



UKZN DABA

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GROUNDBREAKING STUDY Gives Hope to Women

UKZN researchers have achieved an important scientific breakthrough in the fight against HIV and genital herpes with a vaginal gel that significantly reduces a woman's risk of being infected with these viruses. The results of the ground-breaking safety and effectiveness study of an antiretroviral microbicide gel study were reported on July 20 by the Centre for the AIDS Programme of Research in South Africa (CAPRISA) at the XVIII International AIDS Conference in Vienna, Austria and simultaneously at the Hilton Hotel in Durban.

WORDS: SUPPLIED PHOTO: RAJESH JANTILAL

The microbicide containing 1 percent tenofovir – an antiretroviral drug widely used in the treatment of HIV – was found to be 39 percent effective in reducing a woman's risk of becoming infected with HIV during sex and 51 percent effective in preventing genital herpes infections in the women participating in the trial. Should other studies of tenofovir gel confirm these results, widespread use of the gel, at this level of protection, could prevent over half a million new HIV infections in South Africa alone over the next decade.

“Tenofovir gel could fill an important HIV prevention gap by empowering women who are unable to successfully negotiate mutual faithfulness or condom use with their male partners,” said study co-principal investigator, Professor Quarraisha Abdool Karim, Associate Director of CAPRISA and Associate Professor of Epidemiology at Columbia University. “This new technology has the potential to alter the course of the HIV epidemic, especially in southern Africa where young women bear the brunt of this devastating disease.”

The CAPRISA 004 trial of tenofovir gel involved 889 women at high risk of HIV infection at an urban and a rural site in KwaZulu-Natal. Overall, 98 women out of the 889 became HIV positive during the trial, with 38 in the tenofovir gel group and 60 in the placebo gel group. Out of the 434 women who tested negative for

herpes at the start of the trial, 29 became infected in the tenofovir group and 58 became infected in the placebo group.

“Tenofovir gel has a potential dual effect in preventing HIV. Since women with genital herpes are much more likely to become infected with HIV, the additional protection of tenofovir gel against herpes creates a second mechanism whereby the gel may have a bigger impact in preventing HIV,” said study co-principal investigator, Professor Salim S Abdool Karim, Director of CAPRISA and Pro-Vice-Chancellor: Research at UKZN.

During monthly visits, all participants were provided with HIV risk-reduction counseling, condoms and treatment for sexually transmitted infections, and each was clinically examined for potential side effects and tested for HIV infection. The study was double-blinded and neither the researchers nor the participating women knew whether a woman in the study received tenofovir gel or placebo gel. All volunteers to the study who tested HIV positive were provided care including ARV treatment at the CAPRISA clinics and women who became infected during the study were enrolled into CAPRISA studies and/or the CAPRISA AIDS treatment programme at their respective sites for ongoing care and support.

UKZN Vice-Chancellor Professor Malegapuru Makgoba said: “This piece of research is a



From left: Dr Leila Mansoor, Study Co-ordinator; Dr Sengeziwe Sibeko, Study Co-ordinator; Dr Janet Fröhlich, Project Director; Professor Malegapuru Makgoba; Dr Mamphele Ramphele, Chairperson of the TIA; Dr Reshma Badal, Convocation Executive member; and Dr Koleka Mlisana, Project Director at the media briefing.

significant milestone for women in the 30 year history of the HIV/AIDS epidemic, microbicides and antiretroviral research. The research represents that which is best in science with direct translation into prevention policy, bringing a message of hope and empowerment to women, policymakers and scientists. These research findings will not only significantly alter the shape and form but also the future direction of this devastating epidemic.”

Congratulating scientists for their dedication that has led to this ground breaking discovery, Mr Mac Mia, the Chair of UKZN's Council said: “... The

University of KwaZulu-Natal has been at the forefront of research into the prevention against HIV infection. This ground breaking discovery is a clear indication of the dedication of the scientists at the University, confirming its strength as a research-led institution... This breakthrough will no doubt have a far reaching impact in Africa and the world, and more importantly, is a reflection on the scientists' capabilities within a developing country like South Africa.”

This study was jointly funded by the Governments of South Africa and the United States, through the Technology

Innovation Agency (TIA) and the US Agency for International Development (USAID), respectively. The promising findings of the CAPRISA 004 study are only a first step in determining if tenofovir gel is effective in preventing HIV and herpes infection; additional studies are urgently needed to confirm and extend the findings of the CAPRISA study. The trial was conducted by CAPRISA in partnership with the US-based organisations FHI and CONRAD. Gilead Sciences donated the active ingredient for the manufacture of the tenofovir gel.

ALUMNUS RETURNS as Head of Health Sciences

Professor Tahir S Pillay who obtained his MBChB *cum laude* at the former University of Natal's Medical School in the 1980s, returned to UKZN after 26 years to take up the reins of Deputy Vice-Chancellor and Head of the College of Health Sciences on August 1. He was formerly the Head of the Division of Chemical Pathology at the University of Cape Town (UCT).

WORDS: NEESHA MAHARAJ AND MARYANN FRANCIS
PHOTO: ANAND GOVENDER

As an established researcher and academic with substantial leadership skills, Professor Pillay's brings a wealth of knowledge to UKZN.

He has served as Associate Professor and Clinical Reader in Molecular Medicine and Deputy Director at the Institute of Cell Signalling at the University of Nottingham in England (1998-2006); Senior Clinical Lecturer in Chemical Pathology and Head of the Molecular Endocrinology Group (1996-1998) (Imperial College, London) and a Fellow in Endocrinology at the University of California, San Diego, United States (1993 -1996). He was also the 1986 Emanuel Bradlow Scholar at the University of Cambridge (1986-1989).

