



## Faculty News

Third Quarter 2014



Hot off the press - Faculty ranks 48th in TOP 50 globally!

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### Dean's corner



This is our third Newsletter for 2014, and, yes, we go pink for this edition's cover, to promote breast cancer awareness during October. Breast cancer, undetected and left too late, can have devastating effects on patients and families. Colleagues are urged to undergo regular cancer screening. Cancer research, of which breast is a priority, is very much on the Faculty agenda, and is being co-ordinated via the Faculty's Cancer Research Initiative.

On a lighter note, we welcome spring along with the many achievements we have recently seen in the Faculty.

The biggest news is of course that the Faculty strengthened its global ranking in the Times Higher Education (THE) World University Rankings for Clinical, Pre-Clinical & Health for 2014 - 2015. This places our position at 48, up from the previous two years (53 in 2013, and 50 in 2012 and affirms our top-ranking status on the continent. Good news, indeed, for us - as we reach out to international funders and partners to invest in our Faculty to address the health needs of our country and continent. My deepest thanks and appreciation to our staff who have made this achievement possible through exceptional outputs.

More news to celebrate was the excellent review report received by the Health Professions Council of South Africa on our MBChB programme, and their recommendation that we can register up to 250 students in first year for MBChB. They were complimentary of the standard of our clinical teaching. I wish to thank Brenda Klingenberg, the Faculty Academic Manager, and her hardworking team for the endless hours spent in preparation for this successful visit.

Congratulations to the winners of recent awards. I mention especially the two premier awards for exemplary contributions to science: Prof Lionel Opie for his work in cardiology, and Prof Tim Noakes for his work in sports science. Colleagues like these inspire their peers, and we are proud of the ongoing acknowledgement and outstanding work of our staff. This is evident in the range of articles on innovations, establishment and growth of units, celebrations of research, among staff and students, and our annual fun-filled departmental Open Days to give students a feel for applied Forensics and Genetics.

Active and committed student bodies are important dimensions of Faculty life. They play an enormous role in nurturing leadership and governance skills and the campus life experience for many students, especially those from out of town. Holding this all together is the Health Sciences Students' Council (HSSC), who work exceptionally hard to deliver on its mandates, simultaneously juggling academic with Council commitments. I want to thank the outgoing council for the contribution they have made during their term, which came to an end in September. A warm welcome to the new executive – I look forward to engaging with you on issues of interest to the students and Faculty.

Finally, as we near the end of our academic programmes for the year, best wishes to our staff and students as you prepare for the exam period, and may you find that final burst of energy and speed as you sprint to the end of this year's 'marathon'.

I hope you enjoy this edition. Wim de Villiers

#### Faculty hosts UCLA medical school delegation



Dean Prof Wim de Villiers recently hosted the Vice-Chancellor of Health Sciences and Dean of the David Geffen School of Medicine at the University of California, Los Angeles Dr A. Eugene Washington.

The UCT Faculty of Health Sciences and UCLA David Geffen School of Medicine signed an agreement promoting greater cooperation in the future.

Image by Charl Linde







# October Breast Cancer Awareness Month

## Research plays critical role in fighting the disease

Jennifer Moodley
Director: Cancer Research Initiative

Breast cancer is the most common cancer seen in South African women and a major cause of cancer mortality, accounting for 16% of female cancer deaths. One in thirty-five women in South Africa will develop breast cancer in their lifetime. Research has a critical role to play in addressing the burden of breast cancer and researchers in the Faculty of Health Sciences are tackling breast cancer from various angles – from research to better understand reasons for delayed presentation to research on how a patient's genetic predisposition could lead to more effective and personalised treatment. Recognising that a comprehensive, integrated cancer research program is critical to advancing the breast cancer research agenda, the Cancer Research Initiative fosters interdisciplinary cancer research; promotes collaborative research into effective and relevant approaches to prevention, diagnosis, and treatment; and supports translation of scientific knowledge into preventive, therapeutic and public health strategies.

http://www.health.uct.ac.za/fhs/research/groupings/cri

#### BREAST CANCER RESEARCH IN THE FACULTY

Identification of novel drug targets for treating breast cancer

Pathways to breast cancer presentation

Jennifer Moodley
The genetics of anthracycline-induced cardiotoxicity in breast cancer patients

Horacia Naidoo

Triple negative breast cancer: tumour-initiating cells and tailoring therapy

A correlation between shoulder pain and dysfunction and inflammatory cytokine genotyping in breast
cancer patients

Delva Shamley

- See more at: http://www.health.uct.ac.za/fhs/research/groupings/cri/cancer-projects/2014#breast

#### USEFUL SITES FOR INFORMATION ON BREAST CANCER SYMPTOMS

http://www.cansa.org.za/womens-health/

http://www.mybreast.org.za

## HPCSA accredits fhs



Members of the Deanery with the HPCSA Undergraduate Committee

The Health Professionals Council of South Africa (HPCSA) recently visited the Faculty for an accreditation visit. The Faculty hosted the HPCSA over a number of days. Deputy Dean - Associate Professor Gonda Perez, spoke to Faculty News of the importance of the HPCSA visit and the outcome of the review.

What is the HPCSA? The HPCSA is a statutory body established in terms of the Health Professions Act to protect the public and is the accreditation council for all health professions in SA; it also has the responsibility of accrediting universities to offer particular courses (i.e. our undergraduate and postgraduate courses need to be endorsed for training as these have clinical components). So, all courses such as MBChB, Occupational Therapy, Physiotherapy, Audiology, Speech-Language Pathology, Nutrition and Dietetics, and clinical postgraduate registrar programmes need to be accredited by the HPCSA.

Which HPCSA committee visited the Faculty? The Undergraduate Education and Training committee - it is responsible for recommending to the Medical and Dental Board about whether or not we should be accredited.

What is the purpose of the HPCSA visit? Every five years we host an accreditation visit for the MBChB programme. The last one took place six years ago. We should have had one last year, but we asked for an extension because a new Dean was appointed and we wanted him to be familiar with the programme before they visited. The HPCSA kindly agreed to postpone the visit.

What preparation goes into the visit? The preparation takes a lot longer than the actual visit - we prepare for about a year beforehand. There is a self-review report that has to be written which requires Faculty Manager Brenda Klingenberg to gather information on all aspects of the various programmes. The report reflects on various issues, from staff numbers, budgets, to what processes we have in place to ensure quality control, course content, staffing and staffing qualifications, as well as the sites where we train our students. There is also an interest in equipment and research to see whether we are a fit establishment to train

It is ultimately a very advanced and intense scrutiny of our programmes and what we do, which is a good thing, because it gives us an opportunity to reflect.

Assoc Prof Gonda Perez, Deputy Dean: Undergraduate Student Affairs

students.

What happens when they get here? The HPCSA committee interviews a number of individuals, for example teachers in pre- and post-clinical years; and students are also interviewed. Other stakeholders in our training such as the Provincial and National Department of Health are contacted and asked about our interaction with them, as well as the support we get from them. The committee also asks about the structure of the Faculty - they want to know that the Faculty is governed well and that we have enough managers in place. It is ultimately a very advanced and intense scrutiny of our programmes and what we do, which is a good thing, because it gives us an opportunity to reflect on how we can improve.

