



Faculty News

Second Quarter 2014



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Dean's corner



Welcome to our second Newsletter for 2014. The notoriously cold, windy and wet weather typical of Cape Town winters has not stopped the wheels turning at the Faculty. Many of you have returned from much-deserved breaks, hopefully well rested, but I hope the 'holiday glow' has not disappeared too quickly as we knuckle-down for the 2nd half of the year.

We continue to see a deluge of clinical, research and educational achievements and initiatives celebrated in the Faculty. These include a **heart valve** designed here that has the potential to save many lives in Africa - cheaply and less invasively than open heart surgery; the establishment of a student-run Inclusive Healthcare Innovation programme; and the student-led UCT Surgical Society hosting a very successful inaugural International Association of Student Surgical Societies Symposium. Some outstanding national, African and global achievements – events, college exams, research outputs, appointments and competitive awards - once again make me extremely proud of our colleagues and students, who share recognition among top peers in their fields. We cover a range of these in the pages that follow.

As we proceed with our commitment to developing a strategy for the Faculty to position us as among the top in the world, it is always reassuring to receive kudos from external internationally renowned experts. A recent visit by an eminent academic surgeon highlighted the excellent teaching, training and clinical standards in the Department of Surgery.

We also focus on the work of one of our Deputy Deans, Dr Reno Morar, to give you an idea of the strategic work taking place at Faculty leadership level. We will in future be spotlighting a range of people who are playing key strategic and support roles in the Faculty. If you wish to alert us to a story like this, send us an email with a brief motivation for consideration.

I have just completed my first year as the Dean and am pleased that our Faculty Strategy is taking shape. Currently it is being discussed with a range of stakeholders, and will ultimately be presented to Faculty Board. In addition, we print a summary of my 2025 vision, if you missed this presentation.

In August the country celebrates the indomitable spirit of the women of our country. So too we should acknowledge the spirit of the women in our Faculty, many of whom are making a significant contribution in what was a traditionally male-dominated environment, and many of whom manage to juggle parenthood successfully. We have among us some of the top women scientists in the country, two of whom are among the three A-rated women academics in the country. Only recently, Prof Nicola Mulder was rated as one of the most cited scientists in the world, and the only one from Africa. Let's not forget too, our women colleagues who form the backbone of our support teams - in administration, teaching, clinical and laboratory settings.

Enjoy the read.

Wim de Villiers

Harvard Professor of Medicine visits Faculty of Health Sciences as Dean's Distinguished Visiting Professor



Prof Ramnik Xavier, the Chief of Gastroenterology and Hepatology at Massachusetts General Hospital and Kurt Issebacher Professor of Medicine at Harvard Medical School, recently visited the Faculty as the **Dean's Distinguished Visiting Professor**. Prof Ramnik is a clinician-scientist and a world leader in studying the gut microbiome, genetics and the pathophysiology of Crohn's disease and ulcerative colitis, chronic inflammatory diseases of the gastrointestinal tract - collectively known as inflammatory bowel diseases (IBD). Among complex diseases, genetics has been particularly successful in the identification of genes/genetic loci associated with risk of IBD. There is a significant relationship between intracellular responses to microbes and the regulation of adaptive immunity. A major challenge in the study of complex genetic traits is to determine how disease genes and their corresponding alleles exert their influence on the biology of health and disease. Dr Ramnik's research focuses on this fundamental area.

Prof Xavier delivered a seminar on "Genetics, Microbes and Inflammatory Bowel Disease: From the Bench to the Bedside" at Internal Medicine Grand Rounds and on "Gutbugs in Health and Disease" at the Institute of Infectious Disease and Molecular Medicine. He also met with a number of department and division heads, faculty and students during his time here to explore future collaborative links.

Dean Prof Wim De Villiers, Prof Ramnik Xavier and Prof Valerie Mizrahi

Faculty marks Women's Month

The Faculty Transformation Committee recently hosted a screening of Girl Rising with the Regional Girl Rising Ambassador Fatima Hendricks to mark Women's Month.

Before introducing the clip, Fatima did various exercises with attendees to raise awareness of everyday situations where the demeaning of women has become almost commonplace, poignantly asking: "When did it become a bad thing to fight like a girl?"

The clip shown told the story of a girl named Suma from Nepal who was forced into bonded labour aged 6. Suma showed the houses where she worked at and explained her living conditions in each house. She was eventually freed after social workers in her area had persistently told her 'masters' that what they were doing was illegal.

Dr Kelley Moul, a Senior Researcher from the Gender, Health and Justice Research Unit, spoke after the screening, describing the important work the unit is doing to promote women's rights in schools; it has developed various aids utilised by teachers to discuss important issues in the often conservative classroom environment.

Following the presentations, Associate Prof Roshan Galvaan opened the floor for debate and discussion.



AN UPHILL QUEST TO EDUCATE AND EMPOWER GIRLS

IOXIO PRESENTS

GIRLRISING



Faculty celebrates Africa Month

May is Africa Month at UCT. What does this mean, and why do we celebrate? Deputy Vice-Chancellor Professor Thandabantu Nhlapo - who's responsible for UCT's African and international connections - shared his vision for the celebrations, and highlights for 2014.

"The celebration of Africa Month at UCT is important because it influences perceptions of the continent among members of our community," says Deputy Vice-Chancellor Professor Thandabantu Nhlapo. "We see our place in Africa as a place in a vibrant, dynamic and progressive continent with a wealth of future prospects. Africa Month is our antidote against Afro-pessimism."

The university-wide Africa Month Steering Committee coordinated a wide range of activities across UCT during May. For the first time, in addition to popular sporting events such as the mini-Africa Cup for soccer, indigenous games were featured (stick-fighting and morabaraba) and popular township games in which everyone was able to participate. There were no fewer than three concerts. The tradition of scholarly engagements in the form of lectures, seminars, workshops, roundtables and debates also continued.

Highlights included the 20 Years of Freedom celebration concert on Upper Campus and the Africa Day Alumni concert at the Baxter Theatre. The Faculty of Health Sciences held its own events to mark Africa Month. This included an Africa Month theme pub quiz, as well as a traditional African drumming event where students and staff, including the Dean, joined in to learn some authentic African beats.

The Institute of Infectious Disease & Molecular Medicine also organised a discussion on what it means to be African-based and at UCT. Senior PhD students discussed their transition to UCT, as well as how they think they can improve Africa with the skills they acquired in the faculty. The discussion was facilitated by Dr Hlumani Ndlovu, co-author of *Dikakapa Everyday Heroes - African Journeys to Success*, a recently published book for a project by post-doc students to inspire youth to study the sciences at university.



Top to bottom: IDM Africa Month lunch-time discussion, Africa Month "Come beat your drum" event, HSSC Africa Month theme pub quiz and Africa Month Candlelight Memorial event on Upper Campus

UCT-designed heart valve gives hope to Africa

Inexpensive heart valves and uniquely simple ways of putting them into patients, designed by a University of Cape Town (UCT) start-up company, have the potential to save the lives of millions of children with rheumatic heart disease (RHD) in sub-Saharan Africa and elsewhere in the developing world.

Still under development, the plastic heart valves will cost a fraction of traditionally used, tissue-based valves and are designed specifically to address the needs of the approximately 75 million sufferers of childhood RHD worldwide. It is believed the valves could be ready for clinical use within the next three years. **Strait Access Technologies** (SAT), a UCT-based innovation company, is offering hope to those in the developing world who are living with RHD. SAT's patented heart valve technologies cost significantly less to produce than imported traditional valves, and would be affordable by even the most resource-strapped hospitals both here and elsewhere in Africa, says SAT chief executive Professor Peter Zilla, who is also head of cardiothoracic surgery at UCT.

"It is SAT's mission to provide cost-effective cardiac devices and their deployment systems to address the needs of predominantly young patients in developing countries. Since access to cardiac surgery is limited in these countries, it is crucial that our treatments for heart valve diseases are not reliant on the specialised infrastructure needed to perform open-heart surgery, and the valve eliminates the need for continuous anti-coagulation medication," Zilla explains.

UCT and its teaching hospital, Groote Schuur, gained international recognition as the site of the world's first heart transplant performed by a team led by Christiaan Barnard. Five decades on, his successors – including Zilla – in UCT's **Chris Barnard Division of Cardiothoracic Surgery**, have extended Barnard's legacy into the area of heart valve research. It is estimated that 24 in every 1 000 South Africans live with RHD. Caused by untreated streptococcal throat infection, RHD primarily affects children over five years. Without prompt treatment it can permanently damage heart valves and a high percentage of sufferers in the developing world die.

A lack of resources in state heart centres in the Western Cape, for example, sees only 350 out of approximately 1 600 RHD patients a year receive life-saving surgery. Zilla maintains that in order to address the current problem, surgeons would need to perform four times the number of rheumatic heart disease operations annually. Zilla says that SAT enjoys a huge advantage as the company operates at the interface between academia and product development, which has benefits for not only the production of the heart valves, but in the creation of innovative, less invasive, delivery techniques.

UCT-based surgeons are using cutting-edge technology to devise a device which could see heart valves implanted without open-heart surgery and can help meet the demand for implants by simplifying its deployment. Zilla believes that ultimately the procedure will be so simple and safe that any medium-sized hospital in Africa would be able to implant the SAT valve.

Researchers at UCT's Chris Barnard Division of Cardiothoracic Surgery who are conducting tests with the devices are hopeful that they could be used to insert the heart valves in humans as early as 2017.

Established in 2009 with funding from South Africa's Technology Innovation Agency (R12 million) and a local investment company Bidvest (R18 million), SAT has developed its valves over the past five years and has successfully implanted valves in large animals. A further Bidvest capital investment of R32 million has enabled SAT to significantly upgrade its facilities and obtain capital equipment that will allow much faster turn-over in R&D developments.

"As a result, SAT has not only a significant number of patents in all of its core areas, but is also ahead of schedule in its product developments," says Zilla.

Text by Chris Mitchell. Photos by Hetty Zantman and Michael Hammond.



