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OP News

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Students get practical in the new skills lab

In order to continually ensure that veterinary science students are able to perform proper diagnostic procedures, the University of Pretoria established a skills lab at the Faculty of Veterinary Science. The first official practical exercise in the skills lab took place on 19 January 2015.

The Reproduction Section in the Department of Production Animal Studies uses a special simulator, the Breed 'n Betsy, for the bovine rectal examination and artificial insemination practicals. The students used to work on animal organs from the abattoir, but they now have the chance to practice on simulators and live animals.

The skills lab team, which is headed by Dr Annett Annandale and Dr Elrien Scheepers, is getting everything ready to open the lab later this year. This includes setting up stations, ordering equipment and simulators, writing instruction manuals, modifying soft toy dogs into dummies and creating models with the help of the artist, Liezl Kok, who helps out in the lab once a week.



Practical models: hands-on experience.

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Make way for the rhino ambulance!



Saving the Survivors has received more than R3 million from dnata, a Dubai-based air service provider, to purchase and operate a rhino ambulance. This generous donation will make a considerable difference in the fight against rhino poaching in South Africa.

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Message from the Dean

Prof Darrell Abernethy

What does it take to be a “good” veterinarian? What criteria best determine “good” prospective veterinarians? These are some of the questions that were recently considered at a workshop on recruitment and selection.

At this workshop, I heard inspiring stories from two veterinary science students, who put real faces to the occasionally cold and clinical debate on selection procedures. The students were different in many ways. One was black, from a small rural village and experienced racism, prejudice and failure in her journey to becoming a veterinarian. The other was white, also from a rural background. She experienced repeated academic rejection before being admitted to the veterinary science study programme.

Although different in so many ways, both shared some telling characteristics. Both experienced major setbacks and many others might

have given up, but they both had the determination, passion and courage to persevere and rise above the despair to fulfil their dreams. I have no doubt that both students will succeed in their goals and be excellent ambassadors for the profession. Somehow, we need to capture that passion and determination in our selection methods.

The new year has arrived with much change and expectation. There will be major changes in the Faculty's management due to retirements, resignations or the completion of appointments. The new buildings (the skills laboratory and cafeteria) will become operational and will

contribute much to student training and experience. We will sharpen our focus to determine high impact areas of research, marketing and clinical excellence that will grow the Faculty, attract funding and ensure that we remain relevant to our stakeholders. There will be challenges and obstacles, as there are on all journeys, but I am sure the same passion and determination that characterised those students at the workshop will ensure that we stay the course and fulfil our mission.

I wish you the very best for 2015.

Prof Darrell Abernethy
Dean: Faculty of Veterinary Science

Students get practical, continued from page 1

Some of the simulators that have already arrived are the Breed 'n Betsies, a colic horse, a dystocia calf, Goldie (a fantastic heart and lung sound model), Emily (the positioning dummy), a thoracocentesis model, Critical Care Fluffy, intubation and intravenous access models, as well as equine anatomical specimens.

The team is also working on suture pads, a spay model, a fine needle aspiration (FNA) model and a cystocentesis simulator.

A number of practical stations are currently under construction. These include draping, bandaging,



Examples of two of the models that will be used in the Skills Lab during practicals.

surgical scrubbing and gloving, and radiological positioning stations. A lab is also being set up for

procedures such as blood smears, urinalysis, haematocrit and semen evaluation.

Rhino ambulance, continued from page 1



Patients can be treated in the bush. with the mobile response units.

This mobile rapid-response unit consists of a 4x4 vehicle and a 4x4 trailer, which will enable veterinarians to treat victims of poaching incidents more successfully in the bush. The ambulance is also equipped with an ultrasound machine, a generator, a radiographic machine, an endoscope and surgical instruments to help the injured rhinos.

Gary Chapman, dnata's President, presented the vehicle, trailer, surgical and X-ray equipment to Saving the Survivors at a recent event at the Faculty of Veterinary Science. The donation is part of dnata's corporate philanthropic programme, *dnata4good*, to support the movement against rhino poaching.



From left: Dr Gerhard Steenkamp, Mr Gary Chapman, President of dnata, Prof Darrell Abernethy, Dean of the Faculty, Dr Johan Marais and Prof Banie Penzhorn, outgoing Managing Director of the South African Veterinary Association, after the official presentation of the vehicle to the Saving the Survivors project

Saving the Survivors is a joint initiative of the Faculty of Veterinary Science and the South African Veterinary Association. It was started in 2012 by Dr Johan Marais and Dr Gerhard Steenkamp, with the aim of treating the survivors of rhino poaching incidents.

In 2014, Dr Johan Marais and Dr Gerhard Steenkamp were among the top five finalists nominated for *Rapport's* "Staatmaker van die Jaar" for their Saving the Survivors project.

PhD graduate excels at the annual SAAB conference

Dr Mathew Adamu has received the bronze medal from the South African Association of Botanists (SAAB) for the best PhD in plant sciences produced during 2013. Dr Adamu graduated with a PhD entitled "The efficacy of traditionally used *Leucosidea sericea*

(Rosaceae) to treat infections with *Haemonchus contortus* and related microorganisms". He did this under the supervision of Prof Vinny Naidoo and Prof Kobus Eloff of the Phytomedicine Programme. The prize was awarded at the annual SAAB conference in Venda in January 2015.

A former student of Prof Naidoo and Prof Eloff, Dr Mohammed Suleiman, won the same prize three years ago.

Prof Eloff has received the silver and gold medal awards, as well as honorary life membership of SAAB.