Research interests in Molecular Cell Biology, Molecular Biology, Intracellular Signalling, Biochemistry, Chemical Pathology, Obesity and Endocrinology have led to a substantial publication record, many being high-ranking scientific peer-reviewed journals.

He has also contributed to the books, *Internet for the Molecular Biologist and Advances in Genetics (Volume 25)* and is principal author of a textbook on Chemical Pathology Methods at UCT, to be published this year.

A significant scientific finding of Professor Pillay and his research team was the identification of a new signalling pathway for growth factor receptors, including the insulin receptor. These pathways provided a basis to study disease models in diabetes and cancer and have resulted in a number of Honours and Masters and five PhD graduates. More recent scientific work has involved studying the cellular metabolic effects of Anti-Retrovirals (ARVs) which after three years resulted in another student graduating with a PhD. Future work that will be undertaken at UKZN would be to understand the side effects profile of ARVs at the cellular and molecular level as well as identifying new biomarkers. Professor Pillay is in the process of moving his research laboratory, funded by the Wellcome Trust and the National Research Foundation, from UCT to UKZN.

Recently Professor Pillay was appointed to serve on the Board



Professor Tahir S Pillay.

of Directors of the Howard Hughes Medical Institute (HHMI)-funded research centre, the KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH). He has also been appointed to serve on the Medical and Dental Board of the Health Professions Council of South Africa by the National Minister of Health.

Professor Pillay believes leading by example and adopting a consultative management style have been contributors to his success as an academic leader. He said his appointment presented a unique opportunity to contribute to South Africa's growth.

His plans for the College would be guided by the elements of academic excellence, innovative research and critical engagement with society. With this in mind he plans to focus on: improving the research output of the College and wider dissemination of African scholarship; enhancing the infrastructure for research and community engagement; and increasing the College's engagement with the Department of Health and other strategic partners. High on his agenda is also the creation of relevant opportunities that would enhance engagement with the high school and lay community through the establishment of a Museum of Human Biology. Professor Pillay is keen to identify, nurture and retain talented African undergraduate students in the early stages as a mechanism to address transformation. He is also actively searching for suitable candidates for academic positions.



Presenting Miss Ntokozo Nxele (third from the left) with a computer are (from left) Mr Ray Mahadeo, ICT; Mr Lennie Botha, Hewlett Packard; and Mr Terence Yeni, ICT.

ICT DIVISION Takes technology to schools

Pride and excitement were the order of the day when learners and staff at the Ndengetho High School in KwaNdengezi heard that the school and a former grade 12 pupil had won laptop computers in a competition run by UKZN's Information and Communication Technology (ICT) Division.

WORDS & PHOTO: NEESHA MAHARAJ

ICT Central Services Manager, Mr Ray Mahadeo; Client Services Manager, Mr Terence Yeni; Channel Manager for Hewlett Packard, Mr Lennie Botha; and Mr Ashay Nathoo, Schools Liaison Officer in UKZN's Corporate Relations Division presented the School and Miss Ntokozo Nxele, now a first year Cost and Accounting Management student with an HP laptop computer each, at a special presentation during the school assembly on August 6.

Miss Nxele had entered the competition while visiting UKZN's Open Day event in 2009 as a Grade 12 learner. ICT introduced this competition in 2008 as a community outreach

initiative aimed at taking computer technology to schools and offering learners a chance to explore the possibility of a career in ICT.

Miss Nxele, who studied Computer Application Technology from grades 10-12 was both excited and grateful to receive her new laptop computer and said it would have a positive influence on her tertiary studies. "In my first semester at University I used to reach home late sometimes because I would stay on campus to type up my assignments. This computer will make a difference to my life as a student," she said.

Principal of Ndengetho High School, Mr MM Mbatha said for many years the School

had dreamt of owning a laptop computer. "This is the first laptop computer we own and it will help both staff and learners. ... We have encouraged our teachers to update their computer skills which this computer will help us achieve."

Mr Mbatha added that he hoped that learners would be motivated to enter further competitions that were beneficial to both the school and the pupils. The school would like to see all learners completing grade 12 becoming computer literate.

Mr Botha said Hewlett Packard was proud to be a partner in this initiative.

CAREER EXHIBITION

WORDS & PHOTO: LUNGA MEMELA



Local and international employers attracted UKZN students to a career exhibition at the Sports Complex on the Westville campus on August 4.

MEDICAL SCHOOL Hosts Anniversary Events

In celebration of the 60th anniversary of the Nelson R Mandela School of Medicine and 100 years of academia in KwaZulu-Natal, the Medical School hosted a number of events during the last week of July.

WORDS: NEESHA MAHARAJ PHOTO: ALBERT HIRASEN



Medical School students celebrate cultural diversity.

Veteran and 'young' academics at the Medical School reflected on six decades of research achievements at the 60th Anniversary Research Symposium on July 28.

Twelve academics gave presentations on significant research milestones in the areas of tuberculosis, rheumatology, hypertension, occupational and environmental health, women's health, general surgery, traditional medicine, public health, HIV and AIDS, and the history of amoebiasis.

Dean of the Nelson R Mandela School of Medicine Professor Willem Sturm said that the research highlighted at the Symposium was indicative of the growth in research output at the Medical School, which has earned a reputation of being a global role-player in medical research. He added that there was a need "to spread research activities from communicable diseases to important lifestyle diseases."

Later on the same day, freedom fighter and former medical school student the late Stephen Bantu Biko was remembered at the 60th Anniversary Steve Biko Memorial Lecture.