The heart valve designed by SAT



The main presentation focused on why homegrown solutions are needed for Africa



Dean Prof Wim De Villiers



Technology Innovation Agency Group Executive Dr Sibongile Gumbi

Dean Prof Wim de Villiers shares his long-term vision for Faculty

"If you cannot measure it, you cannot analyse it," a by now familiar phrase from new Dean Professor Wim De Villiers. The occasion was his presentation to staff on his *State of the Faculty of Health Sciences Report and Vision 2025*, underlining his hands-on approach to developing the Faculty and guiding it to meet its developmental objectives through tangible deliverables.

Reviewing the key strategic areas impacting on the Faculty in 2014, the Dean reported on the 2013 undergraduate graduation statistics and course pass rate and throughput. He proudly pointed out that the MBChB programme typically had the highest overall undergraduate pass rate at UCT; the average pass rate for courses over the period 2010-2012 was 96%, with the lowest pass rate being in the first year (93.16%) and the highest in the sixth (final) year (99.39%). The throughput rate was also relatively high: 79% of MBChB students who had entered in the 2007 cohort had graduated by 2013. National demands to increase our student numbers dramatically over the next few years would have a major impact on infrastructure, including the need to expand our teaching platform beyond our current one.

Identifying a gap in the teaching system, the Dean proposed the need for the creation of a **Department of Health Sciences Education** for the Faculty to oversee undergraduate teaching (curriculum, pedagogy, assessment); postgraduate training; a clinical skills programme; the various undergraduate intervention programmes; admissions policy and selection; continuing education and continuing professional development; and possibly medical ethics.

Research remained a key driver of the Faculty's growing status as the top African health sciences institution. Turning to contracts and grants funding, Prof de Villiers analysed the growth of research income over the past five years. He showed that there had been a 17% increase in the Faculty's research income since 2012. This amounted to more than 55% of UCT research income, and was generated primarily by the IDM, the Department of Medicine, the Department of Paediatrics & Child Health and the Department of Public Health & Family Medicine. Income from local sources added up to 25% of all research income; income from foreign sources came to another 75%; of these, contract research income amounted to 33%.

He also spoke about initiatives to encourage and reward research in the Faculty during this time. The Young Investigator Best Publication Awards had been introduced, as had been new postgraduate publication incentives and awards. Postdoctoral fellowships had been increased, and MMed project funding had been made available to departments to support research. Clinical research supervisor workshops had been offered and undergraduate and postgraduate research days held.

This has borne fruit in our research output, through a 20% increase (comprising 40% of UCT output), with key contributors being the Departments of Medicine, Clinical Laboratory Sciences, Paediatrics & Child Health and Public Health and Family Medicine.

"The need for a comprehensive Faculty strategy to take us up to 2025 is critical for our growth and sustainability," said the Dean, adding that strategic marketing and fundraising would be key to attracting the major funding required for this. He emphasised the importance of strengthening our partnerships with key stakeholders, highlighting the significant role our alumni can play in sustaining our global reputation for health research, teaching and training. This



About student numbers in the Faculty

2009-2013

- a growth in undergraduate and postgraduates
- in 2013 postgraduate student numbers exceeded undergraduate
- the biggest spike in postgraduate numbers was for master's and doctoral graduates in 2013
- the number of postdoctorates almost doubled in the past five years

2014 (June)

Undergraduates: 1937

Postgraduates: 1829 (registrations ongoing - final figures by end of October)

Postdoctorates: 94

culture of giving back to your alma mater was very strong in North America, and the Dean indicated his commitment to engaging with alumni on this.

The Faculty strategy for 2025 also provides an opportunity for significant organisational change to respond to the changing environment," said the Dean, referring to a SWOT analysis that had been completed and stakeholder participation in the process. Further consultation would take place in the second and third quarter and it would be completed by the end of the third quarter.

"The ingredients for the Faculty's future success are curiosity, energy, courage, persistence, focus and discipline," he concluded. Sourced: Brenda Klingenberg

Health Services' Portfolio? Deputy Dean Dr Reno Morar gives us insight

What did you study, what is your academic background and what are your passions in the field of health sciences?

I am a Public Health Medicine specialist; I completed my MBChB degree at the University of Natal and then did all my postgraduate studies here at UCT. This includes an MMed in Community Health (Public Health Medicine) and a Fellow of the College of Public Health Medicine of South Africa, a Postgraduate Diploma in Health Management, Economics and Financial Planning and a Certificate in Professional Coaching Practice. I have a passion for leadership development and have been involved in health policy and systems work since 1984 as a medical student. To sum up - I love and embrace change, and I want to be part of it.

Can you explain your portfolio as Deputy Dean of Health Services?

I form part of the Senior Leadership Group of the Faculty. The main purpose of this position is to manage and provide strategic advice and support to the Dean on issues related to the relationship between the Faculty of Health Sciences and its health services partners. For the partnership with the Provincial Department of Health, this is actively working with colleagues across the health system including Central Hospitals and the District Health System.

What organisations, branches of government and hospitals do you liaise with?

I liaise, facilitate and work with national, provincial and local government departments of health to ensure that the university is at the forefront of health services and health systems development. I manage the stakeholder relationships and negotiate contracts and processes including participating in the reference group for the Western Cape Health Department's future vision called *Healthcare 2030: A Future Health Service for the Western Cape*. I am actively involved in developing this vision for the province and the Faculty and work with colleagues from other universities. Building networks and relationships with NGOs in the health sector and private health providers and organisations is an integral part of the portfolio.

Why is it important to foster strong relationships with the above departments and organisations?

UCT and the Faculty of Health Sciences strive to be socially responsive and accountable, being globally and nationally competitive and relevant. Managing the health and wellness of people in the province and nationally, and being globally competitive, means that our staff are world leaders in their fields. In making a difference, we need to work across sectors and collaborate with a range of different disciplines within and outside of the health sector. You cannot make a substantial difference without working with other colleagues and partners. We must work together for the greater good of society; this is applicable in our health services, and in both our research and teaching and learning endeavors. We do undertake relevant research to better the lives of our people; and we teach and train our students to better serve our patients and communities.



Deputy Dean Dr Reno Morar

Are there any exciting developments in the pipeline in terms of our involvement with the various stakeholders?

There are some very exciting developments currently; one of which is the innovation in health care initiative. There is a groundswell of projects in innovation – the Groote Schuur Hospital project and that in the District Health System that is driven by students, staff and patients. What makes it exciting is that you have different people with different skills coming with different perspectives focusing on how we can improve the patient and staff experience. The recent iHi summit, the hackathon, the innovation hub at GSH and the innovation leadership in the district health system are examples of this. These projects are about real transformation (i.e. working with new approaches to tackle existing problems and issues). The Faculty is also exploring public-private initiatives in terms of research, and teaching and learning. We can work together with the private health care system to deliver better health care for all patients, both public and private; and this is good for all patients and communities. We are also working with the Provincial Department of Health to realise its vision for 2030 - including improving the community-based care and health and rehabilitation care.

Dr Morar was appointed as Health Services Advisor to the Dean in January 2008 and currently serves as Deputy Dean: Health Services.

Story by: Charl Linde

UCT impresses eminent academic surgeon

Eminent academic surgeon Professor Ian G Finlay, the Penman Visiting Fellow for 2014, recently shared his report on his time spent visiting the UCT Faculty of Health Sciences and partner hospitals such as Groote Schuur Hospital. Professor Finlay, the first specialist colorectal surgeon to be appointed in Scotland, founded the internationally recognised, Department of Coloproctology, at Glasgow Royal Infirmary. He has been responsible for the specialist training of many colorectal surgeons currently practicing around the world.

Prof Finlay started his visit to Groote Schuur Hospital by joining the morning rounds in the Trauma Ward led by Professor Andy Nichol. Describing the experience, he notes that trauma surgeons in Cape Town can gain in six months the experience in managing trauma that would take a lifetime for a surgeon in the UK. "The Unit is a world leader in producing clinical guidance for the management of trauma," says Penman. He found it particularly interesting that locally it is the anaesthetists and not the surgeons who determine the priority of patients for the emergency theatre. He says that this as a model which should be considered in the UK.

Professor Finlay also had a great interest in the medical training students received at UCT, with dedicated sections to both undergraduate medical training, as well as postgraduate training. He also had the opportunity to teach a bit while here. "It was a great delight to have the opportunity to provide bedside and tutorial teaching for a group of fifth year medical students who were both talented and enthusiastic. Their structured clinical teaching delivered by equally enthusiastic medical staff, unconstrained by job plans and working hour directives, also impressed me", says Finlay. He then goes on to describe the teaching system as being "a world away" from the problem based learning programmes, that in his view, blights clinical teaching in some UK schools.

The University of Cape Town and the Faculty's admissions policy aimed at widening access to medical training was a good case study for Prof Finlay, who wrote: "The overall view was that wider access had been achieved successfully but had required several initiatives. The most important was to develop remedial classes for students who had been less well prepared for medical school prior to entry. Indeed, it proved necessary to continue these classes for several years into the undergraduate course." He says he will keep this in mind when planning medical school numbers in Scotland over the next few years.

Describing formal post-graduate training in South Africa, he says: "My initial impression was that those in the first year in Cape Town probably had less factual knowledge than post-graduate trainees entering surgery in the UK. By the end of fourth year however it was clearly evident that the Cape Town trainees had a knowledge base and an understanding of surgical decision making that was substantially ahead of our trainees after even 5 or 6 years." He concluded that it was due to the Department of Surgery's "enviable focus on clinical teaching for all levels of staff." Prof Finlay found that the clinical care of patients was analysed every week through a series of teaching ward rounds, multi-disciplinary team meetings, pathology reviews and radiology meetings which included the presentation of literature reviews.

Prof Finlay thanked Head of Department Professor Del Kahn at the end of his report explaining that it had not been an omission, but was done to emphasise that the success of the unit was largely attributable to his leadership. He writes, "Del has a gentle but quietly positive personality. He is very approachable."

The family of the late Frank Penman funds the Penman Fellowship; the purpose of the Fund is to permit trainee surgeons from South Africa to visit the UK for additional training and for UK surgeons to visit Cape Town in order to advance the practice of surgery by co-operation between the two countries.



