



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

HEALTH SCIENCES MATTERS

FACULTY OF HEALTH SCIENCES NEWSLETTER

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University of Pretoria Institute for Sustainable Malaria Control (UP ISMC) wins National Science and Technology Forum (NSTF) award

The UP ISMC headed by Prof Tiaan de Jager, recently won a National Science and Technology Forum (NSTF) Award, which are the most prestigious awards in the South African science community. The NSTF is a multi-stakeholder, non-profit forum for the promotion of science, engineering and technology (SET), and innovation through collaborative efforts.

The UP ISMC won the Communication for Outreach and Creating Awareness of Science Engineering Technology and Innovation Award. Malaria is a complex, often fatal, vector-borne disease. Moving from malaria control to elimination requires novel control measures and strategies.



Prof de Jager and the Minister of Science and Technology, Mrs Mmamoloko Kubayi Ngubane.

Prof de Jager and his team (Prof Lyn-Marie Birkholtz, Prof Walter Focke, Prof Leo Braack and Dr Taneshka Kruger) at the UP ISMC strive to contribute towards eliminating malaria through high quality, trans-disciplinary research, new innovation and education.

The team promotes malaria awareness and prevention by communicating scientifically correct information through formal, informal and more innovative methods including social media. The UP ISMC is an avenue for the translation of high impact scientific research, from laboratory to community, improving the health of rural communities and visitors to malaria areas.

The UP ISMC developed a cellphone application, Malaria-Buddy, in partnership with travel company, TWF and is active on social media platforms, including Facebook, Twitter, and LinkedIn.

Malaria messages are communicated to local communities, travellers and the general public through various media sources. "Education, health promotion, communication and innovative high impact research are key to address the Sustainable Development Goals, including the elimination of malaria," said Prof de Jager.



FROM THE DEAN'S DESK

Dear Colleagues

Mid-year is a time for review and reflection of our performance to date, and gives us an opportunity to develop a clear plan for achieving our targets and successfully concluding 2018. As a Faculty, we managed to meet or exceed six out of ten performance management targets for 2017 – see *Table* below.

PROPOSED INDICATORS		2014	2015	2016	2017	Target 2017
1	% successful FTE students to total FTE students (contact)	93.72%	94.82%	94.54%	93.67%	95.00%
2	Total contact FTE students per FTE academic staff member (ratio)	11.28	11.29	10.32	9.36	12.00
3	Total Master's graduate output	150	166	190	201	170
4	Total Doctoral graduate output	20	24	26	27	30
5	Number of international postgraduate students	197	182	174	174	200
6	% Black contact students to total contact students	58.28%	57.54%	60.00%	62.31%	59.25%
7	% Academic staff with doctorate degrees	44.92%	47.34%	47.73%	48.68%	50.00%
8	% Black academic staff	31.02%	35.11%	36.93%	40.74%	40.00%
9	Accredited publication journal units per academic staff (Headcount)	1.10	1.28	1.45	1.40	1.35
10	Total external funds raised	R 148 660 088	R 136 359 971	R 170 181.10	R 155 093.46	R 153 210 246



FROM THE DEAN'S DESK

I would like to express my gratitude to all staff, academic and support, for your continued commitment to high quality delivery in all you do. With good performance, the challenge is to sustain our efforts whilst catching up in underperforming areas. In this respect, I am heartened by the new members strengthening the Executive management team of the Faculty. Prof Arthur Rantloane joined us earlier this year, and Prof Lester Davids, Deputy Dean for Research and Postgraduate Studies, joined us in July. I am indebted to Prof Rantloane for his hard work and dedication during my recovery from back surgery. With him and Prof Manning steering the Faculty, I could focus on recovery; my sincere thanks to Prof Rantloane and the team! It is with great pleasure that we welcome Prof Lester Davids to UP and we are looking forward to the positive contribution he will undoubtedly make towards enabling research and postgraduate studies in the Faculty. As management, we will continue to work at providing the infrastructure and platforms that foster teaching, learning and research.

