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# OP News

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## Equine surgery and its challenges

Louise de Bruin

Equine surgery has its fair share of challenges, but thanks to the well-equipped Onderstepoort Veterinary Academic Hospital (OVAH), equine surgeons, such as Dr Arnold Mahne, are able to do their utmost for sick and injured horses that are brought in for treatment.

**D**r Mahne is one of the main equine surgical specialists at Onderstepoort and is passionate about horses.

The expertise in the Faculty of Veterinary Science has a rich, shared knowledge base. Valuable opinions give insight into difficult procedures and threatening cases, and often lead to successful outcomes in equine surgery.



Dr Mahne drills a hole into a horse's sinus cavity, enabling him to examine its sinus with an endoscope.

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Prof Darrell Abernethy, Dean of the Faculty (left), and Dr Peter Oberem, President of the WRSA, sign the MOU.

On 2 November 2015, a Memorandum of Understanding (MoU) was signed between the Faculty of Veterinary Science and the Wildlife Ranching South Africa (WRSA).

**T**he MoU will make a significant contribution to expand the Faculty's capacity to serve the wildlife industry in South Africa, with specific emphasis on the diagnostic pathology

## MOU between Faculty and Wildlife Ranching South Africa

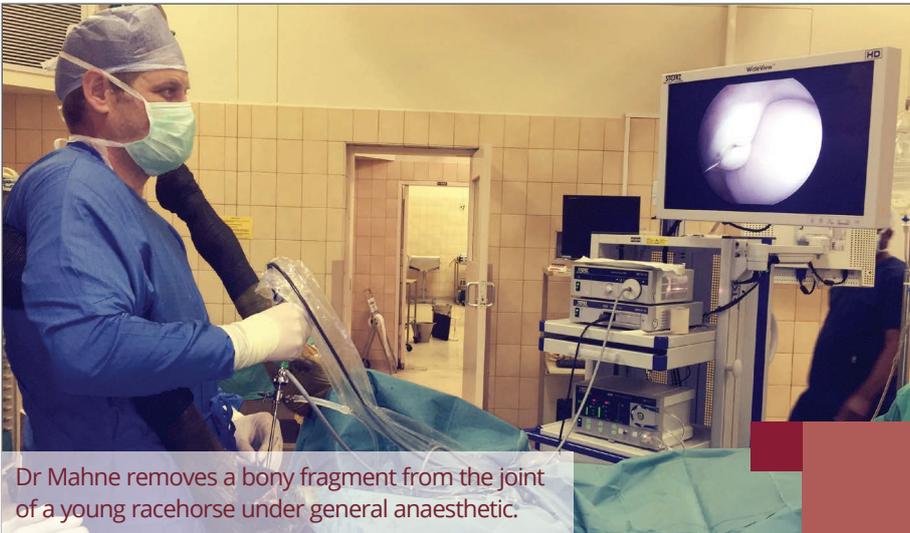
of wildlife. The MoU entails that the WRSA will fully fund a clinical assistant position in the Pathology Section of the Department of Paraclinical Sciences to enrol a full-time master's degree student for the duration of the three- to four-year study period. In turn, the Department will appoint the student as a clinical assistant and the incumbent is expected to register for and complete an MMedVet (Path) degree as offered by the Department.

Under the supervision of the relevant members in the Pathology Section, the student will also render a diagnostic service to the wildlife industry during the course of the training, and particularly to members of the WRSA.

The agreement was signed by the Dean of the Faculty, Prof Darrell Abernethy, and the President of the WRSA, Dr Peter Oberem. It will commence on 1 January 2016 for a period of three years and could be extended for another year if recommended.

After the signing ceremony, Dr Oberem presented a talk on Afrivet, a South African animal health company, and its dedication to knowledge transfer.

As it is already sponsoring the Chair in Primary Animal Healthcare at the Faculty, Afrivet aims to fill information gaps and ensure that existing information is made available.



Dr Mahne removes a bony fragment from the joint of a young racehorse under general anaesthetic.



Dr Mahne performs ligament surgery on a horse under general anaesthetic.

The OVAH sees a variety of equine conditions and treats racehorses, as well as farm horses. Owing to state-of-the-art equipment, including advanced imaging equipment, such as computerised tomography (CT) and bone scans, equine surgeons can gather much information before operating. Some of the procedures Dr Mahne performs regularly are dental extractions, laparoscopies and arthroscopies.

Dr Mahne explains that of all domestic species, horses are probably one of the most complicated to operate on. Horses do not respond well to anaesthetics and post-operative recovery is a major challenge. "While a bovine will lie down quietly until it is ready to get up, an equine will jump up and thrash around, running the risk of seriously injuring itself," explains Dr Mahne. It is common for a horse that is recovering from anaesthetics to get up too soon and break a limb. Anaesthesia can also cause horses' hearts to stop and muscles or nerves can be jeopardised by lying down during an operation, which could even result in paralysis. Lying down for long periods can also cause horses' lungs to collapse. Dr Mahne adds that it is imperative for equine surgeons to constantly keep track of time because every minute counts during surgery.

Equine surgeons across the world have sought alternative ways to

anaesthetise these large animals. Dr Mahne has mastered the skill of performing surgery while the horse is standing and regularly performs sinus surgery and laparoscopies with the patient in an upright position.

Horses are susceptible to dental conditions, which can give rise to complications. The roots of several of the teeth sit in the sinus cavities and an infection in a tooth can quickly develop into a sinus infection. Because of the high complication rate, Dr Mahne performs dental procedures while the horse is sedated and standing, if possible.

*Dr Mahne explains that of all domestic species, horses are probably one of the most complicated to operate on. Horses do not respond well to anaesthetics and post-operative recovery is a major challenge.*

Dr Mahne has a keen interest in keyhole surgery, such as laparoscopies, arthroscopies and colonoscopies. During a laparoscopy, a fibre-optic instrument is inserted through the abdominal wall of the horse to view the organs in the

abdomen or to enable small-scale surgery. Arthroscopy is used to diagnose and treat joint problems by inserting a narrow tube attached to a fibre-optic video camera through a small incision. During a colonoscopy, a scope is inserted into the abdominal area to examine and take biopsies of the colon.

He has also performed cryptorchid surgery on horses in the upright position. In cryptorchidism, one testicle does not descend into the scrotum and has to be removed from the abdomen.

Dr Mahne is privileged to have been trained by Dr Johan Marais (one of his mentors), and feels that he is well on his way to achieving his goal of developing his surgical skills to become the best equine surgeon he can be.

Dr Marais is a senior lecturer in equine surgery who has been utilising his expertise to do tremendous work on animals in the wild. He and Dr Gerhard Steenkamp are the dynamic duo who started Saving the Survivors, a programme aimed at treating rhinos that have been injured during poaching incidents. Dr Mahne has worked closely with Dr Marais during some of these operations on rhinos, and when Dr Marais is in the field, Dr Mahne often handles the surgical wildlife cases at the OVAH.