"My overall impression of the Department of Surgery is that of a dynamic surgical unit supported by enthusiastic hard working staff. The key to this success appeared to be the very high morale that I observed in all the staff. The emphasis of the Department was properly on clinical care and both undergraduate and postgraduate teaching. All three were delivered to the highest standards. Although I had not considered this fact before, it was apparent that each modality supports the others creating a virtuous circle of quality. This was especially true of the high quality post-graduate teaching that was unequivocally contributing to the high quality of patient care".

Two professors honoured at NSTF-BHP Billiton Awards

Top SA awards celebrate 'a lifetime of achievement and the new vanguard of our next generation of researchers'



BHP Billiton SA Chairman Dr Xolani Mkhwanazi (left) with Prof Eric Bateman, who received the award for an outstanding contribution to science, engineering and technology (SET) over a lifetime, and Minister of Science and Technology Ms Naledi Pandor

Emeritus Professor Eric Bateman and Professor Keertan Dheda from the Faculty of Health Sciences have been honoured at the 16th Annual National Science and Technology Forum **Annual National Science and Technology Forum (NSTF)-BHP Billiton Awards** for their contributions to the fields of science, technology and innovation in South Africa.

The winners were announced at a gala dinner on 3 July 2014, while eight other UCT academics were among the 56 finalists for the prestigious awards.

Emeritus Professor Eric Bateman, Director and Founder of the **UCT Lung Institute, Department of Medicine**, received the accolade for an individual who has made an excellent contribution to science, engineering and technology over a lifetime. He has been a leader on asthma research worldwide, as well as in improving methods of delivering primary care in low-middle-income countries. He has contributed to the understanding and treatment of asthma and related diseases in South Africa and globally. He has also been playing a significant role in developing methods for assisting and empowering health workers, predominantly nurses, in primary care facilities to deliver quality care for common chronic and infectious diseases.

Professor Keertan Dheda, Head of the **Division of Pulmonology, Department of Medicine**, was recognised for his exceptional support of the fields of science, engineering and technology through research and its outputs over the last five to ten years. Known for his seminal contributions to understanding the pathogenesis, diagnosis, management and control of drug-resistant TB in South Africa, Professor Dheda, is also a recipient of other awards. He was internationally and nationally recognised through the 2010 International Union Against Tuberculosis and Lung Disease Scientific Award, and the South African MRC Gold Award in 2013. He recently led a team that published their findings in *The Lancet*, showing that placing new rapid TB diagnostic technology (Gene Xpert) in a clinic was feasible when testing is performed by a nurse. This approach has led to rapid diagnosis of drug-resistant TB, with more patients being placed on treatment

Professor Danie Visser, Deputy Vice-Chancellor for Research at UCT, says these awards underscore that UCT's research is in good shape.

"On the one hand, Professor Bateman's award celebrates a scientist that has spent a lifetime promoting lung health and who is still at it at 66 as an A-rated scientist and Director of the UCT Lung Institute. On the other hand, Professor Dheda's award recognises the vanguard of the next generation, by acknowledging his influential work in understanding the transmission and control of TB."



Prof Keertan Dheda seen here being congratulated by the Chair of the Oppenheimer Memorial Trust, Nicky Oppenheimer, for being awarded the 2014 Oppenheimer Fellowship Award (see Kudos section)

Story by: *Kemantha Govender*

Major international award for extraordinary scientific and humanitarian efforts

Professor of Child & Adolescent Psychiatry dedicates award to mentor



Dr Vicky Whittemore, Programme Director for the US National Institute of Neurological Disorders and Stroke (NINDS) presented the Manuel R Gomez Award to Prof Petrus de Vries at the World TSC Conference in Washington DC. Dr Whittemore was the first-ever recipient of the award.

Prof Petrus de Vries, Sue Struengmann Professor of Child & Adolescent Psychiatry in the Division of Child & Adolescent **Psychiatry** at the University of Cape Town, has received a major international award for his work on a genetic disorder associated with autism and ADHD.

Prof de Vries received the Manuel R Gomez Award for his work on the disorder Tuberous Sclerosis Complex (TSC) at the World TSC Conference in Washington DC, USA, in July 2014. The award, in memory of Manuel R Gomez, who pioneered systematic TSC research in the 20th Century, is given annually "for extraordinary scientific and humanitarian efforts to find a cure for TSC while improving the lives of those affected".

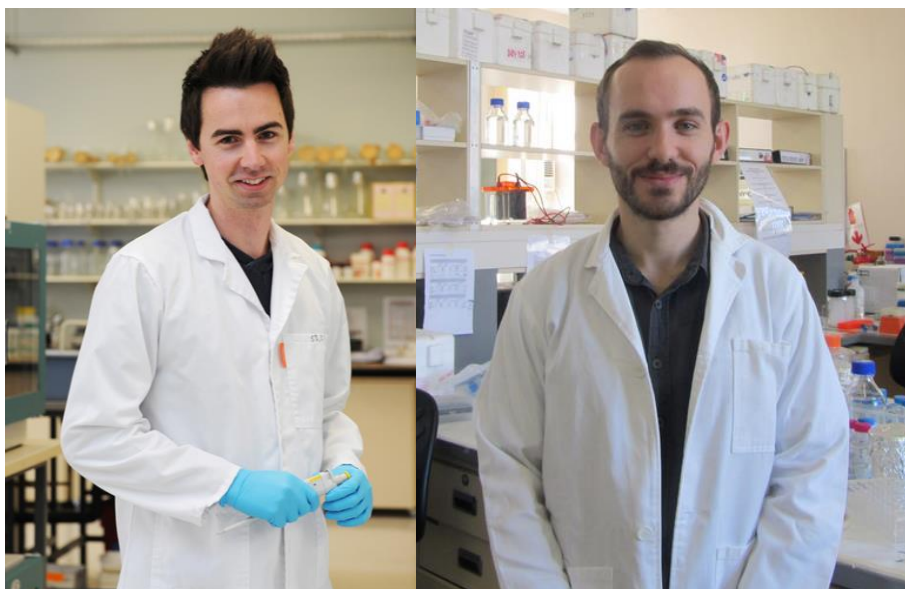
Tuberous Sclerosis Complex is a rare, multi-system genetic disorder that causes benign tumours in various organs, including the brain. The disorder is associated with very high rates of autism, ADHD, intellectual disability and other neurodevelopmental and psychiatric disorders.

Prof de Vries has been involved in research into TSC and its treatment, and helping those affected by TSC, since 1997.

"This was a wonderful surprise!" said Prof de Vries. "It was made particularly poignant by the fact that in the same week I received the award one of my great mentors, Ann Hunt - who started systematic research in the neuropsychiatric aspects of TSC in the 1980s and was herself a previous recipient - passed away." Prof de Vries dedicated his award to the memory and inspiration of Ann Hunt.

Media release issued by the Department of Psychiatry & Mental Health. Image by Jaye Isham, Tuberous Sclerosis Alliance.

Two Faculty members make the Mail and Guardian's 200 Young South Africans 2014 list



Dr Grant Theron, a Senior Research Officer in the Department of Medicine, and Daniel Sheward, a Scientific Officer and Doctoral student in the Faculty, were recently included in the Mail and Guardian 200 Young South Africans 2014 supplement.

The newspaper lists the future leaders in various fields; Dr Theron and Daniel were listed in the Health section. For the full articles please click [here](#) and scroll to the Health tab.

Daniel Sheward (left) and Dr Grant Theron (right).

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

Professor Steve Reid first South African to deliver SAAHE Conference keynote address

Professor Steve Reid was invited to deliver the first keynote address by a South African at the 7th annual SAAHE Conference held in Cape Town recently. His address was titled "Health Professionals Education for the NHI" and was well received by delegates. His keynote address can be downloaded [here](#).

Professor Keertan Dheda awarded prestigious Oppenheimer Fellowship

Prof Keertan Dheda is the 2014 recipient of the Oppenheimer Fellowship, the Oppenheimer Trust's premier award with a monetary value of R1,5 million. For the full article and press release from The Oppenheimer Memorial Trust please click [here](#).

Emeritus Professor Patrick Commerford appointed Editor-in-Chief of the Cardiovascular Journal of Africa

Emeritus Professor Patrick Commerford has been appointed as the new Editor-in-Chief of the Cardiovascular Journal of Africa – the prestigious mouth piece of the Pan-African Society of Cardiology. Prof Commerford will be responsible for overseeing the processing of articles through the editorial system, sourcing original articles where necessary, writing editorials, and maintaining the high standard of the journal. To read the CJA announcement, please click [here](#).

Dr Thandiwe Dlamini becomes first Nephrologist to practice in Swaziland

Dr Thandiwe Dlamini recently passed her sub-specialist examinations in nephrology and will be returning to Swaziland in July to practice there. By doing so, she will become the first kidney specialist to practice in Swaziland. Thandiwe trained through the supernumerary programme; this illustrates the role that UCT is playing in training high-level human resources for health in Africa. In a note to Dr Bongani Mayosi, Dr Dlamini wrote: "It has been a privilege to train at Groote Schuur Hospital and to draw inspiration from colleagues and seniors such as yourself."

World first for Professor Heather Zar

Paediatric pulmonologist Prof Heather Zar has been awarded the 2014 World Lung Health Award in recognition of work that has "the potential to eliminate gender, racial, ethnic, or economic health disparities worldwide". To read the full story, please click [here](#).

Dr Nasief Van Der Schyff recognised by LeadSA

The Head of Department of Medicine at Victoria Hospital Dr Nasief van der Schyff was recently recognised by LeadSA for the great work he does in his community. He was nominated by Fatima Hoosen, who described him as a "selfless leader who has given so much to our community". For the LeadSA article in full, please click [here](#).

Associate Professor Emeritus Johan Naude honoured with important award

Associate Professor Emeritus Johan Naude from UCT's Division of Urology has been awarded the Albert Schweitzer International Teaching Award from the Societe Internationale d'Urologie. Associate Prof Naude was head of the Division of Urology from 1993 until 2002, and since then, Associate Professor Emeritus in that department. The award ceremony will be held in Glasgow, in October this year.