Congratulations to the University of Pretoria Institute for Sustainable Malaria Control (UP ISMC) for winning the award in the Communication category of the 20th NSTF-South32 Awards 2017/2018, which celebrates excellence in science, engineering, technology and innovation. This is an extraordinary achievement and speaks to the malaria research team's dedication to malaria awareness campaigns, teaching and sharing knowledge with all who may be affected by this disease, especially supporting at-risk and underserved populations. Well done to all UP ISMC staff and students!

As a Faculty that advocates health, fitness and self-care, we applaud the students from the Department of Physiotherapy who participated in the annual strap competition at this year's Comrades and provided physiotherapy support to runners during the race. Read about the novel academic bootcamp supporting final year chemical pathology students. See the articles on the annual Fun Day we had for children with disabilities, how we commemorated World Oral Health Day as well as Nurses Day. The School of Dentistry supported *Take-a-girl-child-to-work-day*; a strategy that will pay off going forward. We are proud of various staff members and researchers who were elected to senior executive positions in international organisations, as well as those who represented UP at international meetings.

It is almost time for our annual Faculty Day, which takes place on 21 and 22 August 2018. We hope to see everyone on these two days, where topical and novel research findings are presented, developed and debated. Our faculty is ideally positioned to translate research findings into solutions that will lead to the attainment of the United Nations Sustainable Development Goals (SDGs). As a faculty that directly serves the health needs of the community, our clinical role forms the ideal opportunity to identify and study important needs that can improve the "Good Health and wellbeing" (SDG 3) of our communities. This year, Faculty Day should see us coming together, setting up networks and discussing collaborative approaches and solutions to address the SDGs.

On that note, keep warm, stay encouraged and committed to contributing to positive change in our health systems and administration.

Regards



Tiaan

#MakeThingsHappen2018!

Rand Water Chair in Public Health and Water



Prof Maureen Taylor

Water is critical to every aspect of life. This is recognised by the United Nations Sustainable Development Goal 6 that all people should have access to clean drinking water and adequate sanitation. Focussing on this critically important issue, Prof Maureen Taylor, the former Rand Water Chair in Public Health, in the Department of Medical Virology and School of Health Systems and Public Health (SHSPH), investigated new and emerging issues of concern in the drinking water industry.

Prof Taylor's research as Rand Water Chair identified the potential human health risks associated with the reuse of treated wastewater for downstream activities such as the production of safe potable water, recreation and irrigation.

Together with a postdoctoral fellow, Dr Nicole van Abel, colleague and senior lecturer, Dr Janet Mans and postgraduate students, Prof Taylor identified noroviruses in selected surface water sources in Gauteng, which pose a substantial health risk to persons using these water sources for drinking and recreational purposes. The team also detected a new emerging strain, GII.17, not previously described in South Africa. Together with another colleague and senior lecturer, Dr Walda van Zyl, and postgraduate students in the Department of Medical Virology, Prof Taylor found that water sources downstream of wastewater treatment plants were contaminated with high titres of potentially pathogenic enteric viruses. Prof Taylor and Dr Natalie Aneck-Hahn and her students from the Environmental Chemical Pollution and Health Research Unit, SHSPH, detected and quantified thyroid-like activity in untreated surface water and associated treated drinking water in South Africa. Future research will determine potential health risks, using comparative data. Collaborating with Prof Marthie Ehlers and Prof Marleen Kock and their team from the Department of Medical Microbiology, the Rand Water Chair identified multiple antibiotic resistant strains of *Enterococcus spp.*,

which harboured antibiotic resistant genes to clinically important antibiotics, in wastewater effluent. This is concerning as, vulnerable communities often use polluted downstream water sources for domestic use. Source waters and downstream water treatment processes need to be monitored continuously for microbial and chemical contaminants to ensure the provision of safe drinking water to communities. These studies inform policy development and water management models on the use and reuse of contaminated water sources for potable, recreational and agricultural purposes.

One of the major highlights of Prof Taylor's term as Chair was attending the 2015 UN-Water Annual International Zaragoza Conference: Water and Sustainable Development: From Vision to Action held in Zaragoza, Spain 15-17 January 2015, where her presentation "Advancing the water science curriculum and building capacity toward pathogen testing in Africa" was an integral part of the session addressing risk assessment as a tool to improve water quality and the role of institutions of higher education.