What was the outcome of the visit? We were accredited for a full five years. They also increased the number of students we can take into our first year MBChB programme - we had indicated that we were increasing our student numbers and they have now set our first-year MBChB student intake at 250. That is a huge advance on what we had. Previously, we were accredited to train up to 200 students.

We were commended for our relationship with the province, which has greatly improved. We were told that the reports from the students were very positive. We were also commended for our elearning teaching platform, which is the Vula –those of Orthopaedics and Urology were highlighted. We were further lauded for the quality of our teaching platform infrastructure - we put in place student learning centres in the areas where we have many students on the platform.

Story and Image by Charl Linde

## Prof Gregory Hussey and Prof Naomi Levitt elected UCT Fellows

The College of Fellows recently elected Professors Gregory Hussey and Naomi Levitt as Fellows of the University. This is an acknowledgement by the university of the calibre of these accomplished academics. In considering the conferment of a Fellowship, all research or other original work standing to the credit of the individual is considered, publications being regarded as the main evidence of original distinguished academic work. Among such publications should preferably be a major work. There should also be evidence of international and not only local recognition of a candidate's work.

Professor Hussey is the Director of Vaccines for Africa, and Senior Research Advisor to the Deanery, and Prof Levitt is the head of the Division of Diabetes and Endocrinology in the Department of Medicine and Director of the NHLBI/UHG funded Chronic Diseases Initiative for Africa.



Prof Naomi Levitt

Prof Gregory Hussey

## Prof Jo Wilmshurst delivers inaugural lecture



Top to bottom: Prof Wilmshust delivers her inaugural lecture, Dean Prof Wim de Villiers and Deputy Vice Chancellor Prof Sandra Klopper

As a paediatric neurologist, epilepsy takes centre stage for Prof Jo Wilmshurst – and it provides a good mirror for the kinds of problems doctors grapple with in Africa, where even standard levels of care are rare, and where HIV absorbs most resources. Epilepsy is the fourth most common neurological disorder worldwide, affecting 80 million people, according to the World Health Organisation (WHO).

At Red Cross, Wilmshurst and her team run 80 neurology clinics each month. Sixty percent of their patients have epilepsy. "Epilepsy can be notoriously hard to diagnose, and affects every child differently. In some ways, being a paediatric neurologist is one of the ultimate detective jobs." Without adequate resources, nine out of 10 Africans with epilepsy go undiagnosed and untreated - this on a continent where there's huge cultural stigma attached to epilepsy. "We deal with everything here," said Wilmshurst, referring to her unit and the ripple effect of epilepsy. "They [the families] often have nowhere else to go. These children need special support, and have special needs. The burden on families is huge. We have to manage the child and their family holistically." She and her team have spearheaded several workshops in Africa, to strategically understand what occurs at the coalface and tease out key themes and rallying points. The first workshop, in Uganda, was held under the auspices of the International Child Neurology Association, and attended by representatives from 34 African countries. High among the priorities was the need for national guidelines for treating epilepsy. "Only nine of the countries had guidelines; but when we delved deeper, we found they couldn't deliver the level of care required by the guidelines."

A case in point is oral pheno-barbital, which is widely prescribed. It's an extremely effective anti-epileptic drug, and essential to have available for emergency management of prolonged seizures. "But it's rarely used in settings other than ours. It's particularly utilised in resource-poor countries, because it's cheap; and as such, more likely to be available. The limited usage in resource-equipped settings relates to concerns of learning and behavioural side effects reported to occur in children on the drug." Wilmshurst advocates that Africans should tap into resources that are specific to Africa, such as traditional healers." Dr Wilmshurst's full inaugural lecture is available here.

Story by Helen Swingler, Images by Charl Linde and Je'nine May

doctor of science congratulations honorary doctorate fellow kudos highest honours president's awards excellence kudos doctor of science honorary doctorate congratulations fellow highest honours president's awards excellence fellow excellence kudos congratulations awards

### Prof Emeritus Lionel Opie presented with lifetime achievement award by NRF

Emeritus Professor Lionel Opie of the UCT Hatter Institute of Cardiology Research was recently awarded a National Research Foundation (NRF) Lifetime Achievement Award.

The award recognises the lifelong research achievements of an individual who has made an outstanding or extraordinary contribution to the development of science in and for South Africa over an extended period of time. The contribution must be of international standard and impact.

Professor Opie is described as "Africa's best known heart doctor" in the citation for the Order of Mapungubwe (Silver) given by the President of South Africa in 2006 for his "excellent contribution to the knowledge of and achievement in the field of cardiology".

### Prof Emeritus Robin Wood honoured by Royal College of Physicians

Emeritus Professor Robin Wood, Director of the Desmond Tutu HIV Centre, was recently awarded the Weber-Parkes Medal from the Royal College of Physicians, United Kingdom.

This is in recognition for his substantial contribution to the fight against tuberculosis. The Weber-Parkes Trust Medal was founded in 1895 by a gift from Dr Hermann Weber in memory of Dr Alexander Parkes.

## Clinical educator Loren Lewis honoured at World Federation of Occupational Therapy (WFOT) congress

A collaboration research project between Loren Lewis, clinical educator, Division of Occupational Therapy at UCT, Katherine Wimpenny from Coventry University (CU) and Huget Desiron at Limburg University (in Belgium) recently received the Thelma Cardwell award at the World Federation of Occupational Therapy (WFOT) congress. This congress took place in June 2014 in Yokohama, Japan.

The purpose of the WFOT Thelma Cardwell Foundation Award for Research and Education is to encourage research into developing all aspects of occupational therapy.

### Assoc Prof Derek Hellenberg elected to Colleges of Medicine Senate

Associate Professor Derek Hellenberg was recently elected onto Senate representing the College of Family Physicians in the Colleges of Medicine of South Africa. He will commence his three-year term as of October 2014.

#### Wellcome Trust fellowship renewal for Prof Robert Wilkinson

Congratulations to Professor Robert Wilkinson on the renewal of his Senior Research Fellowship in Clinical Sciences from the Wellcome Trust.

This highly prestigious fellowship, which is valued at approximately R50m over five years, will support Professor Wilkinson's work on new host-directed therapies against tuberculosis.

Professor Wilkinson is Director of Clinical Infectious Disease Research Initiative (**CIDRI**), which is based in the IDM.

#### Prof Lucy Gilson elected to Health Systems Global Board

Professor Lucy Gilson was recently voted onto the board of Health Systems Global. This is global recognition for UCT and the Faculty and its expertise in the area, which can enhance the work Prof Gilson and her team are already doing.

Prof Gilson's place on the HSG board allows her and the Faculty to inform and shape the direction of the development of the field. It may also help to give profile to the field here in South Africa, which could then assist in bringing the research to bear even more strongly on the health systems in the country.

#### UCT Prof Tim Noakes' top honour for sports science work

UCT Professor of Sports Science Tim Noakes has been awarded the prestigious South Africa Medal (Gold) by the Southern African Association for the Advancement of Science (S2A3) for his work in sports science. The medal is awarded annually to a person who has contributed to the advancement of science. In Prof Noakes' case, his tremendous achievements to the development of sports science, locally and internationally, is recognised. It is one of the highest awards to a scientist in Southern Africa.