# Message from the Dean

## Prof Darrell Abernethy

The year 2015 will be remembered as a year of change – for the Faculty, for tertiary education, and perhaps for the whole country. The most dominant feature was the student protests that commenced in October on many university campuses across the country.

The demands were simple and laudable – free tertiary education, greater government investment and better conditions for workers – but the implications are profound and will cost universities hundreds of millions of rands unless the state invests more in the sector. If not, the outcome will be shrinking budgets and the pressing need to do more with less. The University of Pretoria was also affected by the unrest and suspended normal business for three days on all its campuses, including Onderstepoort, while negotiations were conducted with student representatives. These meetings were successful and students returned to their studies with little disruption apart from examinations being delayed by one week.

But change is also evident throughout the Onderstepoort Campus. During a follow-up visit in May by the South African Veterinary Council (SAVC) and an overseas accreditation team, comprising the Royal College of Veterinary Surgeons and the Australasian Veterinary Boards Council, a senior member of the team reported that he had never observed so much change at one time on a single campus: in management, student numbers and composition, curricula, teaching methods and facilities. Some changes are obvious, such as new managers, a record number of students from designated groups and new buildings. Some are more subtle, such as a shift in curriculum emphasis from pets to production animals (now 60:40 large animal versus small animal), and greater emphasis on targeting research based on impact and relevance. Others are elusive and difficult to measure: changed attitudes to transformation, pride in diversity and ownership of the organisational vision. Managing such change is complex and will require professional assistance, but the journey is essential and the benefits will certainly outweigh the cost. Incidentally, the accreditation team was very complimentary of the Faculty – a testimony to the hard work and dedication of the OP staff.



However, what about the profession? As the only Veterinary Science faculty in the country, we must meet the needs of the profession by ensuring that our training is relevant and appropriate, and taking cognisance of changes that may affect our students and curricula. We would also like to engage more with veterinary practices, the state and industry so that the profession can play a greater role in training our students and invests directly – through giving, training – and transforming. Change in the Faculty will bring about change in the profession, but this also works in reverse: the more students see the profession engage with transformation, issues of poverty and food security, as well as investing in students and graduates, the greater the impact will be on the graduates we produce.

**Prof Darrell Abernethy**  
Dean: Faculty of Veterinary Science



### First black departmental head appointed in the Faculty

Prof Tshepo Matjila has been appointed as Head of the Department of Veterinary Tropical Diseases from 1 August 2015. He obtained his BSc Honours in Zoology from the Medical University of South Africa (Medunsa) in 1996 and his MSc (Veterinary Science) from the University of Pretoria in 2000, followed by a PhD in Veterinary Tropical Diseases in 2008. He was a senior lecturer in the Faculty before he joined the University of South Africa (Unisa) as an associate professor. Before his appointment, he was also an extraordinary lecturer in Veterinary Parasitology in the Faculty. His field of interest is molecular parasitology. For the past 10 years, he has been involved in developing recombinant vaccines and rapid diagnostic kits for *Babesia rossi* in dogs. He has a Y-rating from the National Research Foundation (NRF). He has established close collaboration with the University of Montpellier, France.

# Prof Swan receives SAVA Gold Medal

Each year, the South African Veterinary Association (SAVA) presents a number of awards in recognition of people who have made major contributions to veterinary science.

**P**rof Gerry Swan, former Dean of the Faculty of Veterinary Science, was awarded SAVA's Gold Medal at a gala dinner held during the SAVA Congress at Champagne Sports Resort in July 2015.

Prof Swan graduated from the Faculty of Veterinary Science at the University of Pretoria in 1973 and, after working in private practice and as a state veterinarian, joined the

pharmaceutical company Merck, Sharp & Dohme as a veterinary technical advisor and manager of the organisation's local International Animal Science Centre in 1975.

In 1985, he was appointed as a senior lecturer in the Faculty's erstwhile Department of Pharmacology and Toxicology. From 1988 to 1993, he worked as a professor in Animal Health in this department. He was Head of Department from 1994 to 2001. He then went on to serve as Head of the restructured Department of Paraclinical Sciences from 2001 to 2005, after which he was appointed Dean of the Faculty. In 2014, he completed a nine-year term as Dean.

Prof Swan's impressive career includes a list of 82 publications as senior author and co-author in peer-reviewed or refereed journals, as well as numerous other scientific papers and addresses at conferences, both locally and internationally.

His research includes work on macrocyclic lactones, anaesthetics, a wide variety of antimicrobials and basic studies on the pharmacology and pharmacokinetics of a variety of chemotherapeutics, especially on the principle of bioequivalence. This knowledge resulted in him being in great demand at the South African Medicine Control Council (MCC), as he serves on its Bioequivalence



The Gold Medal was awarded to Prof Swan by Dr Henk Basson, President of SAVA.

Committee. During his time at the Faculty, he was supervisor and co-supervisor of numerous PhD, MSc and MMedVet students.

Through his involvement in veterinary education in South Africa, he has made a significant contribution to the advancement of veterinary science. It is particularly noteworthy that the Faculty experienced an improvement in research-related performance during his term of office. The percentage of staff with doctoral degrees increased from 21.1% in 2005 to 40% in 2014, and the number of staff members who received ratings from the National Research Foundation (NRF) for research excellence increased from nine to 28 in the same period. There was also a growth of 49% in the number of master's and doctoral degree students, which more than doubled the Faculty's postgraduate output.

Research publications, which were published in journals accredited by the Institute for Scientific

Information (ISI) and earn a subsidy from the South African Department of Higher Education and Training (DHET), increased from 55.2 units in 2005 to 112.1 units in 2013. This translates to a doubling of the research funding that is allocated to the Faculty. Two new research chairs that are funded by the Department of Science and Technology (DST) through the NRF were also established.

Among other things, Prof Swan's contributions to the veterinary science profession as President of SAVA from 1998 to 1999 are well known. These contributions were recognised when he was awarded the Boswell Award in 2004. He has served on the South African National Parks (SANParks) Board since 2009 and as Chairperson of its Conservation and Tourism Committee since 2010.

Prof Swan can be regarded as one of the most eminent veterinary pharmacologists that South Africa has produced to date and is a worthy recipient of SAVA's Gold Medal.