Prof Vanessa Steenkamp

Prof Vanessa Steenkamp elected as executive member of the Education and Management Division of the IFCC

Prof Vanessa Steenkamp has been elected as member of the Education and Management Division (EMD) executive committee of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).

The EMD's main role is to guide IFCC members (93 countries) and the healthcare community on relevant scientific, management and clinical issues related to Clinical Chemistry and Laboratory Medicine.

This entails guiding laboratory professionals to function optimally in a changing environment to meet societal healthcare needs. Furthermore, the EMD provides solutions and guidelines to overcome current problems in education and management practices related to Clinical Chemistry and Laboratory Medicine.

Claudina Nogueira elected as ICOH Officer



The ICOH Officers for 2018-2021 are (L to R): Secretary General Prof Sergio Lavicoli (Italy), Vice-President Ms Claudina Nogueira (South Africa), President Dr Jukka Takala (Finland), and Vice- President Dr Seong-Kyu Kang (Republic of Korea). *Photograph: ICOH*

Founded in 1906 in Milan, the International Commission on Occupational Health (ICOH) is an international non-governmental professional society that fosters scientific progress, knowledge and develops all aspects of occupational health and safety. Today, the ICOH is the world's leading international scientific society in the field of occupational health, with approximately 2 000 professional members from 93 countries.

At the recent ICOH 2018 Congress, held in Dublin, Ireland, Claudina Nogueira was elected as an ICOH Officer – Vice-President: Scientific Committees – for the 2018-2021 triennium. Claudina joined the ICOH in 2006 and previously served on the ICOH board for two successive triennia: 2012-2015 and 2015-2018. Claudina was also the scientific coordinator for the ICOH 2009 Congress held in Cape Town.

Claudina joined the Faculty of Health Sciences, UP, in August 2016 as a data and project manager in the Office of the Dean. She holds BSc, BSc (Hons) and MSc (Medical Biochemistry) degrees from the University of the Witwatersrand in Johannesburg, South Africa, and modules in Occupational Hygiene from the (then) British Examination Board in Occupational Hygiene (BEOH, UK).

Aside from the ICOH, her current professional affiliations include executive committee member of the South African Society of Occupational Medicine (SASOM), council member of the Southern African Institute for Occupational Hygiene (SAIOH), and board member of Workplace Health Without Borders (WHWB).

Welcome to Prof Lester Davids, new Deputy Dean: Research and Postgraduate studies in the Faculty of Health Sciences

The Faculty is pleased to welcome Professor Lester Davids as Deputy Dean: Research and Postgraduate studies, starting from 1 July 2018. Prof Davids joins the Faculty as a professor in the Department of Physiology. He was previously appointed in the Department of Medical Biosciences at the University of the Western Cape (UWC) and as an Associate Professor in Cell Biology at the University of Cape Town (UCT).

At UCT, he established the Redox Laboratory Research Group that used human skin as a core model to study the biology of skin cancers, wound healing in burns and the global human phenomenon of skin lightening practices. In 2017, he re-established the BioSkin Laboratory at UWC where he continued to research the biology of human skin.

He has mentored numerous Masters and PhD students and has published more than 40 peer-reviewed international articles. He has presented his research at national and international conferences including the SA Burns Congress and Dermatology congresses. He has conducted numerous television and radio interviews and been integrally involved in 3 international documentaries on the global phenomenon of skin lightening. Prof Davids has numerous national and international collaborators including the US and Europe. He was a member of the SA-Swiss International Bioentrepreneurship team (2013), is a nationally rated scientist and received funding through the Technology and Human Resources Innovation Programme (THRIP) for his work on culturing and expanding human skin cells for use in burn wound treatments. He completed his sabbatical as a SA-USA Fulbright Senior Fellow in 2015 where he was hosted in the laboratory of Prof Nina Jablonski at Pennsylvania State University.

The Faculty congratulates Professor Davids on his appointment and wishes him well in his journey as Deputy Dean: Research and Postgraduate studies.



Prof Lester Davids

Novel academic boot-camp for Chemical Pathology

The Department of Chemical Pathology hosted an academic boot-camp to support final year medical students preparing for their final examination. The boot-camp complements traditional lectures received during the block.