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New leader for Phytomedicine Programme

Dr Lyndy McGaw has been appointed as associate professor and the new leader of the Phytomedicine Programme in the Department of Paraclinical Sciences. The appointment will be effective from 2015. Dr McGaw is an NRF-rated scientist with a C2 rating and is a junior member of the Academy of Science of South Africa (ASSAf) with extensive research experience in the United Kingdom and Australia.

Prof McGaw's research involves biological activity and toxicity studies of South African plants and active compounds isolated from them. Her current interests focus on the antimycobacterial, cytotoxic and genotoxic effects of indigenous plants. Future work will concentrate on mechanisms of action, the use of plants in animal health and the immune modulatory activity of plant preparations.

The Phytomedicine Programme's outgoing leader, Prof Kobus Eloff, will still be involved. He still has a lot to offer science and the University. According to Google Scholar, one of his papers has been cited more than 1 000 times

and all of his papers have been cited more than 6 000 times. This is a noteworthy achievement.



Prof Lyndy McGaw.

A new era for the Phytomedicine Programme

The Phytomedicine Programme enters a new era in 2015 with the first permanently appointed position. Building on the solid foundations laid by the leadership of Prof Kobus Eloff since 1995, Prof Lyndy McGaw assumes responsibility of the Programme as the incoming leader and permanently appointed associate professor. She has been associated with the Programme as a postdoctoral fellow, research fellow, senior lecturer and extraordinary lecturer on a contract basis since 2002.

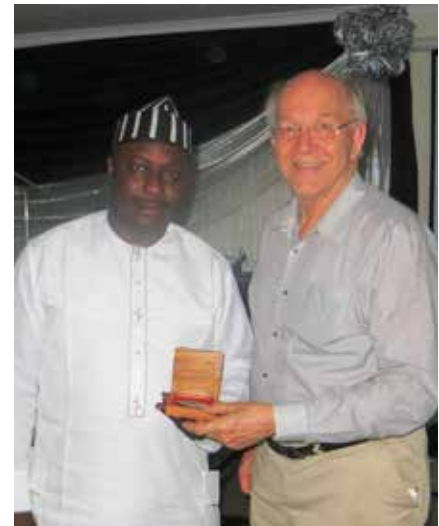


Staff members and postgraduate students of the Phytomedicine Programme.

Phytomedicine staff and students are eagerly awaiting the consolidation and improvement of laboratories and facilities. This is currently underway in the Paraclinical Building. A new leader will ensure a strengthened commitment to the research-intensive status of this dynamic group.

Several students and staff in the Programme made presentations in January at the 41st Annual Congress of the South African Association of Botanists (SAAB)

in Limpopo. Dr Mathew Adamu, a PhD graduate from the Phytomedicine Programme, was awarded the prestigious SAAB bronze medal for best Botany PhD thesis. His doctoral thesis, "The efficacy of traditionally used *Leucosidea sericea* (Rosaceae) to treat infections with *Haemonchus contortus* and related microorganisms" was supervised by Prof Vinny Naidoo and co-supervised by Prof Kobus Eloff, and a patent has just been registered based on his work. At the conference, Prof Kobus



Dr Mathew Adamu (left) and Prof Kobus Eloff, former leader of the Phytomedicine Programme, with the SAAB bronze medal Dr Adamu received for best Botany PhD thesis.

Eloff gave a well-received plenary presentation, and Prof McGaw was elected onto the SAAB Council.

Phytomedicine members are interested in cultivating and strengthening links with other faculty members within this focus area of antiparasitic activity of plant-derived extracts and chemicals. This focus area is not limiting, but incorporates diverse fields like antimicrobial and anti-inflammatory activity, cytokine expression and toxicology of primarily indigenous plants.

Passion and determination make dreams come true

If you really want it, go get it! My name is Debbie Conradie and I started studying to be a veterinary nurse at the age of 51.



Debbie Conradie, now a qualified veterinary nurse, has a passion for animals.

When I was growing up, I had some experiences with veterinarians and animals and these created a longing in me to work with animals. My high school marks were not high enough for me to apply for a degree in veterinary science, so, I studied something else and I was happy. However, the passion for animals never left me and I have often wondered what my life would have been like if I had worked harder at school or applied for the veterinary science degree regardless of my marks.

Soon, I became a stay-at-home mom. My life revolved around fulfilling the needs of others. I completed a few animal behaviour courses to stimulate my mind, but eventually I needed to work. I applied for a job at a veterinary practice and immediately felt my passion for animals re-emerge. This made me wonder whether my dreams were within reach.

At that stage my children were still teenagers and applying for the Veterinary Nursing Diploma in the Faculty of Veterinary Science would mean leaving home for two years and staying in another city away from my family. So, I put my plans on hold. A few years later, I experienced a traumatic divorce and my children were almost ready to leave home. This meant that I was free to leave Cape Town with money that I had saved. The combination of my circumstances and my passion gave me the opportunity to pursue my dream.

My age (51 at the time) was concerning, but my strong desire for what I wanted to achieve eventually blocked out my misgivings and I just persevered. By the time you read this, I will be a qualified veterinary nurse. It was a huge undertaking and at times taxing, but I did it. My family and friends supported me throughout my studies and they are all proud of me. Most of all, I am proud of myself. I strongly believe that if one really desires something, it could be achieved with perseverance, even if it seems impossible.

Two new professors join the epidemiology team

The Section of Epidemiology in the Department of Production Animal Studies is pleased to welcome two new additions to their team. Prof Eric Etter and Prof Abiodun Adesiyun will spend extended periods of time in the Department and contribute to research and teaching efforts.



