Health Science Matters

Faculty of Health Sciences

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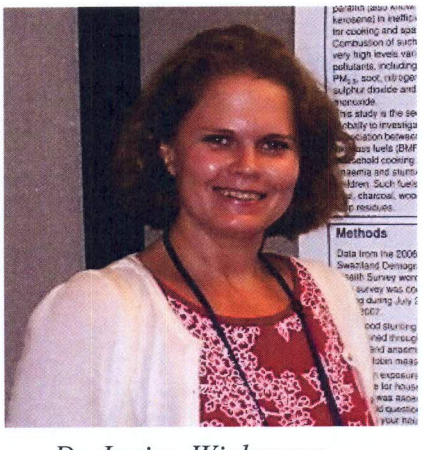
National Research Foundation Ratings

The Faculty is exceptionally proud of all our Health Sciences researchers who have received new National Research Foundation (NRF) ratings or re-ratings for 2014. Congratulations to Professor **Riana Bornman**, Professor **Tahir Pillay**, Prof **Vanessa Steenkamp** and Dr **Janine Wichmann** for attaining a C-rating. A C-rating is awarded to established researchers with a sustained record of productivity in their respective fields and who are recognised by their peers as having produced a body of quality work, the core of which has coherence and attests to ongoing engagement with the field. These researchers should also have demonstrated the ability to conceptualise problems and apply research methods to investigating them. In addition to the NRF-specific criteria, the Faculty acknowledges that these researchers are making huge strides internationally in their specific domains and thereby contributing to internationalisation which is high on the strategic agenda.

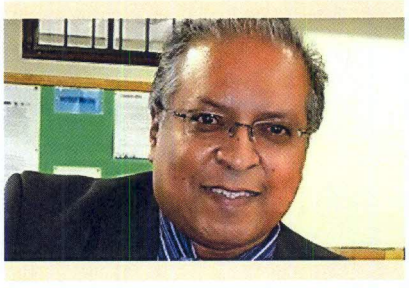
Emerging researchers **Dr Janet Mans** and **Dr Kim Nolte** received a Y-rating for 2014. They have bee recognised by the reviewers as having the potential to become established researchers in the next five years based on their performance and productivity of quality research outputs during their doctoral studies and/or early post doctoral careers. This brings the number of rated researchers in the Faculty to twenty seven.

Prof Vanessa Steenkamp

Prof Riana Bornman



Dr Janine Wichmann



Prof Tahir Pillay

Dr Kim Nolte

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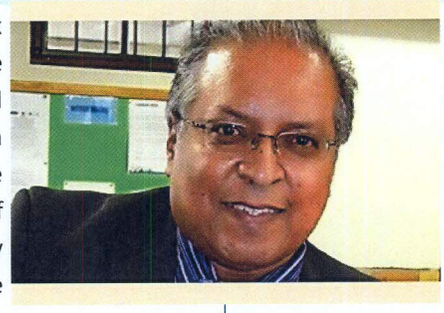
Faculty of Health Sciences

Textbooks of the future



The first interactive scientific textbook published from South Africa for the Apple computer platform was released internationally in 51 countries in December 2014. The textbook is the brainchild of Professor TS Pillay, Head of the Department of Chemical Pathology and the Clinical Pathology Programme at the University of Pretoria. The book makes use of the recently developed iBooks author platform from the Apple Computer Corporation and is designed for trainee specialists, scientists and technologists in the field of chemical pathology.

"In many ways, this is a 4-dimensional medium", says Professor Pillay. "One can embed dynamic material such as videos, animated presentations, 3-D objects and photo galleries allowing for a richer two-way interaction of the student with the material via the touch screen interface."

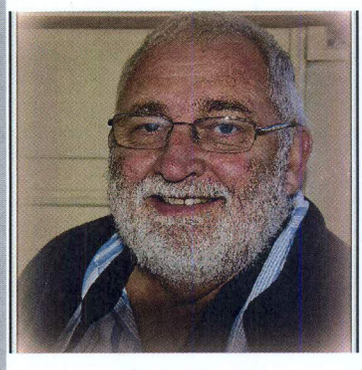
In addition to the multimedia capabilities of the platform, one can also embed review questions that the students can test themselves on as they work through the book. Students can also use the touch screen interface to highlight and annotate as they would using a conventional hardcopy textbook.

These features allow for a richer learning environment for subjects such as medicine, biochemistry and mathematics where interactivity and self-directed learning of procedures and processes are often required.

According to Professor Pillay, one of the most powerful features of the platform is the ability to update quickly – *"one can update a book, for example, on an annual or more frequent basis and the updated version will be immediately available to users via the internet or the local network".* This greatly simplifies the process of updating or producing a new edition of a textbook, compared to conventional publishing of a hardcopy textbook. This really is the future of publishing especially in resource and learning challenged environments.