Freda Walters wins best young researcher prize at Oxford Fluency Conference

Freda Walters recently won the prize for the best young researcher at the Oxford Fluency Conference. The Oxford Fluency Conference was dedicated to evidence-based practice in 2014. Freda's Masters study: "Changes in peers' attitudes towards children who stutter after the administration of the Classroom Communication Resources", is part of a larger classroom-based feasibility study on interventions for teasing and bullying for Children Who Stutter. Freda was awarded the Travers Reid Prize for being the Best Young Researcher in an international competition.

Professor Leslie London elected to lead College of Public of Health Medicine

Prof Leslie London was recently elected President of the College of Public Health Medicine in the Colleges of Medicine of South Africa. Prof London will commence his three-year term as of October 2014.

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Driving research for human health in Africa

IDM to celebrate ten years of infectious disease research with symposium

SAVE THE DATE

Opening ceremony 2 November 2014

In celebration of its 10th year, the Institute of Infectious Disease and Molecular Medicine (IDM) will host a symposium 'Driving Research for Human Health in Africa' from 2 to 4 November 2014. Established in 2004 as a trans-faculty postgraduate research institute based within the University and located within the Faculty of Health Sciences, the IDM opened its doors with the completion of the award-winning steel and glass structure joining the two Wernher and Beit Buildings. In line with its vision to be an international centre of excellence where world-class scientists work together to tackle diseases of major importance in Africa, the IDM has grown rapidly into a global leader in infectious disease research, in particular tuberculosis, HIV/AIDS and HIV-associated TB.

The Institute covers research from the basic sciences to clinical and public health, with the aim of translating its findings into policy and practice. In its short ten years, the IDM has gone a long way in achieving its mission - to conduct research that is leading-edge and relevant to the needs of African people; to develop indigenous scientific capacity in biomedical, clinical and public health research; to influence health policy and practice by translating scientific discoveries and applying them in our communities; and to build partnerships with other Institutes and Centres in South Africa and elsewhere.

The IDM has much to celebrate - among its Members are accomplished academics and international leaders in their respective fields, across more than 20 research groupings of varying size, scope and type. Four of its Members are coveted A-rated scientists - in South Africa, the highest rating in the country awarded by National Research Foundation (NRF) - including its current Director, Professor Valerie Mizrahi. Among its laboratory and clinical trial facilities are some of the most cutting-edge technologies in Africa. The IDM now raises approximately ZAR 250 million in research income each year from mostly international funders, equating to half of the Faculty's and a fifth of UCT's research income.

"The IDM also serves as a major training hub for postgraduate students and postdoctoral fellows, and we are committed to encouraging international students to return to their home countries to continue their work," says Mizrahi, who is the second Director of the Institute. "In 2013," she adds, "the number of students housed in the IDM complex totalled 200 including 110 PhD students; with 68 postdoctoral fellows (constituting more than half of those registered in the Faculty; 50% were South African and the remainder mostly from other African countries."

Members contribute significantly to UCT's journal productivity, with 300 papers in 2013 in mostly international peer-reviewed journals. Through the Member groups, the IDM has established a vast network of partnerships and collaborations with researchers and research institutions across the world including colleagues at 36 institutions in 21 other African countries.

Story by: Heather Davies-Coleman

"Driving Research for Human Health in Africa"

IDM
INSTITUTE OF INFECTIOUS DISEASE
AND MOLECULAR MEDICINE

**IDM TEN - YEAR ANNIVERSARY
SYMPOSIUM**
SUNDAY 2 - TUESDAY 4 NOVEMBER 2014

Wolfson Pavilion, Institute of Infectious Disease
& Molecular Medicine, Faculty of Health Sciences
University of Cape Town

OPENING CEREMONY

Opening session starts at 16h00, 2nd November

Opening will include keynote speaker:

- **Dr Max Price**, VC of UCT
- **Professor Glenda Gray**, MRC President
- **Professor Mark Davis** of Stanford University & the Howard Hughes Medical Institute who will present the second UCT 2014 Wolfson Memorial Lecture.

The Opening Ceremony will be followed by a cocktail party. All are welcome to attend. RSVP required for cocktail party RSVP by 28 October - glendi@aracreenov.co.za

The programme for the 10th Anniversary Symposium will look back on the major achievements of senior members of the IDM and others within the Faculty of Health Sciences in the fields of infectious disease and molecular medicine - focusing on areas of leadership, comparative advantage, and impact - and look forward through the lens of the next generation of researchers. The opening session of the Symposium is on Sunday 2nd November, and will be followed by the keynote Wolfson Memorial Lecture by Professor Mark Davis from Stanford University, USA. His ground-breaking research on the immunology of infectious diseases has particular relevance in the South African context. This lecture will be open to the public and is expected to attract significant interest.

IDM Leadership through the years

Prof Wieland Gevers (Interim Director: 2003-2004)

Prof Gregory Hussey (Director: 2005-2010)

Prof Valerie Mizrahi (Director: 2011- present)

UCT alumnus and Systems Biology pioneer Dr Alan Aderem visits the IDM

Dr Alan Aderem, UCT alumnus and President and Director of the Seattle Biomedical Research Institute (Seattle Biomed), Seattle, USA, recently spent time at the IDM.

A pioneer of systems biology, the interface between the innate and adaptive immune system, Dr Aderem presented a seminar entitled "Systems Vaccinology: Using the Tools of Systems Biology to Enable Rational Vaccine Design".

The current approach to vaccine development is essentially trial and error and has not been accompanied by a fundamental understanding of precisely how protection arises. This lack of understanding has hampered progress in the redesign of unsuccessful vaccines. Aderem argues that systems biology offers a new approach to address the complexity of the immune system and will provide the tools for rational vaccine design. Systems approaches will also speed up vaccine trials, streamline and improve the manufacture of vaccines, and aid in field-testing.

Seattle BioMed is the largest independent non-profit organisation in the USA focused solely on infectious disease research. Aderem is integrating systems approaches into Seattle BioMed's research programmes in order to accelerate vaccine and drug development. His own research focuses on diseases afflicting citizens of resource poor countries, including AIDS, malaria, tuberculosis and influenza.

Hosted by Professor Clive Gray, Head of the Division of Immunology and Member of the IDM, Dr Aderem also spent time with a number of IDM Faculty staff discussing research foci, and mentoring students & postdoctoral fellows.

Aderem obtained his PhD at the University of Cape Town and completed a postdoctoral fellowship at The Rockefeller University in New York. He co-founded the Institute for Systems Biology (ISB) in 2000 and served as its Director until 2011. The ISB was the first institute for systems biology worldwide, and Aderem has been one of the major pioneers in the field. His links to the IDM go back to when the Institute was initially formed in 2004, as a member of the IDM's first International Scientific Advisory Committee.

The SA Society for Biochemistry and Molecular Biology (SASBMB) sponsored Dr Aderem's trip as one of their biennial conferences' five international plenary speakers. This year's conference was hosted and organised by a UCT committee under the Chairmanship of Professor Pete Meissner, a Member of the IDM.

Story by Heather Davies-Coleman



The Faculty recently launched a webpage dedicated to the ongoing debate surrounding high fat diets. The page features a variety of media including videos, podcasts, academic journal articles and blogs featuring some of the leading experts in the fields of health and nutrition. To view this page and follow the debate please click [here](#).

Former SATVI Director makes global move for TB vaccines



Prof Willem Hanekom with the new Director of SATVI Prof Mark Hatherill and SATVI colleagues



Prof Hanekom and Prof Valerie Mizrahi at his farewell in the IDM

Professor Willem Hanekom, who has been with the South African Tuberculosis Vaccine Initiative (SATVI) for the past eight years, recently said his farewells to staff, friends and colleagues at the University of Cape Town, before taking up a key position at the Bill and Melinda Gates Foundation, where he will be focusing on the development of a global policy for TB vaccine development.

Willem who has been appointed Deputy Director at the Seattle based Bill Gates Foundation, was the Director of SATVI since 2011. He has vast expertise in clinical trials involving protective host responses to TB and has contributed to more than 120 research publications. Willem is past president of the Federation of African Immunological Societies, and has served on multiple international advisory committees in TB vaccine development and translational immunology.

According to Professor Mark Hatherill, Director of SATVI, who spoke at his farewell function, "Willem is respected by international scientists and the new position he assumes at the Gates Foundation provides an opportunity for him to direct and give input into TB vaccine research at a global level. Within the scientific community, everyone is aware of Willem's association with SATVI, the work that SATVI does and therefore he would play an important role as brand ambassador for SATVI within the global TB vaccine research community".

Dr Zameer Brey, SATVI Chief Operating Officer, thanked and applauded Professor Hanekom for his contribution on many levels. "Willem is an excellent teacher, mentor and role model. He has an inspirational leadership style and has a way of bringing out the best in people working with him. At an organisational level, Willem was instrumental in building a legacy for SATVI underpinned by a clear strategy, a focus on systems for long term sustainability and the recognition that people are core to any organisational success. Finally, his contribution to the TB vaccine world and the fight against TB is evidenced by his phenomenal publication record, successful grant proposals and by the multiple advisory groups he provides council to globally."

Mrs Ashley Veldsman, Regulatory Specialist at SATVI, told us that whilst it was sad to see him go, "that it was in effect an accolade and recognition of the calibre of people and research which SATVI and UCT delivers and that his departure would serve as an important North-South collaboration, not just to showcase what SATVI is capable of, but also what the African continent can offer the world".

In his address Professor Hanekom, told SATVI staff he finally decided to join the Foundation when, as researcher, faced with the challenge of a watershed in tuberculosis research at global level, he realised that there is a need for a rethink on how we work together internationally, the need for developing new scientific approaches, new ways of conducting clinical trials; and that he saw the opportunity to join the Gates Foundation to work on a global strategy towards eradicating TB through the development of vaccines. According to him it would take two to three years to develop, start and implement such a strategy.

