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OP News

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Faculty research promotes **environmental stewardship**

Louise de Bruin

The University of Pretoria (UP) is in a unique position because it is the only tertiary institution in the country that has a Faculty of Veterinary Science. Through its academic programmes and research, it is committed to promoting sustainability for a healthier environment.

The Faculty is a leading driver of the One Health concept within the Southern African Development Community (SADC), valuing the importance of a healthy human/animal/ecosystem interface. The severe impact of factors like pollution on environmental, animal and human health throughout the world has highlighted the importance of ecosystem health. The Faculty maintains that the best way to address these challenges is through the One Health approach.



Full article on page 2

The Dean of the Faculty, Prof Darrell Abernethy, describes the Faculty's general approach to all teaching and

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New deputy dean appointed for the Faculty



Prof Vinasan (Vinny) Naidoo is the new Deputy Dean: Research and Postgraduate Studies of the Faculty. He was appointed with effect from 1 August 2015.

also a registered specialist veterinary pharmacologist with the South African Veterinary Council (SAVC).

He commenced his career as a lecturer in Veterinary Pharmacology in the Department of Paraclinical Sciences in 2002 in the Faculty, where he progressed to associate professor and then professor and Director of UP's Biomedical Research Centre (UPBRC). Among other things, he was elected as an Exceptional Young Researcher of the University in 2009, and as Young Researcher of the Year in the Faculty in

2007 and Researcher of the Year in the Faculty in both 2009 and 2013.

Prof Naidoo has been serving as an expert committee member of the Medicines Control Council (MCC) since 2003, and has been a full member of the Council since 2010. He also serves as Chairperson of the Educational Committee of the South African Veterinary Council (SAVC) and is the Chairperson of the Board of VulPro (Vulture Programme).

Prof Naidoo has supervised a large number of master's and doctoral degree students to completion. He has published extensively, both in peer-reviewed journals and book chapters.

"I am honoured that the University considered me to be up to the task of assisting the Dean in taking this Faculty to being a pre-eminent seat of veterinary excellence", Prof Naidoo said after his appointment. He obtained a BVMCh degree at Medunsa, and an MSc degree and PhD degree at the University of Pretoria. He is



research, particularly around livestock and wildlife, as orientated towards sustainability. Improving the health and productivity of animals are two fundamental areas of focus. This focus enables efforts towards improved food security and income generation, and the minimisation of diseases to benefit the environment. Dedicated staff and researchers from the Faculty work on these focus areas to benefit environmental management.

Through its academic programmes and research, the Faculty is committed to promoting sustainability for a healthier environment.

The sustainable use of the earth's resources is a priority for the Faculty and strongly endorses better utilisation of valuable and finite resources. In its attempts to achieve this goal, the Faculty offers farming programmes that aim to better equip small-scale farmers with the knowledge to improve farming practices, become more responsible environmental stewards and improve farming outputs. In addition, the Faculty hosts a number of flagship projects that aim to promote a healthy, thriving ecosystem and environment.

When an animal becomes extinct, the balances of its environment are disrupted and an ecosystem is threatened.

Dr Cindy Harper of the Veterinary Genetics Laboratory developed the Rhino Index System (RhODIS), which houses DNA samples of thousands of dead, poached and live rhinos, in an effort to combat rhino poaching. RhODIS has had many successes in linking DNA found in rhino horn to specific poaching events. It also serves as valuable evidence in court. Dr Harper hopes to include lions and elephants in the project, as both these species also fall victim to greed and traditional beliefs. The system has the potential to become an international database of threatened species that could be used all over the world.

Sewage pollution, heavy metals and other pollutants in our water systems are causing a grave depletion of life in our water systems. Because of the dirty water, diseases are becoming more prevalent. Dr Jan Myburgh of the Department of Paraclinical Sciences is researching ways to improve the health and welfare of the Nile crocodile. In 2008, the Kruger National Park was struck with a pansteatitis outbreak in crocodiles, which resulted in the deaths of many of these animals. Pansteatitis is a physiological disease that causes extreme pain, loss of mobility and death.

One of Faculty's leading wildlife veterinarians, Dr Mike Kock, is playing his part in protecting forest elephants against poaching. Working in collaboration with African Parks (AP), Dr Kock attempts to determine the effects of poaching on forest elephants in the Central African Rainforest. The team is setting out to collar elephants with GPS tracking collars to track their movements. As poaching in the region increases, the animals are changing their habits and moving deep into better-protected areas like national parks (for example, the Odzala-Kokoua National Park in the Republic of Congo), which makes tracking and collaring them difficult.

To specifically care for rhinos that have survived poaching and other traumatic incidents, two of the Faculty's veterinarians, Dr Johan Marais and Dr Gerhard Steenkamp, started the Saving the Survivors programme in 2012. Currently, between 80 and 120 animals survive attacks per year, but as the demand for rhino horn increases, so does the number of rhinos in need of urgent attention and treatment. The pair go out to game farms and nature reserves to treat injured rhinos. Their efforts have received international media attention.



Message from the Dean

Prof Darrell Abernethy

The year 2015 continues to be an exciting and challenging year for the Faculty as we fulfil the University's mission with its navigational markers of quality, relevance, diversity and sustainability. These are demonstrated throughout this newsletter and confirm the impact of the Faculty, both nationally and globally. Our new skills and multidisciplinary laboratories have been highly commended by international experts, our undergraduate teaching has changed to increase its quality and practical value, while our research programmes continue to grow in depth and variety.

This year sees the graduation of the last class of the Veterinary Science seven-year programme with its 3+4 structure. From next year, all Veterinary Science students will be following the composite six-year programme. Next year also sees the start of compulsory community service, and our students have responded extremely positively to repaying our society for its contribution towards their studies and profession. We wish them well and are actively working with the Department of Agriculture, Forestry and Fisheries (DAFF) to facilitate its success.

In 2014, a collaborative One Health research project began in the Limpopo National Park, Mozambique, alongside the Kruger National Park. Called "Communities on the Move", the project has many subprojects, all connected by the concept of movement: pathogen-flow between livestock, wildlife and people, transfer of villagers living in the park to areas outside, and the associated risks as their livestock move with them. The project epitomises much about the Faculty and the fact that we are a community on the move: our curriculum is continuing to develop to ensure that it is world-class;

we are implementing strategies to ensure that we remain relevant to our stakeholders – the profession, government, our students and the public; we are growing high-impact research clusters and are striving to meet national transformation and equity aspirations. As in all journeys there are challenges, but I am confident that we can meet these and continue to excel in all areas of our work: research, teaching and learning, community engagement and service.

Prof Darrell Abernethy
Dean: Faculty of Veterinary Science

Skills Laboratory quite an attraction at RuVASA congress



Johann Erlank (BVSc IV) with veterinarian and former OP graduate, Dr Annelie Cloete, testing her skills on the "Breed 'n Betsy" simulator.

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The Onderstepoort Skills Laboratory made quite an impression during this year's Ruminant Veterinary Association of South Africa (RuVASA) congress, which took place from 7 to 10 June 2015 in the Western Cape.



The Zoetis team at this year's RuVASA congress.

Thanks to Zoetis, the world's largest producer of medicine and vaccinations for pets and livestock, two students from the Faculty of Veterinary Science, Olwam Hamilton Monakali and Johann Erlank, had the opportunity to represent the Faculty's Skills Lab at this year's RuVASA congress. Production animal veterinarians from all over the country attended the congress.

During this congress, the veterinarians were exposed to new developments of the Skills Lab, and the simulators and stations that are available for veterinary science students' training. The rectal examination simulator, "Breed 'n Betsy", was displayed at the congress. Veterinarians were able to perform a pregnancy diagnosis on "Betsy" and were shown how "Betsy" can be used to teach students the necessary skills to perform a rectal examination, artificial insemination,

pregnancy diagnosis and ultrasound on a cow.