Two new Honorary Professors in the Department of Paediatrics and Child Health

It is with great pride and honour that the Department of Paediatrics and Child Health announces the promotion to Honorary Professor of Professor Humphrey Lewis and Professor Andre van Niekerk.



Professor Lewis has served the children of South Africa with distinction over many years. He is a founder member of the Paediatric Management Group and has served as chairman of the South African Paediatric Association. In addition, he has been a member of a number of South African guideline committees and has organised many major paediatric congresses. UP is honoured to count Professor Lewis, who continues to serve the University with distinction, among its alumni.

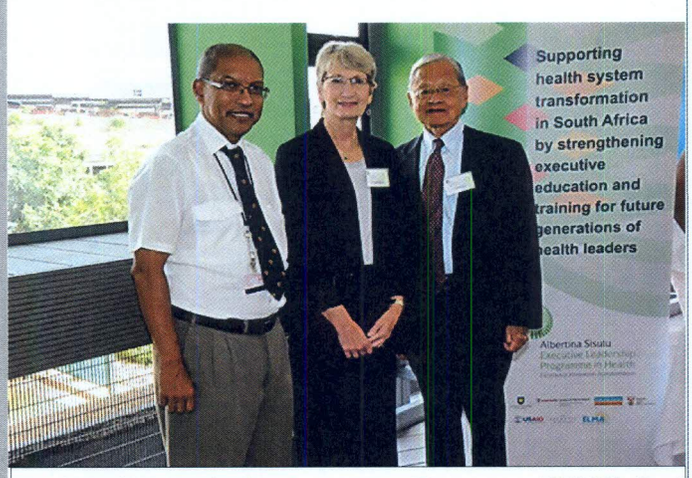
Professor Van Niekerk has solidified his status as one of the country's prominent paediatric pulmonologists and allergy practitioners through, among other things, his involvement with the Allergy Society of South Africa as treasurer. He is a paediatric pulmonologist at the Clinton Clinic in Alberton, Gauteng and in Ballito, KwaZulu-Natal. Furthermore, Professor Van Niekerk is a leader in the private provision of paediatric care with an academic profile. The University is delighted that he will be running a satellite teaching centre of the Department of Paediatrics and Child Health.

Congratulations to both these professors.

Robin Green

Health System Strengthening in Preparation for NHI

The Albertina Sisulu Executive Leadership Programme in Health (Aselph), in collaboration with the Department of Health, held a Health Policy Seminar at the University of Pretoria. The theme was 'Health System Strengthening in Preparation for National Health Insurance (NHI)'. This seminar forms part of the capacity building for Aselph students in conducting seminars. The special guest speaker at the seminar was Prof Bill Hsiao, who is the K.T. Li Professor of Economics at Harvard University and also leads a new program in health systems studies at this institution. Prof Hsiao's current research focuses on developing an analytical model for diagnosing the causes for the successes or failures of national health systems.



Prof Stephen Hendricks, Programme Manager - ASELPH, Prof Dianne Manning, Deputy Dean – Teaching and Learning: Faculty of Health Sciences, UP and Prof Bill Hsiao, Harvard University

NHI is a health services financing mechanism that is aimed at ensuring that all South Africans, regardless of their socio-economic status, will have access to quality health care services based on their health needs. This new type of health financing system will create a link between the privileged and the less privileged as skills and resources will be shared between private and public hospitals.

According to Prof Hsiao the following are critical questions for the successful implementation of the proposed NHI-system in our country:

- How to produce and provide EFFECTIVE coverage for every citizen equally?
- What's affordable?
- What's sustainable?

He further stated that hospitals and health centres will have to offer and produce patient-centered services, have to compete and attract patients to its facility and importantly. He continued that healthcare leaders must have the skills and knowledge to manage the operations, have leadership ability and know how to lead and motivate staff. He concluded by stating that the biggest challenge will be to bring together the public and the private sector, as they have huge disparities in availability and quality of services as well as the cost of services.

NHI will use available public and private resources to ensure its sustainability. The strengthened public health sector will remain the backbone of the country's health service delivery structure and the entire population will have access to a comprehensive health care services package based on a health care approach that focuses on health promotion and the prevention of disease.