The most recent UCT Faculty of Health Sciences recipients of this award include Prof Wieland Gevers and Prof Dan Stein.

#### **EDITORIAL TEAM**

Editor: Linda Rhoda

Research/Interviews/Collation: Charl Linde

Writing: Linda Rhoda, Charl Linde, UCT News

**Acknowledgements:** Carmen Louw, Faculty colleagues who submitted stories, and a special thanks to UCT News (Communications and Marketing Department) for coverage of our achievements and the use of their stories

Editing, Layout: Linda Rhoda, Charl Linde

Proofreading: Joan Tuff

## Faculty's African innovations profiled on Carte Blanche

You can watch Carte Blanche's coverage of two recent breakthroughs in asthma management by UCT researchers at Groote Schuur and the Red Cross War Memorial Children's Hospitals.

The work of teams in the Departments of Medicine (bronchial thermoplasty) and Paediatrics and Child Health (asthma spacer) is significantly improving the quality of life of these patients.

#### Pioneering Bronchial Thermoplasty in Africa

Head of the Division of Pulmonology and director of the lung infection and immunity unit at UCT Private Academic Hospital, Professor Keertan Dheda and his team have pioneered the use of a procedure known as bronchial thermoplasty in Africa. Read more

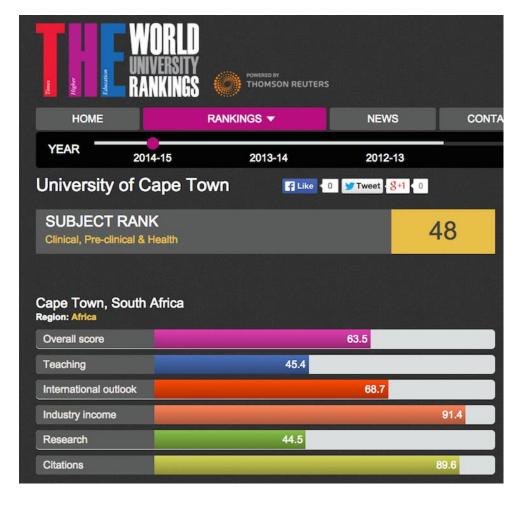
#### **Asthma Spacer innovation**

Prof Heather Zar, Paediatric pulmonologist and Head of the Department of Paediatrics and Child Health at the Red Cross War Memorial Children's Hospital and her team have pioneered the use of a low-cost asthma spacer alternative. Read more



Prof Keertan Dheda

Prof Heather Zar



## Faculty strengthens ranks in top 50 globally

The UCT Faculty of Health Sciences was recently ranked at number 48 for Clinical, Pre-clinical and Health on the THE World University Rankings. Last year the Faculty ranked 53<sup>rd</sup>. In 2012 it ranked 50<sup>th</sup> for the first time, a much celebrated achievement in our centennial year.

Ours is the only health sciences faculty on the continent to rank in the top 100 of the category.

UCT as a whole ranks at 124, another improvement from the 126<sup>th</sup> position last year.

The closest other African university, the University of Witwatersrand ranks between 251 – 275 (the exact position is not disclosed by THE).

To read more click here

## IDM hosts seminar on publishing practice

On 20 August 2014 an IDM juxtaposition seminar on 'Principles and Practice of Research and Publication' was held in the Wolfson Pavilion.

Juxtaposition seminars feature a double/triple speaker format presenting diverse (potentially opposed!) areas of knowledge around the same issue, with the aim of fostering new ideas. It was hosted by Professor Clive Gray of the Division of Immunology and IDM, to a packed audience.

Emeritus Professor Wieland Gevers, Interim Director of the IDM from 2003 to 2005, kicked off the session. He presented on the publishing activities of the Academy of Science of South Africa and particularly the 'Scholarly Publishing Programme', which focuses on enhancing the quality, quantity and visibility of local research publications, and on fostering of a new generation of productive scholars. His talk addressed issues such as open access, development of a SciELO-SA collection and accreditation of indigenous journals. The vision is to build a sustainable, high-quality local publication system and widen South Africa's participation in international science.

This was followed by a lively presentation from IDM Director Professor Valerie Mizrahi on principles that govern research and publication in the South African context. Professor Mizrahi introduced her argument with a quote from UCT Vice-Chancellor Dr Max Price, which emphasised the importance of research institutions being on a par with the global North. She highlighted how university ranking systems (whether or not we like them!) are strongly influenced by research profile, and expressed concern about how well our evaluation systems for publications, grants and promotions are actually working, particularly given the impact the reward system can have on the academy. She stressed how academic systems have not adapted to changes in research and publication practice or to the growth in postgraduate activity, and closed by shedding additional light on these changes and their impact from a personal perspective.

The third and final presentation was given by Dr Yolande Harley, the Faculty's Research Enterprise Manager, who discussed the relationship between university journal publication subsidy and the quality, impact and level of collaboration of publications. Dr Harley presented an analysis of the Faculty's publication data from 2011, which suggested that subsidy does not reward universities for publications of higher quality or impact, and perhaps does the reverse, highlighting the misalignment of the subsidy model with strategies to maintain or improve quality and impact of the country's research. On the plus side, despite the model providing a significant disincentive for collaboration, the Faculty's researchers still co-published with researchers outside of UCT on 71% of their papers.

Story by Yolande Harley, Images by Charl Linde





## High-impact medical research wanted - new MRC president



Prof Glenda Gray, new South African Medical Research Council president, presents her vision to members of the Health Sciences Faculty



Dr Leigh Johnson (Public Health and Rehabilitation Sciences)



Dr Jonathan Peter (Clinical Sciences category)

The SA Medical Research Council (MRC) is interested in big ideas, big science and high-impact research, says new MRC president Professor Glenda Gray.

"We want to promote the knowledge economy," said Gray, guest speaker at the Faculty of Health Sciences' Dean's Seminar on 18 August, where she presented her vision for the MRC. That vision includes capacity building and long-term sustainability.

"What has our value been since [the MRC's formation] in 1969? We must be able to say that we made an impact on health in the country."

Gray has a long pedigree. A National Research Foundation A-rated researcher and pioneer in the field of mother-to-child transmission of HIV, she co-founded and led the internationally renowned Perinatal HIV Research Unit at the Chris Hani Baragwanath Hospital in Soweto.

She is also co-principal investigator of the HIV Vaccines Trials Network (HVTN) and director of the HVTN International Programmes. In 2013 she received the country's highest national honour; the Order of Mapungubwe, granted by the president for international achievements that have served South Africa's interests.

Now at the helm of the MRC, Gray is concerned about the kind of research the MRC funds, how much is being spent on it, and whether it's hitting target and being translated into policy and practice to address the country's "cocktail of epidemics".

Among her targets is a bigger pipeline of master's and PhD students, "as diverse as the country", to build long-term sustainability in health services.

Technology and innovation is also high on her priority list ("A healthy country is a wealthy country"), as is investment in research and development.

The MRC has also established a new innovation entity. "There's a lot of innovation in the health sector and we look forward to great things from that project."

