update of the Schools Improvement Initiative, and Dr Katherine Hall reported back on September's very successful Towards Carnegie 3 conference of the Poverty and Inequality Initiative. These three projects are major initiatives established by the university – at the prompting of Vice-Chancellor Dr Max Price – over the past two years.

In addition, the winners of the 2012 Social Responsiveness Awards were announced at the colloquium. These awards will be handed over at the December graduation ceremonies this month, and go to Professor Mohamed Adhikari of the Department of



Winners all: Celebrating the 2012 Social Responsiveness Awards were (from left, back) Chimango Hara (EEU), Jaci van Niekerk (EEU), Fahdelah Hartley (EEU), Assoc Prof Merle Sowman (EEU), DVC Prof Crain Soudien, winner Prof Mohamed Adhikari, and Samantha Williams (EEU). (Front) Assoc Prof Rachel Wynberg, and Salvester Don and Petrus Koordom, both fishermen from Ebenhaeser working with the EEU on a project.

Historical Studies and the team at the Environmental Evaluation Unit (EEU).

In a self-described "modest, one-man, self-funded" project, Adhikari penned a biography of famed educator Harold Cressy, titled *Against the Current: A biography of Harold Cressy,*

1889-1916, as a means to raise bursary funds – targeting an initial R100,000 – for indigent but deserving learners at Harold Cressy High School. In turn, the EEU was hailed for its work with struggling local communities in which it attempts to balance the socio-

economic needs of those communities with environmental sustainability. (Fishermen from one such project, in Ebenhaeser, attended the colloquium.)

The colloquium also allowed the Institutional Planning Unit to launch the 2011 Social Responsiveness Report. The report contains a high-level summary of institution-wide and individual/unit activities related to the Vice-Chancellor's strategic themes.

Progress reports are provided on two initiatives funded by the Vice-Chancellor's Strategic Fund: the UCT Knowledge Co-op and the UCT Global Citizenship: Leading for Social Justice Programme. The report also includes a section on the provision of non-formal courses for adult learners, as continuing education is an example of teaching-oriented forms of social responsiveness. As such, the 2011 SR Report is the beginning of a process for providing an overview of the range and depth of social responsiveness activity across the university. ■

Dominguez bags inaugural research award

UCT's Emeritus Professor Cesareo Dominguez has been awarded the inaugural Humboldt Research Award, established by the German-based Alexander von Humboldt Foundation (AHF) in memory of UCT scholar and AHF fellow Dr Neville Alexander, who died in August.

Dominguez, an emeritus professor of theoretical physics, was named the winner of the accolade alongside psychologist Professor Soraya Seedat of Stellenbosch University and toxicologist Dr Joseph Owuor Lalah of Kenya.

According to the foundation statement, the work of all three researchers has had a major impact on their respective disciplines. They are all expected to provide important research-based inputs to solving the great challenges faced by developing and transition countries.

The award, valued at €60,000 (about R660,000), forms part of the Neville Alexander Memorial Fund, worth about €500,000 (about R5.5 million). It was initiated by the AHF to strengthen collaboration between outstanding African and German academics as part of the German-South African Year of Science 2012/2013.

Thus, winners will conduct research and strike up collaborations with colleagues in Germany.

Dominguez, whose research area is elementary particle/high energy physics, has been collaborating with colleagues from the Universities of Mainz and Munich, both in Germany, for the past 30 years. He visits these institutions at least once a year, and his research collaborators, in turn, visit UCT every year.

The award will allow Dominguez to increase the frequency of visits to twice a year.

Of the honour, Dominguez commented: "I could not possibly expect a higher award." ■

Trio of tuberculosis researchers honoured

Three rising stars from UCT's Lung Infection and Immunity Unit have won separate awards and fellowships in recognition of their TB research.

Dr Ureshnie Govender, a postdoctoral fellow, received the Canadian Grand Challenges Rising Stars in Global Health award; Dr Jonny Peter, a clinician scientist, has been awarded the 2012/13 Oxford Nuffield Medical Fellowship; and Dr Grant Theron, another post-doctoral fellow, has been honoured with this year's Health Sciences Faculty Best Publication Award.