Prof Etter has been at the Faculty since May 2014 and is a member of the Animal and Integrated Risk Management Research Unit of the French Agricultural Research Centre for International Development (CIRAD). He is a veterinarian with a master's degree in livestock farming and sustainable development, and a PhD in parasitological

epidemiology. After his postdoctoral studies, he worked for CIRAD as a veterinary epidemiologist for three years in Senegal and then for four years in Zimbabwe. Prof Etter's areas of expertise are risk analysis and animal disease surveillance, and he has a special interest in African swine fever. As a member of the epidemiology team at the Faculty, he will be developing and collaborating in research projects on economically important transboundary animal diseases. He will also supervise postgraduate students and contribute to postgraduate teaching in veterinary epidemiology.



Prof Adesiyun is professor of veterinary public health at the University of the West Indies (UWI), and has been at the Faculty since October 2014 on a one-year visit. He received his DVM degree from Ahmadu Bello University in Nigeria and completed MPH and PhD degrees at the University of Minnesota, as well as a research fellowship at the University of

Bonn in Germany. He has been at UWI since 1990, where he has served as Associate Dean: Research, Deputy Dean: Basic Health Sciences, and acting Dean and Director of the School of Veterinary Medicine. Prof Adesiyun has received several research awards and has won numerous research grants from regional and international sources. His research efforts focus on the epidemiology of bacterial zoonoses in humans and animals, and food safety, with particular reference to bacterial pathogens. His time at our Faculty will be spent developing and facilitating research projects and grant applications, and supervising several master's and doctoral students.

Bird and Exotic Animal Hospital saves chameleons

The Bird and Exotic Animal Hospital (BEAH) saved 12 baby chameleons after losing their mother. On 17 April 2014, an indigenous wild chameleon was brought to the BEAH, which is a semi-private clinic on the premises of the Onderstepoort Veterinary Academic Hospital (OVAH). Dr Dorianne Elliot, who also lectures to veterinary science students, runs and owns the clinic.



A baby chameleon sits on the fingertip of one of the Clinic's staff members.



One of the tiny chameleons hatches.

When the chameleon was brought in, she was in terrible shape and heavily gravid (the correct word for pregnancy in egg-laying animals).

She had been illegally kept as a pet and had been receiving inadequate care. Reptiles need access to daily sunlight in order to absorb calcium and keep their bones strong. If kept indoors, they need special full-spectrum ultraviolet (UV) lighting.

The thin chameleon had received no sunlight or UV lighting and

had multiple fractures in her legs. She was put to sleep to end her suffering, but all her eggs were removed. The clinic staff carefully incubated the eggs and they were pleasantly surprised when the first tiny baby hatched on 7 November 2014.

Eventually, 12 little chameleons hatched over three days. Since hatching, the little ones have been eating tiny insects with great enthusiasm and they will be released into the wild when they are stronger.

Did you know? Most chameleons change from brown to green and back to green again, but some can turn almost any colour. A change can occur in as little as 20 seconds. ■ Almost half of the world's chameleon species live on the island of Madagascar, with 59 different species existing nowhere outside of the island. ■ Chameleons can't hear much. Like snakes, chameleons do not have an outer or a middle ear so there is neither an ear opening nor an eardrum. However, chameleons are not deaf. They can detect sound frequencies in the range 200–600 Hz.

Practical diagnostic course improves industry collaboration

Prof Leon Prozesky



Research in the Faculty is instrumental in combating livestock diseases.

The departments of Paraclinical Sciences and Tropical Diseases of the Faculty of Veterinary Science held a diagnostic course for the staff of Bayer Animal Health on 29 October 2014. The aim of the course was to improve collaboration between the Faculty and the pharmaceutical industry, and some 44 Bayer representatives attended. The course consisted of a practical bacteriology diagnostic session, an autopsy demonstration, including the collection of samples for microbiology and histopathology, a histopathology laboratory demonstration, the cutting and staining of histological samples and a light microscopic session. The course was led by the postgraduate pathology residents, Dr Didi Jansen van Rensburg and Dr Nicolize O'Dell.

Mr Ben Erasmus of Bayer, who accompanied the group, said that the attendees' feedback was very positive. They highlighted the

course's practical approach, the well-equipped laboratories, the high standard of the autopsy facilities, the friendliness of the staff, as well as the high standard of the Faculty's diagnostic services. The Faculty aims to offer more courses of this nature during 2015.

A comprehensive, internationally recognised diagnostic service forms an integrated part of a properly

This decade has seen the emergence of highly dangerous livestock diseases like Bovine spongiform encephalopathy (mad cow disease), swine flu, as well as avian influenza in the poultry industry. Veterinarians play an important role in combating game and livestock diseases and assisting farmers with the daily management of their farms.

orchestrated national disease control programme. The Faculty of Veterinary Science is one of the key roleplayers in the diagnosis and control of livestock and game diseases in South Africa. Since the total export value of agricultural products that require veterinary permits amounts to a few billion rand per year, certainty in terms of disease status is vital to maintain this extensive market.



Representatives of Bayer Animal Health listen to Prof Leon Prozesky, Head of the Pathology Section (right) during the diagnostic course.

Faculty members attend congresses in Zimbabwe and Australia

Collaboration between African veterinarians is important for maintaining healthy animal populations on the continent. A delegation of five members of the Faculty of Veterinary Science visited Harare from 24 to 26 September 2014 to deliver presentations at the Zimbabwe Veterinary Association's international congress.

Prof Gareth Bath of the Department of Production Animal Studies presented a paper entitled "Recent developments in the control of helminths in small ruminants" and Prof Leon Prozesky of the Department of Paraclinical Sciences entertained delegates with a paper entitled "Preliminary observations on bone dystrophies and mineral imbalances in cattle with emphasis on osteochondrosis". Dr Takula Tshuma, Dr Henry Annandale and Dr Dietmar Holm presented some of the recent research conducted in the Department of Production Animal Studies on urea supplementation's effect on fertility in beef heifers, the potential of pooling preputial samples for herd diagnosis of

Trichomonosis and the use of pelvimetry to identify heifers at risk of dystocia.