A competition was held each day to see who could most accurately determine "Betsy's" stage of pregnancy. The results were quite interesting and both the practicing vets and the students had a lot of fun. The prizes were sponsored by Zoetis.

The Skills Lab received a lot of compliments from the practicing veterinarians and many of them said that they wished that they had had these facilities at their disposal as students.

A word from the students: "We would like to thank Zoetis for making this trip possible and giving students the opportunity to be exposed to the challenges as practicing veterinarians, as well as the latest developments and solutions in the veterinary field. We certainly learned a lot."

SAVC accreditation team revisits Faculty

The South African Veterinary Council (SAVC) accreditation revisit to the Faculty took place on 28 and 29 May 2015 following its 2013 accreditation visit. In 2013, the visitation team made certain recommendations and the purpose of the revisit was to see whether its recommendations had been implemented.

Both the panel and Faculty members experienced the visit as positive. The visitation team's report will be discussed by the SAVC at its next meeting, after which the final report will be communicated. The Faculty also awaits a response from the Australasian Boards Council and the Royal College of Veterinary Surgeons, which were represented by Prof Reuben Rose from Australia.

The panel members were:

Dr Danie Odendaal

Team leader 2013 visitation

Dr Boitshoko Ntshabele

Team member 2013 visitation

Prof Reuben Rose

Team member 2013 visitation

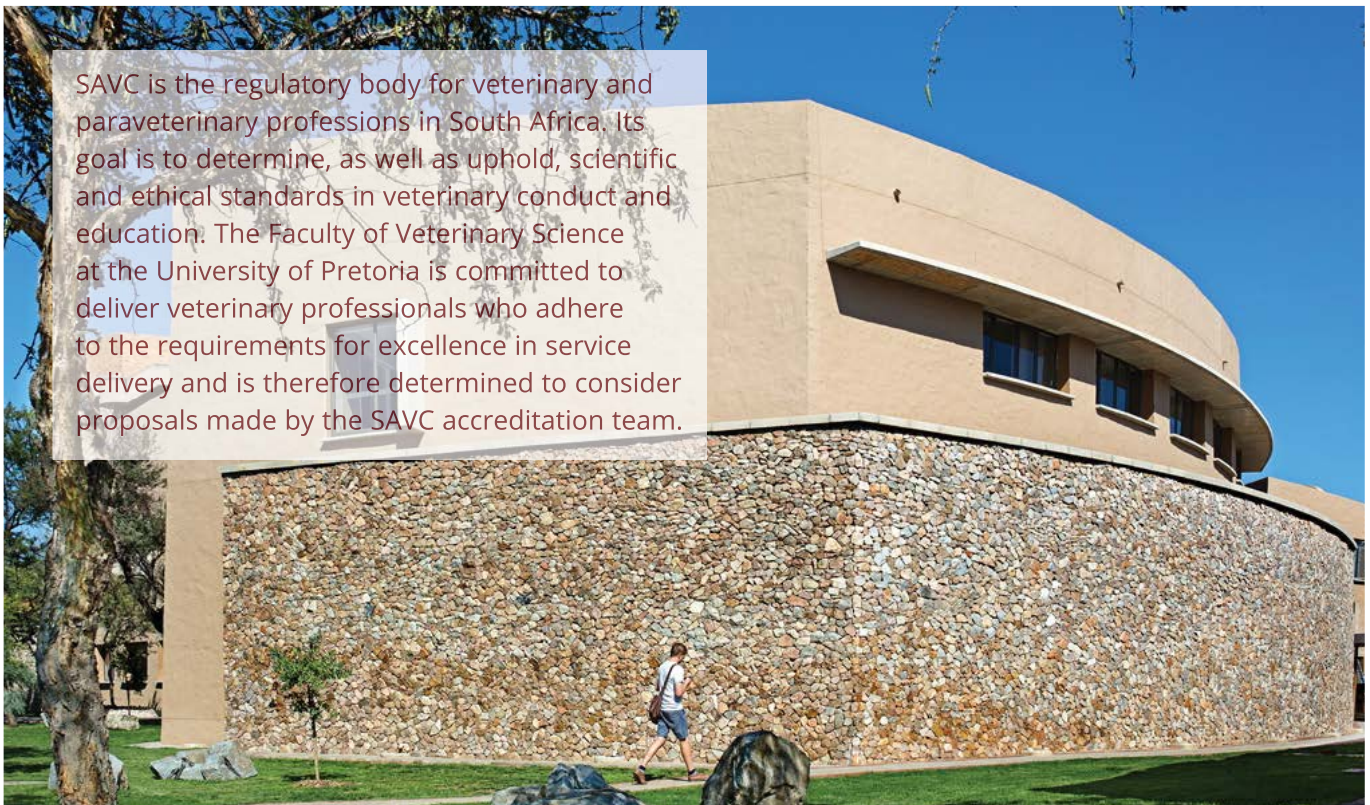
Leonie Westcott

Programme Coordinator



The panel members of the revisit SAVC accreditation team with the Dean, Prof Darrell Abernethy (left) and Prof Linda van Ryneveld, Director: Teaching and Learning (second from right). Back (from left): Dr Ntshabele and Prof Rose. The other members were Ms Leonie Westcott (front left) and Dr Danie Odendaal (far right).

SAVC is the regulatory body for veterinary and paraveterinary professions in South Africa. Its goal is to determine, as well as uphold, scientific and ethical standards in veterinary conduct and education. The Faculty of Veterinary Science at the University of Pretoria is committed to deliver veterinary professionals who adhere to the requirements for excellence in service delivery and is therefore determined to consider proposals made by the SAVC accreditation team.





The campus of the American University of Sharjah where the Arabian Biodiversity workshop was presented.

OP collaborates on herbivore health

Achieving natural balance in ecosystems and preventing the destruction of natural habitats around the world requires collaboration among the different stakeholders.

Towards this end, the Environment and Protected Areas Authority of Sharjah in the United Arab Emirates hosted the 16th International Conservation Workshop for Arabia's Biodiversity from 2 to 5 February 2015. Dr Gerhard Steenkamp, Dr June Williams and Prof Moritz van Vuuren from the Faculty of Veterinary Science at Onderstepoort attended the workshop on the American University of Sharjah's campus as co-facilitators.

The staff members participated in a session about herbivore health care. The presentations focused on the

current global viewpoints on controlled and notifiable diseases, as well as emerging and re-emerging infections. Procedural components of biodiversity, such as surveillance, vaccination and laboratory testing, received special attention with the emphasis on the region's wild herbivores. A section dealing with primary health care highlighted the importance of basic management procedures for captive and semi-captive populations.

The Faculty of Veterinary Science's academics who participated in the workshop. From left: Dr June Williams, Prof Moritz van Vuuren and Dr Gerhard Steenkamp.

Practical demonstrations included postmortem examinations and using cytology for presumptive and, in some cases, definitive diagnoses. The aim was to encourage veterinarians to do necropsies routinely to allow them to make informed decisions.

The last part of the workshop was dedicated to chemical immobilisation procedures, which included a target shooting competition.



Faculty hosts special doctoral degree celebration

Every year, the Faculty of Veterinary Science at the University of Pretoria acknowledges its doctoral degree graduates in a special way. The Faculty hosts a celebration event where all the doctoral degree candidates share the insights of their approved dissertations with various Faculty staff members and other invited guests.

In April 2015, the Faculty had its second doctoral celebration. The event celebrated the fact that nine doctoral degree candidates graduated in the same year.

The nine graduates came from two departments in the Faculty. Dr Mxolisi Goodwill Masango, Dr Jan Gabriel Myburg, Dr Nana Kwaku Boaduo, Dr James Wabwire Ogotu and Dr Tshepiso Jan Makhafola graduated from the Department of Paraclinical Sciences. Dr Carlos Joao Quembo, Dr Peninah Namatovu Nsamba, Dr Cornelius Mweempwa and Dr Ockert Louis van Schalkwyk were from the Department of Veterinary Tropical Diseases.