Govender's award will promote the integration of research and innovation in meeting the need to better health services.

For his PhD thesis, Peter is working on Novel Diagnostic Approaches for Smear-negative and Sputum-scarce TB in South Africa. It includes the first clinical evaluation of a novel urinary point-of-care LAM strip test among hospitalised HIV-infected patients.

Theron was recognised for a manuscript published in *Clinical Infectious Diseases*, titled, The Use of an Automated Quantitative Polymerase Chain Reaction (Xpert MTB/RIF) to Predict the Sputum Smear Status of Tuberculosis Patients.

In countries adopting Xpert, patients are diagnosed without having had their sputum examined by microscopy. Theron's work showed that, based on the Xpert result, it is possible to predict if a patient would have been smear-positive, thereby allowing them to receive more appropriate care. ■

PhD research on copper value chain wins best paper award in China

Dr Judith Fessehaie, a researcher in the Policy Research in International Services and Manufacturing unit in the Faculty of Commerce, has won a best PhD paper award in China for her work on the dynamics of Zambia's copper value chain.

Fessehaie's PhD was supervised by Professor Mike Morris.

Her thesis examined the impact of Chinese and Indian investments on Africa's local industrialisation processes. She collected her data in Zambia where she drove up through the copper belt to interview mining companies.

In her abstract Fessehaie says that the past two decades have seen the emergence of China and India as major investors in African extractive industries. This, together with the commodity price boom, has placed the commodity sectors back on the policy agendas of resource-rich African countries.

Her aim was to examine how lead commodity firms ownership, in terms of country of origin, shapes value chain governance in an extractive industry, and how this, in turn, affects the opportunities for local upstream development and upgrading processes. Fessehaie analysed the socio-economic context in which these dynamics are embedded to identify historical trajectories and institutional determinants. ■



Stand out: Dr Judith Fessehaie won a best PhD paper award at the Global Network for the Economics of Learning, Innovation, and Competence Building Systems International Conference, China. (In picture is Prof Mike Morris.)

UCT secures new partnerships in East Africa, revives USHEPiA

A recent Afropolitan visit to East Africa and the Great Lakes has enabled UCT not only to explore new collaborations, but also to hit the 'refresh' button on some of its existing partnerships in the region.

Deputy Vice-Chancellor Professor Thandabantu Nhlapo led a multidisciplinary team of scholars – representing economics, engineering, law, mathematical finance, occupational therapy and philosophy – to Ethiopia (the University of Addis Ababa, or AAU), Kenya (the University of Nairobi, aka UON) and Rwanda (the National University of Rwanda, or NUR) in September and October. Norma Derby of the African Partnership and Programmes section of the International Academic Programmes Office (IAPO) joined the team.

Reports from the envoy team suggest that the trip was a resounding success.

So, for example, Associate Professor Elelwani Ramugondo of the Division of Occupational Therapy had talks on modularisation of the curriculum and on disability and community-based rehabilitation at AAU, and set up exchange agreements and collaborative publications with counterparts at AAU and NUR.

Professor Ulrike Rivett of the Department of Civil Engineering held similar discussions, and identified particular opportunities for assisting with those institutions' computer science programmes. A meeting with

senior management at AAU revealed great opportunities for PhD supervision, reported Associate Professor David Taylor of the School of Management Studies and the Department of Finance & Tax. Jacques Rousseau, also of the School of Management Studies, discussed staff and student exchanges with the University of Nairobi.

The three-strong team from the Faculty of Law – Professors Salvatore Mancuso, Elrena van der Spuy and Aifheli Tshivhase – made hay in Rwanda, exploring opportunities for joint research and teaching at the university and linking up with faculty alumni from their successful LLM programme. An important outcome of the Rwanda meetings was the agreement to train, at the request of the Chief Justice, members of the Supreme Court bench and the staff of the Court. And Professor Bernhard Weiss went scouting for graduate students and other forms of collaboration at UON, on behalf of UCT's Department of Philosophy.

