

Health Sciences Research News



The University of the Witwatersrand
Faculty of Health Sciences



March 2013

This month the Faculty is delighted to announce the formation of the Wits Research Institute for Malaria, which, under the leadership of Professors Maureen Coetzee and Thérèse Coetzer, will tackle the scourge of malaria through high quality research. High quality research undertaken by two of the Faculty's leading researchers also has been recognized, with Professor Glenda Gray promoted to Research Professor and Professor Viness Pillay elected as a fellow of the African Academy of Sciences. Congratulations to all.

Once again we feature profiles of new research and researchers in this newsletter, and in this issue we also introduce one of our editors, and one of the core members of the Research Office, Nomfundo Sibiyi.

Andrea Fuller

LEADING RESEARCH NEWS

FACULTY LAUNCHES WITS RESEARCH INSTITUTE FOR MALARIA

The Faculty is delighted to announce the Wits Research Institute for Malaria (WRIM) which was approved this month for a 5-year cycle. The formation of the WRIM will provide an environment to enhance the ground-breaking research already taking place at Wits into one of Africa's deadliest diseases. The new Institute which will be situated jointly in the Schools of Pathology and Therapeutic Sciences, will fulfil not only the mission of Wits University (to be a leading research-intensive University), but also that of global players such as the World Bank and the Global Fund.



Headed jointly by **Professor Maureen Coetzee** and **Professor Thérèse Coetzer** in the Wits School of Pathology, the WRIM has been formed in an effort to strengthen malaria research in the existing fields as well as in the fields of epidemiology and clinical medicine. Professor Robyn van Zyl will form the third anchor in this remarkable group. The WRIM aims to produce top quality research and researchers that will benefit malaria control in Africa and place it amongst the leading malaria research groups in the world. Hearty congratulations!

NEW RESEARCH PROFESSOR IN THE FACULTY

Congratulations to Glenda Gray on being promoted to Research Professor in the Faculty. Professor Glenda Gray is the executive Director of the Perinatal HIV Research Unit (PHRU). Trained as a medical doctor and later specialised in the area of Paediatrics, she developed the PHRU into a world renowned clinical, epidemiological, and operational research and treatment site for HIV infected adults and children. The unit employs 400 individuals. Under her leadership, the PHRU now has an extensive HIV prevention research portfolio, which includes HIV vaccine research, microbicide research and other biomedical and behavioural interventions.



FACULTY PROUDLY ANNOUNCES RENEWAL OF TWO RESEARCH ENTITIES

The Faculty Research Office would like to congratulate **Professor Andrea Fuller**, Director of the **Brain Function Research Group** and **Professor Stephen Tollman**, Director of the **Rural Health and Health Transitions Research Unit (Agincourt)** on the successful renewal of their research entities for a further cycle of five years by the University Research Committee. The Rural Health and Health Transitions Research Unit has also been renewed for a further 5 years by the MRC.



WADDP STUDENT GETS THE NOVARTIS NEXT GENERATION SCIENTIST INTERNSHIP

Mr Steven Mufamadi, a PhD student in the **Wits Advanced Drug Delivery Platform (WADDP)** has been accepted into the very competitive Novartis Next Generation Scientist Internship Programme 2013 in Basel, Switzerland. This is a three-month internship that will focus on cutting edge Advanced Drug Delivery Research. The WADDP continues to be at the heart of drug delivery research in South Africa with a dynamic foundation for highest postgraduate scientific training and innovation in drug delivery. It is not the first time that this award has been won by a student in this Unit, with Mr Angus Hibbins being awarded it previously. Congratulations Steven!



PROFESSOR VINESS PILLAY VOTED IN AS A FELLOW OF THE AAS

Congratulations to Professor Viness Pillay for being voted in as a Fellow of the African Academy of Sciences 2012. This follows a rigorous review which consisted of review and recommendation by experts in the field, the Membership and Advisory Committee, review and endorsement by the Governing Council, as well as voting by the Fellows of the Academy.



ALUMNUS PROFESSOR ROY ZENT TAKES UP ROLE AS VICE CHAIR FOR RESEARCH

Professor Roy Zent graduated as a medical doctor from Wits in 1984 and, after completing a PhD and postdoctoral Fellowship, joined Vanderbilt University (USA). He has visited the Faculty on numerous occasions as part of the Diaspora Programme run by the Faculty Research Office. Professor Zent was recently elected to take up the position of **Vice Chair for Research** in the Department of Medicine, Vanderbilt University effective March 1, 2013. In this role, Professor Zent will engage in strategic planning, identify focus areas for building scientific programmes that leverage



strengths within the Department, the School of Medicine and the University, and promote the impact of the University's research. Roy has been unwavering in his efforts to set up a major collaboration with the Faculty of Health Sciences at Wits.