Dr Makhafola was the youngest of the group and, at only 29, was very proud of his achievement that was only realised through hard work and enthusiasm. Dr Makhafola's thesis was entitled "The *in vitro* inhibition of genotoxicity by plant extracts and the isolation and characterisation of antimutagenic compounds from *Combretum* (Combretaceae)". With Prof Kobus Eloff as supervisor of his study, the results provide impetus to



Some of the new doctoral degree graduates of the Department of Paraclinical Sciences and their supervisors with the Dean, Prof Darrell Abernethy (third from the left) and Prof Linda van Ryneveld, Director: Teaching and Learning (front). From left: Prof Kobus Eloff (Phytomedicine), Dr Tshepiso Makhafola, Prof Christo Botha (Head of Department: Paraclinical Sciences), Dr Mxolisi Masango and Dr Jan Myburgh.

other scientists to develop anti-cancer drugs from plants.

In line with the University's mission to be a research-intensive institution, the Faculty is proud to have had nine doctoral graduates at the same

ceremony. The Faculty will continue to strive towards promoting and emphasising postgraduate study opportunities linked to cutting-edge research to further enhance its reputation as a seat of veterinary excellence.



The PhD graduates of the Department of Veterinary Tropical Diseases are Dr Francois Maree (second from left, supervisor), Dr Louis van Schalkwyk (third from left), Dr Peninah Nsamba (front) and Dr Cornelius Mweempwa. With them are Prof Moritz van Vuuren (Head of Department: Veterinary Tropical Diseases), the Dean, Prof Darrell Abernethy, Prof Linda van Ryneveld, Director: Teaching and Learning, and Dr Banie Penzhorn (supervisor).

What Works with Worms

Worms present a significant threat to livestock health and can have a devastating effect on farm productivity. To counteract this, discussions and innovation regarding effective worm diagnostics and treatment are necessary. Members of the Faculty of Veterinary Science were instrumental in organising and participating in the 2015 What Works with Worms Congress.

The South African Veterinary Association (SAVA) and the American Consortium for Small Ruminant Parasite Control (ACSRPC) co-hosted the event at Farm Inn in Pretoria on 25 and 26 May 2015.

The event aimed to inform participants of the current internationally proven and implementable practices to control internal parasites in ruminant livestock in a sustainable way. The event also aimed to enable participants to provide good, effective and scientific advice to clients, especially farmers.

Prof Ken Pettey, Dr Rhoda Leask, Lana Botha, Sandra Wilkinson and Prof Gareth Bath represented the Faculty's Department of Production Animal Studies, while Dr Jan van Wyk and Jan van Rensburg represented the Department of Veterinary Tropical Diseases.

Nine international speakers represented the ACSRPC, of which Dr Van Wyk, Prof Bath, Dr Faffa Malan and Prof Pettey are members. The event showed that South Africa leads the field in many key areas of internal parasite control, such as targeted selective treatment, practical diagnostics, selection and culling for resistance and resilience, utilisation of *Sericia lespedeza*, also known as "smart man's lucerne", as well as the holistic packaging of control measures.

After the congress, the visitors went on a tour of Mpumalanga. One highlight of the tour was a visit to the farm where the targeted selective treatment method, the Faffa Malan Chart (FAMACHA), was first conceived and tested. The tour culminated in a visit to the Kruger National Park.



The participants visited the SANParks Veterinary Wildlife Services at Skukuza and met Dr Markus Hofmeyr, Head: Veterinary Wildlife Services, who discussed frustrations regarding rhino poaching in the Kruger National Park.



Some of the presenters at the 2015 What Works with Worms Congress collaborating to control internal parasites in ruminant livestock. From left: Tom Terrill (USA), Lisa Williamson (USA), Jim Miller (USA), Dr Malan (South Africa), Mehdi Mobini (USA), Ray Kaplan (USA), Bob Storey (USA), Prof Bath (South Africa), Dave Midgely (South Africa), Susan Schoenian (USA), Dr Van Wyk (South Africa) and Herve Hoste (France).



Prof Bath (South Africa) and Tom Terrill (USA) during the last session of the congress.



Dr Malan watching Ray Kaplan (USA) and Jim Miller (USA) demonstrate the FAMACHA technique to Mpumalanga farmer Hartman Holtzhausen during the post-congress study tour.

The Faculty's continued involvement in ACSRPC (and other initiatives) should ensure that South Africa continues to play a leading role in designing and implementing practical and sustainable measures for parasite management.

IVF lab on track

In 2014, the *in vitro* fertilisation (IVF) laboratory in the Section of Reproduction at the Department of Production Animal Studies reported the first cow pregnancy from an *in vitro*-derived embryo at Onderstepoort since 1999. Dhario, the calf that was born, celebrated his first birthday at the Faculty of Veterinary Science in June 2015.



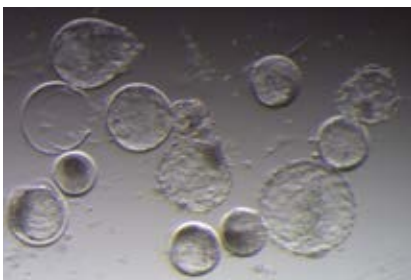
Dhario (centre).

The IVF laboratory continues its routine research and practice runs to establish successful culture protocols. It is also involved with private IVF trials. Since October 2014, the following four new IVF research studies were registered:

- Dietary polyunsaturated fatty acids: implications for the metabolic and genital health of transition cows and on general health and growth in their calves (Dr Giulia Esposito)
- Comparison of oocyte quality and viability in Nguni and Hereford cattle exposed to a high-protein diet (Dr Robyn Hamman)

- Blood urea nitrogen and fertility of beef cattle (Dr Takula Tshuma)
- Effects of the timing of cumulus cell co-culture exposure and intracytoplasmic sperm injection on bovine *in vitro* embryo production (Mr Mario Smuts)

Sonya de Bruyn, an MSc student, recently joined Dr Dietmar Holm, Dr Giulia Esposito, Mario Smuts and Kgomotso Sekwele of the laboratory to assist the team in expanding its IVF expertise in the small stock embryology technology field. The laboratory would like to officially welcome her to the team.



Bovine blastocysts following *in vitro* fertilisation and culture in the IVF lab.



New IVF laboratory in the Onderstepoort Veterinary Academic Hospital (OVAH).



Prof Chenoweth (left) and Prof Soley (right) during Prof Chenoweth's recent visit to the Faculty.

Strengthening international networking

Prof Peter Chenoweth, Dean of the School of Veterinary Medicine at James Cook University in Queensland, Australia, visited the Faculty of Veterinary Science at the invitation of Dr Lizette du Plessis and Prof John Soley of the Department of Anatomy and Physiology on 5 June 2015.

The visit was part of a visit to South Africa during which Prof Chenoweth also delivered a presentation at the annual congress of the Ruminant Veterinary Association of South Africa (RuVASA). During his visit to the Faculty, he met with the Dean, Prof Darrell Abernethy, and presented a lecture entitled "Domestication vs Reproduction" to staff and students.

Prof Chenoweth is a well-recognised authority in the field of veterinary reproduction and is the author of important veterinary textbooks. Currently, Dr Du Plessis of the Electron Microscopy Unit in the Department of Anatomy and Physiology and Prof Chenoweth both serve on the committee for the International Association for Applied Animal Andrology.



Delegates from countries including Belgium, Bolivia, Democratic Republic of Congo, India, Indonesia, Morocco, Nepal, Peru, South Africa and Uganda attended the workshop.

Seventh LINQED educational network workshop 2015

The 7th annual workshop of the LINQED Educational Network was held in Bangalore, India, and was hosted by the Institute for Public Health (IPH), Bengaluru from 25 to 28 May 2015.