During the Nairobi leg of the trip, the inaugural meeting was held of what could hereafter be known as USHEPiA Phase 2. First mooted in 1992 and launched in 1996, USHEPiA (Universities Science, Humanities, Law and Engineering Partnerships in Africa) has been UCT's flagship African relationship, grouping together the Universities of Botswana, Cape Town, Dar es Salaam



Delegational duties: At the entrance of the admin block at the Addis Ababa University in Ethiopia, which once served as the palace of Haile Selassie, are (from left) Assoc Prof Elelwani Ramugondo (UCT delegation); Prof Thandabantu Nhlapo (UCT); Dr Teshome Nekatibeb (UAA); Norma Derby (UCT); Dr Melaku Wakuma (AAU); Professor David Taylor (UCT), and Assoc Prof Ulrike Rivett (UCT).

(Tanzania), Nairobi (Kenya), Makerere (Uganda), Zambia, Zimbabwe, and the Jomo Kenyatta University of Agriculture and Technology (Kenya). The partnership has gone through a number of changes since 2009, when the main funders – Mellon, Rockefeller and Carnegie – announced their intention to end support.

When it was decided to introduce a self-funded USHEPiA model, half the partners had difficulty in participating. The ones who felt able to go

forward together by raising the funds themselves gathered in Nairobi for the meeting.

"This revival of the USHEPiA brand is important because the partnership in many ways epitomises the university's Afropolitan vision," says Nhlapo. "For a decade and a half the programme broke new ground, helped UCT to play its part in capacity-building on the continent, and promoted the university as a meeting place between the continent and the rest of

the world," he explained.

Nhlapo believes that the success of the trip lay in the group's multidisciplinary composition, the opportunity to pursue diverse departmental initiatives with African partners, and the satisfaction expressed by all the hosts

"The next step is to ensure that real activity flows from these contacts – 2013 should see us adding a Francophone and Lusophone dimension to our explorations." ■

As UCT continues to reflect on its teaching credentials, the annual Distinguished Teacher Awards (DTA) serve as a timely reminder that often, the university gets it right.

Recently, at the annual DTA dinner, the university celebrated the teaching of three academics: Professor John Higgins of the Department of English Literature, Dr Jeremy Wanderer of the Department of Philosophy, and Dr Zenda Woodman of the Department of Molecular and Cell Biology.

Each of the recipients brought something special to the lecture and tutorial room, it was pointed out. Higgins has been hailed as everything from "humorous" and "systematic" to "brilliant" by his students. Wanderer's students have credited him for helping them "think outside the box" or, starting with the basics, teaching them "how to think". And students working under the tutelage of Woodman have remarked on her use of humour to create a safe environment for learning.

We asked the three lecturers just what drives and inspires their teaching. Below are selected excerpts from their responses.

It's been said that teaching is often considered something of an add-on for academics, research taking centre stage. How have you managed to maintain your interest in the teaching part of the job at an institution that places such stock in research?

John Higgins: There is a central paradox here in much global research policy, as well as in the South African system. The current received idea is that applied research which results in commercial application, though sometimes with significant social benefits, is what universities should support, and this comes through in the calls for research to have discernible 'impact'. 'Discernible' is a key qualifier here, as it tends to narrow down to the economic rather than the social. The real impact of university research should in fact at least in part be assessed in terms of the constitutive relations between teaching and research, since what



Learning while teaching: The recipients of UCT's Distinguished Teacher Awards for 2012 are (from left) Prof John Higgins, Dr Jeremy Wanderer and Dr Zenda Woodman.

specifies university teaching is that it is as up-to-date as possible, and this means an ineradicable connection to well-supported research.

Jeremy Wanderer: It is possible for academic life to be set up institutionally in a manner that does not lead academics to experience a tension between teaching and research. Unfortunately, much of the current academic climate – at UCT and beyond – is such that these activities are rewarded and spoken of in different ways, making it all but impossible not to feel that the two activities are in competition for the scarce resources of one's time and energies. For much of my early career I was caught up in this way of thinking, and struggled to find a suitable balance. Luckily I am in a supportive department where everyone – from faculty to tutors to administrators – takes both activities seriously and in a unified manner, and this has helped me see ways of overcoming this way of thinking.