The papers were of the highest standard and were well received by the approximately 60 delegates from Zimbabwe and Zambia.

Since the Faculty is the only one of its kind in South Africa, international collaboration could help it maintain its excellent academic record.

Dr Takula Tshuma and Dr Dietmar Holm of the Department of Production Animal Studies travelled to Australia during July and August 2014 to present some of their research at the 28th World Buiatrics

Congress, which was held at the Cairns Convention Centre.

Dr Holm presented three papers and two posters and Dr Tshuma also presented his research. A number of Onderstepoort graduates attended the congress, including Dr Corné Loots, who is now the General Manager: Sales of Norbrook Australia. The tour of Tropical North Queensland included a visit to James Cook University in Townsville, which was arranged by extraordinary professor Bruce Gummow. The visitors met with researchers in the same fields of study to share ideas. The trip included an opera performed in the Sydney Opera House and a visit to Brisbane.



From left: Dr Henry Annandale, Prof Leon Prozesky, Dr Takula Tshuma and Dr Dietmar Holm at the Zimbabwe Veterinary Association's international congress.



Dr Holm and Dr Tshuma assist a downer cow in Northern Queensland.

Breed 'n Betsy takes on Proefplaas Polly

Pregnancy diagnosis (PD) allows farmers to get valuable information about the future production potential of their cows, and veterinarians play a major part in this process. This year, the fourth-year students at the University of Pretoria's Faculty of Veterinary Science were exposed to a challenge during their practical animal reproduction training.



The winner of the 2014 PD Challenge, Ms Kelsey Tratschler (front, middle) with Dr Dietmar Holm, Dr Annett Annandale, Prof Linda van Ryneveld, Director: Teaching and Learning, Mr Llewellyn Sinclair (Zoetis) and Jacques de Jager (Zoetis)

The Onderstepoort PD Challenge, which was hosted by the Faculty's Department of Production Animal Studies, is a new initiative that aims to stimulate interest in rural veterinary practice among veterinary students. This is achieved by increased hands-on experience and a competition-based project among pre-clinical veterinary students. The project also aimed to determine whether its incentives could increase the students' motivation, as well as evaluate different training methods.

The idea for the PD Challenge sprouts from two challenges veterinary training faces. Firstly, PD by transrectal palpation in cattle is one of the core services provided by production animal veterinary practices in South Africa and the world. Private veterinary practitioners in South Africa regularly mention recently qualified veterinarians' deficient PD skills. Although it is generally accepted that further training should be provided, newly qualified veterinarians who are skilled in PD will be assets

to any prospective employer. This can only be achieved when students are sufficiently motivated to obtain additional experience. Private practitioners indicated that they required PD skills from newly graduated veterinarians, as this is a common activity in any rural veterinary practice. The young veterinarian also has access to more potential clientele if he or she is able to perform successful PD.

Secondly, when the intake of first-year veterinary students increased by almost 50% in the last few years, the Faculty had to investigate alternatives to live-animal training. As part of its strategy to adapt to increased student numbers, the Faculty invested in a new skills laboratory. Equipment purchases for the new laboratory included three rectal examination simulators and Breed 'n Betsy simulators, which have been designed for PD and artificial insemination training in cows.

The Faculty's conventional PD student training method has always been based on theoretical training, followed by a practical session performed on a herd of cows. Students are typically divided into groups of 25 to 30 per practical session. Much time and money is spent on planning and student transport to and from such sessions. The effectiveness of these sessions remains unknown.

The Faculty thought that the PD Challenge was an excellent opportunity to assess different training methods for PD in undergraduate veterinary students. This training improves veterinary education (simulators vs live cows) and creates awareness of excellence in practical veterinary skills among students and lecturers. It also stimulates interest in the production animal industry.

The PD Challenge consists of two phases: the training phase and the actual PD Challenge. During the training phase, students are divided into six practical groups, each group consisting of 22 students. Three groups are trained during the first phase of the project on Breed 'n Betsy simulators and the other three groups are trained on live cows. Training consists of only one practical session. Although simulators were not available to students outside the scheduled hours, they could obtain additional training or experience in their own time. In fact, such an initiative was encouraged. Students were also encouraged to post their experiences, pictures and videos on the dedicated Facebook page (www.facebook.com/oppdchallenge) during the course of the PD Challenge.

During the second phase of the project, each student's PD skills are tested on a subset of six cows from a herd of cattle. The time limit is 12 minutes. The cows are examined by an experienced veterinarian a few days before the event and the findings of this veterinarian are assumed to be the true pregnancy status of each cow. The Youdin Index ($J = \text{Sensitivity} + \text{Specificity} - 1$) is used to determine the diagnostic test's performance. Sensitivity is defined as the student's ability to correctly identify a pregnant cow ($\text{correctly identified pregnant cows} \div \text{total number of pregnant cows}$), while Specificity is defined as the student's ability to correctly identify a non-pregnant or open cow ($\text{correctly identified open cows} \div \text{total number}$

of open cows). Data capture sheets are used to record each student's data.

In each training cohort of students (simulator or live cows), the six students with the highest accuracy are invited to take part in the final phase of the challenge. During this phase, the 12 finalists' PD accuracy is determined in a similar way on another herd of cattle. This time, each student has to test a subset of 12 cows in 12 minutes.

The winner, Ms Kelsey Tratschler, received an imported ultrasound machine at the prizegiving ceremony on 23 September 2014. The Faculty is proud to announce that all training groups did equally well in the challenge, regardless of the training method used.