Dr Darshana Morar-Leather from the Department of Veterinary Tropical Diseases and Dr El-Marie Mostert from the Department for Education Innovation at the Faculty attended this workshop.

Dr Mostert was involved in the planning and facilitation of the workshop as a member of the Executive Committee (2013 to 2016). LINQED is an international network

of educational institutions and government-related partners that provide training in human and animal tropical medicine and public health. The aim of this network is to strengthen postgraduate developing countries' training capacity in clinical, public and international health.

Some 40 international participants, including delegates from Belgium, Bolivia, Democratic Republic of Congo, India, Indonesia, Morocco, Nepal, Peru, South Africa and Uganda attended the workshop. The focus for this workshop consisted of three main themes:

- Cooperative learning and group work
- The Four-component Instructional Design Model (4C/ID model)
- Thesis supervision

These themes are addressed under the umbrella theme of "Quality in



Dr Morar-Leather and Dr Mostert preparing for the workshop.

education". All delegates had to prepare for the workshop. This ensured active audience participation.

The funding for this network from the Belgian Directorate-General of Development Cooperation (DGDC) will come to an end in 2016. It is unsure at this stage in what format the network will continue from 2017. However, the next workshop is planned for May 2016.

Reaching for a young girl's dream

The Faculty aims to be socially responsive to the needs and assets of communities. On 1 April 2015, the 13-year-old Lee-Adri Vlok, who is suffering from cancer, visited the Faculty.

She has always wanted to be a veterinarian. The Reach for a Dream Foundation contacted the Faculty and asked if she could be a veterinarian for the day.

On arrival, Lee-Adri was given a personalised Eukanuba final-year jacket, a surgical cap and a stethoscope. She definitely looked like one of our own students. Sr Amanda Hamman, Sr Sarah Johnson and Sr Marizelle de Clercq took her on rounds through the hospital complex. She watched many procedures in the hospital and even helped bandage a dog's fractured leg.



Sr Sarah Johnson (far left), Sr Amanda Hamman (matron of the OVAH) and Prof Linda van Ryneveld, Director: Teaching and Learning (right) with Lee-Adri during her visit.

Dr Quixy Sonntag spoke to her about dog behaviour and showed her some tricks with the Beagle puppies. Wilma Olivier showed her the anatomy museum. Lee-Adri and her family had lunch with Prof Linda van Ryneveld and all the staff members who were involved in her day as a veterinarian.

She started chemotherapy at the Little Company of Mary hospital on 7 April 2015 and the Faculty wishes her a speedy recovery.



Dr Quixy Sonntag tells Lee-Adri about dog behaviour while showing her some tricks with the Beagle puppies.

Faculty's HR Department restructured



Human Resources (HR) in the Faculty recently underwent some changes. Ms Estelle Cronje (top left) has been promoted to HR Service Coordinator and will be responsible for ensuring effective service rendering. Two new staff members, who will assist Estelle, recently joined the Faculty. The Business Partner, Ms Christa Kitching, will still be accountable for the Faculty's HR and will assist with HR specialist services and strategic planning.



Bernice Nyathela (centre left) joined the University of Pretoria as a Senior HR Officer in 2011 at the Central Administration Building on UP's Hatfield Campus. She completed her HR qualification in 2005 and immediately started working. Bernice also has a diploma in bookkeeping to trial balance and chose HR as a career because it enables her to make a difference in various circumstances within an institution. According to Bernice, a business is only as good as its employees, and employees are only as good as their HR team.



Lesiba Rabalao (bottom left) joined the University in 2013 as a Senior HR Officer in the Faculty of Law. He completed a National Diploma: Human Resources in 2004 and completed his internship programme at the Department of Public Works in April 2005. He worked at the Department of Rural Development and Land Reform from 2006 to 2013. His functions include recruitment and selection, training and development, employee relations, contracts of employment and HR administration.

New staff members for the Department of Paraclinical Sciences

Dr Adrian Tordiffe and Dr Nicolize O'Dell were recently appointed to the Department of Paraclinical Sciences, each providing his or her own value-adding expertise to the Department's skilled staff complement.



Dr Tordiffe (top) obtained his BVSc degree at the Faculty in 1997 and then spent the next eight years at a small animal practice in the United Kingdom. In 2006, he completed a master's degree (cum laude) in African Mammalogy at the Mammal Research Institute of the University of Pretoria and worked at the National Zoological Gardens of South Africa as a clinical veterinarian from 2007. At this time, he already had a close working relationship with and was involved in collaborative projects with some of the Faculty's veterinarians, including Dr Gerhard Steenkamp.

In 2014, he accepted a senior lecturer position in Veterinary Pharmacology at the Faculty and he hopes to complete his PhD in Biochemistry at North-West University in Potchefstroom. His PhD research aims to establish baseline metabolomics profiles for captive and free-ranging cheetahs to investigate the medical conditions that these animals develop in captivity. He also has a keen interest in the anaesthesia and physiology of large terrestrial and semi-aquatic mammals and he has assisted with the immobilisation and anaesthesia of these animals for veterinary procedures.



Dr O'Dell (bottom) completed a BSc (Animal Science) degree in 2005. She obtained the BSc (Veterinary Biology) degree in 2006 and a BVSc degree in 2010. In 2012, she enrolled for the MMedVet Pathology degree and is currently busy with her third year of study.

Apart from her relevant undergraduate experience, including electives at the Hluvukani Animal Clinic and a state veterinarian elective in Nelspruit, she obtained extensive postgraduate working experience at the Potchefstroom Animal Clinic from 2010 to 2012. Since January 2013, she has been working as a clinical assistant at the Faculty's Pathology Section and she has had the privilege of working with some of the most experienced pathologists in the country.

She has developed a keen interest in wildlife and crocodile pathology and hopes to focus on diagnostics and research in this field. She enjoys teaching undergraduate students the practical skills necessary for the veterinary profession, specifically in the field of pathology.

Open education resource work session held for regional veterinary deans

The University of Pretoria is a leading research-intensive South African University that has an established national and international reputation for excellence in teaching and research.

The Faculty of Veterinary Science is one of nine faculties at the University of Pretoria and is the only one of its kind in South Africa. The Faculty's sole responsibility is to train veterinarians and veterinary nurses who are essential to the country. It is also a leader in Africa and enjoys global international recognition for its training and courses.

With this in mind, AfriVip – the African veterinary online information portal – hosted a Regional Veterinary Deans Collaboration meeting early in 2015. The meeting served as an open education resource (OER) working session to explore OER collaboration for the accumulation and sharing of usable knowledge among students and staff in veterinary science

faculties in sub-Saharan Africa. This conference was hosted by the Faculty and investigated online learning and the possibilities of sharing learning experiences through online learning platforms.

The faculties represented at this meeting are all interested in collaboration in OERs as staff members



Prof Linda van Ryneveld (left) during one of the sessions.

and students from these institutions are exposed to various situations and projects that could provide valuable learning opportunities for other veterinary science and related faculties. These institutions could be enriched by both online and OERs.

However, one of the main points of discussion was that an agreement has to be reached on the focus of possible cooperation and the platform(s) to be used, after which the probability of putting it in place in a practicable way would be explored. Prof Linda

van Ryneveld, the Faculty's Director: Teaching and Learning, elaborated on the current e-learning activities that are used at UP. These activities include clickers, a small hand-held device no larger than a student card. This device is personalised and used for formative assessment in the classroom environment and to record class attendance. It also serves as an early warning system for formative assessment and provides students with direct feedback.

The ideas put forward will be consolidated into a project plan and a funding proposal for all delegates to consider and give input. OER Africa is to approach various foundations for possible funding. All delegates committed themselves to participate in further discussions online.



The Faculty continuously strives for national and international recognition and standing. In the process, it is crucial that all departments adhere to high academic standards.