Zenda Woodman: As a relatively new lecturer, teaching takes up a large part of my time, as I have to prepare new lectures. In fact I find it very difficult balancing my research with my teaching duties during term due to the demands of the undergraduates, which do not end when I walk out of the lecture theatre. How-

ever, having said that, I also find it very rewarding to make a tangible difference every day when working with students in my courses. I can see them respond visibly to my efforts, which gives me a great deal of job satisfaction.

What is your teaching philosophy?

JH: It's summed up by the British poet Tom Raworth, who visited here several years ago, in a short poem called *University Days*. It's just two lines: 'You have to learn/You cannot teach'. Here, what counts is the question of just who that 'you' is, in a view of teaching as process and not transmission. Teaching in this challenging way means that all students – those who are already performing well, and those who aren't – have equal access to supported improvement. But I also stress following the coaching figure – 'no pain, no gain'!

JW: Although this may sound strange from a philosopher, I am pretty sure I do not have a teaching philosophy, and I am not convinced that having one is desirable. The idea seems too rigid and too abstract to encourage anything but spitting out generic platitudes that are divorced from the realities of challenging and diverse teaching environments. At best, I have developed some varied practices that seem to work well for me given my personality and interests, practices that get modified and developed to suit the particular subject and students that I am teaching at any given time. The one constant in my teaching is the fact that I constantly alter style and content, both to improve the quality of the experience and to avoid boredom.

ZW: I'm not sure I have a teaching philosophy. What I do have are memories of how intimidating and overwhelming UCT can be to undergraduate students, and so I place a great deal of energy in trying to make students feel comfortable and breaking down the hierarchy that distances students from their educators. I believe students learn best when they are relaxed, in an atmosphere of mutual respect, and when they know that their educator is invested in their development. ■

UCT hosts country's first A-rated commerce scholar

South Africa has its first A-rated scientist from a commerce faculty, this after recent appointee to UCT's School of Economics Professor Harold Kincaid was awarded an A-rating by the National Research Foundation (NRF) in its latest round of evaluations. That marks Kincaid as an international leader in his field.

Equally impressive is that Kincaid managed this rating on his first application, following his recent move to UCT from the University of Alabama at Birmingham, US, where he had been professor of philosophy.

The rating shouldn't come as much of a surprise in light of Kincaid's scholarly résumé and his international standing; his writing serves as a "touchstone" in some areas of study, noted one reviewer. Broadly, he has focused on the methodologies of social science and has published on a whole host of related topics, including causal modelling, the philosophy of social science, the role of explanation as a concept in social sciences, and the medical models of addiction.

Right now, he says, his interest is in how social scientists infer causes and correlations.

"My main focus has been on trying to sort good science from bad science."

That last category reflects some of Kincaid's recent work at UCT. He has contributed to a few projects with the Research Unit in Behavioural Economics and Neuroeconomics (RUBEN), an interdisciplinary group of researchers in the School of Economics that uses economic experiments to examine the role that social, cognitive and emotional factors play in economic decision-making. (In 2011, he also acted as a mentor on UCT's Visiting and Retired Scholars Mentorship Project.)

At RUBEN, Kincaid has been involved in studies looking at the prevalence of gambling in South Africa, and at problem gamblers and at-risk gamblers. (He starts off his *Monday Paper* interview with amusing an-

ecdotes of gamblers, both here and in the US, who wear adult nappies just so they don't have to abandon their slot machines at what they imagine to be crucial times.)

There are particular dynamics to local gambling, explains Kincaid. In South Africa, it's by and large the poor who have serious gambling problems. And shying away from casinos, instead they stake their money on informal and illegal enterprises like dice and card games, and the lotto-like numbers game called iFafi.

He's also working on a project, funded by the NRF, that looks at the risk behaviour of fruit farmers, this with an eye on encouraging innovation in the industry.

Kincaid's lead collaborator on these studies has been longstanding associate Professor Don Ross, Dean of the Faculty of Commerce and the one who lured him to UCT. Together, the scholars have worked on a sweep of books, reports, papers and chapters, notably around addiction and decision-making.