South Africa's performance in the medical science arena matters, she added.

"It's been shown that scientific productivity is a much better predictor of economic wealth and human development than any other variable.

"While we want to boost our research, we also want to make sure it addresses our country's needs."

To this end, the MRC had undergone a revitalisation process, and a "brutal examination" of its programmes and expenditure.

UCT, she reminded the audience, enjoys the lion's share of MRC funding (the health sciences faculty hosts eight MRC-funded units), but like other university units and programmes funded by the MRC, UCT should demonstrate good returns on that money.

"I want to look at the science you're doing and ask the question: is it making a difference ... Are we asking the right questions?

"I'm on your case to see that we get value for money," she quipped. "We want to develop a culture of better evaluation of our programmes."

Gray also has a plan to boost support for poorly resourced universities.

"One of the questions we'll be asking is: how are you supporting these institutions?"

After Gray's presentation, three young researchers (under the age of 40) were awarded Faculty Research Committee (FRC) Young Investigators Best Publication 2013 Awards: Dr Jonathan Peter (clinical sciences category), Dr Leigh Johnson (public health and rehabilitation sciences) and Dr Krisnamoorthy Gopinath (basic sciences).

Story by Helen Swingler, Images by Charl Linde

### Dean's Forum

### Spotlight on: Human Research Ethics review process



Faculty engage Prof Blockman during the forum

A recent Dean's Forum on human research ethics elicited frank and lively discussion on the ethics review process. Prof Marc Blockman, Chair of the Human Research Ethics Committee (HREC), introduced the session by outlining the principles and standard operating procedures that govern the activities of the committee. Below, he reports on the ensuing engagement at the forum.

Important issues raised by the forum included: the role of the HREC in scientific review of protocols; the perception of the HREC as a "stumbling block" to clinician-researchers; the burden of administrative processes around ongoing studies (including sub-studies) and annual reporting; and the requirement for independent new protocol applications for postgraduate students (particularly honours students) engaging in research involving human participants or personal data/samples.

#### **RESPONSES TO THE ISSUES:**

#### Scientific review

The HREC is within its mandate to review protocols for scientific validity, social value and ethical merit. Ensuring that research is scientifically valid is one of the central principles of the Declaration of Helsinki (Fortaleza, Brazil, October 2013). However, what became apparent through the forum discussion is that the level of rigor of scientific review by the Department Research Committees (DRCs) is variable. It was acknowledged that the scientific aspects of many protocols are inadequately reviewed prior to HREC submission, which subsequently places the burden of scientific review on the HREC. The Deanery committed to reviewing the role of the DRCs in the scientific review process, with a suggestion to reduce the number of DRCs in the Faculty to facilitate a more standardised review process. The need for capacity development of DRCs in scientific review was also highlighted. This was resolved with a Faculty commitment to training and further capacity building in this crucial area.

#### Ethics review as a "stumbling block" for clinician-researchers

There was a strong sense that the HREC review process is a significant "stumbling block" for clinician-researchers. This issue was compounded by the recognition that DRCs did not identify many scientific issues with protocols prior to submission for HREC review. Prof Blockman emphasised that the HREC aims to facilitate research in the Faculty. Researchers are encouraged to consult the HREC regarding a proposed study at the concept or early protocol development stage, so that any potential issues can be identified, and for the HREC to provide appropriate advice. Researchers are also encouraged to consult the HREC regarding feedback from the protocol review process if clarity or discussion is needed.

The HREC will also be developing an informed consent document template, and a protocol template for retrospective audits to provide additional guidance to researchers and to facilitate the ethics review process.

#### Burden of administrative processes for ongoing studies

The HREC acknowledges the procedural requirements for ongoing review and approval of studies may be perceived as burdensome. However, compliance with the procedural requirements is essential to ensure that the HREC is able to maintain accreditation with the NHREC. The HREC is currently engaged in the process of reviewing tracking systems to allow for automated reminders to be sent to researchers when annual reports are due. The Deanery also indicated their support of such a tracking system.

#### New protocol applications for postgraduate research studies

All postgraduate students are required to submit new protocol applications and protocols to the HREC for review. This also applies to a postgraduate student who may be involved in a sub-study (or component) of a larger study that already has HREC approval. The primary reasons for this requirement include the education of students regarding the ethics review process; the student understanding and accepting their responsibilities as a student researcher; and the HREC being able to monitor research being conducted in the Faculty.

The HREC are committed to facilitating this process, particularly the review of Honours student protocols. The HREC requests that respective Honours programme convenors contact them to discuss expedited review processes for research projects with tight deadlines. In addition, the HREC are also developing a new protocol application form for postgraduate research studies to facilitate the ethics review process.

In summary, the Dean's Forum on Human Research Ethics provided an excellent opportunity for discussion of a number of ethics-related issues. The HREC remains committed to facilitating the highest ethical standards of research involving human participants and personal data/ biological samples; and looks forward to continued and increased engagement with all researchers in the Faculty of Health Sciences.

Story by Marc Blockman, images by Linda Rhoda

THE DEAN'S FORUM IS A SPACE FOR STAFF TO ENGAGE WITH THE DEANERY ON MATTERS OF IMPORTANCE TO THE FACULTY.

## 2<sup>nd</sup> Annual Research Day a highlight for the School of Public Health & Family Medicine



Dr Olufunke Alaba Dr Chris Colvin Dr Mohamed Jeebhay

"This was a day to recognise the cutting-edge research taking place across the School of Public Health & Family Medicine, and the breadth and excellence of the presentations today... (demonstrate this)."

Head of School, Professor Mohamed Jeebhay,

The School of Public Health & Family Medicine celebrated its second annual research day recently with a day of presentations of leading public health research from across the School's eight academic divisions and four research groups.

The day opened with an introduction from the Dean of the Faculty of Health Sciences, Prof Wim de Villiers, who noted the growth of the School's research over the past decade and encouraged continued innovation in the work to address the future health challenges facing the country and the continent. Following this, 15 staff members and postgraduate students from across the School presented the results of recent and ongoing research, including work from the School's four URC-accredited research groupings: the Women's Health Research Unit (WHRU), the Health Economics Unit (HEU), the Centre for Environmental & Occupational Health Research (CEOHR), and the Centre for Infectious Diseases Epidemiology & Research (CIDER).

Among the highlights, Dr Olufunke Alaba (pictured below) from the HEU won the award for the best presentation by a staff member for her investigations into the changing

socio-economic determinants of obesity in South Africa. The award for the best presentation by a student went to Mr Annibale Cois of the Division of Epidemiology & Biostatistics, for his analysis on the effects of seasonality in national surveys to investigate the prevalence of hypertension.

The research day ended with a keynote address by William Pick, a leading figure in Public Health nationally and an Honorary Professor in the School. Prof Pick's reflections on the past and future of public health research in South Africa provided the audience with pause to reflect, highlighting the need to strengthen the capacity among mid-level public health researchers for the future.

"This was a day to recognise the cutting-edge research taking place across the School of Public Health & Family Medicine," said Head of School, Professor Mohamed Jeebhay, "and the breadth and excellence of the presentations today, particularly from our postgraduate students, demonstrates that Public Health research has an exciting future at UCT and in South Africa."