Dr Ben Ngubane, a UKZN alumnus, former Minister of Arts, Culture, Science and Technology and the Chair of the SABC Board presented the lecture which commemorated the 33rd anniversary of the death of the student leader who was killed by apartheid era security police on September 12, 1977 while in detention under the Terrorism Act. This year's lecture coincided with the official opening of the

Medical School's museum. The museum's launch exhibition titled: *Biko – The Quest for a True Humanity* was dedicated to the late freedom fighter.

"Steve Biko ... devoted himself to the study of the philosophical psychology of consciousness and saw it as his priority to colonise the minds of the oppressed constituents. He summed this in a simple poignant quote: 'The most potent weapon in the hands of the oppressed is the might of the oppressed,'" Dr Ngubane said.

Speaking on behalf of the Steve Biko Foundation, Biko's son, Mr Nkosinathi Biko, said he was honoured to be a part of the 60th Anniversary Celebrations.

Academics in the medical disciplines at the Medical School and alumni joined Professor Ronnie Green-Thompson, President of the Medical Graduates' Association and former Director-General of Health for KwaZulu-Natal in addressing the question of internship for medical graduates at the 60th Anniversary Clinical Conference on July 29.

Professor Green-Thompson said that medical schools in South Africa should adjust their

academic programmes in accordance with the changing disease profile of the country. He called for further research on the output skills acquired by medical students in the course of their academic programme and on the appropriateness of internship programmes

The week culminated with a Cultural Festival on July 30 attended by about 750 students and members of staff.

Speakers included the Minister for Arts, Culture, Sport and Recreation in KwaZulu-Natal, Mrs W G Thusi; the Dean of the Medical School Professor Willem Sturm and Medical Student Representative Council (MSRC) members. The messages were interspersed with traditional Indian and African dance, and renditions of poetry, song and drama.

Sporting a traditional Zulu blanket and Dutch clogs, Professor Sturm said: "We can all live and learn together, whether we are from Botswana, Swaziland or from different provinces in South Africa."

"Given the ugly history of our country it is important for academic institutions to play their bit in ensuring social cohesion. Students who are being nurtured in the institutions will become future leaders of this country," said Mrs Thusi.

She applauded UKZN academics for Indigenous Knowledge Systems research that had been undertaken in recent years. She added that there was a need for traditional medicine to be taken seriously, and that academics at the NRMSM could play a crucial role in this regard.



The 60th Anniversary logo.

WOMEN'S DAY CELEBRATION

An Empowering Experience

An empowering message of hope in times of adversity was the theme of rape survivor, Ms Alison Botha's address to hundreds of UKZN staff and students who attended the Women's Day Celebration on the Westville campus on August 20.

WORDS: NEESHA MAHARAJ PHOTO: SALLY GILES

Ms Botha who 16 years ago was abducted outside her home in Port Elizabeth, raped, stabbed 30 times in the abdomen and had her throat slit, recounted her story of survival to the predominantly women guests who attended the event organised by UKZN's Corporate Relations Division to mark Women's Month.

Delivering her welcome message Ms Nomonde Mbadi, Executive Director: Corporate Relations Division led the gathering in singing "Wathint'abafazi Wathint'imbokodo" ("now you have touched the women, you have struck a rock) sung by the women who marched to the Union Buildings on August 9, 1956 in protest against pass laws being imposed on African women. "Personally I feel strongly about the power of our minds that influence our reaction and response to the daily challenges that we face. So, when Alison Botha was suggested as the speaker for today I agreed without hesitation," said Ms Mbadi.

She added that a statement Rosa Parks, an African American woman in Alabama, USA who defied the State of Alabama's segregation laws in 1955 by refusing to give up her bus seat to a white man summed up Ms Botha's courageous efforts in overcoming her traumatic ordeal. "I have learned over the years that when one's mind is made up, this diminishes fear.

Knowing what must be done does away with fear".

Ms Botha said she openly shared her experience and subsequent route to recovery with others through motivational talks because it had been therapeutic for her personally and she hoped that it would somehow help others in life. "I wanted people to value their lives and appreciate the preciousness of life. ... if what I share with you here today helps one person, it would be an honour for me personally," she said.

Her ABC philosophy (Attitude, Belief and Choice) has had a profound affect on Ms Botha's life since her ordeal. Believing in oneself is important to Ms Botha who said it was what had helped her survive her own brutal attack.

Ms Botha indicated that a conscious decision to escape depression through therapy had resulted in her taking control of her own life once again. She added that it was important for women not to keep traumatic experiences to themselves and to seek therapy.

Women who attended Ms Botha's talk were amazed by the resilience she displayed on the night of her attack and impressed that she had turned her negative experience into something positive by empowering others. Guests suggested that women's empowerment initiatives at UKZN should not be confined to Women's Month in August, but should be a regular happening.



Rape Survivor, Ms Alison Botha (right) with Ms Nomonde Mbadi, Executive Director: Corporate Relations Division.

UKZN HELPING to Secure Food for Africa

“The answer lies in the soil” was an overused line from a radio comedy show on the BBC many years ago.

WORDS: GREG DARDAGAN PHOTOS: SUPPLIED

Each week various hilarious scenarios were played out with the common theme being that good use of the land was a cure for most of the troubles of the world.

The protagonist was a Farmer Brown character whose common retort when seemingly insurmountable problems arose was: “Aye, the answer lies in the soil” with a heavily accented emphasis on the word “soil” so it sounded like “soy-yell”.

Looking around the globe today, Farmer Brown’s agrarian cure-all philosophy holds a lot of water! Food security by itself is vital to world health, peace and prosperity.

At the forefront of the good use of soil as well as all the other natural resources for the past 62 years has been UKZN through agricultural studies and research at its Pietermaritzburg campus and allied centres.