RESEARCH IN PRESS: Latest research findings

Administrative integration of vertical HIV monitoring and evaluation into health systems: a case study from South Africa

Efforts to improve population health in low and middle-income countries (LMIC) have often been characterised by tensions between vertical (targeted) and horizontal approaches. Vertical approaches aim to improve health outcomes for a single disease often through dedicated human resource, budgets, drug delivery and management systems. The horizontal approaches on the other hand tackle health problems on a wide front through investment in general health systems (e.g. human resources, drug delivery, financing) required for sustained overall health improvements. Though the former rapidly increase the coverage of disease control interventions, research evidence indicates that they undermine the capacity of general health systems to improve health. For example, a vertical approach to providing HIV treatment services takes staff away from general health services. The integration of disease-specific human resources, financing, drug supply, and monitoring systems within those of the overall health system is recommended in the health systems research literature as an option to maximise synergies between vertical programmes and health systems. With increasing global focus on vertical programme integration, methods and tools are needed to measure the nature and extent of integration and impacts on health systems.

In a study published in *Global Health Action* in January 2013, **Dr Mary Kawonga** and co-authors, **Professor Sharon Fonn** and **Dr Duane Blaauw** of the School of Public Health, examine the extent to which the HIV programme monitoring and evaluation function is integrated within the overall health system at district level in South Africa. The focus on the district level is motivated by the fact that in South Africa health policies envisage integrated health management under the control of general health service (horizontal) managers at district health system (DHS) level. The premise underlying the research was that if the vision of integrated DHS management is to materialise as envisaged in health policies, then district health service managers should exercise authority over all DHS functions (including disease-specific programme activities), with vertical managers playing the role of technical advisors. This is a concept referred to as administrative integration.

To measure administrative integration, an existing methodology referred to as 'decision-space analysis' was adapted and new measurement scales developed to measure the degrees to which horizontal and vertical managers exercised authority over HIV programme Monitoring and Evaluation (M&E) activities (data collection, collation, analysis and use). The study reveals that the HIV programme M&E function is largely not administratively integrated within the health system. Multivariate analyses revealed that horizontal managers exercise a low degree of authority over using HIV data for monitoring and management decisions, while vertical managers exercise high degrees of authority over using HIV data but use data in silos largely exclusive of horizontal managers. This indicates limited integrated use of HIV information for DHS management. The research also found that despite the top-heavy HIV management structure at provincial level, HIV managers hardly play the role of technical advisors by providing HIV M&E support to their horizontal counterparts.

In conclusion, the paper argues that the existing HIV programme M&E model contradicts DHS development aims to strengthen integrated DHS management. It is recommended that policy-makers consider alternative programme arrangements that advance DHS strengthening aims.

Sexual Misconduct and Intimate Patient Examinations

Professionalism is the relationship between the health practitioner and patient. The prohibition of sexual impropriety in the practitioner-patient relationship dates back to the Hippocratic Oath and is reinforced in the ethical rules and guidelines of the Health Professions Council of South Africa (HPCSA). Sexual misconduct may be categorised as: sexual impropriety – behaviour, gestures or expressions that are sexually suggestive, seductive or disrespectful of a patient's privacy or sexually demeaning to a patient; and sexual violation – physical sexual contact between a practitioner and a patient, whether or not it was consensual and/or initiated by the patient. This includes any kind of genital contact or masturbation, and touching of any sexualised part of the body for purposes other than appropriate medically related examination or treatment. Exchange of prescriptions or other professional services for sexual favours is another example of a violation.



In light of the increasing allegations of sexual misconduct against practitioners in South Africa, researchers **Dr Yolande Guidozi, Dr Jillian Gardner, Professor Ames Dhai** from the **Steve Biko Centre for Bioethics** in the Faculty argue that it is prudent for practitioners to consider using chaperones during intimate examinations. Intimate examinations include, but are not limited to, examination of the breasts, genitalia and rectum, and any examination where it is necessary to touch the patient in close proximity, e.g. conducting eye examinations in dim lighting, when listening to the chest, taking blood pressure using a cuff and palpating the apex beat, as these could involve touching the breast area.