## Groundbreaking clinical trial settles question on treatment of TB pericarditis

A large-scale clinical trial of the use of steroids in treating tuberculosis (TB) pericarditis was already halfway through before it found funding. Even then, it was conducted on a relative shoestring. Nevertheless, the findings will change clinical practice and settle a great unanswered question in the treatment of patients with this condition.

The Investigation of the Management of Pericarditis (IMPI) trial found that the prescription of steroids to patients with TB pericarditis – a dangerous form of TB that can cause fluid build-up and compression of the heart, and kills a quarter of those who contract it – made no difference to their eventual mortality rate. Even more significantly, in HIV-positive patients, steroid treatment increased the risk of cancer. However, steroids were found to offer anti-inflammatory benefit by reducing fibrosis (also called constriction) of the heart and preventing scarring.

"Africa is open for business when it comes to health research" – Prof Bongani Mayosi

"Until now we have had contrasting evidence about this combination therapy, and therefore conflicting recommendations about it," says lead investigator Professor Bongani Mayosi, <u>Head of Medicine</u> at Groote Schuur Hospital and the University of Cape Town.

This uncertainty had concerned him since he was a trainee specialist at Groote Schuur. Some specialists were believers in the use of steroids, and some were not. "When you were on intake, whether you – the trainee – gave the patient steroids depended on who the specialist was the next day. I reasoned that surely, if steroids worked, that should not depend on the whim of the specialist who was on call."

However, IMPI settles the question. It is the first multi-national trial on TB pericarditis, and the largest trial of corticosteroids in HIV-associated TB. "Findings from the study suggest it may be reasonable to add steroids to regular treatment in TB pericarditis patients who don't have HIV infection, to prevent constriction and reduce hospitalisation; but this strategy should be avoided in HIV-infected individuals, because of the increased risk of malignancy," says Mayosi.

The study, which was presented at the European Society of Cardiology congress (and published simultaneously in the New England Journal of Medicine), enrolled 1 400 patients with pericarditis from 19 hospitals in eight countries in Africa.

The road from idea to findings turned out to be strewn with obstacles, most of them financial. Mayosi, together with colleagues from seven other countries in Africa, began applying for funding, but drew a blank every time. The reason they were most often given was that no-one in the team had the required experience of conducting a large, multi-centre, clinical trial on the scale they were proposing.

However, in 2009, the group met: as it happened, Barack Obama had just been elected President of the USA, and his slogan 'Yes we can' was ringing in their ears. "When the group met the next day," says Mayosi, "we said: we have no money, it is now four years since we've been trying to do this study, what are we going to do? And the group said, yes we can! We can do this study, despite the fact that we have no funding."

Two years later, the group finally received funding from the Canadian Institutes of Health Research (CIHR). By then, they were already halfway through the trial. However, the CIHR enabled them to leverage further funding to expand and complete the trial. "This was an African-led study with no initial funding that went to places that had never conducted trials before and established capacity there," says Mayosi. "Yet we set new standards for data quality and completeness of follow-up in large African clinical trials, and challenged the perception that 'Africans can't do it'."

Perhaps the name chosen for the study was significant: "We are named after the Zulu battalions – the Impi – who vanquished the great armies of Queen Victoria at Isandlwana. By that we're saying that we are putting together a team that will



Professor Bongani Mayosi, Head of Medicine at Groote Schuur Hospital and the University of Cape Town, and lead investigator of the African-led multi-country study.

solve this problem by whatever means necessary. The IMPI 'warriors' have overcome every obstacle to do the first multi-sector, multi-national clinical trial on the use of steroids in treating TB pericarditis in the history of the world."

By far the most significant finding of the study was the effect of steroids on patients with HIV. The majority of patients (67.1%) in the study were HIV-positive. According to the World Health Organisation, the risk of developing TB is estimated to be 12 to 20 times greater in people living with HIV, compared to those without HIV.

The increase in HIV-associated cancers is consistent with the results of two previous studies on HIV-associated TB.

"The immune system keeps cancer cells in check to a certain degree, and HIV reduces this protection, which is why HIV-associated cancers occur. Steroids further depress the immune system, thus promoting the occurrence of HIV-associated cancers such as Kaposi sarcoma and non-Hodgkin lymphoma, which occurred in this study."

Given the implications of these findings, it is perhaps surprising that the study only happened because of the determination of its team. "I go to many meetings where people do global studies," says Mayosi, "and Africa is the black box – it is often missing, and yet people have the audacity to call those studies 'global'. There is no longer an excuse now. IMPI has created the railroad – the infrastructure – for doing research studies throughout the sub-Saharan African regions. We have demonstrated that we not only have centres that can do studies of the highest quality, but people who can."

The IMPI team is now planning to extend these studies to other heart conditions that affect African people, such as high blood pressure, rheumatic heart valve disease and stroke.

"Africa is open for business when it comes to health research," says Mayosi. "We are ready to engage with the world on the highest level of quality required by science. We are looking for collaborators so that we can work together to solve some of the major health problems that are confronting us."

Story by Linda Rhoda and Carolyn Newton Image by Michael Hammond

## Public-private partnership brings new dawn with opening of George clinic



At the opening of the Kuyasa Clinic from left: Prof Gregory Hussey (University of Cape Town), Dr Beth Engelbrecht (Deputy Director-General Chief of Operations), Dr Tina Plattner (Hasso Plattner Foundation), Prof Craig Househam (Head of Health Western Cape Government Health), Cllr Guga Fanele (George municipality) and Prof Hoosen Coovadia (Chairman Isisombululo Board). Photo: Supplied

## Dr Tina Plattner, representing her German philanthropist family officially opened the recently built Kuyasa (New Dawn) Clinic in Zone 9, Thembahlethu on 9 July 2014.

The clinic, a union of private and public organisations, was made possible through the collaboration of the Hasso Plattner Foundation, the Isisombululo Programme, University of Cape Town and the Western Cape Department of Health (WCDH).

Prof Gregory Hussey said that without the Plattner family and their substantial contribution, this clinic would not have become a reality. "The construction of this colourful, modern primary health care facility was funded, planned and managed by the Isisombululo Programme at a cost of R7,5 million.

Plattner emphasised that one of her family's core beliefs is that everybody deserves access to first world health care. She said that her family has always had a close connection with Africa. She reminisces about visiting her grandmother, who was married to a German South African, in Camps Bay. "As a young girl the family enjoyed our holidays here. We loved the beautiful South African beaches. This country has given us much pleasure and we are pleased that we can give back to the people."

Plattner emphasised that the highlight of the Kuyasa journey was the perseverance of the Programme Manager, Brett Utian. Utian, the face of the project in the Southern Cape, successfully managers the Isisombululo programme which funds Antiretroviral Clinics in Thembalethu, George, Knysna and Plettenberg Bay.

Prof Craig Househam, Head of the WCDH, told the George Herald that today the focus is "treatment for a cure" of HIV/AIDS. He stressed this should be done by treating mothers with HIV which will prevent the transmission of the disease to their babies. "Since there is no definite cure, the need is to minimize the spreading of Aids by using ARVs. We have reduced the transmission rate to 1,7% in the Western Cape. With more clinics like Kuyasa we hope to bring the transmission rate down to zero. Currently we have 200 000 people on antiretrovirals in the Province.