Practical work and instruction was initially conducted at Cedara but ultimately it proved unsatisfactory and the Faculty felt the need for its own experimental farm. In 1950, the 500 acre farm ‘Roblyn’ which constituted part of ‘Short’s Retreat’ just outside Pietermaritzburg was purchased by the State for R64 000. It was aptly named *Ukulinga* (meaning ‘to test’ or ‘to endeavour’ in isi-Zulu) by Effie Scott, the wife of J D Scott. Adjoining land was later purchased increasing the farm to 356 ha. In 1973, it was transferred to the University with the proviso that it continues to be used for educational purposes. In March 1998, Pietermaritzburg’s Msunduzi Transitional Local Council and the former University of Natal signed an agreement formalising the addition of 100ha of *Ukulinga* to the Bisley Nature Conservancy, thus creating a conservancy area to provide Wildlife Science students with innovative and interactive training and learning opportunities.

Ukulinga has been the site of unique and ground-breaking research in several agricultural disciplines. The Veld Fertilisation Trial and the Burning and Mowing Trial started in 1951 and have continued uninterrupted, while in 1960 there was revolutionary research which involved the use of rabbits as intermediate living incubators to transport fertilised ova from ewes in England to South Africa where they were successfully transferred into



UKZN's Ukulinga Research Farm.



An aerial view of the Rabie Saunders Building.



Deputy Vice-Chancellor and Head of the College of Agriculture, Engineering and Science, Professor Rob Slotow.

local surrogate ewes resulting in the birth of twin lambs, Romulus and Remus. In 1995 Africa’s first test-tube calf was produced at the Faculty of Agriculture.

The farm has also seen the breeding of hybrid maize and the testing of all hybrid maize in the country before it gets to the market, while there has also been pioneering research in Poultry Science.

The Faculty’s research in hydrology and the development of simulation techniques and systems to reduce the cost of transporting agricultural products are respected

internationally. Great strides have also been made in horticultural research on a variety of fruits and nuts including the release of the scab tolerant *Ukulinga* pecan nut cultivar and the Honey Gold female paw-paw – the oldest paw-paw clone in the world.

The Faculty of Agriculture was formally recognised as such on March 15, 1949, the day on which the then University of Natal received independent status. The Rabie Saunders Building was completed on the Pietermaritzburg campus, becoming the official home of the Faculty.

In 1950 students were registered for the first time in all four years and in that year the first group of students completed their agricultural degree. BSc Agriculture degrees were conferred on 18 candidates in 1951 with the first master’s candidate graduating the following year and the first PhD degree being awarded to two students in 1958.

In the late 1990s it was decided to amalgamate the Faculties of Science and Agriculture to help cope with the changing educational environment. The new Faculty with six academic Schools came into being on January 1, 1999.

UKZN, with one of the most established agricultural programmes in Southern Africa, has the widest range of agricultural disciplines at any single South African institution.

The following have been significant at UKZN for food security in the past decade:

The establishment of the African Centre for Crop Improvement (ACCI) in 2001 with financial support from the Rockefeller Foundation in the United States. ACCI’s vision is: Africans solving Africa’s food problems in Africa and it set out to train five cohorts of eight plant breeders, with the first group starting in 2002. Students train for two years at the Centre, then return home to undertake three years of field research, breeding African food security crops, using conventional and biotechnological tools. The focus is on breeding key food crops such as cereals, roots and tubers and pulses for increased drought tolerance, yield and quality with the aim of improving food security in several African countries including Ethiopia, Kenya, Mozambique, Zambia and Malawi.

The creation of the African Centre for Food Security (ACFS) in 2006 in response to the growing food security crisis which continues to plague Africa. ACFS, the only institution internationally providing accredited capacity development for food security research and policy analysis, aims to contribute towards eradicating food deprivation and producing sustainable livelihoods among people and nations of sub-Saharan Africa. The African Union’s New Partnership for Africa’s Development (NEPAD) endorsed the Centre as the lead agency in the food security activities of the Comprehensive African Agricultural Development Programme and it was formally recognised as the SADC Regional Centre of Excellence for Vulnerability Assessment and Analysis. The Centre, which has the second largest postgraduate programme in the Faculty, is the only facility in the world to offer transdisciplinary training and degrees in food security.

In an attempt to address the serious skills shortage in the agricultural sector, an Endowment to Secure the Future of Agriculture has been established with the goal of raising R3,5 million. Money

raised will be used to undertake a concerted long-term drive to market careers in the agricultural sciences, agribusiness and related fields such as food security, crop sciences and sustainable rural development.

The former Head of the College of Agriculture, Engineering and Science, Professor Pete Zacharias, said: “Agfac, as the collective group of agriculturalists at UKZN has always been known, has had a significant influence on Africa – from pigs, poultry, paw-paws and pecans through to farm finances, fuel, food security and veld fires. But our contribution is not only in these complex fields of the agricultural sciences practiced here for more than 60 years, but covers the full ambit of civil society, community engagement, research and teaching.”

Current Deputy Vice-Chancellor and Head of the College of Agriculture, Engineering and Science, Professor Rob Slotow, said: “While we have a long tradition of agricultural research at UKZN, we are developing a strategy for agricultural research that not only builds on this tradition but looks to the future needs of our country.

“Without neglecting the areas of commercial production, we are focussing on improving production and economics of return from small scale farmers. Building our rural economies in this way is key to sustainable food security into the future. Furthermore, partnerships are essential, and we this year launched a Bachelor of Science in Agricultural Extension, a joint venture with the Provincial Department of Agriculture and Environmental Affairs, whereby students are registered at UKZN, but the programme is offered at Cedara College, with lectures by staff from both institutions,” said Professor Slotow. “The products of this degree will be key to improving production from small-scale farmers using science-based approaches.”

South Africa can be proud of UKZN’s role in agricultural development, particularly in the field of helping solve serious problems relating to food security and wealth creation in Africa.