Earlier this year, these researchers published findings of a study, approved by the Wits Research Ethics Committee (medical), that sought to;

- (i) ascertain how a group of medical practitioners felt about the presence of chaperones during the consultation and intimate examination of patients,
- (ii) determine whether they currently engage the services of chaperones,
- (iii) assess how they felt about consensual sexual relationships between medical practitioners and their patients, and
- (iv) assess their views on the necessity for guidelines on these issues.

Many respondents felt it was necessary to have a chaperone present during a consultation and intimate examination of patients, whether for medico-legal reasons or to assist with interpretation and translation or because it makes patients feel less anxious and more comfortable. Some practitioners reported that they sometimes offer chaperones during consultation, whereas others reported that they do not need chaperones. Practitioners in the public sector were 3.3 times more likely to offer chaperones than those in the private sector, possibly because they find it easier to find someone to act as a chaperone. Medical staff and family or partners of patients were typically used as chaperones. The general sentiment was that consensual sex between practitioners and patients are unacceptable, with most practitioners describing this as unethical behaviour on the part of the practitioner. A few practitioners did not regard a consensual sexual relationship between practitioners and patients as ethically problematic, especially if the practitioner-patient relationship is subsequently terminated.

Regarding the necessity of guidelines on the presence of chaperones during intimate examinations most practitioners considered it necessary to have ethical guidelines on the presence of chaperones during intimate examinations. An equally large number felt it was necessary to have guidelines on consensual sexual relationships between practitioners and their patients. The researchers propose the following framework for managing intimate examinations which will protect not only patients but also minimize complaints and litigation against practitioners: Explain to the patient that an intimate examination needs to be done and why. Explain what the examination will involve. Obtain the patient's permission. Verbal permission and the co-operation of the patient to adopt an appropriate state of undress and position probably provide sufficient authorization. Offer all patients who are to undergo intimate examination a chaperone, irrespective of the gender of the practitioner. Give the patient privacy to undress and dress. Adequate and appropriate draping should be used when the patient is undressed. Keep the discussion relevant and avoid unnecessary personal comments. Encourage questions and discussion.

Guidozzi Y, Gardner J & Dhali A. Professionalism in the intimate examination: How healthcare practitioners feel about having chaperones present during an intimate consultation and examination. *South African Medical Journal* 2013, 103(1):25-27. DOI:10.7196/SAMJ.6224

FACULTY RESEARCH NEWS: achievements and events

KEBASHNI WINS THE YOUNG INVESTIGATOR AWARD

Congratulations to Dr Kebashni Thandrayen (2011 Faculty Research Prize winner) from the Department of Paediatrics for being awarded the Young Investigator Award to attend the International Conference on Children's Bone Health in Rotterdam, Holland in June this year. This was based on having submitted the best abstract.



WITS REPRESENTATIVE ORGANIZES SEMINAL CONFERENCE AT KITP, UNIVERSITY OF SANTA BARBARA

The Kavli Institute of Theoretical Physics recently hosted a seminal conference (4-8 February 2013) to develop a framework for explaining one of the most mysterious phenomena in evolutionary biology, that of cooperation and altruism between individuals. Wits featured prominently here: the lead organiser was **Dr Pierre Durand** from the department of Molecular Medicine and Haematology. He and his PhD candidate **Nisha Dhar** presented their research, which asks perhaps the most fundamental question in all of biology. Why did life and death genetic programmes evolve? Nisha's PhD work on the evolutionary origins of life was particularly well received for its originality and insight. Dr Durand brought together leaders from a variety of fields including physicists, theoreticians, experimental evolutionists, biochemists and others in an attempt to develop a framework for understanding the evolutionary and mechanistic basis for cooperation and altruism. Evolutionary biology is undergoing a mini-revolution with new concepts such as these refining our understanding of the very basics of living systems. For more information see the [conference website](#)



CARNEGIE FELLOWS SYMPOSIUM

The Faculty Research Office recently hosted a Carnegie Fellows Symposium to celebrate the completion of their PH.Ds by the first cohort of Carnegie Fellows. The aim of the Carnegie Fellowship is to produce clinician scientists for the Faculty and the country. At the symposium the four Carnegie Fellows presented their PhD research. The first four clinicians were awarded the Carnegie Fellowships in 2011:- **Dr Susan**

Williams (Supervisor: Professor T. Carmichael and Professor M Ramsay), **Dr Nimmisha Govind** (Supervisors: Professors M. Tikly and M. Ramsay), **Dr Nirthi Maharaj** (Supervisors: Professors E. Libhaber M. Essop and F Peters) and **Dr Martin Brand** (Supervisor: Professors M. Veller and G. Norton). The Fellows had two years in which to complete their PhDs. During this period they were also provided with the opportunity to undertake research methodology, scientific writing, statistics, ethics and also teaching and curriculum development courses.