The Department of Production Animal Studies wishes to thank the main sponsor, Zoetis, Prof Linda van Ryneveld (Director: Teaching and Learning), Merck Sharp & Dohme, as well as the coordinators, Dr Annett Annandale, Dr Dietmar Holm and Dr Henry Annandale, for their contributions to educating the next generation of veterinarians.

Below: The 12 finalists in the 2014 PD Challenge together with Dr Dietmar Holm, Dr Annett Annandale and the sponsors from Zoetis



A tribute to an extraordinary man

Dr June Williams

On 16 October 2014, Prof Henri Pieter Albert de Boom would have turned 100 years old. According to his obituary in the *Journal of the South African Veterinary Association*, he was Veterinary Science's most loved and respected teacher at the time of his passing. He was fondly known as "Boompie" among his students and friends.

Prof De Boom was born in Pretoria on 16 October 1914. He matriculated from Oosteind School in 1931 and qualified as a veterinarian from the Faculty of Veterinary Science at Onderstepoort in 1936. He joined the Faculty as a research officer and later worked as a temporary lecturer in the Department of Anatomy. In October 1955, he succeeded Prof Cecil Jackson as Head of the Department of Anatomy and Physiology.

Prof De Boom retired from the Faculty in 1974, but stayed involved in lecturing. Among others, he lectured at Cornell University in the USA and the Medical Faculty of the Medical University of Southern Africa (Medunsa). A few of the Faculty's staff members, including Dr June Williams of the Section of Pathology, still have very fond memories of Prof De Boom as lecturer and Head of the Department of Anatomy and Physiology. One of his daughters, the late Marcella de Boom, became an artist and her paintings still grace the stairwell and office passage in the Department of Anatomy. She painted portraits of her "Vadie", as she used to call him, and the late subsequent heads of department, Prof JB le Roux (with his pipe) and Prof Malie Smuts. Like her father, Dr Hampie van Staden, Prof De Boom's granddaughter, Dr Ilse van Staden,

studied at the Faculty and qualified as a veterinarian. She is also an artist and a published poet, having won several prizes for her literature. Ilse and Marcella built unique cob houses with self-made stained glass windows in Cullinan, north-east of Pretoria. Marcella sadly passed away in 2009 and Ilse and her husband moved to Australia shortly afterwards.

On Prof De Boom's birthday, Ilse emailed Dr Williams to ask if she would mind picking a flower and placing it on the quaint cement sculpture of her grandfather and his little dachshund, Mickey, which was made by Marcella. The sculpture still stands on the lawn outside the Department of Anatomy and Physiology as a permanent tribute to this extraordinary man.

A sculpture of Prof De Boom outside the Department of Anatomy and Physiology.



A portrait of her father painted by the late Marcella de Boom.



Doctorates: a cause for celebration

Eight doctoral students graduated from the Faculty of Veterinary Science at the University of Pretoria during the 2014 autumn and spring graduation ceremonies.

Two days before each graduation, a doctoral celebration, where each student leads a 20-minute presentation on his or her thesis, is hosted. The Faculty's Dean, academic supervisors, family members,

academic staff and other postgraduate students usually attend the celebrations. Each presentation is followed by a question-and-answer session, after which the Dean congratulates each student.



Doctoral graduates with the former Dean of the Faculty of Veterinary Science, Prof Gerry Swan, the heads of the respective departments and academic supervisors at the graduation ceremony in April 2014: front row (from left): Dr Hilda Joubert, Prof Estelle Venter, Dr Jimmy Lubinga, Prof Gerry Swan; second row (from left): Dr Martina Crole, Prof John Soley, Dr Lita Pauw, Prof Kobus Eloff; third row (from left): Dr Dietmar Holm, Dr Jannie Crafford, Prof Christo Botha, Prof Alan Guthrie; back row (from left): Prof Peter Thompson, Prof Darrell Abernethy, and Prof Pete Irons.



Doctoral graduates with the new Dean of the Faculty of Veterinary Science, Prof Darrell Abernethy, the heads of the respective departments and academic supervisors at the graduation ceremony in September 2014: from left: Prof Christo Botha, Dr Jacqueline Dabrowski, Prof Darrell Abernethy, Dr Tiny Hlokwe, Prof Anita Michel, and Prof Moritz van Vuuren.

Did you know? In the context of academic degrees, the term “philosophy” does not refer solely to the field of philosophy, but is used for its original Greek meaning: “love of wisdom”.

Goodbye, but not farewell to Prof Koos Coetzer

Prof Gerry Swan

Actor Jack Nicholson once said: “If you enjoy your work, you have a life.” At his retirement function on 3 November 2014, Prof Koos Coetzer, former head of the Department of Veterinary Tropical Diseases and former Deputy Dean: Research, Postgrad Studies and International... at the Faculty of Veterinary Science used this quote to describe his career. It typifies his entire professional life spanning 40 years, but also includes his multiple extramural activities.

Prof Coetzer started his career in 1974 as a veterinary pathologist at the erstwhile Onderstepoort Research Institute, currently known as the Onderstepoort Veterinary Institute (OVI). During his time there, he was involved in the investigation of one of the biggest epidemics of Rift Valley fever (RVF) to date.

These investigations and the research that followed led to the attainment of his MMedVet (Pathology) degree. Over the next 15 years at the Institute, Prof Coetzer was particularly productive and became a world-class pathologist with a research focus on RVF, Wesselsbron disease and tribulosis (also known as geeldikkop). He and his colleague, Dr Fanie Kellerman, described the occurrence of microlith plate-like structures as the principle biliary-occluding mechanism responsible for the retention of phylloerythrin in tribulosis for the first time.