Sources:

* *Celebrating 60 Years of Agriculture*, a UKZN commemorative brochure

* *History of Agriculture at UKZN* by Vicky Crookes

NEW BOOK

Traces the survival of Literacy NGO

A book by a UKZN academic that traces the survival of ELET (the Environment and Language Education Trust), a non-governmental organisation (NGO) committed to literacy and language development since 1984, was launched on August 5 on the Westville campus.

WORDS & PHOTO: NEESHA MAHARAJ

Dr Rubby Dhunpath, the Director of Projects at the UTLO (University Teaching and Learning Office) launched his book *Archaeology of a Language Development NGO: Excavating Organisational Identity* which was based on his research on ELET over a period of five years.

Capturing its 20-year institutional memory, the book documents ELET's ability to remain steadfast in its goal of providing alternative literacy and language development programmes as a means to address the inequities of apartheid education.

Congratulating Dr Dhunpath on his publication, Deputy Vice-Chancellor: Teaching and Learning, Professor Renuka Vithal said: "In the post-apartheid era NGOs had a different set of challenges and many did not survive. ELET's survival is a product of its ability to change and transform at a time when many other



(l-r) Dr Rubby Dhunpath, Director of Projects at the UTLO with Professor Nancy Hornberger, an Applied Linguist at the University of Pennsylvania and Mr Mervin Ogle, the Founding Director of ELET.

NGOs failed to do so."

Dr Dhunpath said that his curiosity over ELET's resilience in maintaining its mission during a volatile political climate when most NGOs were submitting to fiscal exhaustion had prompted his research on the organisation. Using the unconventional approach of an institutional biography, he attempted, through a series of

interviews with individuals in and outside the NGO as well as extensive document analysis, to understand how ELET negotiated the competing challenges of a volatile political landscape, an unpredictable economic climate and the changing modalities of donor funding to become one of the more influential NGOs in the country.

DOUBLE HONOUR FOR

UKZN Geology student

Mr Warwick Hastie made history when he was awarded the John Handley Award and the Corstorphine Medal from the Geological Society of South Africa for his Masters research. He is only the second student ever to receive both these awards and the Houghton Award, which he received in 2007 for the best Geology Honours student at a South African University. The last time this occurred was way back in the 1950s.

WORDS: VICKY CROOKES PHOTO: SUPPLIED

The John Handley Award recognises Mr Hastie's thesis as the best submitted to a South African University in 2009, while the Corstorphine Medal affirms that, in addition to being the best in the country, his thesis is of international standard.

Mr Hastie's study entitled: "*Rock fabric study of the northern Lebombo and Rooi Rand dyke swarms: regional and local implications*," is aimed at better understanding how continents break apart. His research was part of a South African-French co-operation which has been studying the Karoo Large Igneous Province (large igneous provinces are extremely large accumulations of igneous rocks) which is 180 million years old.

Supervised by Professor Mike Watkeys from UKZN's School of Geological Sciences,



(from left) Mr Warwick Hastie and his French co-supervisor, Dr Charly Aubourg, in Swaziland measuring the orientation of a core of rock that has just been drilled prior to its collection.

and co-supervised by Dr Charly Aubourg from the University of Cergy-Pontoise in France, Mr Hastie received his awards at the Geological Society's AGM in Johannesburg. "These awards really reflect on the School of

Geological Sciences; after all, they taught me what I know! I am eternally grateful to my supervisor, the Geological Society of South Africa and everyone who has given me input into this research," said Mr Hastie.

UKZN ACADEMIC

Scoops two top Literary Awards

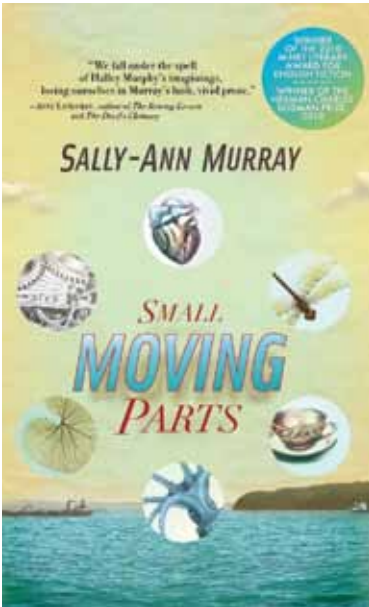
Head of the Department of English, Professor Sally-Ann Murray, has won two of South Africa's most prestigious literary accolades – the Herman Charles Bosman Prize and the M-Net Literary Award for English – for her debut novel *Small Moving Parts*. She received these at gala events held in Cape Town recently.

WORDS: INDU MOODLEY

The M-Net judges said: "Seldom has any piece of South African writing in English rendered the *bildungsroman* form with such lyrical beauty and complexity." There was stiff competition for the M-Net prize, with *Small Moving Parts* going up against top novels by big names such as JM Coetzee, Imraan Coovadia, and Justin Cartwright.

While most writers speak of inspiration, Professor Murray talks instead of the imagination. "Writing is a craft that demands hard work and perseverance," she observed, adding that "The best writing comes out of the habit of daily practice. That said, it can happen that as you're writing you begin to enter the imaginative world of your characters so deeply that you feel anxious for them, or laugh with them. A bit nutty, I suppose, but writers need to access this odd empathetic ability, and then to find the words which will spin a reader into the life of the tale."

Turning to the subject matter of the novel, published by Kwela, Professor Murray explained that "*Small Moving Parts* was driven by my wish to write an under-explored aspect of South African experience into literature – that of the white working class, represented in



my book by one small family living in the Kenneth Gardens corporation flats in Umbilo. The whole family scene – determined, hardworking mother and two disparate daughters, an absent, rather rag-tag father and a tangle of relatives, plus the richness of the flats as a communal setting . . . there was excellent story potential here, scope for both joy and despair. No one else was writing this story, and I was well-placed to try my hand as a woman who'd grown up in Umbilo."