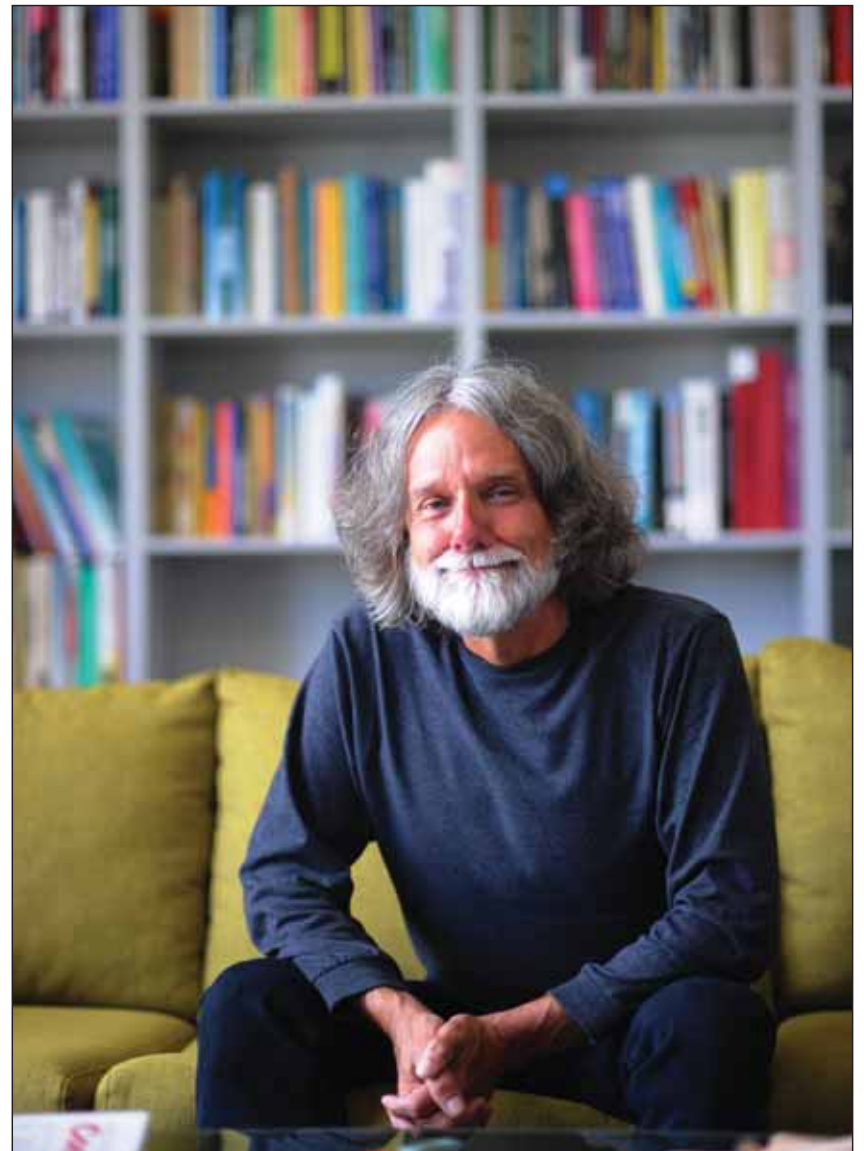
He didn't think too hard before deciding to make the trek to South Africa, says Kincaid, who joined the university in June this year. The appeal included the School of Economics' focus on practical problems, UCT's international profile and its concern with development and equity issues (an area in which he has an ongoing interest).

"And Cape Town is a beautiful place," he adds.

Ross is particularly pleased to be hosting the country's first A-rated commerce scholar.

"The ratings outcome is testament to the faculty's and the university's ability to draw top international talent," he says. "And of course we congratulate Prof Kincaid in addition to ourselves!"