Using a short student questionnaire coupled with a test item analysis of prior student class test performance, lecturers identified conceptual problem areas. These problem areas were formulated into clinical cases and presented at the boot-camp. This format develops higher cognitive learning and encourages students to interact in small groups aimed at resolving common conceptual problems in chemical pathology.

Dr Punchoo, Chair of the block, said that future boot-camps will incorporate hybridised learning methodologies to strengthen contemporary evidence-based pedagogical practices.

Prof Tahir Pillay, Head of Department of Chemical Pathology, is very supportive of Dr Punchoo's initiative. "There is a problem with pathology teaching and learning nationally and this impacts on postgraduate interest. A pathology boot-camp is a superb way to get medical students interested in pathology and also to enhance learning," said Prof Pillay.



Dr Bettina Chale-Matsau uses a clinical-case teaching approach to chemical pathology problem topics.

Health Sciences fun day for Children with Disabilities

The Faculty of Health Sciences recently hosted its annual community engagement event, a Fun Day for Children with Disabilities. This event has been running for 23 years and is one of the highlights on the Faculty calendar.

The event aims to give disabled learners a day of fun and enjoyment in a social setting with other disabled learners. The learners participated in fun activities in different categories, according to their choice and ability. More than 400 disabled learners from the greater Tshwane and Johannesburg area took part in the event this year.

Students from the different undergraduate disciplines within the Faculty participated in this event. The Fun Day makes a real difference in the lives of all those involved, including the disabled learners, and Health Sciences staff and students.

Prof Tiaan de Jager, Dean of Health Sciences, stated 'this is a life changing event. Every student and staff member that spends time with these children is inspired and emotionally touched by the courage of these children. It is wonderful to see how the students interact with these children and how they have fun together.'



Oral Health Awareness Outreach

The Department of Community Dentistry targets underprivileged communities that lack access to oral health centres. The Department visited the Prospectus Novus School for children with learning disabilities and the neurological ward at the Tshwane District Hospital to promote awareness of oral health. Students participated in the outreach and clearly enjoyed engaging and interacting with learners and patients.



Girls spend day at School of Dentistry



The School of Dentistry recently hosted Grade 12 girls, who were interested in pursuing a career in Dentistry and Oral Hygiene, for a day. This formed part of the annual Cell C Take a Girl Child to Work Day® initiative.

The girls explored different departments and the various procedures performed in the Oral and Dental Hospital. The girls that participated came from Soshanguve. According to Dr Zodwa Nkambule, from the Department of Community Dentistry, the event was a great success and in the girls' reflections for the day, they confirmed that they enjoyed themselves and the visit gave them new perspectives on their future dreams and careers.

UP nurses support health as a human right



Prof Fhumulani Mavis Mulaudzi

In May, the world celebrated International Nurses Day. This year celebrates the theme, 'Nurses: a voice to lead - health is a human right', advocating that no matter the location or setting, healthcare should be accessible to all. Head of the Department of Nursing Science Prof Fhumulani Mavis Mulaudzi recognises the importance and relevance of this year's theme, particularly in the South African context.

The Department of Nursing Science actively ensures that nursing students understand their role as leaders and advocates for the human right to healthcare. Prof Mulaudzi and the UP nursing staff pride themselves on a set of values that strive to better the lives of others. 'We instil a strong sense of responsibility and accountability in our students, and we see their development from first year until they graduate,' says Prof Mulaudzi proudly.

Prof Mulaudzi says there is a definite rejuvenation and motivation among the nursing community when it comes to the recognition that health is a human right. However, South Africa is still grappling with many challenges that are impeding the realisation of this right. As a training institution, she says it is critical that UP continues to train nurses to understand the value of every human being and to be the voice that calls for health as a human right.

Prof Herman Bernitz represents UP at the International Academy of Legal Medicine Conference



Invited speakers: Prof Herman Bernitz (South Africa), Prof Andreas Schmelting (Germany) and Prof Douglas Ubelaker (USA).

The International Academy of Legal Medicine conference was held in Fukuoka Japan (5 - 8 June 2018), and was attended by 600 delegates from around the globe. The meeting comprised of many lectures and hands-on sessions covering all aspects of forensic and legal medicine. The meeting created an opportunity for forensic scientists from the West and East to share academic experiences while enjoying fellowship and making new friends.