Among other things, Professor Murray teaches Creative Writing, and is busy with her next novel, which is also set in Durban.

UKZN SOCIOLOGISTS

Present papers at World Congress of Sociology

WORDS: SUPPLIED

Four of UKZN's Sociologists, Professors Sultan Khan and Radhamoney Sooryamoorthy, Dr Noel Chellan and Mr Mdu Mtshali together with the Head of the School of Social Work and Community Development, Professor Thokozani Xaba, made their way to Sweden for the XVII World Congress of Sociology held in Gothenburg. Some 5 000 delegates attended the Congress, presenting papers around the broad congress theme *Sociology on the Move*.

The UKZN team presented six papers on a number of sociological fields (environment, indigenous knowledge systems, research methods and social issues).

Co-editor of *Undressing Durban*, Professor Khan was invited by the Research Committee on Regional and Urban Development of the International Sociological Association (ISA) to provide a review of the book, (*re*) *Searching Gothenburg*.

(*re*) *Searching Gothenburg* was inspired by *Undressing Durban*, a snapshot of the City of Durban that was produced by UKZN Sociologists for the 2006 International Sociological Conference held in that city.

The 2014 ISA Congress will be held in Yokohama, Japan, and Japanese Sociologists have also been challenged to produce a study of that city.

eLearning at UKZN

Opening up new Frontiers

From hunter-gatherer lessons learnt around the fire, to Apartheid-inflicted 'Bantu Education' and Outcomes Based Education (OBE), now gone awry, cultural and technological changes in society have shaped the education system over time.

WORDS & PHOTOS: LUNGA MEMELA

Students in the 21st century are technologically advanced and may feel more at ease with technologically-driven as opposed to traditional teaching methods. At the same time, university lecturers are faced with a worrying first-year failure rate and increasing class numbers.

Institutional policy for the advancement of technologically-assisted learning and teaching at UKZN was discussed at a symposium organised by the University Teaching and Learning Office, Open Learning Centre: Centre for Higher Education Studies and the Information and Communication Technology Division on May 7 on the Howard College campus.

Titled: *Exploring the Frontiers of e-learning @ UKZN*, the Symposium brought together academics from various disciplines to add their input to the challenges and successes achieved in e-learning at UKZN.

Deputy Vice-Chancellor: Teaching and Learning Professor Renuka Vithal informed those present of UKZN's achievements in developing infrastructure for technology-based teaching and

learning, examples of which include: upgrading lecture rooms with wireless facilities, the availability of Moodle (see sidebar) technology and a pilot project undertaken within the Faculty of Education which highlighted the benefits of using cell phones for teaching and learning. However, Professor Vithal voiced the need to optimise the use of available infrastructure.



Moodle is an easy-to-use software package designed for learning management and producing Internet-based course web sites.

UKZN staff and students use Moodle on one of the Institution's Online Course Servers. Recently upgraded versions of Moodle allow them to engage with coursework, create their own profiles, and work on group projects. Moodle creates a two-way flow of communication between students and lecturers.



Masters Student and Integrated Business Studies tutor, Ms Sian McArthur shows her second semester class how to use Moodle.

Information Systems and Technology

Lecturers at the School of Information Systems and Technology, Mr Craig Blewett and Mrs Rosemary Quilling are the co-founders of NextEd – an eLearning project seeking to establish a global, virtual educational network, built on an *ubuntu* philosophy of collaboration and a scaffold model of supportive engagement (see <http://www.nexted.info> for more information).

"The project which is funded by the Association for African Universities (AAU) has already seen multiple collaborative courses run involving UKZN, the University of Massachusetts in the United States of America, and DayStar University in Kenya," said Mr Blewett.

NextEd has been experimenting with using technology to support teaching and learning since about 2003 via numerous platforms. These platforms have changed over time as alternative solutions appear and provide potentially better solutions. NextEd has employed a Beta Mindset which embraces technological change.

"We traditionally spend hours, months and sometimes years developing 'the perfect course' and then we launch it and inevitably keep it unchanged for many years thereafter. With the Beta Mindset the educator has to

be prepared to move and change and grow every semester as better platforms are developed and as students respond differently to the tools," explained lecturers in the NextEd Project.

The new wave of the Web, called Web 2.0 has seen a flood of social media tools that support and encourage the collaborative construction of knowledge. NextEd lecturers have made use of tools such as Social Learning Networks (similar to Facebook); Microblog Environments (similar to Twitter); Newsfeed Environments (similar to Newsfeed of Facebook and similar sites); Chat Rooms (Skype, MXiT etc); and Virtual Worlds (Second Life).

They argue that a purely traditional lecture theatre is not 'natural' and requires students to go into 'learn mode' which excludes tools of communication like Facebook and YouTube which they normally turn to. eLearning enables people to participate in an anywhere, anytime manner.

Mr Blewett gave the example of NextEd's Edmodo, a new eLearning platform that simulates other prominent social networking sites. One of his students recently commented that he loved Edmodo because he could do his tutorial at 4am, and receive a response from Mr Blewett before he got out of bed that morning.

According to the lecturers in

the NextEd Project, one big advantage about this type of learning is that it supports a continuous learning/assessment approach. "Rather than chunks of knowledge that are then tested at one time, students continually engage and learn the material. It's what I call Stream Learning," said Mr Blewett.

"In many cases a blended solution involving face-to-face teaching as well as eLearning is most suitable. However, courses that do not engage students at all via these types of media may find they lose an opportunity," said Mrs Quilling.