Photographs (**left**): Dr Nirthi Maharaj, Dr Martin Brand, Professor Helen Laburn (Vice- Chancellor: Research), Professor John Pettifor, Dr Susan Williams, Professor Beverley Kramer and Dr Nimmisha Govind; (**right**): Dr Nirthi Maharaj, Dr Susan Williams, Dr Kapila Hari (Carnegie Fellow in the new cohort) and Dr Nimmisha Govind

OPEN ACCESS PUBLISHING

Page charges in Open Access journals funded by the Assistant Dean: Research and Postgraduate Support, Professor Beverley Kramer may prove to be valuable for increased scientific exposure. A recently published online publication entitled "Mutation Reporter Tool: An online tool to interrogate loci of interest, with its utility demonstrated using hepatitis B virus" by Dr Trevor Bell and Professor Anna Kramvis was accessed 330 times on its first day.

THE LANCET TO LAUNCH OPEN ACCESS GLOBAL HEALTH JOURNAL

The *Lancet*, the world's leading independent family of general medical and specialty journals, announced the forthcoming launch of a new title, *The Lancet Global Health*. The journal demonstrates *The Lancet's* ongoing commitment to strengthen global health, and articles in the new journal will cover common conditions and wider health policy issues affecting low and middle income countries. A special emphasis will be given to local, context-specific research with regional or global implications.

The Lancet Global Health will launch in June to coincide with the Global Health Metrics & Evaluation (GHME) conference in Seattle, Washington, USA. Papers can be submitted now via *The Lancet's* online editorial system (<http://ees.elsevier.com/langlh/>).



For more information on the journal visit their [webpage](#)

Who are you and what is your academic/scientific background?

I have a BSc degree in Microbiology and Biochemistry from University of South Africa (UNISA). I completed Microbiology with a distinction and was awarded the University of the Witwatersrand Postgraduate Merit Award to do an Honours degree in the Department of Molecular Medicine and Haematology. I then completed an MSc degree in Medicine in the Department of Chemical Pathology. I have won an award for best oral presentation at the Faculty of Health Sciences Research Day in 2006 and the Roche best oral presentation by a young researcher in 2008. I completed my PhD in Virology in 2011 at the NICD, AIDS Research Unit. In 2011 I was awarded the Faculty of Health Sciences Prestigious Postgraduate Degree Award for the best PhD student. In addition, I was recently awarded the James Gear Fellowship to do postdoctoral research at the NIH in the USA.



What is the nature of the research that you are currently undertaking?

My recent investigations have focused on the ability of broadly cross neutralizing antibodies from HIV-positive patients to inhibit HIV-1 interaction with the DC-SIGN receptor. This receptor is believed by many scientists to play a key role in promoting the sexual transmission of HIV.

What do you think is the most significant contribution you have made to research/science?

Thus far I would say that our most significant contribution has been the observation that the lectin griffithsin (GRFT) binding to HIV-1 gp120 exposes the CD4 binding sites (CD4bs) and renders it more vulnerable to CD4bs antibodies. One of the main implications of this work is that a combination of GRFT and CD4bs antibodies such as B12 in a microbicide formulation can be very useful.

Did you have a particular mentor or supervisor who inspired you in research?

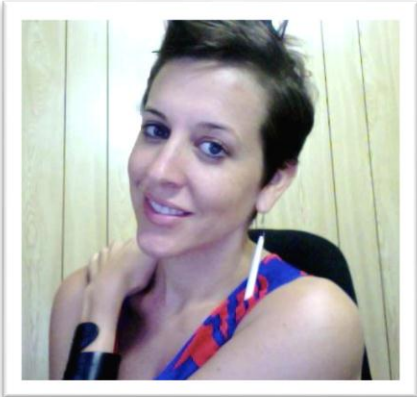
I am most grateful to my MSc degree supervisors, Professor Nigel Crowther and Miss Aletta Maria Smit of the Department of Chemical Pathology and my PhD supervisor, Professor Lynn Morris of the NICD AIDS Unit who all have contributed significantly to my academic development.

What do you do when you're not busy at work and carrying out cutting-edge research?

Apart from my scientific background, I have a good eye for art and love painting. I try to convert scientific concepts and theories into "tableau d' arts" and currently have four of my paintings hanging in the NICD AIDS Research Unit. In 2004 four of my paintings were awarded the Merit Award at the Medical Student's Council Adcock Ingram Art and Photo Exhibition. I also read classic novels, listen to classical music and love watching BBC news, National Geographic, Formula 1 Grand Prix, Top Gear, Barcelona and Arsenal Football Clubs.