Marius Pienaar, the Faculty's instructional designer, obtained his doctoral degree in May 2015. In his thesis, "The development and implementation of e-assessment as component of WIL: a case study", he identified

Instructional designer completes doctoral degree

and examined factors that should be included in the development of e-assessment as a component of Work Integrated Learning (WIL) programmes. His research was executed in two phases. In Phase 1 of the study, a prototype of e-assessment as a component of WIL was developed and implemented, while the experiences of workplace mentors and WIL students regarding the implementation of the prototype of e-assessment were uncovered in Phase 2.

The study's findings suggest that e-assessment shows remarkable potential to benefit students, academic departments and workplace environments. However, a variety of factors needs to be considered for the successful implementation of e-assessment as a component of WIL programmes. Among other things, e-assessments should be institutionally driven, special care should be taken to ensure access to and availability

of appropriate technology, all stakeholders should be subjected to proper orientation and training regarding e-assessment, and collaboration between the workplace and the academic institution should be improved.

It is also suggested that assessment tasks should meaningfully relate to the realities of the workplace, that the development of assessment tasks should be meticulously done and regularly revised, and that attention should be given to constructive feedback to enable student growth and development.

As the Faculty's instructional designer, Marius can assist with any e-learning matters. He can be contacted at 012 529 8323 or marius.pienaar@up.ac.za.

Veterinary Pathology specialist from Spain visits OP



Dr Jorge Martinez (left) in conversation with Prof Leon Prozesky, Head of the Pathology Section at UP's Faculty of Veterinary Science.

Dr Jorge Martinez, a senior lecturer in Veterinary Pathology from the Universitat Autònoma de Barcelona in Spain, spent three months in the Pathology Section at the Faculty of Veterinary Science. According to Dr Martinez, the visit, with the Department of Paraclinical Science as his host, was an amazing experience.

He visited the Faculty to see diagnostic cases from the Department of Veterinary Tropical Diseases, especially those that are considered emerging diseases in Europe, like African swine fever, blue tongue, Rift Valley fever, West Nile fever and African horse sickness.

"I was surprised by the large number of interesting diseases that are present in South Africa and the tremendous opportunities to do research on them," he notes.

Having had the pleasure of introducing his faculty to Prof Darrell Abernethy, Dean of our Faculty, Dr Martinez and his management team think that there are great possibilities to gain European funding for exchange programmes for students, as well as staff for further research projects.

During his stay at the Faculty, the soft-spoken veterinarian met many people, including Prof Leon Prozesky, Head of the Pathology Section, Dr Johan Steyl, Dr Sarah Clift, Dr June Williams and many others, with whom a wealth of knowledge and many experiences were shared. According to Dr Martinez, he was impressed with the Faculty's hospitality and it almost felt like home. He will definitely recommend this Faculty to his staff and students back home in Spain, as a fulfilling experience for learning and collaboration.

I want to save lives one day

Tandile Ndobeni BVSc IV student

Prof Linda van Ryneveld, the Director: Teaching and Learning, invited me to attend a selection workshop on 22 January 2015.

After the workshop, I was really inspired to host a career event for Khanyisa High School, Mthatha in the Eastern Cape where I had matriculated. Initially, the idea was to tell students from underprivileged communities about veterinary science as an exciting and soul-fulfilling field

of study. Indirectly, I was giving back to Khanyisa High School as my teachers and the Principal, Mr S Vattakunel, prepared me for who I am today, for they always told me: "There is no passion to be found in playing small; settling for a life that is less than the one you deserve" – Nelson Mandela.

My initial step was to tell the current Deputy Principal, Ms Lawana, about the veterinary science career event I wanted to host for my old high school. She was very excited about the idea and immediately put me

in contact with Ms Ben, who is the teacher responsible for hosting the annual career events.

On the day, the students sat down to listen to Siviwe Marawula, dressed as a wildlife veterinarian, Songezo Pepu, dressed as a production animal veterinarian, Dr Yonela Nkubungu, dressed as a researcher, and Tandile Ndobeni, dressed as a clinician. They all made presentations about veterinary science. Approximately 90% of the students did not know about the field, and those who did, thought it was all just about dogs and cats.

What a great moment when I saw the faces of the students light up as I played the Faculty of Veterinary Science video during the presentation.

Dr Kolisa Nokoyo talked about her experience as a veterinary professional, which made the students aware of the unlimited career opportunities after qualifying as a vet. The students also received information about bursaries from Mr Funani, who is responsible for bursaries at the Department of Agriculture in Bisho. Dr Yonela Nkubungu inspired students as he shared his amazing story of how he ended up being a veterinary science student. His main focus was to remind the youngsters that even if one grows up in a disadvantaged family, studying with determination is and always has been the best route to success.



The team showed learners the different elements of veterinary sciences with Dr Yonela Nkubungu dressed as a researcher, Tandile Ndobeni dressed as a clinician, Siviwe Marawula dressed as a wildlife veterinarian, and Songezo Pepu dressed as a production veterinarian.

SYMCO

The 15th International Symposium on Wildlife Utilisation (ISWU), organised by the Faculty's Symposium Committee (SYMCO), took place from 1 to 8 July 2015. It included 60 international and 10 local students. The symposium started in Pretoria, after which delegates went on an epic journey through many of the wildlife hot-spots of South Africa, including the Kruger National Park, and the beautiful natural estuaries of the northern coastline. Not only did the symposium provide an opportunity to get up close and personal with South African wildlife, but also to network with veterinary professionals and students from around the world.

Spinnekop, the adopted little lamb

This little Merino lamb, named Spinnekop (Spider – because she walks like a spider), was born on 16 May 2015. Her twin died one day after birth. The little lamb was not strong and after five days could no longer walk. She was bottled on a farm for two weeks, but could not walk at all. She was due to be euthanised when she found her way to Dr Martina Crole of the Department of Anatomy and Physiology. After a bath and one day in a sling, she began to walk. Her front leg joints were still stiff, but she showed a genuine enthusiasm to get up and go. Her legs still require a lot of work, but she is now healthy and growing fast. Spinnekop is receiving physiotherapy from a human physio. She has become very popular with the staff and students at Onderstepoort, who have all helped her in some way or another. Her courage for life has touched the hearts of everyone who has met her.



Watch Spinnekop learning to walk at <https://www.youtube.com/watch?v=uQ6sn8uWYgc>

IVSA

The mission of the International Veterinary Student Association (IVSA) is to benefit the animals and people of the world by harnessing the potential and dedication of veterinary students to promote the international application of veterinary skills, education and knowledge. They annually have an exchange programme with an international partner country. This year our Faculty was partnered with Ghent University and 10 students visited the Faculty from 6 to 20 July, during which they were taken to various places of veterinary interest and were exposed to different aspects of veterinary life.

Postgraduate Student Association putting itself on the map

The Onderstepoort Postgraduate Student Association (PGSA) is an independent, voluntary, non-profit organisation and student body that officially represents the postgraduate students at the Faculty Veterinary Science.

The PGSA currently comprises 335 honours, master's and doctoral degree students from around the world.

Event news

In April 2015, two Happy Hour events were held at the Postgraduate Centre, with Dr Mike Kock giving an informative talk on One Health. In May 2015, another interactive session on managing the student-supervisor relationship was presented by Prof Bernard Slippers.



From left: Mabotse Tjale (PhD candidate, Onderstepoort Veterinary Institute), Rae Smith (MSc candidate, Onderstepoort Veterinary Institute), Lauren Son (MSc candidate, Agricultural Research Council)



From left: Ms Cornell Kortenhoeven (PRO), Ms Gayle Pedersen (Secretary-General), Dr Mohamed Sirdar (Chairperson) and Ms Boitumelo Motimele (Treasurer) at the PGSA gala dinner.