The cost of the clinic is R8.7million; this includes R1, 2 million that the WCDH spent on equipment. Househam said that the Isisombululo Programme kept the costs to a bare minimum but never skimped on anything. The clinic employs nine staff members and serves 18 000 patients monthly of which the majority are within walking distance.

Cllr Fanela Guga thanked the Plattner family and the WCDH and promised that "the community will be the eyes and ears that will watch over the clinic".

## Centre focuses on child health



Mackie Prins, one of the nurses, doing a blood test

Ms Debbie McIver doing lung function in a young child

Dr Bateman performing an ultrasound

A year ago, Africa's first research centre that focuses exclusively on child and adolescent health came into being at the University of Cape Town. When the doors of the Research Centre for Adolescent and Child Health (Reach) opened in Cape Town, it was a milestone in health innovation for the whole continent: It looks at many different aspects of health, but all through the lens of how these relate to the younger members of our society.

UCT's research report for 2013-2014 says Reach is the "first of its kind in Africa and also serves as a hub supporting other clinical research sites in the community and at other health care facilities, and contributing to the development of capacity in child health and in clinical research".

The centre, based at the Red Cross War Memorial Children's Hospital, is at full capacity and is engaged in cutting-edge research and projects, says Professor Heather Zar, head of the centre and also head of the Department of Paediatrics and Child Health in the Faculty of Health Sciences at UCT.

At the moment, the centre is carrying out studies on chronic illness in adolescents with HIV, while another focus area is TB in children. As Tuberculosis is a deadly disease for many in South Africa (according to the latest stats, it kills up to 63 000 people a year) the centre's research into developing more sophisticated diagnostics and better treatment strategies could prove a turning point in the fight against high levels of child mortality. Diarrhoea is also one of the biggest killers of children in South Africa and the continent at large, and the centre is conducting a study following the introduction of the rotavirus immunisation programme.

Another flagship project is a unique birth cohort study, called the Drakenstein child study. The aim is to investigate early life determinants of health or illness in children. "We enrol pregnant women, follow them through childbirth, and then continue until the children are at least five years old," explains Zar.

There are several PhD and masters students working on these studies, and the centre has also had students from other parts of the world assisting. After funding was secured from a variety of sources, additional components of the study could be developed. These include neurocognitive aspects, maternal mental health aspects, infant lung function, microbiome and others.

"What is emerging," says Zar, "is a comprehensive, integrated, novel and detailed study of child health that will inform new

interventions, extend knowledge, improve child health and build much local capacity and expertise."

Already, some of the research from the centre has been published and has thereby informed practitioners across the globe. Two separate papers were published in Lancet Global Health on new ways to diagnose TB in children, and the first results from the Drakenstein study were published. This included groundbreaking findings on the relationship between intimate partner violence and low birth weight in babies, as well as results from the initial lung function studies which showed that one can reliably measure lungs using very sophisticated testing at age six weeks of age.

The centre, however, has not been without its challenges, and these have mainly been experienced in operational issues and in support to community-based sites. One example is the transfer of paper-based records and data processing from community sites to Reach. And, says Zar, "Obtaining enough funding to enable us to grow our research and support the postgraduate students is always a challenge."

The unit wants to develop a clinician scientist research track that will enable postgraduate students from different countries in Africa to work at the centre and then return home to develop capacity there. This notion of collaboration underpins much of the work of the centre. Zar says one of the great successes of the centre has been the "establishment of a big, diverse research group" and the evolution of "some amazing teams that include community workers, nurses, doctors, technologists, lab based people, data teams, students, and more". Its collaborative approach also sees it drawing together experts from different disciplines at the university. An example cited by Zar is that of the paediatric radiology department which feeds into the work of Reach. "This department is involved in studies to develop new ways of diagnosing pneumonia or TB using new imaging techniques," she says, "and we are also looking to move to electronic records and onsite electronic data capturing. So E-health is another example of an innovation coming out of UCT's health disciplines".

It might take time for the centre's research findings to reach all the remote pockets of child health in Africa, but it is changing global health guidelines, informing policy, and having an impact on child health globally.

Story by Tanya Farber (originally published in the Cape Times and on IOL on 25 September 2014. Images Supplied by REACH

## CIDER's HIV-monitoring software exported



In training: Oren Jalon (centre, seated), an epidemiologist in Malawi, with fellow TIER.Net workshop participants (from left) Natacha Gomas Dos Santos, Mozambican data manager; Artemisa Julieta Uqueio Matsinhe, Mozambican data manager; Robin Burley, workshop facilitator from UCT; Dr Nguyen Thi Lan Huong, Vietnamese epidemiologist; and Walter Macueia, Mozambican data manager

Representatives from Mozambique, Malawi, Vietnam and Pakistan were in Cape Town recently for TIER. Net training – learning how to operate an electronic register for monitoring HIV- and TB-infected patients, developed by a team from UCT.

The software will be used to monitor and evaluate antiretroviral (ARV) treatment in those countries, and follows hot on the heels of its roll-out to 3 000 clinics in South Africa.

#### A collaborative effort

A collaborative effort – between <u>UCT's Centre for Infectious Disease</u>, Epidemiology and Research (CIDER); the Canadian International Development Agency; the US Centres for Disease Control and Prevention; and the World Health Organisation (the funders), together with valuable input from the Western Cape and national government teams – TIER.Net was developed because paper registers keeping track of HIV patients became too unwieldy. Although an online application (eKapa 2) had been developed for this purpose, it could not be used by all clinics, due to bandwidth constraints. TIER.Net – which operates offline, only requiring a computer – was developed to serve in the interim, until clinics are connected.

CIDER worked closely with a software development company to design the interface and develop the necessary algorithms. "Our UCT CIDER team designs the user interface and back-end as well as writing the specifications, while the developers write the code," explains Meg Osler from CIDER, who oversaw TIER.Net's software development.

CIDER, who spearheaded the use of paper registers in collaboration with Médecins Sans Frontières and the

Western Cape Government, tested and piloted the software prior to its release. The centre also oversaw the implementation of TIER.Net and eKapa 2 in the Western Cape, and trains the master implementers for the National Department of Health.

#### Rolled out in the Western Cape and beyond

Originally the idea was that TIER.Net would only be rolled out in the Western Cape. Soon it drew the attention of the Department of Health, however, who requested that it be made available to all clinics in South Africa. Currently there are more than 4 000 public sector clinics countrywide, with TIER.Net being used in various stages of implementation in over 3 000 facilities. TIER.Net is still in the middle of the scale-up process and may not go to all facilities, due to lack of basic resources such as electricity.

Nearly all clinics in the Western Cape have been equipped with bandwidth and can therefore cross over to eKapa 2, says Osler. "All three systems – paper register, TIER.Net and eKapa – are interoperable," she explains, adding that all three can be used to produce the same reports that feed into a single provincial and national database for ARV services.