He commended SATVI staff that there was no other group as good as SATVI in getting research done, completing the research and producing results. *Article courtesy of SATVI Communications & Marketing*

Unexpected findings in HIV meningitis treatment trial can save lives



Pictured outside the GF Jooste Hospital, the South African site of the Cryptococcal Optimal Antiretroviral Timing Trial are from left: Friedrich Thienemann, Amy Nair, Yolisa Sigila, Charlotte Schutz, Monica Magwayi and Assoc Prof Graeme Meintjes.

UCT investigators in collaboration with Ugandan and American colleagues found that HIV patients with cryptococcal meningitis – a common AIDS-related infection – should first be fully treated for the condition in hospital, and only start antiretroviral (ARV) therapy afterwards.

These surprising findings are in contrast with worldwide HIV treatment guidelines to start ARVs as soon as possible (within two weeks) in patients with advanced HIV and AIDS. Studies in patients with HIV and tuberculosis (TB) as well as in other AIDS-related opportunistic infections have shown that this strategy improves overall survival.

The large clinical trial found that waiting five to six weeks to start ARVs after cryptococcal meningitis diagnosis resulted in 15% better survival than starting ARVs one to two weeks after diagnosis.

"The implications of these findings for when to start treatment with ARVs to maximize survival in HIV+ patients are very important," says UCT investigator Associate Professor Graeme Meintjes of the Cryptococcal Optimal Antiretroviral Timing (COAT) Trial. The findings have already informed international HIV guidelines prior to their publication in the June issue of the prestigious *New England Journal of Medicine*.

Cryptococcal meningitis is a deadly fungal infection around and in the brain, and is now the most common cause of meningitis in adults in Africa. The fungus is found in the environment and infection occurs through inhalation. In Africa, the initial infection progresses to meningitis almost exclusively in people with advanced HIV infection and it is the second most common AIDS-related opportunistic infection after TB.

Approximately 350 000 cases of cryptococcal meningitis are estimated to occur worldwide every year, with around 7 000 of those reported by the National Institute of Communicable Diseases in South Africa. Frighteningly, during initial hospitalisation

for fungal meningitis, up to 50% of patients will die in Africa.

Excess inflammation around the brain

The investigators think that the rapid improvement in immunity due to early introduction of ARVs before the cryptococcal meningitis had been fully treated results in excess inflammation around the brain and accounts for the higher death rate. Although better immune function can help fight an infection, a severely damaged immune system which is rapidly rebounding with ARVs can generate too much inflammation and actually make patients more ill.

This paradoxical reaction to therapy is known as immune reconstitution inflammatory syndrome or IRIS. Paradoxical IRIS reactions are rarely fatal for most types of infections, however, when this inflammatory reaction occurs in the brain, death can occur.

The COAT study, funded by the US National Institutes of Health, was conducted at the GF Jooste Hospital in Cape Town, and in two hospitals in Uganda. The South African study site was led by Meintjes, who works in the Clinical Infectious Diseases Research Initiative within the [Institute of Infectious Disease & Molecular Medicine \(IDM\)](#). Co-researchers were from the University of Minnesota in the United States, and the Mbarara and Makerere Universities in Uganda. The clinical trial involved 177 participants, half of whom received ARVs at one to two weeks and half received deferred ARVs at five to six weeks after meningitis diagnosis. The participants were followed for one year and received standard meningitis and HIV care.

"The implication for treatment guidelines is that cryptococcal meningitis is a special situation with respect to the timing of ARVs," says Meintjes, adding that, "patients with cryptococcal meningitis, should first be fully treated for their meningitis in hospital, which usually involves 14 days of intravenous anti-fungal medications, and only start ARVs around four to six weeks after their meningitis diagnosis."

Source: UCT News

Ophthalmology joins consortium tackling blindness worldwide



UCT's Division of Ophthalmology has joined the Commonwealth Eye Health Consortium, which aims to tackle avoidable blindness worldwide.

UCT's Division of Ophthalmology recently became a partner in the worldwide fight against blindness when it was chosen as one of 11 expert institutions that make up the Commonwealth Eye Health Consortium.

The consortium aims to build capacity to tackle avoidable blindness through strengthening health systems in Commonwealth countries and providing high quality eye care to those affected, or at risk.

Worldwide there are 285 million visually impaired people, of whom 39 million are blind. Yet 80% of blindness and visual impairment is curable or treatable, explains Professor Colin Cook, head of UCT's Division of Ophthalmology.

The consortium was established thanks to a £7.1 million (R127 million) grant from the Queen Elizabeth Diamond Jubilee Trust and comprises a group of regional eye-health organisations, training and academic institutions from several Commonwealth countries. It brings together a range of complementary skills and capacity to deliver an integrated 5-year programme of fellowships, research and technology in three priority eye diseases: trachoma, diabetic retinopathy and retinopathy of prematurity. All consortium activities will be coordinated by the International Centre for Eye Health at the London School of Tropical Medicine.

"We are very grateful to The Queen Elizabeth Diamond Jubilee Trust for its support towards eye care and the elimination of

avoidable blindness in the Commonwealth," says Cook. "We are pleased to participate in this initiative that will provide scholarships for clinical fellows and masters in public health (community eye health) students from African Commonwealth countries who will study at UCT."

The programme delivered by the Division of Ophthalmology and the Consortium will support:

People: strengthening capacity to deliver eye care, through training and information sharing;

Knowledge: deepening understanding of avoidable blindness and approaches to tackling it, through research fellowships;

Tools: development and roll out of technology such as the Portable Eye Examination Kit (Peek) system which will help identify and diagnose eye problems in any setting using only a smartphone; and OpenEyes, an electronic patient record system to replace inefficient and unreliable paper systems. These have the potential to bring about a revolution in affordable eye care. For more information click [here](#).

Source: UCT News

Open access medical textbooks - sharing knowledge globally



UCT has shown its commitment to openness in education by signing the Cape Town Open Education Declaration (CTOED), one of a number of global Declarations committed to accelerating efforts to promote open resources, technology and teaching practices in education. Taking the approach of open education as a living idea, the CTOED aims to foster a movement driven by individual interest and contribution.



Prof Johan Fagan (right) pictured here with Veronica Mitchell from UCT's Health OER team.

When you visit a medical specialist, you trust that he or she is keeping up with cutting edge knowledge in the field to provide you with the best medical care possible.

However, the cost of new reference resources and the latest textbooks can be prohibitively high, **especially in developing countries where a new textbook may cost ~2 months' salary**. Fortunately for otolaryngologists (the medical specialists focusing on diseases of the ear, nose and throat – ENTs for short), two free, high quality textbooks are available online. UCT's Prof Johan Fagan, **Head of the Division of Otolaryngology** has taken the initiative to develop freely available, high quality reference resources for ENTs.

Prof Fagan is the editor of **The Open Access Atlas of Otolaryngology, Head & Neck Operative Surgery** and the **Open Access Guide to Audiology and Hearing Aids for Otolaryngologists**, both available on UCT's **OpenContent site**. These two textbooks are available at no cost under a **Creative Commons Attribution Non-Commercial License**. This open license allows anyone to copy and redistribute the material as well as adapt and build on it as long as the authors are acknowledged and the resource isn't being used for commercial purposes.

To date, across both textbooks, about 70 chapters have been written by international experts free of charge with more chapters currently being worked on. Volunteers have translated some chapters into Portuguese and Spanish. By September 2014 all current chapters will have been translated into French.

And there's clearly a demand for it. "Chapters have been downloaded 260,000 times, currently at a rate of >700 chapters per day; a chapter is downloaded every 2.2 minutes," says Prof Fagan. These hits are coming from not just South Africa but all over the globe, including countries such as the USA, UK and Sweden as well as Nigeria, Kenya and Egypt.

Prof Fagan's textbooks can make all the difference to both doctors and patients. A wonderful ongoing success story of open, accessible and online educational resources– and it is taking place here at UCT.

Visit UCT's **OpenContent site** to view more openly-licensed resources in the **Health Sciences**.

Article by the **Education Development Unit**

Professor Nicola Mulder acknowledged as highly cited researcher

In a publication by Thomson Reuters called 'The World's Most Influential Scientific Minds 2014', highly cited researchers have been acknowledged as leading their respective research fields. **Associate Professor Nicola Mulder, head of Computational Biology in the IDM,** has been listed as one of these. Congratulations to Associate Professor Mulder!

Analysts from Thomson Reuters used the company's Web of Science platform, alongside InCites, to determine highly cited researchers. They analysed citation data from 2002 to 2012. Altogether Thomson Reuters have listed 3,200 individuals who published the greatest number of highly cited papers in one of 21 broad fields, 2002-2012. Highly cited papers rank in the top 1% by citations for their field and year of publication. Citations of published research acknowledge research vital to the advancement of their science. The individuals identified are influencing the future direction of their fields.

Prof Mulder was placed into the subject category Biology & Biochemistry, and is the only person listed from Africa.

The publication can be found [here](#).



Novel medicine significantly reduces cholesterol in patients

The results of five trials of Evolocumab, a potential new drug for patients with high cholesterol, were presented at the recent congress of the American College of Cardiology (ACC) held in Washington in April 2014. Evolocumab has been previously shown to significantly reduce cholesterol levels in patients with high cholesterol in relatively small and short studies. In the largest and longest study of Evolocumab reported to date, the drug reduced 'bad cholesterol' (LDLC) by a further 57% when compared to a placebo. The drug was generally very well tolerated with no safety concerns identified, say the authors in a paper recently published in the New England Journal of Medicine.

"This is a significant finding, as this international multi-centre study was the largest and longest study of evolocumab thus far, and conducted at 88 trial sites across South Africa, Europe, Canada, US and Australia," says first author and University of Cape Town (UCT) investigator Dr Dirk Blom of Groote Schuur Hospital's (GSH) Division of Lipidology. Dr Blom collaborated with other South African researchers at Tygerberg Hospital, Paarl Research and Unitas Hospital (Gauteng).

The study enrolled patients with high cholesterol. These patients all received standard cholesterol lowering medication in the initial phase to make sure their cholesterol reached the recommended level. Patients were then randomly allocated to the study drug (Evolocumab) or placebo injections. Patients received injections once every four weeks under the skin (similar to insulin for diabetics). The main outcome measures were cholesterol reduction and safety. This study is significant because it showed that the drug works as well after 52 weeks as after 12 weeks – there was no loss of efficacy. As the biggest study thus far it also provided substantial amount of information about safety.