The PGSA also hosted a successful gala dinner and welcoming evening, to which the Dean, heads of department, postgraduate students and the top-performing undergraduate students from each class were invited. The Dean, Prof Darrell Abernethy, and Dr Carol Nonkwelo, Director of the Department of Research and Innovation Support (DRIS) at the University, addressed the guests.

Community engagement

Community engagement is one of the PGSA's priorities. So far, the PGSA hosted the annual fun day at Onderstepoort Primary School in March 2015. The PGSA members will be returning to the primary school for Mandela Day when they interact with the children on the soccer pitch, clean up the grounds and classrooms, as well as support and train teachers on the use of computers. The PGSA is also planning a soup kitchen event in July 2015 and an orphanage visit in September 2015.

Academics

The PGSA is actively involved on campus whenever student feedback is requested on Faculty matters. It cooperates with and promotes the training programmes hosted by DRIS on the Hatfield Campus, as well as the Department of Veterinary Tropical Diseases' Enrichment Programme with Prof Estelle Venter.

The workshop on Statistical Analysis using 'R' with Prof Eric Etter received such phenomenal interest that another session had to be scheduled.

The PGSA is part of the Introductory Research Module for the third-year of the BVSc degree. Doctoral degree students supervise the research component. The PGSA is dedicated to providing professional support to undergraduate students and increase the number of veterinarians who graduate each year by participating in the mentorship programme.

Upcoming events

- Another undergraduate/postgraduate Happy Hour is being planned. The details will still be announced.
- Postgraduate students at Onderstepoort are also invited to participate in the TuksRes postgraduate sports day on 8 August 2015 at the LC de Villiers sports grounds.
- In addition to Cultural Day and various community engagement events, the Year End Function will take place in November. It will be held just before the election of the 2016 Executive Committee and farewell/thanks to the 2015 members.

Contact us at op.pgsa@gmail.com for more information.

The Expertis

– MSD Animal Health Feedlot School

The Expertis – MSD Animal Health Feedlot School, in collaboration with the Faculty of Veterinary Science, strives to help students gain unique first-hand practical experience in the speciality field of beef and sheep feedlotting. The programme was the brainchild of Dr Shaun Morris and Dr Eben du Preez, and is currently in its third year of operation.

Students can apply to the programme during their Production Animal Block or during their electives if these occur at the same time as one of the schools. A school spans two weeks and students get a chance to get dirty and gain invaluable experience on some of the best South African feedlots. Participants are exposed to all the processes in a modern feedlot, from the moment a calf climbs off the vehicle upon arrival, to its departure from the feedlot for slaughter.

The students are required to participate in every aspect of the feedlot's daily activities, including a visit to an abattoir.

Top feedlot consultants, Dr Morris and Dr Du Preez, who have both been appointed as extraordinary lecturers in the Department of Production Animal Studies, mentor students in the programme.

During the second week of a school, students attend a series of lectures at the Onderstepoort campus, presented by key opinion leaders in the field. Topics include feedlot management, medicine and the use of growth-enhancing technology (presented by Dr Morris and Dr Du Preez), feedlot nutrition (presented by Dr Kobus Swart), parasitology (presented by Dr Faffa Malan and Dr Tom Strydom), toxicology (presented by Dr Neil Fourie) and practical pathology (presented by Prof Leon Prozesky).

The school is sponsored by MSD Animal Health, but it would not be possible without the support of Prof Pete Irons and his staff in the Department of Production Animal Studies.

For more information about the programme, please contact Dr Koba Grobler at koba.grobler@merck.com or Dr Morris at ksmorris@mweb.co.za.



Participants in one of the schools for The Expertis – MSD Animal Health Feedlot School programme.



MSD

Animal Health

Nguni cattle

development launch

Ammone Piet Phahlane and his team experienced an unusual day on 7 May 2015. Their farm, Melkhoutfontein 183 JR, hosted the launch of the Gauteng Industrial Development Corporation (IDC) Nguni Cattle Development Project.

The launch was attended by farmers from around Gauteng and various stakeholders, including a number of dignitaries. The Member of the Executive Council (MEC) for the Gauteng Department of Economic Development and



Thirty registered pregnant Nguni heifers and one Nguni bull are loaned to farms who can return the offspring within five years.



Some of the Gauteng farmers and delegates who attended the launch of the Nguni Cattle Development Project.

Agriculture and Rural Development, Mr Lebogang Maile, and the Gauteng IDC Nguni Cattle Development Trust (GINCDT) launched the project. The GINCDT is a development-oriented partnership of the IDC, the Gauteng Department of Agriculture and Rural Development (GDARD) and the Faculty of Veterinary Science at the University of Pretoria. These three stakeholders play the following roles:

- IDC: Project funding
- GDARD: project funding, monitoring, and extension and advisory support
- Faculty of Veterinary Science: training of beneficiaries and marketing

Apart from popularising the project, the purpose of the launch was to showcase agriculture's contribution towards building visionary alliances for re-industrialisation through agriculture and transforming the agricultural sector for inclusive growth and the redistribution of wealth.

The project involves loaning 30 registered pregnant Nguni heifers and one registered Nguni bull to each interested and qualified farmer in Gauteng. Beneficiaries of this project should be able to return the offspring (same number, breed or monetary equivalent of the loaned cattle) within five years.

Apart from Ammone Piet and his team members, two other beneficiaries, Rachael Swahledi and Victoria Dzowa, also received gift medical kits.



Nguni cattle on Melkhoutfontein 183 JR, the farm of Ammone Piet Phahlane and his team.

Building a bridge between South Africa and the Indian Ocean region

The South-Western Indian Ocean (SWIO) region has been hit by different severe infectious diseases, such as chikungunya in 2005 and Rift Valley fever in 2008 and 2009. To bridge the gaps between the SWIO region and South Africa, Dr Eric Cardinale of the Centre for International Cooperation in Agronomic Research for Development (CIRAD) and animal risk coordinator, and Dr Vincent Porphyre, also of CIRAD, travelled to Pretoria to collaborate with the Faculty of Veterinary Science's staff. They also aimed to identify some topics that could be developed in collaboration with the Faculty.

They presented a seminar where almost 80% of the researchers of the Department of Production Animal Studies were present and had discussions with Prof Marinda Oosthuizen, Dr Mike Kock, Dr Luis Neves and Dr Oludayo Fasina.

Dr Cardinale and Dr Porphyre were hosted by Prof Eric Etter of the Epidemiology Section in the Department of Production Animal Studies. He is also affiliated to CIRAD.

Among others, they met with the Dean, Prof Darrell Abernethy, Prof Pete Irons, Prof Peter Thompson and Prof Celia Abolnik.

Thanks to this research programme, two surveillance networks have been set up for ensuring the surveillance of animal and human infectious diseases respectively. Furthermore, AnimalRisk has developed several research studies

to better understand the epidemiology of the major diseases circulating in our area.

The issue of animal diseases with a severe potential economic impact, such as Newcastle disease, tick-borne diseases or peste des petits ruminants, remains a threat.

Today, even the research studies are led by veterinary and human health bodies (research institutes, private and public organisations) and include environmental and social sciences.

Health information is shared between veterinary and human health authorities, new zoonosis outbreaks are investigated by professionals from both sectors at the same time and results from research studies are immediately presented to health authorities if they could help improve existing control programmes.



Making waves at the Dolphin National Championships

Dr Dietmar Holm of the Department of Production Animal Studies and his son, Simon Holm, reigned as national champions at the Dolphin National Championships that were hosted by the Pretoria Sailing Club from 27 to 29 April 2015. The event took place at Rietvlei Dam.

For the first time in some years, the Dolphin Class attracted 20 boats to the national championships, which made it one of the better-attended double-handed dinghy nationals in South Africa.

Dr Holm and Simon won four out of the five races in which they sailed on the second day of the event, which took them to the first position with one race to spare.

It is interesting to note how many family combinations have been sailing the Dolphin over the years. It must be one of the most wonderful family boats around and it is versatile as a competitive racing dinghy.