Chemical Engineering

Lecturers in the School of Chemical Engineering have embraced the group learning tool called Comprehensive Assessment of Team Member Effectiveness (CATME) to allow students to rate their team members' performance.

In order to be accredited with the Engineering Council of South Africa (ECSA), the providers of an engineering bachelor degree programme have to demonstrate that students completing the programme can work effectively in teams.

Students are often focused on individual achievement while academics are usually concerned with ensuring that individuals have developed the necessary



technical and cognitive skills required for their degree. CATME is a well-researched group learning tool developed and supported by Purdue University in Indiana, USA (see www.catme.org for more information).

To ensure maximum student participation, the lecturers redesigned practical experiments that were previously part of lectured modules into two practical modules which focus on the students' abilities to use the technical and scientific knowledge developed in the lectured modules in a practical setting.

The CATME system works on surveys undertaken by the students, in which they rate themselves and their peers in five categories: Contribution to the group; interaction with the group; keeping the group on track; expecting quality in the group's work; and having the necessary scientific knowledge base for undertaking the group work.

Academic Co-ordinator and Lecturer at the School of Chemical Engineering, Dr Katherine 'Kitty' Foxon is enthusiastic about CATME: "I found that students in general worked more consistently and learned more when the practical module was run in this way than they had when the practicals formed part of the lectured modules. I attribute this in part to the self-regulating effect of the CATME surveys," she said.

While student reaction is mixed, many are happy with the new system. Having used CATME for group work in at least three courses, Mr Stuart Woolley said that he has come

to appreciate the system and its influence on performance evaluations. "I've found that the CATME system can motivate students to perform better within their group and motivate them to 'pull their own weight', because we're all aware that our fellow group members have an anonymous say in our performance," he said.

Chemical Engineering's Dr Jon Pocock, who is also the College Teaching and Learning Director in the College of Agriculture, Engineering and Science, is using Moodle to increase interaction with students in a first year module. Activities have included a pre-requisite quiz which the majority of the students took either once or in some cases a number of times until they had answered most or all of the questions correctly, and the use of a forum for tutorial queries.

Dr Pocock believes that Moodle will encourage students to interact more with their peers and lecturers through forums and chat sessions. Based in an office away from the School at present, Dr Pocock said that he can set aside more time for queries and hopefully allow students to answer one another's queries.

College of Agriculture, Engineering and Science

The College has recently been piloting 'clicker' systems for fast feedback to students. These have been used in a few Engineering and Science modules to encourage more active teaching and rapid feedback to both the lecturer and students.

Clickers are simple handheld



Biology lecturer, Dr Paul Joslin and students during a tutorial.

transmitters that allow lecturers to ask questions of the class and gain instant responses (a little like 'ask the audience' in Who Wants to Be a Millionaire). "This can help everyone involved to determine whether the learning experience has been successful, and involves students more in the learning process," explained Dr Pocock. Further trials are continuing this semester in both Faculties and Dr Pocock encourages lecturers from the College to contact him for a set of clickers and training.

The Discipline of Mathematics has been using Moodle for a couple of years as a way to refresh first year students' memories and get them ready for the first year modules. They have used 'Booster' tests and associated tutorials to help students get up to speed in areas such as Algebra and Trigonometry which are of most importance to Engineering mathematics. Physics and Chemistry are also using online systems that link with the prescribed textbooks to provide additional tutorial material and problems for the students to work on. In all cases, students engage with the material to a higher degree than a simple 'chalk and talk' lecture and seem to enjoy the process.

Management Studies

As a first-year Business Science student, Mr Sipho Zondi said it took some time to get used to the University's Online Learning System. At first he was ambivalent about eLearning because it was so different from the traditional classroom learning he was accustomed to.

However, he soon found that the recently-upgraded Moodle system provides a 24-hours a day, seven-days a week opportunity for learning and interaction

between students and lecturers. "Some people are shy to participate in the classroom and the perks of online learning are that you can be yourself and showcase your train of thought," he said. While he now embraces online learning, Mr Zondi still believes there is a place for the classroom.

Academic Co-ordinator for the Integrated Business Studies (IBS) Programme at the School of Management Studies, Dr Caroline Goodier said that one of the learning outcomes of the module is to develop students' critical thinking and academic literacy skills. "The ... online Learning Management System (LMS) assists us by providing a dynamic and exciting means of engaging even first year students in authentic academic activities (research, 'publishing', academic discussion and critique) in a small learning community," she said.

Dr Goodier said that students engage with material, both teacher-generated and student-generated (in the form of a series of research papers), and in online discussions. In addition, they have access to various resources, to current module documents and to course notices. When working on group projects they use Moodle to post minutes of meetings and as an online communication tool which makes monitoring and evaluation easier for the lecturers and tutors.

Dr Goodier acknowledges that it takes additional time to set up and facilitate such on-line communication. She believes that it needs to be well integrated as a tool in the curriculum, so it is not just an add-on but an integral means of achieving learning outcomes.

Philosophy

Professor Andries Gouws of the School of Philosophy and

Ethics said Moodle has been used in the Discipline of Philosophy for the past three years or so. Philosophy's Professor David Spurrett also introduced Reason!Able, which is of particular help in developing the skill of critical thinking. Both complement the discipline's Critical Reasoning Course.

With many students and lecturers at UKZN appearing to embrace eLearning, does this mean traditional teaching and learning methods have fallen away?

While not being opposed to eLearning, Lecturer at the School of Biology, Dr Paul Joslin sounds a word of caution: "I feel that truly effective communication between human beings happens when they are physically together, making eye contact and responding and reacting to each other in a very real, enlivened sense. The use of technology can create an impersonal distance between teacher and learner, and between learner and learner.