Prof Coetzer served as Head of the Department of Pathology and Assistant Director of the OVI for eight years. In 1989, he decided to switch careers from pathology to infectious diseases and joined the Faculty of Veterinary Science. He soon became Head of the newly formed Department of Veterinary Tropical Diseases, a position he held for the almost 19 years.

During this time, the Department developed into a renowned academic entity.

During the past three years, Prof Coetzer served with distinction as Deputy Dean: Research, Postgraduate Studies and Internationalisation, and he has streamlined many policies and procedures related to postgraduate studies and research. Under his guidance, a postgraduate association was established at the Faculty. He also gave much attention to establishing an open education platform at the Faculty and launching the African

Veterinary Information Portal (AFriVIP) during his tenure as Deputy Dean. This initiative places the Faculty at the forefront of open education resources as an educational strategy within the University.

Throughout his career and during his time as Deputy Dean, Prof Coetzer remained focused on maintaining and building international relations. His philosophy has been to develop these bonds through fun and socialisation, but he was always aware of the fact that he was not only representing the Faculty, but also South Africa.



Prof Coetzer at his farewell function with his sister, Retha Schoeman (second from right), his brother-in-law, Salie Schoeman, and a friend, Mirisa van Niekerk (left).



Prof Coetzer in discussion with Prof Roy Tustin at his farewell. Prof Tustin and Prof Coetzer were the authors of the book *Infectious diseases of livestock with special reference to southern Africa* (second edition), published in 2004.

He achieved much success in establishing valuable international collaborations and obtaining funding. However, the long-standing productive relationships with the Faculty of Veterinary Medicine at the University of Utrecht in The Netherlands, where he was appointed a visiting professor, and the Institute of Tropical Medicine in Antwerp are two significant examples. He has prioritised connecting these institutions with southern African collaboration and support in virtually all of his international endeavours.

Prof Coetzer served on the Standing Committee of the Association of Institutions for Tropical Veterinary Medicine (AITVM) for 15 years and served as Chairperson of the AITVM for six years. This is testimony to the recognition he enjoys internationally, particularly among his peers.

There are many highlights and achievements that define Prof Coetzer and his professional journey, including the following:

- He received a gold medal from the South African Veterinary Association in recognition of outstanding scientific achievements and the promotion of veterinary science in 1997.

- He was the senior editor of two editions of *Infectious diseases of livestock with special reference to southern Africa*. He received the Bill Venter Literary Award in 1997 and the Malbrant-Feunten Award of the French Veterinary Academy in 1998 for producing a book of international standard.

- He co-edited two editions of the excellent textbook *Plant poisonings and mycotoxicoses of livestock in southern Africa*.
- He was involved in the production of several high-quality videos, CD-ROMs and posters to support undergraduate and postgraduate training, which was also a source of income for the Department of Veterinary Tropical Diseases.
- He received an award from the Marketing Department in 1999 for exceptional contributions to the marketing of educational material.
- In 2007, the University of Pretoria awarded him a Laureate Certificate for Education Innovation in the category Innovation in Curriculum Development and/or Learning Materials for the development of the primarily web-based master's degree in Veterinary Tropical Diseases and modules for continuing professional development.
- He received the Chancellor's Award for Teaching and Learning in 2008.
- He obtained recognition for the Department of Veterinary Tropical Diseases and its consortium partners as a World Animal Health Organisation (OIE) Collaborating Centre for Training in Integrated Livestock and Wildlife Health and Management.

- Prof Coetzer is author and co-author of 68 scientific articles.

My personal journey with Prof Coetzer started in 1970 when we entered the Veterinary Science study programme. Afterwards, we collaborated in research and published together, were members of Onderstepoort Striders (now Akasia Athletics Club), ran the Comrades Marathon together, organised the prestigious Gencor Marathon relay race for two years and served as heads of department in the Faculty for 11 years. During the past nine years, he served as a key member of the executive team during my term as dean. More recently, we shared a mutual interest in clivias. Prof Coetzer is not only a classmate and a colleague, but has been a valued friend for many years.

Prof Coetzer's meaningful contribution to the veterinary profession and his many contributions to the Faculty will be remembered. Most importantly, he will not be lost to the Faculty, nor the profession, as he has been offered a part-time post-retirement appointment in the University as an international ambassador for the Faculty.

The Faculty wishes him the best of luck and an enjoyable retirement filled with hobbies, friends and family.



Prof Gerry Swan (right) and Prof Coetzer (beside him) finishing the Comrades Marathon together in 1988.

Scientific collaboration breaks ground for an improved dental hygiene product

In 2009, Dr Candice van Wyk from the School of Dentistry registered for a PhD under the supervision of Dr Francien Botha and the co-supervision of Prof Kobus Eloff, both from the Phytomedicine Programme in the Faculty of Veterinary Science. This started a collaborative research project between the School of Dentistry and the Faculty of Veterinary Science.

While the research was conducted, Dr Candice van Wyk managed to isolate a novel compound, Obliquumol, from the *Ptaeroxylon obliquum* active leaf extract. With the help of the late Prof Robert Vleggaar, the structure of the compound was determined using 1D and 2D nuclear magnetic resonance spectra. This showed that Obliquumol exhibited chemical shift characteristics of a novel compound. Obliquumol has better antifungal properties that function against *Candida albicans* and a higher level of safety than the gold standard for treating fungal infections, Amphotericin B.

In 2014, Dr Francien Botha and Dr Candice van Wyk enrolled for the Fourth Annual South African Breweries Foundation Social Innovation Awards Programme, as well as the Gauteng Accelerator Programme in Biosciences. They attended various workshops and prepared business plans, video clips and presentations that were presented to international judges.