## OP NEWS

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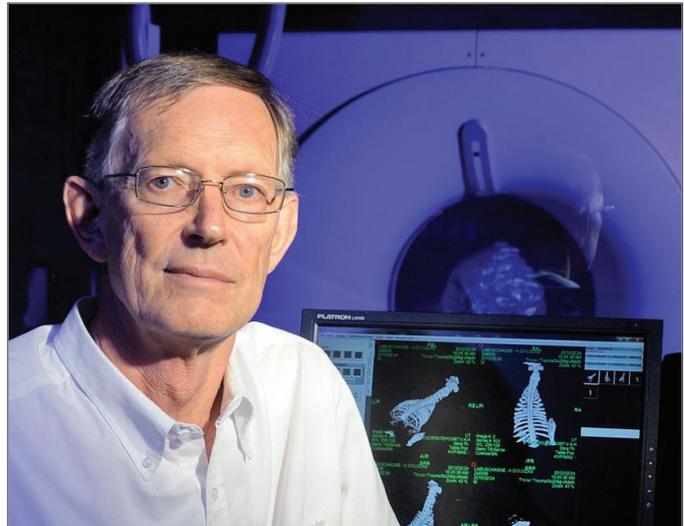
## Prof Kirberger heads international organisation

Prof Robert Kirberger, a professor of Diagnostic Imaging in the Department of Companion Animal Clinical Studies in the Faculty of Veterinary Science, was elected president of the International Veterinary Radiology Association (IVRA).

The appointment was made at the 17th IVRA meeting in Perth, Australia, in August 2015. He will hold this position at the IVRA until 2018, when he will preside over the 18th International IVRA meeting in the USA.

The IVRA promotes all forms of research involving veterinary radiology. It particularly promotes diagnostic imaging in countries without access to specialist veterinary radiologists. Prof Kirberger has been instrumental in creating educational scholarships for veterinarians from such countries to spend time at first-world veterinary facilities to improve their standard of diagnostic imaging. The most recent successful travel scholars came from Latvia, Sri Lanka and Bulgaria.

Prof Kirberger received a B2-rating from the National Research Foundation (NRF) in 2011, and is the co-author of two textbooks on veterinary diagnostic imaging. He has been a staff member of the Department of Companion Animal Clinical Studies for the past 28 years.



Prof Robert Kirberger of the Department of Companion Animal Clinical Studies has been elected president of the International Veterinary Radiology Association.

His primary interests are the diagnostic imaging of wild carnivores, small animal diagnostic ultrasound and radiology, as well as thoracic computerised tomography (CT) scans.

His current research projects include the diagnostic imaging of blunt and penetrating thoracic and abdominal trauma, as well as imaging aspects of spirocercosis.

## New impetus behind reproductive studies

The Reproduction Section of the Department of Production Animal Studies in the Faculty recently received a visit from Prof Bianca Gasparrini of the Department of Veterinary Medicine and Animal Production at the Federico II University of Naples.

She visited the Department from 5 to 13 November 2015 and it was a crucial opportunity for possible future cooperation between the two institutions.

Prof Gasparrini, who also led a Production Animal Studies Research Forum discussion on 9 November, is involved in reproduction work on cattle and Mediterranean water buffaloes in Italy. She is also interested in *in-vitro* technology. Her visit has been made possible thanks to NRF funding that Dr Giulia

Esposito obtained from the Department of Production Animal Studies for collaboration between the two countries.

Prof Gasparrini's visit served as an opportunity to introduce herself and her work to the Department. Thanks to this collaboration, Mario Smuts, first technical assistant from the Reproduction Section, will join Prof Gasparrini's Laboratory of Biotechnologies Applied to Animal Breeding in Naples from 11 January to 10 March 2016, where an



Prof Gasparrini, who visited the Department of Production Animal Studies from 5 to 13 November 2015, has a passion for bovine animals.

International collaboration strengthens institutional cooperation and brings world-class skills training to the Faculty

experiment for a project entitled "Conjugated linoleic acid: effects on spermatogenesis, sperm quality and freezability in bovines" will be conducted.

During the abovementioned period, Mario will receive specific training in procedures to be used in this project. He will also work on another project entitled "Effect of bovine cumulus cell co-culture on *in-vitro* embryo production after intracytoplasmic sperm injection in cattle" under the supervision of Prof Gasparrini. He will assist in training students in Italy in techniques of intracytoplasmic sperm injection. Furthermore, it is expected that the collaboration on the abovementioned projects will result in co-authorship of scientific papers. This could be beneficial for both the Faculty and the hosting lab in Italy and would certainly go a long way to strengthen collaboration in the executive programme of scientific and technological cooperation between the two countries.

## New manager for Electron Microscope Unit

Dr Lizette du Plessis (right), the newly appointed manager of the Electron Microscope Unit at the Faculty of Veterinary Science, studied at the University of Stellenbosch and obtained her MSc and PhD from the University of Pretoria. She has worked at the University of Pretoria in both medical and veterinary diagnostics and has been involved in various research projects during the last 25 years, with 19 publications

in peer-reviewed journals. Her work has been presented at numerous local and international conferences.

Her field of interest, the morphology and development of normal and abnormal ratite sperm, has led to international collaboration on artificial insemination in ostriches. A recent paper, "A novel transient structure with phylogenetic implications

found in ratite spermatids", published in the journal *BMC Evolutionary Biology*, achieved highly accessed status within 10 days of going online. Dr Du Plessis received the Young Researcher Award of the Faculty of Veterinary Science in 2012. She currently serves as a Director on the Board of the Association of Applied Animal Andrology, and she is a member of the Microscopy Society of Southern Africa.



## Phytomedicine Programme reaches 200 publications

The Phytomedicine Programme, which is housed in the Department of Paraclinical Sciences in the Faculty of Veterinary Science, has reached a scientific milestone by publishing 200 articles in peer-reviewed scientific journals since its inception in 1998.

In 2015 alone, 17 papers have already appeared in journals that are rated by the Institute for Scientific Information (ISI), and a further 18

publications have been submitted. This number is set to increase in the last quarter of the year. Much credit is due to the hardworking and dedicated

postgraduate students who put a great deal of effort into completing work of international standard worthy of publication in respected journals.

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A wide range of collaborators is involved in research projects, adding to the value and scope of the work. The former leader of the Programme, Prof Kobus Eloff, currently devotes much time to editing and submitting manuscripts.

Assisting with maintaining an internationally recognised profile, the current and former leaders serve on a range of editorial boards of national and international journals. Prof Eloff serves on the review boards of the *South African Journal of Botany*, *SA Tydskrif vir Natuurwetenskap en Tegnologie* and *International Journal for Phytomedicine* and he is a section editor of *BMC Complementary and Alternative Medicine*. Prof Lyndy McGaw, who currently leads the programme, also serves on the review boards of the *South African Journal of Botany* and *BMC Complementary and*



The Phytomedicine Group.

*Alternative Medicine*. She has recently been appointed managing editor of *Journal of Ethnopharmacology* (impact factor 2.998) and associate editor of *Frontiers in Ethnopharmacology* (impact factor 3.8).

Staff members of the Programme also regularly review papers for a large number of journals in their respective areas of research interest, gaining useful knowledge of emerging trends.

## Prof Kobus Eloff receives a prestigious award



Prof Eloff (left) with Minister of Science and Technology, Naledi Pandor.



Prof Kobus Eloff (left) receives the MT Steyn award from Prof Wessel Pienaar, Chairperson of the Council of the Suid-Afrikaanse Akademie vir Wetenskap en Kuns.