In the session dedicated to age estimation and personal identification, Prof Herman Bernitz (UP) was amongst the invited speakers. Most keynote speakers dedicated their talks to aspects of Human Rights and Quality Control. It was heartening to see full auditoriums during these keynote lectures. Several other lectures and posters were presented by forensic dentists, mostly from Asia.

Faculty of Health Sciences Faculty Day 2018



What is Faculty Day?

Faculty Day is a two-day event that aims to provide researchers at all levels, including post- and undergraduate students, the opportunity to present their latest research findings to the Faculty.

Theme 2018: UN SDG's

Research findings are presented on these two days in the form of poster exhibitions, as well as oral and poster presentations. For 2018, the focus of our Faculty Day is to exhibit how our research supports progress made towards the Sustainable Development Goals put forth by the United Nations.



For more information, visit the Faculty Day 2018 website

<https://www.up.ac.za/en/faculty-of-health-sciences-research/article/1952484/faculty-day-21-22-agust-2018>

Prof Annie Joubert presents inaugural lecture



Prof Arthur Rantloane, Prof Annie Joubert and Prof Anton Ströh

Prof Annie Joubert, Head of the Department of Physiology, recently presented her inaugural lecture. The address was entitled ***Physiology as a mature science – old challenges and new opportunities in teaching and research***. The multifaceted address described the primary role of the Department of Physiology in integrative teaching and learning, job creation and research. Prof Joubert's research focus is cancer cellular physiology.

Staff achievements in the Department of Odontology



Dr Nichola Warren, Dr Glynn Buchanan, Dr Nicoline Potgieter, Prof Francois de Wet, Prof Peet van der Vyver, Dr Martin Vorster and Dr Riaan Lombard.

The Department of Odontology is very proud of the achievements of 4 staff members who recently graduated. Extraordinary Prof Peet van der Vyver obtained his PhD degree with a thesis titled, "*A Micro-computed tomographic evaluation of curved maxillary molar root canals after using different root canal instrumentation techniques*". The three lecturers received their MSc Odont degrees, namely, Dr Martin Vorster (Endodontics), Dr Nicoline Potgieter (Paedodontics) and Dr Glynn Buchanan (Endodontics)

Physiotherapy students at the 2018 Comrades



Strapping Competition

Universities from across South Africa competed in the annual Strap for Life competition held at the 2018 Comrades Marathon. The Tuks Physiotherapy team came in second place, earning prize money and product. WELL DONE TEAM! The competition was followed by an evening of interuniversity action cricket, netball and soccer.

Marathon Day

Squat, rub, stand, hand up for the next runner, squat, rub, stand, hand up for next runner and repeat for over four hours as thousands of runners passed through our hands. It was brilliant work. A team of final year physiotherapists treated everything from calf, hamstring, quads, glutes, groins, backs necks, knees, ankles and medial arches. The team was guided by qualified physiotherapists.

Student achievements celebrated



The annual prize winners function for the Schools of Healthcare Sciences and Medicine was held recently at the Aula Auditorium. This event recognises and celebrates the academic achievements of students, and is attended by staff, parents and loved ones. This event encourages, acknowledges and motivates students to excel. We would like to thank the prize sponsors for their contributions.

Tuks students attend International Association of Student Surgical Society's (IASSS) 2018 Symposium



Tuks students attending the IASSS 2018 symposium

During the weekend of 11-15 July 2018, students from the University of Pretoria's Tuks Student Surgical Society attended the IASSS 2018 symposium. This symposium was the International as well as the Southern African surgical symposium for 2018.

It was hosted by the University of Cape Town and the University of Stellenbosch, and world class lectures and workshops were presented.

During the symposium two University of Pretoria students were elected onto the Executive Committee of the IASSS. Jomarie Weyers got elected for the position of Administrative officer and Stephan Brink for the position of Editor in chief.



Jomarie Weyers



Stephan Brink



We would love to hear more from departments and staff.

Please e-mail your ideas and contributions for the next edition to Ronel Leyds

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