#### **Necessary for resource allocation**

Once a quarter, TIER.Net creates a dispatch containing all the relevant information for a specific clinic, which is with emailed in or hand-delivered and verified at sub-district level before being imported into the District Health Information System (DHIS) overseen by the National Department of Health. Information gathered in this way – through TIER.Net, eKapa 2 or paper register – is then used to inform policy and resource allocation.

Story by Abigail Calata. Photo by Michael Hammond.

## Tipping the scales: SA's kids too fat



South African children don't play enough; they eat too much fast food and they watch too much TV. And it shows: South Africa has slipped to a D in the 2014 Health Active Kids Report Card (HAKSA), down from a C- in 2010.

The latest HAKSA report reveals that two-thirds of adolescents eat fast food at least three times a week. They also spend an average of three hours in front of the TV during the week – and more on weekends. At best, only 50% of learners are active enough. As a result, obesity rates are up from 2010: now 23% of girls and 10% of boys aged 10 to 14 are overweight or obese; while 27% of girls and 9% of boys aged 15 to 17 are overweight or obese.

#### Parents need to 'step up'

At the launch of the report in Cape Town on 19 September, coauthor and head of UCT's <u>Division of Exercise Science and Sports</u> <u>Medicine</u>, Professor Vicki Lambert urged parents to "step up" and be part of the solution.

"Parents need to model the behaviour they wish to see in their children, be aware of what their kids are eating, support their sporting and physical activity, and set reasonable boundaries for TV viewing and screen time."

The scientific panel that contributed to the report includes academics and experts from six universities, as well as the South African Medical Research Council, the Sport Science Institute, the Heart and Stroke Foundation and Discovery Vitality.

Targeting children aged between 6 and 18, the report provides an evidence-based benchmark – from peer-reviewed published literature and advocacy tools – to promote healthy living among children and inform health policy. It follows similar report cards in 2007 and 2010.

#### **How South Africa scores**

In the latest report South African children scored a D for overall physical activity. "Children need 60 minutes of moderate-to-vigorous activity every day, however, South African children average only 20 minutes of daily activity," said Lambert. "One vehicle (we can use to change that) is through policy, targeting the school timetable."

Transportation got a C-. Many children walk to school, which is laudable, but the flipside is that 20 to 50% of the fatalities among children up to the age of 14 are pedestrian deaths. Fruit and vegetable intake also scored a C-. Good news, however, is that school vegetable gardens are on the increase. School tuck shops,

fast food intake and the intake of sugar-sweetened beverages scored an F-.

"Despite limited resources and poor food security, children buy food at the tuck shop or informal vendors, and they don't offer healthy choices."

As for diet, poverty and escalating food prices remain barriers to healthy eating, adds Lambert. Many of these factors precipitate "stunting", and the explosive combination of malnutrition and a predisposition to obesity. There is some good news, however: fewer children are going to bed hungry and physical activity at schools is growing. South Africa, said Lambert, has produced some 'cutting edge' legislation (which is currently under consideration) limiting the marketing of unhealthy foods to children.

#### How South Africa compares

The report also shows how South Africa, home to 19 million children, compares to 14 other countries across nine health indicators.

On this list, we're in joint last place in sedentary behaviour; among the bottom rungs of countries surveyed for school health and lifestyle support; and in the middle for organised sports participation, overall activity rates, and community support. In stark contrast, South Africa ranks near the top for government investment and strategies to promote healthy lifestyles in children.

"This suggests a policy implementation gap," added Lambert, "and may take some time to realise government investment in policy and programmes."We want to create a vision for what we want to see in 2016 when the next report card is due."

She advocates "whole of school" support for healthy eating and physical activity; regular weighing of children, national tuck shop guidelines, and capacity building for teachers to promote physical activity and physical education.

Children also need more support from their parents, she added. Parent activism is rising in countries such as the UK and Australia where they're taking up issues (like the sweet counters at supermarket checkout points) in social media.

But the biggest future shock noted at the launch is that, unless something is done, for the first time in many generations, children born from 2000 could have a shorter life expectancy than their parents.

Story by Helen Swingler. Image courtesy of www.aquaterra.org.

## SATVI gets site approval from USA-based clinical research organisation



The SATVI team in Worcester

Scientists at the UCT based South African Tuberculosis Vaccine Initiative (SATVI) were ecstatic with the announcement by the Division of AIDS (DAIDS) of the National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH), USA that SATVI meets it's stringent requirements for participation in international clinical trials.

On Tuesday, 19 August 2014, the DAIDS Branch Chief, Ms Donna Germuda announced that "SATVI has met all the stringent requirements of the DAIDS site approval process".

This approval by DAIDS means that SATVI, as part of the UCT Clinical Trials Unit (UCTCTU) headed by Professor Linda-Gail Bekker, will be able to participate in DAIDS-funded clinical research for the development of therapies, interventions and strategies to treat and prevent HIV–related tuberculosis co-infection.

According to Associate Professor Mark Hatherill, SATVI Director, he was very pleased with this important milestone

which SATVI has just attained. After a recent visit from DAIDS, he noted "It was very clear that our visitors from DAIDS were highly impressed with the professionalism of each and every SATVI staff member they met during the accreditation process".

The driving force behind this complex project, Dr Katrina Downing, told us that "this approval is a fantastic accolade for the SATVI team who worked on the seven month long application process and who, despite the enormity of the application process, remained focused, enthusiastic and dedicated. SATVI will now be able to expand into HIV-related clinical trials. According to her, the next exciting step, will be the site activation by the AIDS Clinical Trials Group (ACTG), a clinical trial network of DAIDS.

Mrs Marwou de Kock, Field Site Manager, said she was excited about the reward which has come at the end of this long process to get accredited. "I'm so proud to be working with such a wonderful group of people!"

Story and Image by SATVI Communications & Marketing

## Ebola Update

For the latest information on Ebola please click here for the Faculty site.

Dr Kathryn Stinson, an Epidemiologist and Senior Research Officer with CIDER in the Faculty is currently volunteering for MSF in Sierra Leone. She writes on her experiences – her first post since arriving in Sierra Leone was recently republished by the Daily Maverick and can be read online by clicking here. The piece was originally published on Groundup.

## Rural Support Network holds successful fundraising dinner

On the 29 August 2014, the Rural Support Network (RSN), in collaboration with Gold Restaurant, hosted a Fundraising Dinner for over 150 Health Sciences staff and students in aid of RSN's annual Rural Placements.

Rural Placements is a two-week long trip to rural hospitals across South Africa during which Faculty students live in the communities and work in the hospitals.

"Students grow in knowledge and skill and see first-hand the great need for health professionals in our rural areas." Important parts of Rural Placements include health promotion on pertinent issues faced by the community, as well as the recruitment of rural high school students. These students are encouraged to consider tertiary education at the University of Cape Town, specifically at the Faculty of Health Sciences. Pupils are also informed of new

endeavours that will be undertaken by Rural Placements, such as research into the health-seeking behaviours of members of the rural communities, which will influence how future students embarking on Rural Placements will structure their health promotion initiatives.