Prof Kobus Eloff, founder of the Phytomedicine Programme at the University of Pretoria's Faculty of Veterinary Science, received the MT Steyn Award of the Suid-Afrikaanse Akademie vir Wetenskap en Kuns on 2 October 2015.

This is the highest award that is presented for a lifetime of work in the natural sciences and technology.

It is accompanied by a cash prize of R50 000. Previous recipients of this award include Prof Hannes van Staden, Prof Wieland Gevers, Prof Daan Verwoerd, Prof Philip Tobias, Prof Wally Marasas, Prof Danie Joubert and Dr Chris Garbers.

Prof Eloff also received the Havenga Prize for Scientific and Technological Achievement from the Suid-Afrikaanse Akademie vir Wetenskap en Kuns in 2009.

In 2012, he was awarded the National Science and Technology Forum (NSTF) Eskom award for Research Capacity Development in all scientific disciplines in South Africa from the Minister of Science and Technology, Naledi Pandor. This included a R100 000 research support grant. Also in 2012, he received the highest award of the Academy for Science of South Africa (ASSAf), namely the Gold Medal, for his contribution to "science for society" in South Africa. In 2014, he received the highest award of the South African Association of Botanists (SAAB), which was also a gold medal.



## Vets from Switzerland visit Onderstepoort

During October 2015, Dr Arthur Wilkinson from Switzerland, who is an Onderstepoort graduate from the class of 1969, organised a South African safari and wildlife experience for 17 Swiss veterinarians and their partners.

One of the highlights of the tour would have been a visit to the Faculty of Veterinary Science at Onderstepoort on 23 October 2015, but unfortunately, the Faculty was closed to visitors due to student protest action regarding university fees. However, the group visited the Onderstepoort Veterinary Institute and the South African National Veterinary Museum, which are situated close to the Onderstepoort Campus.

Heloise Heyne, curator of the museum, met the group in front of Sir Arnold Theiler's statue where she discussed how Onderstepoort developed and conveyed some of the entertaining stories that are woven into its history. Sir Arnold Theiler is considered the father of veterinary science in South Africa.

# Arop Pluim: An extraordinary stallion

Who would have thought that a horse could also promote and support the University of Pretoria's excellent reputation? On 4 April 2010 OTAU (the Onderstepoort Teaching Animal Unit) purchased a purebred Nooitgedacht stallion, Arop Pluim.



Onderstepoort's pride, Arop Pluim, with Surita Kelbrich on his back

In no time he had an excellent reputation among students, lecturers and the public as a stallion with a good temperament, build and appearance, not to mention the way he moved. He has an even walk and moves quite graciously. Since Arop Pluim was four years old he made his name on various shows in which he participated, among others, in the in-hand breeding classes.

From 2004 to 2008 he was selected as the Senior Purebred Champion Stallion at the Nooitgedacht National Championship. In 2005 and 2006 he respectively secured a fourth and fifth place in the inter-breed championship where between 20 and 25 champion horses participated.

Arop Pluim quickly showed that he has got amazing talent in various disciplines and from 2012 he dominated the Nooitgedacht shows. He also represented his breed at the inter-breed championships held at the Kyalami Equestrian Club. During this show he competed against 11 other breeds and from

2012 to 2014 he finished among the six best horses. This was a first for the Nooitgedacht breed at this show. Arop Pluim performs the best in dressage with his new rider, Surita Kelbrich with whom he has developed a close relationship. There is no stopping him and the University can proudly say that this stallion is one of the best participants at various external shows.

Everywhere Arop Pluim goes, judges are talking about the University of Pretoria's unbelievable grey stallion, kicking dust in the eyes of the other breeds. He gives one goose bumps when he enters the arena. He and his rider is an excellent team and at the South African Dressage Championships where 65 horses of all breeds participated, he finished 7th in his class. This is an amazing achievement and he was the only Nooitgedacht horse that participated there.

In 2012 the World of Dogs and Cats (WODAC) decided to allow horses in the indoor arenas and Arop Pluim was asked to represent his breed. He made the University proud with his character and the public had the opportunity to spend time with him and had their photographs taken with him.

It was good to see the public's reaction to the excellent condition of Onderstepoort's training animals and how well they are treated. WODAC is excellent marketing for the Faculty and its teaching animals.

# PGSA wraps up a successful year

As 2015 draws to a close, the Onderstepoort Postgraduate Student Association (PGSA) reflects on a successful, action-packed year. It has gone from strength to strength this year, with ongoing support from members, academic and administrative staff and outside sponsors.

IMP Innovative Solutions and Dr Charlotte Nkuna (South Africa Poultry Association) deserve special recognition, along with the Embassy of the Republic of Sudan, for their recent donation.

Recently appointed Deputy Dean of Research and Postgraduate Studies, Prof Vinny Naidoo, was the guest of honour at the October Happy Hour, which aimed to brainstorm ways in which Onderstepoort can improve the postgraduate experience and better prepare researchers for the working world. Students' thoughts regarding the optimal use of the Postgraduate Centre as a social space for meetings, workshops and quiet study were also discussed.

Onderstepoort's post-graduates joined their colleagues from House Jacaranda for an inner-city safari hike on 8 August 2015, and participated in the Inter-residence Sports/Fun Day activities on 5 September 2015.

After the annual Fun Day at the Onderstepoort Primary School in March, it was decided that the PGSA would celebrate

Mandela Day with a visit to Amadea Safe House on 18 July 2015; an idea initiated and coordinated by Zama Khumalo, a PhD student in the Department of Veterinary Tropical Diseases. Donation boxes were placed in all departmental tea rooms on campus the week before, and everything that was collected was taken to the orphanage.

Prof Eric Etter of the Department of Production Animal Studies hosted two productive Introduction to R workshops. Some 28 postgraduates attended the workshop in June 2015 and another 23 attended the one in July 2015.

The Department of Research and Innovation Support also hosted Early Career Academic workshops on the Hatfield Campus. The PGSA strives to keep its members updated of all training opportunities. The level of cooperation and interest in postgraduate student training on campus has grown substantially in recent years and the PGSA is delighted to be involved with communications, organisation and transport.



## **An international cooking competition (above)**

was held in October. The aim of the competition was to get postgraduate students across all departments, as well as staff members to team up and cook meals associated with a particular continent. The departments cooking portfolio themes were as follows (i) Paraclinical Sciences: AFRICA; Anatomy & Physiology together with the OVI: OCEANIA; Veterinary Tropical Diseases: AMERICA; Production Animal Studies: ASIA; Companion Animal Clinical Studies: EUROPE and a Faculty team: SOUTH AFRICA. The event was a real success. All teams made signature dishes and everyone was dressed in their traditional regalia. The team from PAS took first place, followed by Tropical Diseases and the Paraclinical Sciences team in third place.