Milk laboratory helps countless cows and farmers



Mr Kgomotso Shanky Malekane (veterinary technician) in the milk laboratory that aims for proactive dairy cow management.

From cheese to yoghurt, cream, butter and ice cream, dairy products form a major part of the South African diet.

Bulk milk is tested to ensure that South African consumers have access to safe, high-quality and wholesome milk, as prescribed in the Foodstuffs, Cosmetics and Disinfectants Act, 1972. If milk does not meet the required standards, dairy producers are assisted to improve the udder health of their cows and the hygienic process of harvesting the milk.

Food safety is important from production to consumption. The laboratory tests water sources for its bacterial content and hardness, as inferior water quality may have a negative effect on the efficacy of disinfectants that are used on farms. Antibiotic residue testing, such as Thermo-resistant Inhibitory Substances (TRIS), is done to ensure that milk for human consumption is free from residues. The Department of Agriculture, Forestry and Fisheries (DAFF) approves the

Faculty's milk laboratory, which tests for notifiable diseases in milk (brucellosis). Documents are being submitted to the South African National Accreditation System (SANAS) for accreditation.

The milk laboratory uses a unique approach toward udder health in dairy cows. It is a species-specific approach where all lactating cows in a herd are examined by performing microbiology and somatic cell counts on milk samples. This information assists dairy producers to become proactive in their management, which prevents disease rather than only being reactive when cows have already contracted mastitis. Complete herd examinations identify the infected animals and allow producers to separate and deal with infected animals, which prevents further spread of the disease. An experienced veterinarian analyses herd results and producers are advised on what action to take in collaboration with their veterinarians.

When required, farm consultations are done. During these consultations, the milking machine is tested, milk samples are taken, clinical examinations of udders are done, the management system on the farm is evaluated and new protocols are generated for specific needs on that farm. An experienced veterinarian from the milk laboratory works in close collaboration with local veterinarians to assist dairy producers. Advice on mastitis treatment is based on antibiogram results. Somatic cell counts that form the basis of the udder health diagnosis are performed. To ensure continuous accuracy of results, this laboratory participates in international and national proficiency testing schemes using national certified reference material on a regular basis.

The milk laboratory owns a large database of results that are utilised by master's and doctoral degree students. Final-year veterinary students are exposed to real-life case studies and they take part in solving udder health problems on farms.

Current and local knowledge of udder health in South Africa and neighbouring countries is obtained and utilised for research. Research fields focus on real-time findings, and results are presented at national and international conferences. Collaborating with industry and networking with specialists take place on a regular basis. New products and remedies are tested and the laboratory is involved in research in the following fields: methicillin resistance of *Staphylococcus aureus*, antimicrobial resistance of milk pathogens, efficacy of a mastitis vaccine, verifying current international diagnostic methods and developing risk assessment programmes for udder health.



OP delivers bride of the year

Not only does the Faculty of Veterinary Science deliver excellent veterinary professionals, it has recently delivered a bride of the year too.

A third-year veterinary science student, Vicky Louw, was crowned the 2014 SA Weddings Bride of the Year on 18 April 2015. She got married on 5 July 2014 and her family convinced her to enter the competition. In the first round of the competition, the bride with the most SMS votes in her wedding month was selected as part of the group of 12 finalists.

For the second round, the 12 finalists travelled to The Bay Hotel in Cape Town for a weekend to appear before celebrity judges Roxy Louw, Tracey Lange, Calvin Petersen, Thoki Tafeni and Juana Parathyras. The finalists and their husbands had to appear

in their wedding attire. They were judged on their general appearance and personalities, and the brides were judged on their wedding dresses.

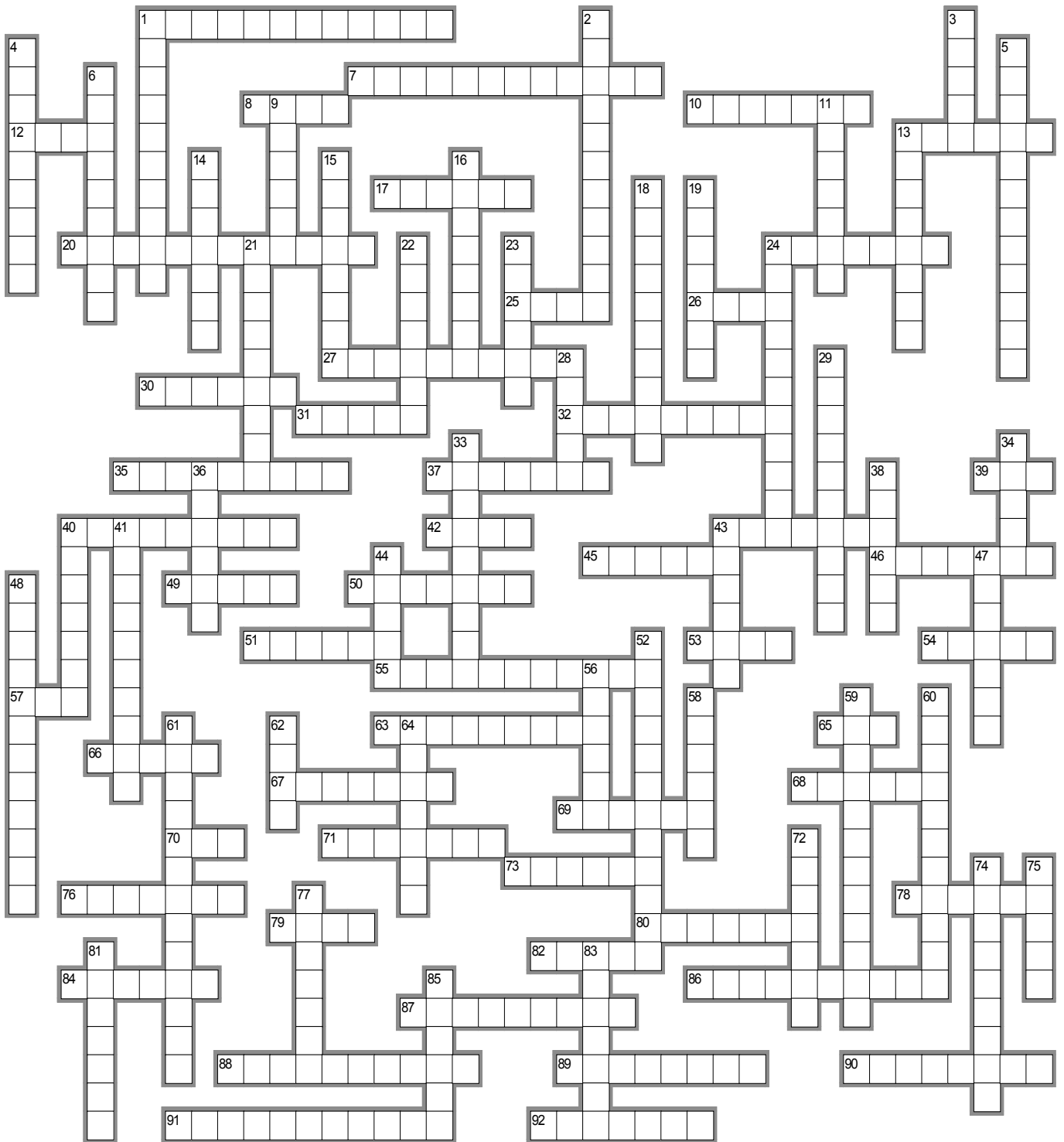
Event guests included premium event sponsors, Cape Town media, celebrities and, most importantly, the loved ones of the finalists. Upon arrival, they were treated to welcoming drinks and the rhythms of Manouche, a South African-based gypsy jazz band.

Dinner was presented by The Bay Hotel's Chef de Cuisine, Warwick King, paired with wines from Rickety Bridge. The after party included a candy station by Vibe Event Catering and a photo booth by Retro Photo Booth.