Their persistence and hard work were rewarded when they received second place in the Fourth Annual South African Breweries Foundation Social Innovation Awards programme, winning R500 000 seed money to continue the development of Obliquumol. This award recognises and

rewards innovators, enterprises and organisations that address developmental issues in creative and sustainable ways. The South African Breweries Foundation (SABF) Innovation Awards are open to any innovation solution that offers a credible prospect of meeting a demonstrable social and/or economic need evidenced by the SABF's low-income beneficiary groups, which include women, the youth, persons with disabilities and persons in rural areas.

They were also awarded second place in the 2014 Gauteng Accelerator Programme (GAP) for Biosciences, winning another R300 000. The GAP Biosciences programme seeks to address the gap that exists between the prototype stage and commercialisation of life science technologies. GAP Biosciences is organised by The Innovation Hub Management Company (TIHMC) in Pretoria, in collaboration with The Technology Innovation Agency and partnership with Emory University.

The production of Obliquumol as an antifungal agent can lead to the invention of new and effective products based on the plant extract. The award money will be used to develop a new antifungal oral rinse/topical gel based on the plant extract, while the novel compound will be developed into an antifungal

agent to combat oral candidiasis in HIV-positive individuals.

It will take highly skilled organic syntheses for this product to be developed into a commercially available antifungal/antimicrobial agent. Collaboration between the researchers and international scientists will now be possible due to the seed funds and incubation at the Innovation Hub. For the product to be commercially available, it has to obtain approval from the Health Council of South Africa and the US Food and Drug Administration (FDA). All the toxicity testing in animals and later in humans can take anything from six to 15 years.



Dr Candice van Wyk and Dr Francien Botha at the Annual South African Breweries Foundation Social Innovation Awards.

Cultural Day takes the cake

Initiated by the Journey of Change Committee, the Faculty of Veterinary Science held its first Culture Day on 26 September 2014. Both staff and students celebrated a joyful day by displaying or selling their cultural arts, crafts, food and attire.

All the departments participated and the majority of the South African cultures were represented. A group of people spontaneously displayed a Zulu wedding ceremony. The judges had to taste everything from mopani worms to ginger beer, and even ventured into bokdrol spit.



Participants dressed in traditional clothing.



Some of the traditional foods that were prepared for the judges.



Participants preparing and dishing up the food that was prepared for the judges to sample.

Wild dog gets dental makeover

An eight-year-old male wild dog at the National Zoological Gardens of South Africa in Pretoria was recently examined and found to have some fractured teeth.



Dr Gerhard Steenkamp performing the procedure on the wild dog.

The Faculty was requested to assist and on 24 October 2014 the wild dog was darted at the zoo and transported to the Dentistry and Maxillofacial Surgery Clinic at the Faculty of Veterinary Science.

He was anaesthetised, placed on a drip and given antibiotics and pain medication. Dr Gerhard Steenkamp extracted the fractured teeth and scaled and polished the remaining teeth.

After the procedure, he was transported back to the zoo.

OP 4 Madiba project successful once again

Susan Marsh and Marguerite Nel (Jotello F Soga Library)

South Africa celebrated Mandela Day on 18 July 2014 and, as part of the annual OP 4 Madiba project, the Faculty of Veterinary Science donated 137 gift packs containing toothbrushes, toothpaste, soap and face cloths to House Davidtsz, a frail care facility in Pretoria, on 27 October 2014.

The project has three phases. During the first phase, staff members and students collect items to be donated and several collection points are established on campus. The team that collects the most items selects a potential beneficiary. For 2014, the Jotello F Soga Library and the Department of Production Animal Studies chose the beneficiary. During the project's second phase, gift packs are made up by staff members and students for the chosen beneficiary.

House Davidtsz was chosen to receive the gift packs. The majority of residents are elderly, but the facility also accommodates residents afflicted with illnesses such as HIV/Aids, tuberculosis, cancer, Alzheimer's disease and schizophrenia. Some residents are wheelchair-bound, bed-bound or mentally handicapped.

The project's third phase includes a visit to the beneficiary to hand over the gift packs. On their arrival at House Davidtsz, the Executive Manager, Ms Leonora Strydom, welcomed the Faculty's staff. After a brief introduction, senior staff members offered the visitors a tour of the facility and introduced them to some of the residents. The Faculty representatives who visited House Davidtsz included Mr Eugene Machimana (Community Engagement Coordinator), Dr Quixi Sonntag

(Lecturer: Curricular Community Engagement), Dr Giulia Esposito (Lecturer: Production Animal Studies), Ms Susan Marsh (Jotello F Soga Library) and Ms Marguerite Nel (Jotello F Soga Library).

House Davidtsz accepts people regardless of age, race, religion, illness or financial ability. The facility receives a subsidy from the government, but relies on family contributions and other donations. The team of 81 permanent staff members are assisted by 30 volunteers and 60 students. It is a well-managed team that works hard towards improving the lives of others.



Senior nurse Josephine Mahlaola of House Davidtsz receives a gift pack on behalf of one of the residents from Mr Eugene Machimana, the Faculty's Community Engagement Coordinator.



Faculty staff members who attended the presentation included Dr Quixi Sonntag (Lecturer: Curricular Community Engagement), Dr Giulia Esposito (Lecturer: Production Animal Studies), Ms Marguerite Nel (Jotello F Soga Library) and Ms Susan Marsh (Jotello F Soga Library). House Davidtsz staff members who were present included Sister Elizabeth Tshauke, senior nurse Josephine Mahlaola and Ms Leonora Strydom, Executive Manager (middle).

Nelson Mandela once said:
"Man's goodness is a flame that can be hidden, but never extinguished."