Please visit the following links to find out more about the incredible work of Amadea House and the products and services of IMP: [www.amadeasafehouse.co.za](http://www.amadeasafehouse.co.za); [www.imp.co.za](http://www.imp.co.za)

The PGSA year-end function concluded a successful year and welcomed the new 2016 Executive Committee.

# Four laboratories accredited

The Bacteriology, Serology, Parasitology and Virology laboratories of the Department of Veterinary Tropical Diseases have been accredited by the South African National Accreditation System (SANAS) in terms of ISO 17025, a standard applicable to laboratories performing repetitive testing.

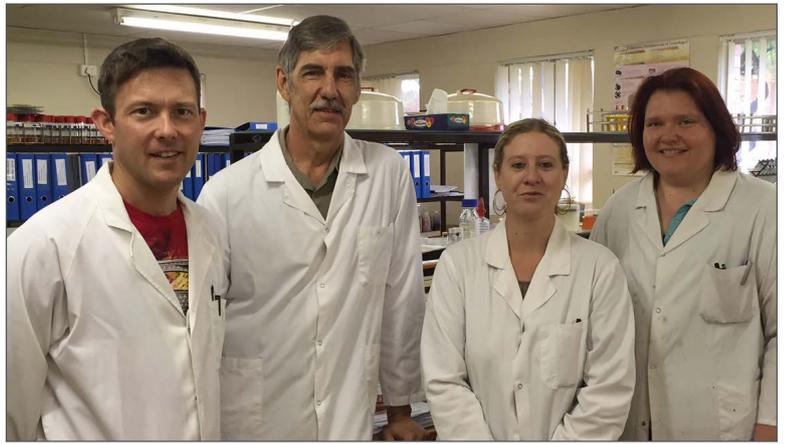
This means that the results obtained in these laboratories are recognised internationally through multilateral recognition agreements. This achievement is in line with the University of Pretoria's Strategic Plan, the Faculty's vision, and the strategic objectives to be ranked in the top 50 veterinary schools worldwide within the next five to ten years, and to develop an Onderstepoort Research Hub.

The technical signatories at the time of accreditation for each of the laboratories are shown in the photographs to the right.

We would like to congratulate the laboratories and thank the staff members for their effort and perseverance to obtain accreditation.

## Did you know?

The word 'laboratory' originates from the Latin *laborare* and Medieval Latin *laboratorium*, which literally means 'to labour'.



Bacteriology: Erick Kapp, Johan Gouws, Debbie Landman, Hailey Bunge.



Serology: Rebhone Mahlare, Janita Greyling, Michael Khoza.



Virology: Pamela Wambulawaye, Karen Ebersohn, Carina Lourens.



Parasitology: Dawn Durand, Louis Taljaard.

# Is online teaching better than face-to-face lectures?

Anita Michel and Jannie Crafford

Lecturers at UP and especially at Onderstepoort have been actively encouraged over the last few years to embrace the blended learning model. Does it mean they should throw away their proven didactic teaching approach and feed students with endless documents on clickUP? Certainly not!

Prof Anita Michel and Dr Jannie Crafford of the Department of Veterinary Tropical Diseases attended a workshop in October 2015.

The workshop, entitled "Emerging opportunities in postgraduate public health education for health systems development", was organised by the University of the Western Cape's School of Public Health. Although the workshop was designed for public health specialists, it was a useful platform to take a fresh look at the motivation for transferring a face-to-face course to a partially or fully delivered online undergraduate



or postgraduate course. During the workshop, several case studies were discussed with some innovative examples of how to implement authentic learning principles in a blended course or module.

It is true that not all is doom and gloom with didactic teaching, but if one thinks about some of its limitations and one is open to explore what the online space has to offer, one may just discover a way to enrich the existing course and make it a better learning experience for students. On the other hand, one should not be led to believe that all new brooms sweep clean, and that online teaching can miraculously solve all teaching problems. Online teaching has some concrete disadvantages, and the more one is aware of these, the better one can make an informed decision on what is best for a specific course or module. One thing is certain: There is no time to reinvent the wheel.

## Staff member, Lana, walks away with first prize for entrepreneurship

Lana Botha (Department of Production Animal Studies), one of the top performing students in the 2015 Postgraduate Certificate in Higher Education (PGCHE) class, received the first prize for entrepreneurship at the recent year-end function.



In the photograph, Lana is receiving her prize from Dr Gustaaf Wolvaardt, Managing Director of the Foundation for Professional Development.

Subjects that Lana took in the PGCHE course included Assessment Practice, Entrepreneurship, Community-based Learning, Curriculum Development, Leadership and Management, Mediating Learning, Mentorship, Education Technology and Professional Development.

Lana excelled in all her subjects. She tackled many projects during the year. The biggest involved action research to achieve the ideal of self-regulated learners with higher-level thinking skills. This is done by utilising cooperative learning strategies and whole-brain learning.

The Faculty of Veterinary Science is extremely proud of Lana's achievements and is proud to be associated with her forward-thinking and dedication to higher education.

## Wurmfundi Farmer's Day

The Wurmfundi Farmer's Day, which was held on 10 October 2015, was a great success. Some 46 farmers attended the course that was organised by Lana Botha of the Department of Production Animal Studies.

The course dealt with holistic internal parasite control in sheep and goats. Lectures were presented by Dr Faffa Malan and Prof Ken Pettey of the Department. The course is aptly named, as "wurm" means worm in Afrikaans and "fund" is South African slang for expert.

Lana coordinated practical demonstrations in the small stock-handling facility next to the Old Faculty Building, where everyone could practice what they had been taught. Jan van Rensburg, a private helminthologist, demonstrated how to do faecal egg counts, faecal egg count reduction tests and examine adult worms. The demonstration took place in the seminar room in the Old Faculty Building.

Five students, who are members of the Production Animal Interest Group, assisted Lana with the registration, practical training and catering.

Each farmer received a Faffa Malan Chart (FAMACHA) kit and a Wurmfundi certificate of attendance during the light lunch served under the lapa next to the Old Faculty Building. FAMACHA is a method whereby only certain sheep or goats in a flock are selected for treatment against wireworm (also known as barber's pole worm, *Haemonchus contortus*)



# Curriculum development workshop shifts minds

A workshop entitled “Curriculum development in higher education” was presented at the Postgraduate Centre at Onderstepoort from 14 to 18 September 2015. The workshop was facilitated by Prof Lynn Quinn, Head of Department of the Centre for Higher Education Research, Teaching and Learning (CHERTL) at Rhodes University, and Dr Jo-Anne Vorster, also from CHERTL.



This was a very useful and worthwhile workshop and the feedback from participants confirmed this. Two of the participants said: “It shifted my mind from being a vet to thinking more like an educator” and “I liked the idea that I used my own curriculum document and this made the workshop relevant to me.”

They are both involved in the field of academic development and present a Postgraduate Diploma in Higher Education for academic developers. This workshop addressed issues regarding curriculum development and it was offered to staff from teaching and learning centres across South Africa.