First author and UCT investigator Dr Dirk Blom of Groote Schuur Hospital's Division of Lipidology

Evolocumab has been mainly studied when given in addition to standard cholesterol lowering medication, but as two other studies presented at the ACC meeting showed it is also effective when given on its own and is well tolerated by patients who are intolerant of standard cholesterol lowering medications (statins). Evolocumab, developed by US pharmaceutical company Amgen, is still in clinical development and has not been approved for use in patients outside the clinical trial setting anywhere.

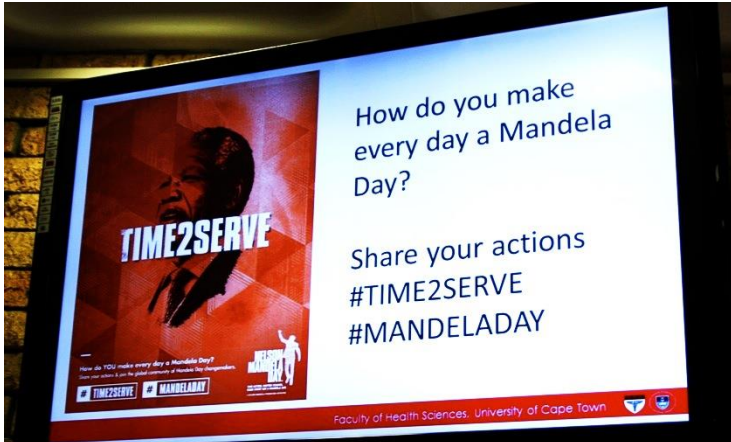
Head of the Department of Medicine at UCT and GSH, Prof Bongani Mayosi, says: "We are very proud that one of our colleagues published this study as a first author. This is a very big accomplishment in the life of an academic, with many of us still aspiring to achieve such an honour. It is reserved for those who are involved with research that may change clinical practice!"

67 minutes for Mandela Day @ fhs

Faculty staff and students made a difference in various ways in honour of Mandela Day. They came together in the MAC Club throughout the morning to make sandwiches for distribution to local shelters and other initiatives. Many students were also involved in the SHAWCO initiative, which helped school children from around the Cape Flats vivify

their communities, in keeping with the late Madiba's example of paying it forward.

Participants were encouraged to share their initiatives by using the hashtags #TIME2SERVE and #MANDELADAY as per the official Mandela Day campaign.



Joint collaboration between UCT biomedical research units to expose children to the world of biomedical TB research



In a unique collaboration between five research units attached to the *Institute of Infectious Disease and Molecular Medicine (IDM)* in the Faculty of Health Sciences, research laboratory staff have joined forces in developing and rolling out a training programme which empowers children with knowledge about the biomedical world and practical media skills. The public engagement programme, funded by the Wellcome Trust, was developed by IDM students Anastasia Koch, Zanele Ditse, Olivia Carulei and Hanif Esmail, in close collaboration with local artists Ed Young and Herman de Klerk, with the support of staff from the South African Tuberculosis Vaccine Initiative (SATVI), the Clinical Infectious Diseases Research Initiative (CIDRI), the Desmond Tutu HIV Centre (DTHC) and the Molecular Mycobacteriology Research Unit (MMRU).

According to *Anastasia Koch*, PhD student attached to the Molecular Mycobacteriology Research Unit of the University of Cape Town, "the project started in an organic, informal way as part of the UCT Post-Graduate Student Council, in collaboration with Ikamva Youth, who provide extra-curricular tutoring to children in Khayelitsha. Seed funding from the MMRU kick-started the project and facilitated production of a pilot documentary which greatly strengthened the Wellcome proposal. The programme was structured so that specialists within the IDM could be drawn into the programme, which has already resulted in a greater awareness about Tuberculosis (TB) and HIV amongst children."

The SATVI team, consisting of Dr Elisa Nemes, Dr Sara Suliman, Dr Helen Mearns, Dr Virginie Rozot, Dr One Dintwe, Dr Adam Penn-Nicholson and Erica Smit developed a section on TB vaccinology, which was presented in an interactive and fun way to children. The training programme covered vaccines, how they work, the history and application of the BCG-TB vaccine, the importance of clinical trials, ethics, basic immunology, as well as a practical session in the SATVI laboratory. During the programme, learners were shown a film version of *Carina's Choice*, a Wellcome Trust funded public engagement initiative developed by SATVI.

Dr Virginie Rozot, SATVI Research Fellow, told us that "as part of the training programme, children were exposed to the laboratory environment of SATVI in a practical way, working with pipettes and even wearing their own lab coats".

The programme put children through five scientific workshops after which they were equipped with cameras to film in the community, followed by training to create short films out of their video footage. Through the programme, children have been exposed to hot topics in TB, the cutting edge of the TB and biomedical research field and then sent out into the community. Using this scientific basis, learners will be able to film and document what they believe contributes to TB in their community.

For more information visit: <http://cargocollective.com/ehwoza/>

Story courtesy of SATVI Communications and Marketing

Two-pronged treatment can reduce TB safely and effectively, study finds



Dr Molebogeng Rangaka, Prof Gary Maartens and Prof Robert Wilkinson

A trial of isoniazid preventive therapy (IPT) plus antiretroviral therapy (ART) to prevent TB has shown safety and efficacy in patients with HIV, say researchers of a UCT study published in the *Lancet*. TB is the biggest cause of morbidity and mortality in HIV-infected people in Africa. Both IPT and ART protect against TB in HIV infected people, but it was not known if the two would give additive protection or could be safely combined.

The research team was spearheaded by Dr Molebogeng Rangaka, with supervision from Professors Gary Maartens and Robert Wilkinson at UCT, and included clinic staff working for Medecins Sans Frontieres and the Western Cape provincial government.

They conducted a trial of IPT plus ART therapy to prevent TB at Khayelitsha site B clinic, Cape Town. The addition of IPT was found to be safe and reduced TB incidence by 37%. The clinical trial shows that the use of isoniazid (INH) reduces the incidence of TB in adults living with HIV who are on anti-retroviral treatment.

"These findings will change clinical practice and contribute immensely to the reduction of the scourge of TB. It is one of the highlights of research in the faculty in recent times," says Prof Bongani Mayosi, head of Medicine at UCT and Groote Schuur Hospital.

Discussing the purpose of the study, Prof Maartens explains that the risk of TB could be reduced in HIV-infected people not on ART, by using the TB drug Isoniazid. However, ART also reduces the risk of TB. It was unknown whether Isoniazid would give additional benefit and whether it was safe in patients on ART.

"Therefore we did a placebo-controlled randomised trial involving 1329 participants on ART in Khayelitsha in a Provincial Department of Health clinic," he says.

The results showed that 12 months of Isoniazid reduced the risk of TB significantly (by 37%) and was well-tolerated. Importantly it showed that the benefit was not limited to people with positive tuberculin skin tests (TST) – all prior studies in people not on ART showed that the benefit was only seen in people with positive TSTs.

Maartens says that TB preventive therapy with Isoniazid in people with HIV has been under-utilised. Some reasons for this include: TST is difficult to do and the patient has to return after 2-3 days to read the result; follow up and care of people not yet needing ART is challenging to set up (they would typically come to the clinic 6 monthly). By contrast, adding Isoniazid to patients already in care receiving regular ART is very easy to implement – an additional advantage is that a TST does not have to be done. These findings have already resulted in modified policy by the World Health Organization (WHO)

The study was funded by the Dept of Health, Medecins Sans Frontieres (MSF), Wellcome Trust & EDCTP, while MSF were key partners in conducting the study.

Dr Rangaka & Prof Robert Wilkinson, Director of Clinical Infectious Diseases Research Initiative (CIDRI) have conducted a series of studies focused on latent TB infection in HIV-infected people. Prof Maartens has also had a longstanding interest in the prevention and diagnosis of TB in HIV infection.



Keeping SA kids safe from injury

A Childsafe Research and Educational Centre will be the first of its kind in Africa and play the central role in making South Africa safer for children.

Approximately 80% of injuries to children occur in or around the home. The Woolworths Childsafe Research and Educational Centre, which officially opened its doors on Thursday, 15 May 2014, will address this devastating statistic. This new centre, fundraised for by the Children's Hospital Trust, will accommodate the staff and activities of Childsafe South Africa – a non-profit organisation that advocates for child safety nationally.

Childsafe has grown so rapidly that they require increased infrastructure to accommodate their training and educational programmes. Their previous modest office space at the Red Cross War Memorial Children's Hospital in Cape Town has greatly limited their activities. Since 1978, Childsafe has been conducting research, implementing educational programmes and campaigning for child safety. Their advocacy work has had a significant and positive influence on legislation for children's safety.

The Children's Hospital Trust raised the funds needed to build a free-standing centre for staff to continue their educational and skills training programmes for child safety, and included in this building is a 'Demonstration Room' for the general public to learn how to safeguard their homes to prevent avoidable injuries to children. This new Centre is on the premises of the Red Cross War Memorial Children's Hospital thus easily accessible by patients' caregivers, especially those who have had their children treated at the Trauma Unit due to household accidents, with the intent to teach them how to avoid such accidents in future.

"As part of the educational purpose, the centre will incorporate the interior of a house demonstrating child safe designs and furnishing," says Professor Sebastian van As, Head of the Trauma Unit at the Red Cross Children's Hospital and President of Childsafe South Africa.

According to van As, the global burden of childhood



Ribbon cutting: Founding President of Childsafe South Africa Prof Sid Cywes, current President of Childsafe South Africa Prof Sebastian Van As, Randall Titus, Sam Ngubeni Woolworths COO

injuries is unequally distributed, with Sub-Saharan Africa being the worst affected. The large and growing toll of child injury death, the progressive nature of childhood injuries and the frequently long-lasting effects of injury on children gave rise to the creation of Childsafe South Africa.