"We should not use the technology we have available just for the sake of it – because it's there – but should think about the health of the human psyche and the vitality of human relations first," he added.

Student, Ms Thulile Shabalala agrees: "Times have gone fast and society has adopted technology without considering what it has done to us," she said.

Living as we do in a global village of ever-advancing technological change, open and effective lines of communication need to be maintained between educators and learners. While the days of chalk and board may seem behind us, a combination of face-to-face and eLearning methods seems to be on the cards for the foreseeable future.



Business Science student, Mr Sipho Zondi says teaching and learning should involve both eLearning and traditional teaching.

The UKZN Griot

Of Campuses and Communication

One of my correspondents wrote me on reading my second column, “Of Entrances and Exits”: “Hot stuff. Just remember not to become another [name of well-known professor]. I do this by loving Africa for what is loveable about it, shrugging off the rest. And every year I make the same New Year’s resolution: I will not become a grumpy old white man.”

WORDS: KEYAN G TOMASELLI

Well, now that’s a take on columnists who tend to be grumpy no matter their complexion, age or gender. So, let me this time offer an ungrumpy fairy story.

Once upon a time UKZN was three separate institutions. That’s why I still feel like a visitor when I go to Edgewood and Westville. Come to think of it, after 26 years I still feel like a tourist in Durban. Having finally learned its road system, then along came the sign man who changed many of the street names. Now I am lost again – but I’m not grumpy – just bemused.

Pietermaritzburg, where I never worked, still seems to be in the far reaches of Empire. It’s a lovely place I go to participate in statutory meetings. Some folks there may feel the same way about coming to Durban – but with a different impression of crowds, noise and cars. Where the Westville campus and parts of Medical School

are where I would shoot my next starkly alienating, concrete-laden feature film, *Escape From Durban*, PMB would provide the pastoral setting for a theme of peaceful uncluttered English-gentility with prancing horses. A little like the TV series, *Midsomer Murders*, where the endless killing off of English country villagers is done so genteelly that it hardly makes the international news.

How to create a sense of common purpose in a University with five campuses in two cities is the question for the fairy godmother. UKZN hides a dark secret. We don’t know each other that well. For example, when we take our graduate media students to the national annual conference they are astonished to encounter media students from the other campus. UKZN students interact momentarily in far flung venues but less so at UKZN itself. In Humanities, the annual Graduate Conference held at HC offers one way for students to connect, but the

friction of distance impedes. The bus that trundles (during the day) between HC and Westville inexplicably excludes PMB.

So, what can the fairy godmother’s magic wand do to help intercampus interaction? The magic mushroom bus is one option. But this would cause pollution, reduce student throughput and cause yet more carnage on the N3. Or, students could be provided coffee shops with intergalactic gates through which they would travel instantly between sites. (A project for the Trekkies in the Physics programme perhaps?) In the US and Australia, coffee franchises dot campuses to encourage staff and students to create intellectually-driven wireless-served micro/macro public spheres. Even the libraries sport coffee counters, to enhance the desire to remain on campus and to read while absorbing information and bean aromas, and of course, ensuring that students stay awake.

At HC, the coffee shop does anything but. Our international students are amazed at the ceaseless noise, smoking and partying that goes on in spaces where debate, studying and reading should be occurring. Alternatively, at HC students shuffle along like lost pods robotically sms-ing on their cell phones. They impede pedestrian traffic and cause more congestion in already overcrowded corridors. Crabbing sideways right shoulder-down they do not carry books any more, thumbs tapping away, oblivious of anyone else. Is this a dark Orwellian fairy tale?

Maybe the bus idea is of a past modernist age? Maybe the once seminal idea/space of the public sphere where constructive political and intellectual debate occurs has run its course? Maybe there’s nothing left but electrons in cyberspace? Are we trapped in the intergalactic gate – one of our own making? Is this really a fairy tale? What happened to the

grumpy old man? He’s out there somewhere reading a book, or writing a coherent sentence, and looking for real students hoping to live happily ever after in a cellphone-free zone. I am now found. I am happy in my new uncluttered and unbureaucratized liminal Never-Land where once upon a time academics used to live, work and generate knowledge that actually counted while not actually being counted.

Keyan Tomaselli is Director of the Centre for Communication, Media and Society.



Sudoku

				7				
2							5	1
3	8	1						
	1		6			5	4	2
			7					9
		2					3	
		3					2	
		4		6	5		8	
5			2		4		1	

ALUMNI REMEMBER THE ‘60s at film screening

Alumni, staff and friends of UKZN gathered at the Elizabeth Sneddon Theatre at the Howard College campus on July 29 for a special cocktail function and screening of the film, *RFK in the Land of Apartheid – A Ripple of Hope* directed by Tami Gold and Larry Shore. The screening was part of the 31st Durban International Film Festival.

WORDS & PHOTO: LUNGA MEMELA

KwaZulu-Natal-based graduates of 1964-1969 were invited by Corporate Relations Division’s Alumni Affairs Office to attend the event as part of the film was filmed on the Howard College campus in 1966. A number of the graduates who attended the screening had actually attended the RFK speech on the Howard College campus.

Drawing comparisons between the US Civil Rights Movement and South Africa’s struggle for freedom, the film tells the story of how a visit by US Senator, Robert Kennedy (RFK) in 1966 sent a ripple of



Deputy Vice-Chancellor: Teaching and Learning, Professor Renuka Vithal and Deputy Director at the Centre for Creative Arts, Mrs Monica Rorvik at the screening of *RFK in the Land of Apartheid*.

hope across the land in the midst of one of the most oppressive periods of apartheid. It includes extracts from a presentation at

the former University of Natal which has become one of the most often-quoted speeches against apartheid and injustice.

THE UKZNDABA TEAM

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