The University of Pretoria’s Department for Education Innovation arranged the workshop for the Onderstepoort academics who will be involved in the development of the new veterinary nursing degree.

The aim of this five-day workshop was to increase participants’ theoretical understanding of the different approaches to curriculum development in higher education. The course was attended by 11 academic staff members and four staff members from the Department for Education Innovation. It was an interactive workshop and each participant used one module from the nursing curriculum, evaluated it based on the theory and presented possible improvements and changes to the group on the last day of the workshop.

# Abaxis Europe donates VetScan 2 analyser to the Faculty



Ms Bärbel Köhler, Manager of Business Development at Abaxis Europe, during her presentation.

Abaxis Europe has kindly donated a VetScan 2 biochemistry analyser to the Faculty for use in wildlife research projects. This analyser is very useful for field studies, as it is portable and uses precalibrated, condition-specific rotors to detect pathophysiological conditions. Bärbel Köhler, Manager of Business Development at Abaxis Europe, presented the analyser to Dr Leith Meyer of the Department of Paraclinical Sciences during her recent visit to the Faculty.



Abaxis Europe supports various projects around the globe to help with the conservation of endangered species.



A happy Dr Leith Meyer (right) after receiving the VetScan 2 analyser from Ms Köhler on behalf of the Faculty.

Köhler visited the Faculty to meet with wildlife researchers and to discuss how Abaxis Europe can become more involved in wildlife veterinary conservation projects. While at the Faculty, she presented a talk highlighting the various projects that Abaxis Europe supports around the globe to help with the conservation of numerous endangered species.

One example of this is the company's supply of numerous

pieces of important laboratory equipment to Gorilla Doctors' Rwandan headquarters over the last few years, including a new VetScan HM5 hematology analyser.

Abaxis Europe's mission is to supply point-of-care blood analysers to the medical and veterinarian market. Providing leading-edge technology, tools and services that support best medical practices, Abaxis Europe enables physicians and veterinarians to respond to the health needs

of their patients while operating economical and profitable practices. Abaxis Europe is based in Northern California, USA, and runs various operations around the world. For more information about Abaxis Europe, please visit their website at [www.abaxis.com](http://www.abaxis.com).

The Faculty would like to express its sincere gratitude to Abaxis Europe and Köhler for their support and valuable donation of the VetScan 2 analyser and a number of rotors.

# A rush to save as many as possible

Sabelo Magagula (BVSc IV)

In recent months, the area of Mnisi in Mpumalanga has been hard hit by high temperatures and an unforgiving drought. The Faculty of Veterinary Science realised that farmers in the area need advice on how to best care for their animals during this time. Senior students delivered an informative talk that focused on nutrition.

The condition of livestock was extremely poor. Both cows and pigs presented body condition scores as low as 0.5. It was, however, encouraging to see that farmers truly tried to care for their livestock. They would often allow them to walk long distances to find better grazing conditions or even move them to other camps to gain access to feed.



Sabelo Magagula addressing the farmers.

The presentation was given to aid farmers in saving the few animals that remained.

Furthermore, farmers were encouraged to promote environmental hygiene through a number of useful suggestions. Dip tanks, specific grazing areas and secure homesteads were mentioned in an effort to highlight the animals' need for protection from the

elements and other unforeseen circumstances.

We would like to thank the Onderstepoort Veterinary Academic Hospital (OVAH) Community Clinic rotation, Dr Louise Biggs, Mr Godfrey Tsela, all the environmental monitors, animal health technicians and farmers. Without you, this project would not have been possible and this rotation would not have been a success.

## Reconnecting with our roots:

Nyeleti Manganyi (BVSc IV)

Future veterinarians and veterinary nurses visit Hluvukani Clinic

About 50 Grade 6 learners from Manyeleti Primary School, accompanied by their Life Orientation teacher, SV Mokoni, visited Hluvukani Animal Health Clinic (HAHC). They were eager to learn about animals and veterinary science.

A school visited the HAHC for the first time in 2015. In the past, veterinary students would visit schools to present talks there. On 5 August 2015, veterinary science students presented a talk at the school. They compared the needs of animals to those of people in order for learners to

understand that animals have needs and can feel pain just like people. One week later, learners entered the HAHC with great enthusiasm.

Veterinary science and the role of a veterinarian in the community was explained to the learners. They were also made aware of different types of cruelty against animals, the various welfare organisations and what subjects to take in high school if they have dreams of building a career in veterinary science.

Learners were also divided into three groups and taken for a clinic tour. In the laboratory, they were shown a blood smear under the microscope. They also visited the kennel room,



Nyeleti Manganyi delivering a presentation to the learners at Manyeleti Primary School.

theatre, radiology room and the pharmacy.

After a hard day's work, refreshments were next on the menu. The learners ended their day with a well-deserved play session with Lady, the HAHC pet.

## Wildlife Symposium highlights numerous challenges



Rod Potter, wildlife investigator of the KwaZulu-Natal Wildlife Crime Working Group and guest speaker delivers a presentation at the wildlife forensics and diagnostics symposium.



Karl Ammann, Swiss-born professional photographer, considered to be among the best environmental journalists in the world, was also one of the speakers.

An African wildlife forensics and diagnostics symposium and post-symposium workshop were held at Onderstepoort.

The symposium and workshop attracted a number of specialists in the field of veterinary forensics and diagnostics. It focused on the challenges in the wildlife sector. What appears to be a strange combination of topics emphasised the relatedness of the disciplines and the need for detail, correctness and process that are required to function optimally in these fields, and to produce the results that will survive scrutiny in a court of law.

Both veterinary forensics and diagnostics rely on the inputs of multiple disciplines, both veterinary and non-veterinary. Recognition of the competency of all the practitioners in the field is critical to attain an optimal outcome that will provide the information in a format that will assist with successful litigation.

This was perhaps the strength of the programme in which international and local experts dealt with the challenges and limitations of the diagnostics available in wildlife and the implications that these may have in dealing with the legal issues related to wildlife.

The lack of veterinary involvement in these activities was similarly highlighted. The presentations were challenging and addressed the great need for clarity of mind when making diagnoses in wildlife for which many of the diagnostic tests have not been validated. These issues raise red flags related to a number of matters that will have to be addressed if the veterinary profession is to play a significant and constructive role in dealing with the challenges of poaching and the myriad of other related legal issues.

A lack of general knowledge about the scope of the diseases affecting wildlife, the way in which to diagnose them correctly, and the knowledge needed to manage them so that they do not endanger wildlife, domesticated animals and humans is evident. Similarly, there is limited understanding of the required process when dealing with veterinary forensic issues.

From the proceedings, it is clear that the veterinary profession faces a number of challenges that will have to be attended to should it wish to remain involved in the disciplines required for successful litigation and make inroads into the extent of crime involving wildlife and wildlife products.