The recent Gold Restaurant fundraising dinner allowed RSN to journey through Africa, experiencing the traditional dishes, music, dancing and dress of various cultures. RSN would like to extend a massive "Thank You" to all the organisers, to Gold Restaurant and to everybody who supported it, either by joining them, or through their donations, kind words and ongoing support. RSN was overwhelmed by all the support, whether on the night or in the planning and build-up to the event.

RSN is now able to send over 40 students on Rural Placements, and support and give back to the communities.

Story by Rob Cloete, Images by Elise De Kock



## Transforming Healthcare Through Entrepreneurship



Dr Francois Bonnici, Prof Peter Zilla and panelists in discussion

On the 16th September, Inclusive Healthcare Innovation, together with PriceWaterhouse Coopers, hosted a panel discussion on Transforming Healthcare Through Entrepreneurship. The event was hosted ahead of PwC's Vision to Reality Awards, and ran in conjunction with the 7th Annual SA Innovation Summit at the Cape Town Stadium, Cape Town. Inclusive Healthcare Innovation is also becoming the newest partner in the Centre for Health Market Innovation Network, identifying and studying innovative market-based solutions in health care delivery. This most recent seminar consisted of three parts, with panelists sharing their thoughts on the opportunities for entrepreneurship, the nuts and bolts of being an entrepreneur, and how organisations can scale for impact.

The event was attended by 200 people from various backgrounds, including healthcare workers, entrepreneurs, designers and students. Clearly there is no shortage of fresh ideas and people passionate about healthcare. Although the healthcare need in the developing world is very different to that in the developed one, the innovation process does not need to be any different. Emerging market contexts provide rich opportunities to the pioneering entrepreneurs, and new market-based solutions targeted to those at the bottom of the pyramid can enable more Africans to receive access to high quality, affordable healthcare. And yet, why have we not tapped into this?

Sheraan Amod, founder of <u>SpringLab</u> and a new health startup, RecoMed, admits that doctors are incredibly tough to sell to. Not only is time a limiting factor, but the pitch has to be tight, and one has to be able to show that the impact of the healthcare innovation can be measured. When it comes to impact in healthcare, Etienne Dreyer believes that although data is

important, we need to be able to interpret our data in order to improve care.

What sort of innovations does healthcare in Africa need? Dr Peter Raubenheimer, Head of General Medicine at Groote Schuur Hospital suggests that the public healthcare sector is in need of organisational innovation, rather than simply devices, products or procedures. Referring to the first heart transplant, he notes that what was innovative then is routine now. Acknowledging that healthcare is a complicated space, cheap and local solutions may be the most meaningful.

How do we begin to make healthcare more inclusive? According to Fazlyn Petersen, a Type 1 Diabetic, the real solutions lie out in the communities. She calls on healthcare workers and innovators to listen to the patients when developing ideas. The human-centered design model is not only relevant, but is becoming more frequently used in addressing healthcare challenges. When it comes to entrepreneurs who are not healthcare workers, and do not really understand how healthcare works, Dr William Mapham from Vula Mobile suggests that you need to get medical advisors and investors deeply involved in the company as soon as possible.

Story by Farah Jawitz, Image by Eldi van Loggerenberg

## Learners investigate Forensic Science at annual Open Day

On 8 August 2014, the Division of Forensic Medicine hosted its 2<sup>nd</sup> annual Open Day for Grade 11 learners in the Pathology Learning Centre.

Interest was overwhelming and the Division hosted 72 learners in total. "This is a strong indication of learners hoping to follow a career, in some way, in Forensic Medicine/Science," noted Prof Lorna Martin, head of the Division. Although the Open Day was intended for schools in the Western Cape, there was a learner who flew in from East London; there was even a query from a Johannesburg pupil that wanted to attend.

Professor Lorna Martin opened the programme with a warm welcome, followed by a few short presentations on the focus areas of the Division. The learners were arranged into 5 groups of about 15, who rotated, to experience hands-on activities related to Forensic Science.

Students of the M Phil Biomedical Forensic Science course handled the Crime Scene, Anthropology, and Shoe/Finger-printing stations. There were further activities on Toxicology, as well as Ballistics from the SAPS Forensic Laboratory.

The whole group was shown a heart and brain in the PLC mortuary.

A draw for the book, 'Bloody Lies' by Thomas and Calvin Mollet, was held after lunch. The winner was Retha Engelbrechts from Stellenbosch High School. A spontaneous draw also took place at the end of the day; the prize was a cap from the Office of the Chief Medical Examiner, State of Maryland, USA. The learners were also awarded certificates for attending the event.

"This is a strong indication of learners hoping to follow a career, in some way, in Forensic Medicine/Science"

"Due to the interest in this field of work the Division urges institutes, that employ graduates in the different fields of Forensics, to open their doors and create more positions for these keen and eager pathologists and

scientists of the future, here in South Africa," said Prof Martin.

"The Division would like to acknowledge and thank the companies that sponsored the Open Day and the UCT Faculty of Health Sciences for providing the venues to hold the event, as well as Dean Prof Wim de Villiers for visiting the event," said Michelle Perrins, event co-ordinator.

Story by Michelle Perrins

### Divisions of Human Genetics, Medical Biochemistry and Cell Biology host Grade 11 learners

The sixth annual Learners' Open Day was held at the Faculty of Health Sciences on the 1st of September 2014. The Departments of Human Genetics, Medical Biochemistry and Cell Biology welcomed 24 schools and about 150 Grade 11 students and their teachers with science "swag bags" (sponsored by Lasec) and breakfast.

The day kicked off with an official welcome from Professor Raj Ramesar and then launched into fascinating lectures given by Shareefa Dalvie, Prof Peter Meissner and A/Prof Wonkam. The schools were then split into groups and put through their paces in 4 workshops - Solving a murder in Forensics, Looking at Haemophilia in the Royal Family, Running a Mock Experiment to Diagnose Osteogenesis

Imperfecta and Exploring Stem Cells, Cancer and Sports Science. The day culminated in a lecture on Personalised Medicine from A/Prof Collet Dandara and a talk on admission to UCT and planning for the future by Mr Tsotsobe.

The day ended on a high note with Parel Vallei-High being awarded tickets to the Two Oceans Aquarium, kindly sponsored by Inqaba Biotec. The major sponsor for the day was the South African Department of Science and Technology.

Story by Horacia Naidoo

## Faculty Open Days in pictures



Images by Charl Linde and Melvin Lawrence

## Welcome, new HSSC



The HSSC for 2014-2015 is: Chairperson: Zinhle Radebe, Deputy Chairperson: Jarryd Lunn, Secretary General: Anthea Tomson, Treasurer: Tayla Karsten, Academics Health & Rehab: Lindiwe Ncube, Academics MBChB: Nathasha Magola, Marketing & Fundraising: Feni Pule, Community Outreach: Olo Toni, Sports & Entertainment: Robin Williams, IT & Media: Philip Dambisya, Transformation: Khutso Tau, Student Wellness & Health Officer: Justin Govender

### Farewell, old HSSC



The outgoing HSSC (2013-2014) delivered their annual report for the year to staff and students on 23 September at their Annual General Meeting. Each chair spoke on his or her initiatives of the past year;

Student awards were presented and the outgoing HSSC welcomed the incoming HSSC members.

Dean de Villiers spoke on student leadership.