Stop press: Another new NRF A-rating has been confirmed for Prof Heribert Weigert and a new P-rating for Dr Andrew Hamilton, both of the Department of Physics. These A ratings were re-confirmed under the current cycle: Profs Doug Butterworth (A2); Gert Gade (A2), Lionel Opie (A1), Clifford Shearing (went up from A2 to A1), and Dan Stein (A2). ■



Bringing his A-game: New A-rated researcher, Prof Harold Kincaid.

New study on TB vaccine for newborns of HIV-positive mothers



Safeguard: UCT's Assoc Prof Mark Hatherill is leading a study that will test the safety and immunogenicity of a new TB vaccine, MVA85A, on newborns of HIV-positive mothers.

UCT's South African Tuberculosis Vaccine Initiative (SATVI) and Stellenbosch University's Desmond Tutu TB Centre have begun recruiting infants for a study to test a new TB vaccine, MVA85A, for newborns of HIV-positive moms. The MVA85A vaccine, developed by Oxford University, has already been successfully tested for safety in healthy adults, children, and in HIV-positive adults. This will be the first new TB vaccine to be tested specifically on newborn babies of HIV-positive mothers.

The current TB vaccine, BCG, protects children against the most severe forms of TB like meningitis, but not against lung TB, the most common form of the disease. Lung TB in adults is mainly responsible for the spread of TB infection to other people. The World Health Organisation (WHO) estimates that

South Africa, where BCG is given routinely at birth, has the highest rate of new TB cases in the world. Moreover, although BCG has been used for more than 90 years, BCG vaccination can lead to complications in HIV-infected babies.

TB vaccine researchers have been searching for a better TB vaccine that is more effective than BCG, but that is also safe for all newborn babies, including those with HIV.

"If this MVA85A vaccine study is successful, it will benefit, in particular, those babies at risk of HIV infection who are also at high risk of getting TB," said UCT's Associate Professor Mark Hatherill, who is leading the study.

The researchers plan to enrol 340 newborn infants of HIV-positive moms at antenatal clinics in Worcester and Cape Town. Half of the babies will be given the MVA85A

vaccine at birth, and the other half an inactive placebo. Babies who test negative for HIV will also be given BCG two months later. All babies in the study will be monitored closely over a period of one year, to test whether the MVA85A vaccine is safe, and whether it improves immune responses to TB.

This study is the first step towards testing whether MVA85A vaccination of newborns can help protect children against TB later in life.

The Wellcome Trust, the Medical Research Council in the UK and the UK's Department of International Development (DFID) are the main funders of this SATVI-led study, which is a collaboration between UCT, Stellenbosch University, the University of Oxford, and the Oxford-Emergent Tuberculosis Consortium. ■

Reddy to lead national academy

The next couple of years are going to be pleasantly busy ones for UCT's Professor Daya Reddy.

Firstly, Reddy – who holds the South African research chair in computational mechanics in the Department of Mathematics and Applied Mathematics – was inaugurated recently as the president of the Academy of Science of South Africa (ASSAf), a post he will hold until 2016. That ceremony hardly done, Reddy was informed that he had won the Georg Foster Research Award, worth €60,000 (or nearly R700,000), from the prestigious Alexander von Humboldt Foundation in Germany.

Both will keep Reddy's dance card pretty full over the coming years.

At ASSAf, he hopes to build on "the very solid foundation established by my predecessors", says Reddy. That will involve expanding the academy's international role, tackling substantive issues with kindred academies

in Africa, the Americas, Asia and Europe. Another area he wants to expand is in relation to the Academy's core mandate of providing evidence-based policy advice to government and other institutions, a commission in which Reddy would like to see more ASSAf members involved.

In turn, the Von Humboldt money will have Reddy spending a few months every year at the Institute of Continuum Mechanics at the Gottfried Wilhelm Leibniz Universität Hannover, aka the University of Hannover. Here, he and longstanding collaborator Professor Peter Wriggers will work on a range of problems to do with the multi-scale modelling of material behaviour.

"Academy work is fascinating and important, and consonant with my various scholarly activities," Reddy says of his new ASSAf role. "I am looking forward immensely to contributing towards the further growth and impact of the Academy." ■



New challenges: Prof Daya Reddy has been elected as president of ASSAf, while his international research networks also received a boost recently.