## 67 minutes for Madiba

The Faculty's OP 4 Madiba project, conducted in collaboration with Community Engagement staff, is aimed at collecting donations for a disadvantaged or poorly resourced entity. This year's project, the fourth, took place during a two-week period in August and the beginning of September, and 73 parcels containing toiletries were donated by staff and students. The parcels were donated to the Institute for Primary Health in Soshanguve on 1 October 2015 during a visit by Faculty members.



The institute is a non-governmental organisation (NGO) that cares for critically ill patients infected with the HIV virus. It is run by six full-time caregivers who are at times assisted by volunteers to ensure that the patients receive sufficient treatment. These professionals are also enthusiastic about educating the community about this deadly disease.

It constantly works hand in hand with local clinics. It visits and assists the clinics by admitting bed-ridden patients since the clinics do not have enough facilities to cater for them. Its facilities accommodate 10 patients who are also allowed to visit their homes once they are in a better state of health.



# Run4Rhinos

## all the more popular

Ayla Newmarch, Chairperson of the Run4rhinos Committee 2015

Already in its fourth year, the Run4Rhinos initiative of the Faculty of Veterinary Science at Onderstepoort is becoming a very popular fun run. The 2015 event was held on 12 September at the University of Pretoria's LC de Villiers Sports Campus with the kind assistance of Danie Cornelius, who organised the venue, security personnel and medical support staff for the day.

About 700 runners attended this year's dog-friendly event, with more than 100 dogs following (or leading) their owners around the

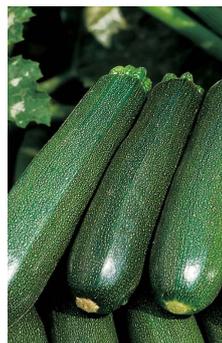
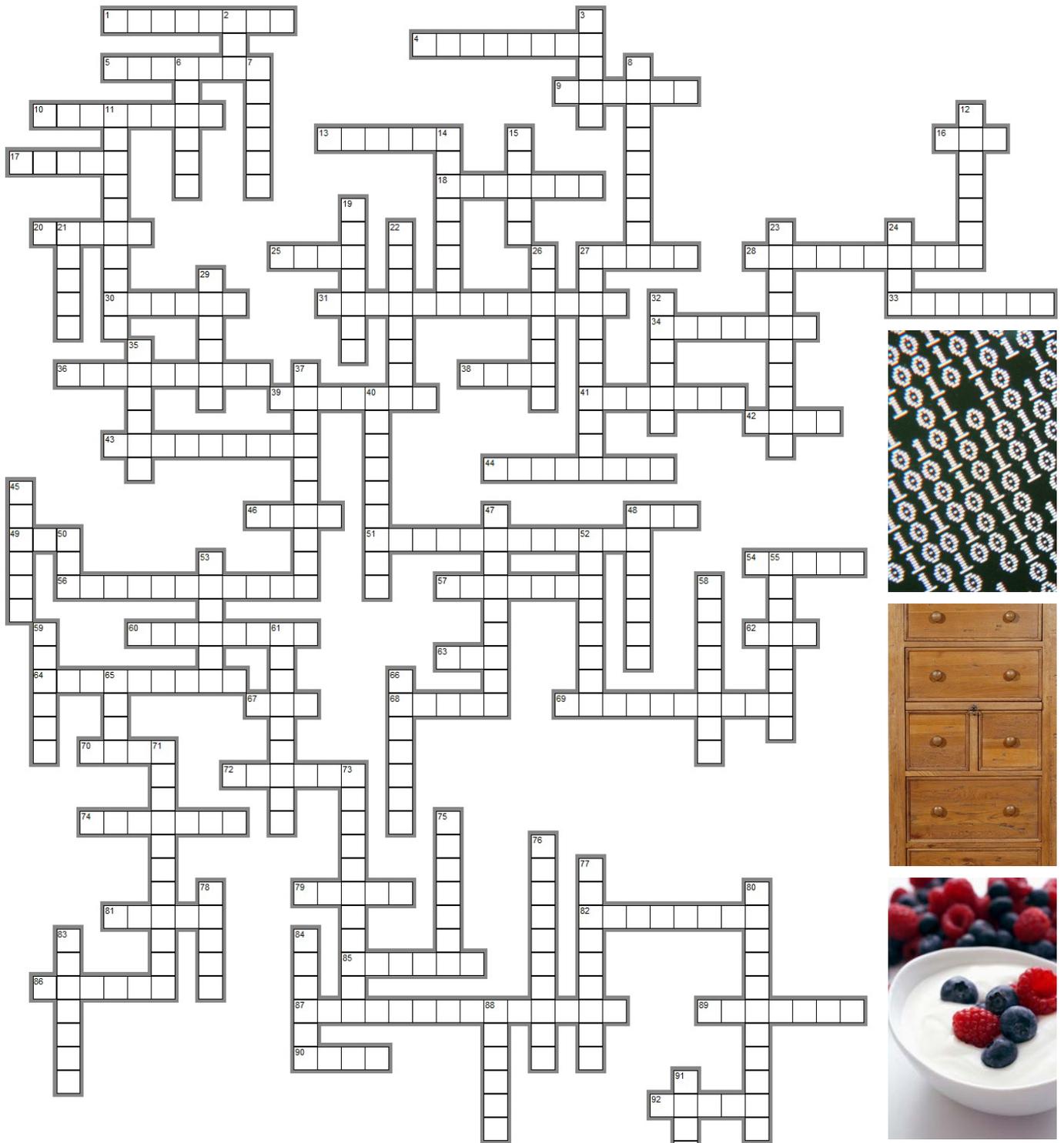
track. Some participants brought their families, complete with children in prams. The event consists of a 5 km fun run/walk, with multiple water points manned by Onderstepoort marshals. These water points were sponsored by Hill's Pet Nutrition. There is also a 10 km route for the more serious fitness fanatics. Christopher Smith, a fourth-year veterinary science student, participated in the 10 km run in a rhino costume that was sponsored by Las Vegas Costumes. He managed to trample around the route in good humour, which was not quite the morning jog he is used to.

The event demanded a lot of organising and preparation, but with a team of veterinary science students, nothing is too big a challenge. After a year of hard

work and with the help of many departments in the Faculty, it all came together. A total of R43 000 was raised through shirt sales, entry fees and donations. The money was donated to RhODIS, a valuable DNA database of South African rhinos, and Stop Rhino Poaching.

A big thank you to our sponsors, Hill's Pet Nutrition and General Motors, for sponsoring the prizes, Tuks Athletics and Danie Cornelius for organising the route, as well as Onderstepoort staff members, who assisted with posters and event promotion. If you would like to stay updated about next year's event or look at photographs from this year's event, taken by Naomi Steinberg and Emca du Plessis, please like our Facebook page, Run4Rhinos ([www.facebook.com/run4rhinos](http://www.facebook.com/run4rhinos)).