Read one of Alexandre's papers: Kabamba Bankoledi Alexandre, Elin Gray, Ralph Pantophlet, Penny L Moore, James B. McMahon, Barry R, O'Keefe, Rachel Chikwamba, and Lynn Morris. Binding of the mannose-specific lectin, griffithsin, to HIV-1 gp120 exposes the CD4-binding site. 2011. *Journal of Virology* 85 (17): 9039-9050.

Dr Nicole Catherine Angotti



Dr Nicole Catherine Angotti is a SPARC Postdoctoral Fellow in the **Rural Public Health and Health Transitions Research Unit (Agincourt)**. She joined the Unit in September 2012 and is pursuing her research interests under the mentorship of **Professor Stephen Tollman**. She completed her PhD in Sociology at the University of Texas at Austin (USA), where she specialised in issues of Population and Development.

Wits is not unfamiliar to Nicole - Wits has been an institutional home for her since 2010. She was based at Wits as a Hewlett Foundation Postdoctoral Fellow, through a collaborative programme between Wits Demography and Population Studies Department and the University of Colorado-Boulder Population Programme in the USA. As a Hewlett Fellow, she has contributed to the teaching programme at the Demography and

Population Studies Department as a visiting Lecturer, and to research at the MRC/Wits Rural Public Health and Health Transitions Research Unit (Agincourt) as a visiting Researcher.

Her research as a SPARC Fellow builds upon a recently completed HIV prevalence and risk factors study conducted in the MRC/Wits Agincourt research site in Bushbuckridge (Mpumalanga Province) in 2010-2011, for which she was a Researcher and the Field Study Manager. Her current research is entitled "HIV after 40 in rural South Africa", in which a nested subsample of participants aged 40 and upwards from the 2010-2011 prevalence study was followed. The study's primary aim is to learn more about the sexual life histories and treatment trajectories of older adults in an effort to give greater insight, depth and meaning to the numbers. She hopes her research will inform future policy/programme efforts that will more effectively address the sexual health and HIV prevention needs of older adults.

With most of her time spent in Bushbuckridge during her Fellowship, Nicole has nonetheless enjoyed the following about living in Joburg: exploring dance and music festivals, roaming the Indian markets in Fordsburg, eating Ethiopian food in Yeoville, cycling through the Botanical Gardens, and picking up the Mail & Guardian every Thursday to see what they say are the weekend must-dos. "I think Joburg is a great city – full of history, energy and culture", says Nicole.

Nicole's advice to anyone considering a Postdoc: "I think a Post-doc is a great opportunity for one who recently received a PhD, particularly if interested in a career in research. An ideal Postdoc programme will provide one with time to publish papers, start a new research agenda, and build new social/professional networks. Good mentorship is a key component of a successful Post-doc experience so anyone considering a Post-doc will want to spend some time thinking about what individuals and institutions are the best "fit" for one's research interests."

FACULTY RESEARCH OFFICE STAFF PROFILE

Nomfundo Sibiya, Research Administrator

Nomfundo Sibiya hails from the warm province KwaZulu-Natal; she joined Wits in 2010 as a DST/NRF Intern. She is currently a **Research Administrator** in the Faculty Research Office. Her job entails collating and compiling the monthly Health Sciences Research Newsletter, the monthly Research Bulletin, the trimonthly Postgraduate Herald; processing Faculty data on research publications; updating the Postgraduate Brochure and overseeing printing and distribution; servicing the Research Entity Leaders Forum, Pfizer/UKZN Symposium Wits Committee, the Griffin Trust and the Research Day Committee meetings and assisting with Research Website maintenance.



Nomfundo has a BSc (Hons) degree in Geography and Environmental Sciences. She says spending time with her two year-old son brings her the greatest joy.

CALL FOR PHD APPLICATIONS 2013-2014



CARTA welcomes applications from various disciplines, as long as the research question aims to contribute to public and population health issues.

For information and application forms visit: www.cartafrika.org

Application closing date: **15 April 2013**

Contact: kathleen.kahn@wits.ac.za or alisha.wade@wits.ac.za



Faculty of Health Sciences Research Office Postgraduate Page

Do you have any significant research news you would like us to include, or comments you would like to make? Please contact Nomfundo.Sibiya@wits.ac.za (news items to reach us by **15 April 2013**)

The newsletter is edited by Professor Bev Kramer, Professor Andrea Fuller, Suretha Erasmus and Nomfundo Sibiya