Other participants in the seminar included:
Prof Laetitia Rispel, Wits University
Mrs Johanna Moore, Gauteng DOH
Dr Humphrey Zokufa, BHF
Prof Eddie Mhlangu, Mpumalanga DOH
Prof Stewart Whittaker, COSASHA
Prof Pinky Seekoe, UFH
Mr Ramphelane Morewane, NDOH
Mr Kgosi Matlhbane, NWest DOH
Prof S Hendricks, UP
Dr Dumisani Bomela, HASA

The Network: Towards Unity For Health Conference and SAAHE Conference 2015

The 2015 SAAHE conference will be hosted jointly with the international organisation The Network: Towards Unity for Health (TUFH) from 12 to 16 September 2015, at the Birchwood Conference Centre. UP will organize this year's conference. This will be an exciting opportunity to share and network with colleagues from across the globe around the conference theme of **EDUCATION FOR CHANGE**.

The Network: TUFH conferences caters for the learning needs of all participants, experienced, just graduated, or students! Therefore, the conference format is dominated by interactive sessions, such as thematic poster sessions, mini-workshops, didactic sessions and PEARL-sessions. The conference will be visited by participants from over forty countries.

The call for abstracts and registration will be opening very soon so please save the date and watch the SAAHE and/ or Network websites for updates.

Looking forward to welcoming you in the spirit of **BAMBANANI – Working together**.

Successes with Research Funding

The Faculty has a lot for which to be proud of with respect to research funding obtained. The researchers overall need to be commended for the significant efforts made to apply and access funding during 2014. Please keep this momentum going during 2015 and become part of our success stories!

Hearty congratulations to **Professor Tiaan de Jager** and **Professor Michael Pepper** and their respective teams who have firmly established UP as leaders in the areas of Malaria Research and Cellular and Molecular Medicine. During 2014 the UP CSMC, under directorship of Professor Tiaan de Jager was designated as an MRC Collaborative Centre for Malaria Research and an MRC Extramural Research Unit for Stem Cell Research and Therapy was awarded to Professor Michael Pepper, Director of the Institute for Cellular and Molecular Medicine in the Faculty.

Warm congratulations to our emerging researchers who received NRF Thuthuka funding for 2015. New awards were made to **Dr Joji Theron, Prof Theresa Rossouw, Dr Jan-Gert Nel, Ms Thandi Mqoco** and **Mrs Celmarie Dorfling.** Renewed funding was given to **Dr Japie van Tonder, Dr Werner Cordier and Mrs Alet van Tonder, Dr Chrisna Durandt, Dr Andre Stander, Dr Natalie Aneck-Hahn, Dr Marleen Kock, Ms Tracey Hurrell** and **Mrs Gisela van Dyk** which confirms that the research they are busy with is regarded as valuable by their peers.

Further NRF awards include the Competitive Programme for Rated Researchers' funding for 2015 to 2017 awarded to **Professor Maryna Steyn** for her research project on "Adult age estimation in Forensic Anthropology" which aims to establish some standards for age estimation in South Africans, using appropriate statistical techniques. **Professor Tiaan de Jager** received funding support from this Programme as well for his research project which aims to investigate epigenomic changes in the sperm of men from villages where indoor residual spraying (IRS) is used for malaria vector control versus no spraying, aptly titled "Father's lasting influence: The effects of pesticide exposure on the paternal epigenome".

Dr Claire Newton and Dr Ross Anderson, who joined the Department of Immunology during 2014, was awarded three year funding under the NRF Competitive Programme for Unrated Researchers for their research study to be undertaken on Functional rescue of disease-causing G protein-coupled receptor mutants. We know who we need to support in getting ready to be NRF rated in a year or two; Well done!

The Faculty is extremely proud of our clinicians who have received prestigious scholarships from the MRC and Discovery Foundation respectively to pursue their doctoral studies. **Dr Brandon Jackson**, a Surgical Registrar, with an interest in anticoagulation therapy in the HIV setting, was awarded an MRC Scholarship under the Clinician Researcher Programme, for a three -year period. **Dr Sim Mayaphi**, a Clinical Virologist, whose PhD project will involve molecular detection and characterization of primary HIV-1 infections in the Tshwane region, was awarded a Discovery Foundation Academic Fellowship Award. **Dr Ahmad Haeri Mazanderani,** a Senior Registrar in the Department of Medical Virology, also received a Discovery Foundation Academic Fellowship Award to complete his doctoral degree which aims to further research in the field of HIV infant diagnosis.

Professor Michael Pepper was awarded a second NRF equipment grant within a span of two years, which is quite unprecedented but attests to the exciting and cutting edge research being undertaken within the Institute for Cellular and Molecular Medicine. The award to Prof Pepper allows for the acquisition of a Fluidigm Complete Single Cell Genomics Platform which is state of the art, and no other offering of its kind has entered the South African market to date. It is a fully integrated system that allows the researcher to isolate single cells, target enrich and analyse for targeted genomic variability.