# OP News Crossword Puzzle



**Across**

- 1. Heparin prevents blood from ...
- 4. SA minister of culture
- 5. Orlando Pirates captain, Oupa...
- 9. To lower rank or position
- 10. American ground squirrel
- 13. Corpse brought back to life
- 16. Onderstepoort Veterinary Hospital
- 17. Ferguson (SA actress)
- 18. Series of sharp bends on a motor-racing circuit
- 20. Springboks lost to them
- 25. Johannesburg (slang)
- 27. Compact disc read-only
- 28. Intense dislike of foreigners
- 30. Cook slowly
- 31. New Springbok captain
- 33. Theoretical physicist, Steven...

- 34. Tony Stark is the main character in this film
- 36. Computer-readable text with cross-reference links
- 38. Group of families with the same surname
- 39. The standard form of service in a church
- 41. Confusion, lack of order
- 42. Zuckerberg
- 43. Aviarist
- 44. Courgette
- 46. Unfriendly criticism
- 48. Boring part of a drill
- 49. SA hip-hop artist
- 51. Not able to be improved
- 54. This allows internet storage
- 56. Males have an X and a Y
- 57. Fine, transparent fabric
- 60. Vague

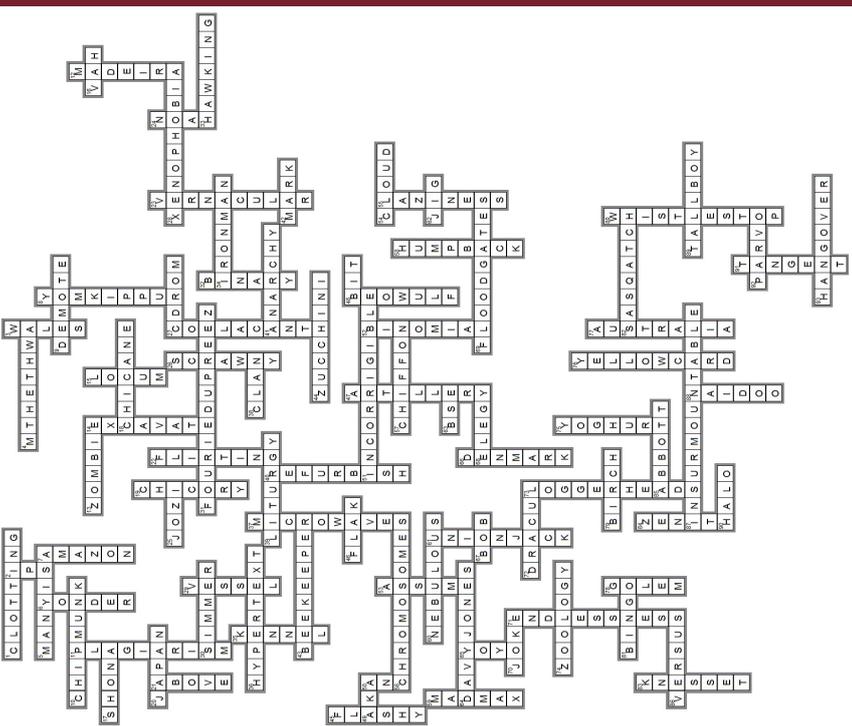
- 62. Lively country dance
- 63. Mad cow disease
- 64. Evil spirit of the sea
- 67. Minions Kevin and...
- 68. Poem that mourns loss
- 69. Open the...
- 70. Humorous story
- 72. It means "son of Dracul"
- 74. The scientific study of animals
- 79. Tree with silvery bark
- 81. Game of chance
- 82. Big Foot
- 85. SA fast bowler, Kyle...
- 86. Against
- 87. Impossible to overcome
- 89. Tall chest of drawers
- 90. Ring of light around Saint's head
- 92. Disease-causing virus in cats and dogs
- 93. Unpleasant symptoms after heavy drinking

**Down**

- 2. Inches per second
- 3. Rugby WC quarter-finalists
- 6. Over there
- 7. An immensely strong woman
- 8. Jewish Day of Atonement
- 11. To copy someone else's work
- 12. Rich sponge cake
- 14. To dig or uncover
- 15. Doctor temporarily filling a position
- 19. Root of this plant is often ground and blended with coffee
- 21. Higher than
- 22. Behaving amorously without serious intentions
- 23. A country's native language

- 24. Daily Show host Trevor...
- 26. Thin and bony
- 27. Fish thought to be extinct
- 29. Container
- 32. Code consisting of only 1 and 0
- 35. Doghouse
- 37. Created by a magnetron
- 40. Redecorate
- 45. Cheap and showy
- 47. Large land guns
- 48. Old English epic poem
- 50. Ruling party
- 52. Algebraic expression with two variables
- 53. Accept as true without proof
- 55. Indolence
- 58. A large whale
- 59. New Charlize Theron film

- 61. National flag of the UK
- 65. Circular toy
- 66. Hamlet, Prince of...
- 71. Infinity
- 73. At...(disagreeing fiercely)
- 75. Semi-liquid food made from fermented milk
- 76. This sends a rugby player to the sin bin
- 77. The first rugby World Cup was held here.
- 78. Jewish monster made of clay
- 80. Politician's tour with many short stops
- 83. Israeli Parliament
- 84. Top or optimum
- 88. New Deputy Dean (surname)
- 91. Straight line that touches a curve at one point



**Find the answers here**



# Bend it like Onderstepoort!

In September 2015, the Onderstepoort women's soccer team won the University of Pretoria's female residence soccer league.

The team beat Curlitzia 3-2 after a nerve-wrecking penalty shootout, making history by being the first residence team to win the trophy three times in a row.



"Some people think football is a matter of life and death. I assure you, it's much more serious than that."  
 - Bill Shankly



## Just in case • emergency numbers

• Security Services (main campus)	6911	012 420 2310
• Flying Squad	6022	10111
• Police Pretoria North	6022	10111
• Ambulance: - Rosslyn	6003	012 541 3421/6
- Pretoria	6002	012 326 0111
• Fire Brigade (Wonderboom)	6024	012 543 0335
• Tygerberg Poison Centre	6179	021 931 6129
• Emergency Medical Help: OP		
- Sr Amanda Hamman (OVAH)	8064	083 269 8874
- Prof Frik Stegman (OVAH)	8279	8148 (operating theatre)
- Mr Chris Neetling (Feed Store)	8004	8004 (roving phone)
- Prof Ken Pettey (Ethology/Physiology)	8449	082 882 7356
- Psychologist at OP (Wednesday), Voula Samouris	8243	083 754 5427
- Psychologist - Main Campus, Rina Buys	6127/6151	082 908 3688
• 24-hour University crisis line		0800 00 64 28
• Head of OP Residence:		
- Dr Jan Myburgh	8350	082 392 2534
- Ms Susan Myburgh		083 235 6778

In case of an emergency, just dial the four-digit number given above.