Vicky said she did not expect to win because the other brides were so lovely and looked stunning in their dresses, but she was grateful to have won. Among other things, she walked away with a cash prize of R20 000 and a second honeymoon in Mauritius worth R70 000.

Despite faring so well in this competition, Vicky still showed commitment to her studies, as she flew back to Johannesburg on Sunday 19 April 2015 to write a Pharmacology test the next morning. After the test, she flew back to Cape Town to appear on the SABC's breakfast show, Espresso, on the Monday afternoon.

OP News Crossword Puzzle

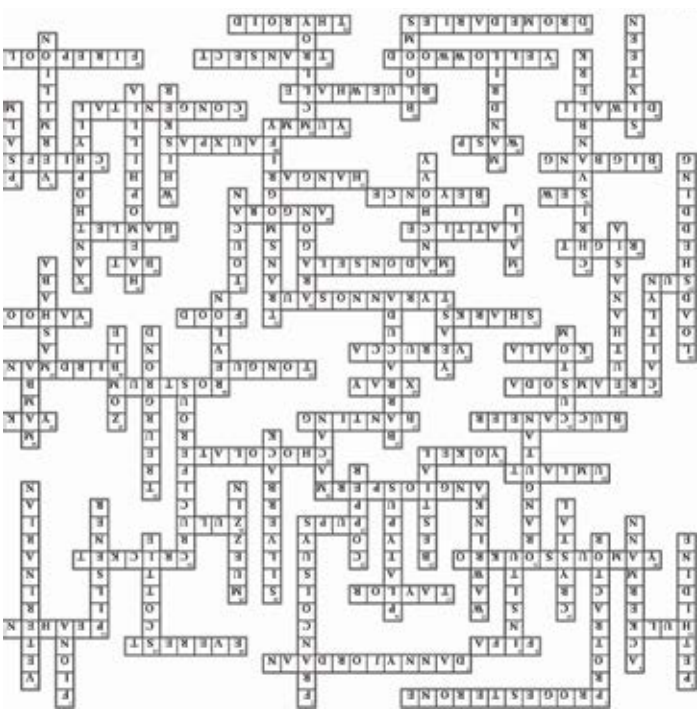


Across

- | | | |
|--|--|--|
| 1. Male sex hormone | 39. Tibetan ox | 68. Shakespearean play |
| 7. Infamous new PE mayor | 40. Soft drink flavour | 69. Type of goat |
| 8. Sports body in bribery scandal | 42. Electromagnetic radiation | 70. Use a needle and thread |
| 10. Highest mountain | 43. Platform for public speaking | 71. JayZ's wife |
| 12. Strong green Marvel character | 45. Muscular organ | 73. Shed for housing aircraft |
| 13. Female peafowl | 46. Michael Keaton film | 76. TV comedy series |
| 17. Swift | 49. Australian marsupial | 78. 2013 Super Rugby winners |
| 20. Ivory Coast capital | 50. Wart | 79. Slender-waisted insect |
| 24. Australia won this World Cup in 2015 | 51. 2013 Currie Cup winners | 80. Social blunder (f) |
| 25. Baby beavers | 53. Sitophobia is a fear of... | 82. Tasty (inf) |
| 26. African tribe | 54. Popular search engine | 84. Hindu festival |
| 27. Flower-bearing plants | 55. Largest known carnivore | 86. Existing from birth |
| 30. German punctuation mark | 57. The earth travels around this star | 87. Largest animal on earth |
| 31. Country bumpkin | 63. SA Public Protector (surname) | 88. SA national tree |
| 32. Charlie and the ...factory | 65. Flying mammal | 89. Cut across |
| 35. Pirate | 66. 90° angle | 90. Nkandla safety feature |
| 37. Tim Noakes's diet | 67. Trellis | 91. Camels with one hump |
| | | 92. Its projection causes the Adam's apple |

Down

- | | | |
|----------------------------------|--|--|
| 1. Use this to measure angles | 23. You find verdigris on this | 56. Oil to make hair shine |
| 2. Cheetah captain | 24. Cabbage, kale, broccoli | 58. Bird with big beak |
| 3. Shrek's wife | 28. SA car of the year (Porsche...) | 59. Tendency to prolonged bleeding |
| 4. Soluble synthetic analgesic | 29. New Afrikaans film starring Steve Hofmeyer | 60. Yellow pigment in leaves |
| 5. "Cattle doctor" | 33. Large voracious fish | 61. Editor of this publication |
| 6. Lions head coach (surname) | 34. Venemous SA snake | 62. Timbuktu is here |
| 9. In its original place (I) | 36. Tradition | 64. Pizza fish |
| 11. A terrier | 38. Revived corpse | 72. Bristle above lip |
| 13. Lager beer brewed in Pilsen | 40. Bruce Jenner's new name | 74. Brilliant red pigment |
| 14. Transparent ice-like mineral | 41. Gentle death | 75. Biblical song |
| 15. 2015 French Open winner | 43. Well-known cosmetic brand | 77. Monkey |
| 16. Mammal that lays eggs | 44. Rising agent in bread | 81. White rhino pregnancy lasts so many months |
| 18. Gorilla leader | 47. Bafana coach | 83. Top golfer |
| 19. He calls from the mosque | 48. Eskom's infamous plan | 85. Bears flowers |
| 21. Largest tree-dwelling animal | 52. Surprising transformation | |
| 22. Like a beast | | |



Find the answers here





Frances (with ball in hand) breaks past some of her opponents in one of the matches during the tournament.

In the group phase of the tournament, the team defeated the Belgian national team, a French regional team and an invitational side from Nancy. Unfortunately, they lost against Hungary (10–19), but still qualified for the quarter-finals against the Romanian national team, to which they lost 7–10. In the plate section's semi-finals, they beat Norway 14–0 and defeated Switzerland in the final with 10–7 to clinch the trophy.

An unforgettable experience

Frances Stroud, a dedicated fourth-year veterinary science student at the Faculty of Veterinary Science, had a good reason for requesting permission to write a special examination for the Clinical Pathology module (CLP 410).

Frances is a member of the Tuks women's sevens rugby team that clinched the plate-final title in the Stanislas Sevens Tournament in Nancy, France, in May 2015. As scrumhalf of the team, Frances not only played an important role in the team, but the fact that the official Tuks team had the opportunity to play in the international invitational tournament in Nancy and a second tournament in Paris, provided a rare opportunity. Frances wrote to Prof Amelia Goddard, Head of the Section of Clinical Pathology at the Faculty, to ask permission to miss

the CLP 410 examination so that she could seize this opportunity. In her letter, she also stressed how important her studies are to her and the request was granted. The team's success has more than justified this decision and the Faculty is proud that Frances could be a part of this.

In December 2014, the team also fared well at a tournament in Dubai and was very serious in its approach to the upcoming tournaments. The players trained five days a week for three hours a day. The team is a close unit, blended by a strong spirit among themselves and friendship.

According to Frances, sevens rugby has taught her something very special about discipline, friendship and success. "We are all friends and you want to be part of this if we win or lose. You want to go through what they go through. Many of these women come from underprivileged backgrounds and it is a great reflection on the spirit of women in

our country. It shows that women from different walks of life can be successful, not only in rugby, but in sport in general. This also contributes to unity in our country and it not only provides a fantastic opportunity for me, but for all of us," she said.

It is exactly this spirit, motivation and discipline that Frances tries to imprint on her studies: "I am so grateful that I was granted permission to experience this. I definitely won't let my studies down. This Faculty is an academic institution with high standards and studying here can sometimes be stressful, but I don't only want to do well in my studies, I want to be a well-rounded person, something this Faculty allows us to become. Sevens rugby has taught me a lot about discipline, winning and success, but also how to deal with disappointments. This is something that I am applying to my studies as well because I want to be successful."