The Childsafe Centre will facilitate safety educational tours for teachers and learners once a month with the aim to spread awareness of keeping safe, to introduce educational posters as teaching tools at schools and to provide learners with safety activity booklets.

Press release: The Children's Hospital Trust

Inclusive Healthcare Innovation > Powered by Students



On Thursday 15th May, Farah Jawitz, Richard Burman and Eldi van Loggerenberg, medical students and unapologetic optimists, launched a student-led movement with the aim to ignite student participation in healthcare innovation. The project is an extension of Inclusive Healthcare Innovation, a joint initiative of the UCT Graduate School of Business' Bertha Centre for Social Innovation and Entrepreneurship and the UCT Faculty of Health Sciences. Despite the cold and rain, delegates gathered to hear UCT medical graduate and Director of the Bertha Centre for Social Innovation and Entrepreneurship, Dr Francois Bonnici, speak about how innovation can transform healthcare.

Overall 80 students and professionals across all faculties at UCT filled the Graduate School of Business's Solution Space, a recently opened innovation and entrepreneurship hub. Dr Max Price (VC) attended in support of this student movement. Throughout the evening, the participants exuded an air of possibility and hope. Playful elements were incorporated in order to facilitate creativity and participants were asked to suspend disbelief and reimagine a different healthcare reality.

Dr Bonnici painted a sobering picture of current problems within the health sector, but offered a strong vision of the potential for innovation in healthcare delivery, sprinkled with insights from his personal journey of activism - as a long-haired community service doctor, implementing Kangaroo Mother Care across South Africa and who completed his MBA at Oxford and became a Fellow of the World Economic Forum. He emphasised that the buzz word 'innovation' is not a magic bullet, but rather one useful tool among many.

It was clear that solutions should develop across spheres such as service delivery, technology, financial models, medical management, infrastructure and relational spaces. During the evening, themes emerged such as the importance of inclusivity, effectiveness, affordability, co-creation, human-centred design, and ground-up transformation.

The project coordinators believe that one area of potential for co-creation and 'ground up' thinking is through student engagement. Their aim is that iHI > Powered by Students will foster critical thinking around issues in healthcare, and allow students to engage with others from different areas of expertise.



From left to right: Farah Jawitz, Richard Burman, Eldi Van Loggerenberg, Dr Lindi Van Niekerk and Dr Francois Bonnici

Going forward

iHI > Powered by Students will host activities that serve as a meeting point for students and professionals from various departments to explore and be exposed to healthcare innovation. These activities will include:

- A speaker series
- Workshops
- An online health innovation platform
- Electives and opportunities within current projects in health innovation

Story by: Farah Jawitz

For more information

Sign up for the iHI > Powered by Students mailing list, email or visit their Facebook page and follow them on Twitter.

Inclusive Healthcare Innovation > Powered by Students is an independent project created to support Inclusive Healthcare Innovation, an initiative of the UCT Graduate School of Business' Bertha Centre for Social Innovation and Entrepreneurship and the UCT Faculty of Health Sciences, in its mission to "Ignite healthcare innovation in Africa".

Occupational Therapy students promote homework culture at Khayelitsha school



Occupational Therapy (OT) students studying child learning development recently extended the scope of their involvement with a local school to include the establishment of a homework club for Grade 6 learners.

This initiative follows the developmental screening of Grade R learners, which took place for the first time towards the end of last year at Intshayelelo Primary School. Since then the screening has become a fixture in the final year OT curriculum. Intshayelelo is one of the six schools in Khayelitsha working with UCT's School Improvement Initiative (SII) to improve the quality of education received by its learners.

The homework programme deepens the collaboration between health sciences and education initiated by the Grade R screening. Furthermore it has led to a partnership between two SII schools as Grade 11 learners from the nearby Centre of Science and Technology (COSAT) – a high school – act as homework mentors.

Started in March this year, the homework programme runs on a Monday and Thursday after school and includes an hour of play during which the primary school students play sport or chess. When the high school students arrive, they assist their junior counterparts with their homework.

Homework is not being done

Following a move to increase their focus on community development, OT students approached various role players in the school community – parents, teachers and learners – to find out where there were areas of concern.

"There was a problem around the culture of homework at the school. Teachers had a view that homework wasn't going to be done and in many respects it wasn't being done at home. Teachers would trail behind in the curriculum because they were

allowing a great deal of time for homework to be completed in class, or going over concepts that should have been consolidated in the space provided for homework," explained OT lecturer Liesl Peters.

The Grade 6 results for the systemic tests, annual numeracy and literacy tests for Grade 3 and 6 were also poor and all role players believed that with a homework programme in place, these results could be significantly improved upon.

According to Kathryn Wishart, an OT student, parents indicated that they did not understand the current curriculum. "We also didn't want to add to teacher's load, so we approached Patti Silbert (SII project manager) to find out who could champion our homework programme and act as mentors."

Silbert contacted the principal of COSAT, Phadiela Cooper, who recruited 26 of her students to act as homework mentors at Intshayelelo. Half of this group of high school learners mentor on Mondays, while the others mentor on Thursdays. Each mentor has six to eight Grade 6 learners they are responsible for supporting.

Perfect for the job

Wishart pointed out that the COSAT learners are perfectly suited to mentor the younger learners. Although the older learners came from primary schools with very limited opportunities, the many extracurricular and academic options that are presented at COSAT have changed their career expectations. "Many of the students from COSAT have aspirations to be doctors and lawyers and therefore they can serve as role models to the Grade 6 learners. An important aspect of the homework club is for the mentors to encourage and inspire them to dream big," she says.

The plan is for the school to ultimately take ownership of the homework club and expand it to include other grades without the help from UCT OT students.

Story by Abigail Calata. Image by Michael Hammond.

UCT Surgical Society hosts inaugural international symposium



Surgical Society President Tinashe Chandauka and Vice-President Luke Kuttuschreuter with Associate Professor Andrew Nicol who gave an academic lecture titled "A South African Trauma Experience"

A demonstration during one of the practical sessions

The student-driven UCT Surgical Society is spearheading an initiative to forge international connections with other surgical societies. In July, it hosted the Inaugural International Association of Student Surgical Societies (IASSS) Symposium at UCT. This symposium follows on the society's efforts to bring together and establish similar societies at medical schools in the country and the rest of Southern Africa, with the inaugural Southern African Student Surgical Societies (SASSS) Symposium at the University of the Witwatersrand last year.

relationships with students and faculty in the department of surgery, provide information about a career in surgery, assist in setting up other student run surgical societies both locally and internationally.

"Through the activities and events of the Society at UCT, we provide members with opportunities, skills and encouragement to facilitate their future surgical careers with activities and experiences that will enhance their development and interest in all aspects of surgery, medical research and leadership," says Tinashe Chandauka, its President. Its core objectives aim to encourage and foster interest in surgery in undergraduate medical students, promote a culture of medical and surgical research among students, provide a kick start in surgical education and skills, set up

"Events are held throughout the academic year, including monthly lectures delivered by leading surgeons, forums on non-surgical topics, monthly surgical skills courses, quarterly anatomy workshops, an outreach portfolio, and a shadow programme to integrate students with the Faculty," says Chandauka.

The UCT surgical society is affiliated with the Department of Surgery, with its official patron being Professor Del Kahn (Head of Surgery at UCT and Groote Schuur Hospital). Established in 2006 by a group of medical students, it is now officially one of the largest societies at the University of Cape Town, and is open to all medical students.

Faculty celebrates PhD graduates at cocktail function

A celebratory cocktail function was held at the Faculty of Health Sciences to acknowledge and congratulate candidates graduating with doctoral degrees in June 2014. The function has become a popular bi-annual event and is hosted by the Postgraduate team.

The function is attended by graduands, their partners, supervisors and mentors.

Lorraine McDonald from the Postgraduate Academic Administration office handed over gifts to graduates



Paediatrics and Child Health celebrates examination results



The Department of Paediatrics and Child Health hosted its biannual Departmental function to celebrate the successful passing of the College exam candidates, as well as MMED and PhD students on the successful completion of their theses. The function was held on Thursday 5 June at the Red Cross Children's Hospital. The departmental head Prof Heather Zar thanked all those who contributed to teaching and training saying that these results are a reflection of the outstanding training programmes and teachers that the department is privileged to have. She congratulated all the MMED and MPhil June graduates and thanked their supervisors.

Afrikaans and isiXhosa Communication Skills students celebrate graduation



Graduation ceremonies held in March for Afrikaans and isiXhosa Communication Skills for Health Professionals students in Delft and Kraaifontein.

Rural Support Network supports rural communities through recruitment and retention of healthcare

The Rural Support Network (RSN) is a student run society that was formed in 1996 at the South African Medical Students Association general assembly held at the University of Cape Town. It strives for the development and improvement of rural communities in South Africa through recruitment and retention of health care workers in those communities.

Every year during the November/December vacation, RSN places a group of health sciences students in various rural hospitals around South Africa. The purpose of placing students in the rural environment is to expose them to rural health, sensitise them to the working conditions and needs of health professionals in rural hospitals, and create an awareness of the need for health professionals in rural areas. The hope is that one day, at least some of those students will dedicate a portion of their careers to rural healthcare, thereby satisfying a huge need for healthcare workers in our rural areas. The rural health experience has changed the lives of many students, offering hope to many communities as many of the students have expressed wishes of returning to those communities post-graduation.

RSN covers the transport from Cape Town to the hospital and for the accommodation and food of all students for the 2-week period of Rural Placements. It costs about R1200 to send one student on Rural Placement and every year, RSN needs to raise funds to be able to cover the various costs. The funds raised determine the number of students that are able to take on Rural Placements. The RSN recently held a Run for Rural 7km fun run that started at and ended at the Health Sciences campus. Participants were asked to run with their hometowns in mind or in the name of rural areas of their choice across South Africa and the world. Run for Rural 2014 was a resounding success with over 400 sign ups. From Run for Rural, RSN managed to raise over R17 000 in funds for Rural Placements.

The latest funding initiative for RSN is the upcoming fundraising dinner at Gold Restaurant, which is taking place on the 29th of August 2014. Gold Restaurant is an African-inspired restaurant that serves African-inspired cuisine. A portion of the entrance fee to Gold will go towards our funds for Rural Placements 2014. The RSN invites all interested staff and students to share in the Gold experience and to hear more about the work it does and about what rural healthcare means to it.



Rural Placements Fundraiser
RSN and Gold Restaurant invite you to join us for an African Celebration

Friday, August 29th
Dress Code: Elegant
Tickets on Sale in the RSN Room until August 22nd

6:30pm for 7:00pm
Entrance: R220 Excl. Drinks



Ticket sales on Tuesdays and Thursdays, 1-2pm
rsn.uct@gmail.com

Support the RSN by attending the above event

Chronic Diseases Initiative for Africa promotes healthier life choices

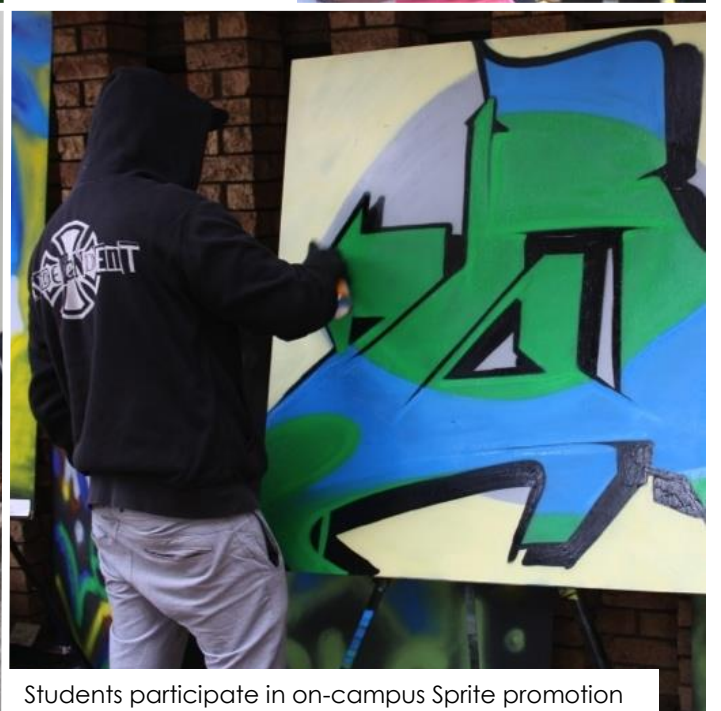


The Chronic Diseases Initiative for Africa is a collaboration between the Universities of Cape Town, Stellenbosch and Western Cape, the SA Medical Research Council, the Western Cape provincial government and Shree Hindu Mandal Hospital and Ministry of Health and Social Welfare in Tanzania and Harvard University, USA.

The Initiative serves as a regional hub for developing and evaluating models for chronic disease care and prevention of their risk factors. The network aims to train chronic disease researchers and to work closely with government authorities in the formulation of cost-effective plans to reduce the impact of chronic diseases and their risk factors.

The CDIA has in partnership with Pharma Dynamics, South Africa's largest supplier of cardiovascular medication in the country launched iChange4Health after the success of the *Cooking from the Heart* recipe book launches in 2012, which supplied free heart-friendly alternatives for favourite South African recipes. For more information on the initiative click [here](#)

Student initiatives in pictures



Books launched

PHC and Restructuring of the MBChB

Dr Nadia Hartman recently launched her book, "The Primary Health Care Approach and Restructuring of the MBChB: A Case Study of the Faculty of Health Sciences at University of Cape Town".

Dr Hartman is currently the Director of the Education Development Unit.

The book launch was very well attended and speakers included the Dean of the Faculty of Health Sciences Professor Wim De Villiers, Director of the Primary Healthcare Directorate Professor Steve Reid and Dean of the Centre for Higher Education Development Associate Professor Suellen Shay. Books can be ordered from Dr Hartman or from the publisher's outlet at www.morebooks.de.



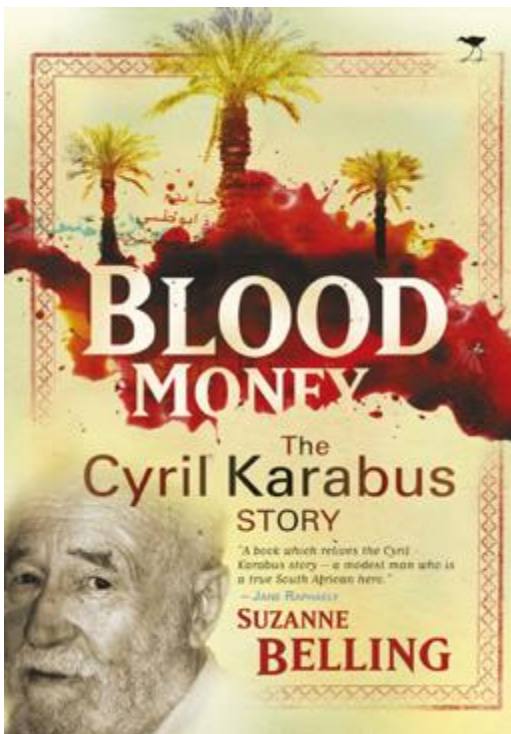
Nadia Hartman

The Primary Health Care Approach and Restructuring of the MB ChB

A Case Study at the Faculty of Health Sciences, University of Cape Town



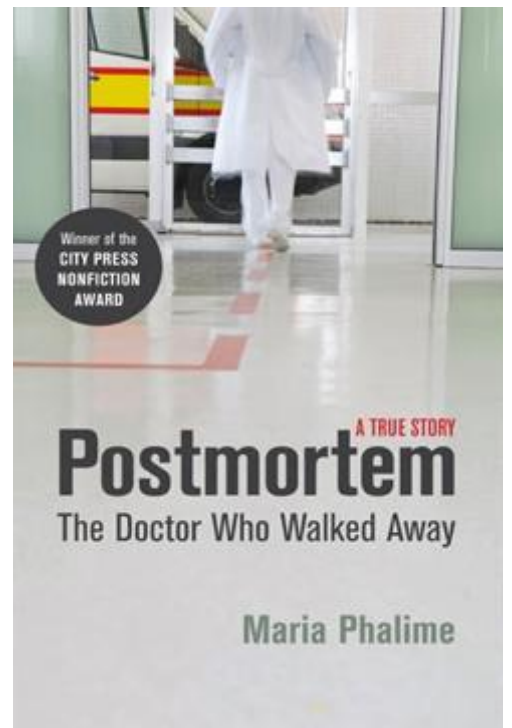
(From left to right) Prof Michael Young (London Institute of Education); Prof Peter Kallaway (formerly Schools of Education at UCT and UWC); Prof Wim de Villiers (Dean of Health Sciences, UCT); Dr Nadia Hartman



Prof Cyril Karabus (MBChB 1957)

Books launched

Dr Maria Phalime (MBChB 1999)



Winner of the CITY PRESS NONFICTION AWARD

Postmortem A TRUE STORY The Doctor Who Walked Away

Maria Phalime



Celebration

A tribute to the greatest living South African of our time



In celebration of the 10th Anniversary of the Desmond Tutu HIV Foundation
the South African Premiere of

Children of the Light

*a documentary film on the life of
Desmond Mpilo Tutu - Nobel Peace Prize 1984
Monaco Film & Television Festival 2014*

*Artscape Theatre, Cape Town
Sunday 7th September 2014 at 18h30
refreshments from 17h30*

Tickets available from Computicket @ R250

Enquiries: info@hiv-research.org.za
www.desmondutuhivfoundation.org.za

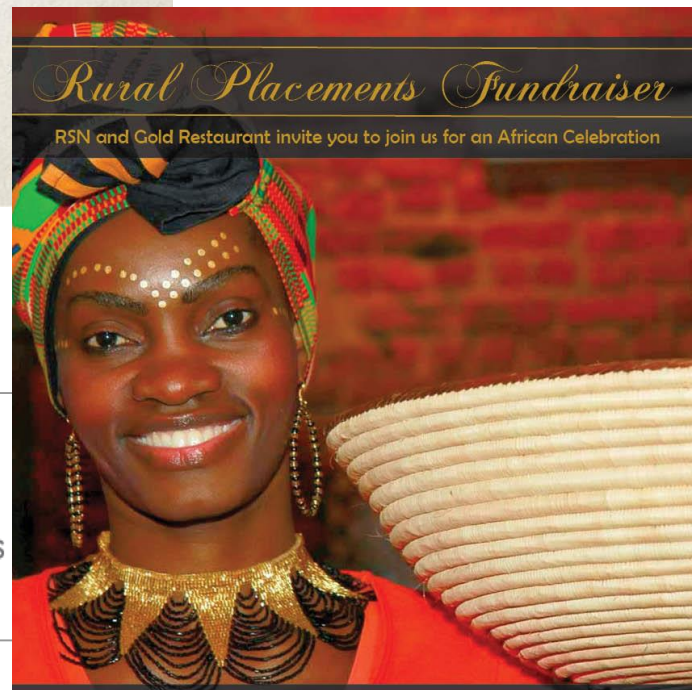


EVENTS not to miss



Third Global Symposium on Health Systems Research

Science and practice of people-centred health systems
Cape Town · 30 September – 3 October 2014



Rural Placements Fundraiser

RSN and Gold Restaurant invite you to join us for an African Celebration

Friday, August 29th 6:30pm for 7:00pm
Dress Code: Elegant Entrance: R220 Excl. Drinks
Tickets on Sale in the RSN Room until August 22nd



Ticket sales on Tuesdays and Thursdays, 1-2pm rsn.uct@gmail.com

MOVING FORWARDS

MRC President, Professor Glenda Gray

18 August 2014 16h00 – 17h30

Including FRC Young Investigators Best Publication 2013 Awards
Refreshments to follow

Wolfson Pavilion Lecture Theatre, UCT Medical Campus

The Dean of the University of Cape Town's Faculty of Health Sciences, Professor Wim de Villiers, invites you to attend a presentation from the new President of the South African MRC, Professor Glenda Gray, on the plans for the MRC moving forwards.