Sixth LINQED

educational network workshop

Dr Jannie Crafford of the Department of Veterinary Tropical Diseases and Dr El-Marie Mostert of the Department for Education Innovation attended the 6th annual workshop of the LINQED Educational Network. The workshop was held at the Universidad Peruana Cayetano Heredia in Lima, Peru, from 27 to 30 May 2014. As a member of the executive committee for 2013/14, Dr Mostert was involved in the planning of the workshop.

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

The LINQED educational network is funded within the Third Framework Agreement between the Prince Leopold Institute for Tropical Medicine and the Belgian Directorate General Development Cooperation.

It consists of partner institutions from all over the globe, of which the Department of Veterinary Tropical Diseases is one.

The workshop's main themes were quality in education, evidence-based practice related to competence-based curriculum development, and thesis supervision – how to organise your first effective meeting with master's degree students.

The Four-component Instructional Design Model (4C/ID model), a model that was specifically designed for medical education and the

development of competencies, was presented. Delegates had to do some reading on this model before the workshop and apply it to the case studies after being divided into smaller groups.

Some 25 participants from Belgium, Bolivia, the Democratic Republic of Congo, Ecuador, India, Indonesia, Morocco, Nepal, Peru, South Africa and Uganda attended the workshop.

The next workshop is planned for May 2015 and will be hosted by the Institute of Public Health in Bangalore, India.



Delegates of the annual workshop of the LINQED Educational Network held at the Universidad Peruana Cayetano Heredia in Lima, Peru, from 27 to 30 May 2014.

Conservation project wins prestigious award

Each year, between 80 and 120 rhinos survive poaching or



traumatic incidents. In an effort to join the fight against rhino poaching, two veterinarians of the Faculty of Veterinary Science, Dr Johan Marais and Dr Gerhard Steenkamp, started the Save the Survivors project to rehabilitate these survivors. On 31 July 2014, the project received a prestigious Rhino Conservation Award at a ceremony in Johannesburg by winning in the Best Science, Research and Technology Category.

The Game Rangers Association of Africa and the Department of Environmental Affairs annually host the Rhino Conservation Awards ceremony.

These awards recognise individuals and projects that make a significant contribution to the conservation of Africa's rhino populations.

Dr Marais and Dr Steenkamp started Save the Survivors in 2012 and they have saved many rhinos from death. The project emphasises research that can prevent or alleviate the rhino poaching problem. It has made substantial progress in identifying potential ways to surgically dehorn rhinos, as well as reconstructive surgery for rhinos. Veterinarians can use these groundbreaking research findings when they are called out to similar cases.

OP delegates visit Australia

Two staff members in the Department of Anatomy and Physiology of the Faculty of Veterinary Science attended a successful visit to Australia during August 2014.

Prof John Soley and Dr Lizette du Plessis were invited to present seminars on various morphological aspects of ostrich reproduction at the University of Western Australia (UWA) School of Animal Biology in Perth. They were also involved in discussions on ongoing and future research collaboration on artificial insemination in ostriches with Prof Irek Malecki at UWA. Prof Malecki pioneered the dummy method for collecting physiological semen samples from ostriches. Prof Soley was also invited to present the opening Norman R. Adams Memorial Lecture at the annual meeting of the Reproductive Biology and Endocrinology Society of Western Australia on 6 August 2014.

During their trip, Prof Soley and Dr Du Plessis travelled to Newcastle, 200 km north of Sydney, to attend the 9th Biennial Meeting of the Association for Applied Animal Andrology (AAAA) from 8 to 10 August 2014. At this meeting, Dr Du Plessis presented a poster entitled "Morphology and incidence of sperm defects in the ostrich, *Struthio camelus*". She was elected to the board of directors for 2014 to 2016 during the AAAA's Annual General Meeting. Prof Soley presented the plenary lecture at the AAAA dinner on the topic "Ratite sperm morphology: A bird's-eye view".

The delegates also attended the 12th International Symposium on Spermatology from 10 to 14 August 2014 in Newcastle, where Prof Soley delivered a presentation entitled "Macrocephalic sperm in ratites: variations on a theme". This paper elicited a great deal of attention and discussion, which culminated in a proposed collaboration between the Faculty and Dr Bart Gadella of the University of Utrecht in The Netherlands.



Dr Lizette du Plessis (left), newly elected board member of the AAAA with Dr Peter Chenoweth (immediate past President and current Vice-President of the AAAA) (centre) and Prof John Soley (right).

Clinical Pathology Section welcomes a new staff member



The Clinical Pathology Section of the Department of Companion Animal Clinical Studies at the Faculty is proud to announce the appointment of Dr Emma Hooijberg.

She graduated from the Faculty in 2001 and went on to practice as a small animal veterinarian in the United Kingdom for six years. In 2008, she started a residency in veterinary clinical pathology at Labor InVitro, Vienna, Austria, and successfully passed the board examination of the European College of Veterinary Clinical Pathology in 2012. She then worked as a veterinary clinical pathologist in the Platform for Clinical Pathology at the

University of Veterinary Medicine and in vitro laboratory in Vienna.

Her special interests include diagnostic cytology, inflammatory markers in horses and wildlife, reference intervals and biological variation, and laboratory quality management.

She can be contacted at 012 529 8445 and Email: emma.hooijberg@up.ac.za

Save the Survivors receives yet another award

Conservation is critical for sustainable natural environments and two staff members of the Faculty have received an award in commendation of their conservation efforts.

On 27 November 2014, Dr Gerhard Steenkamp and Dr Johan Marais, co-founders of the Save the Survivors project, received another award when South African National Parks (SANParks) recognised them with a Kudu Award in the Corporate Contribution (Professional Stakeholders) category.

The Kudu Awards allow SANParks to recognise those that go to any length to conserve the natural environment

(See story on page 20.)

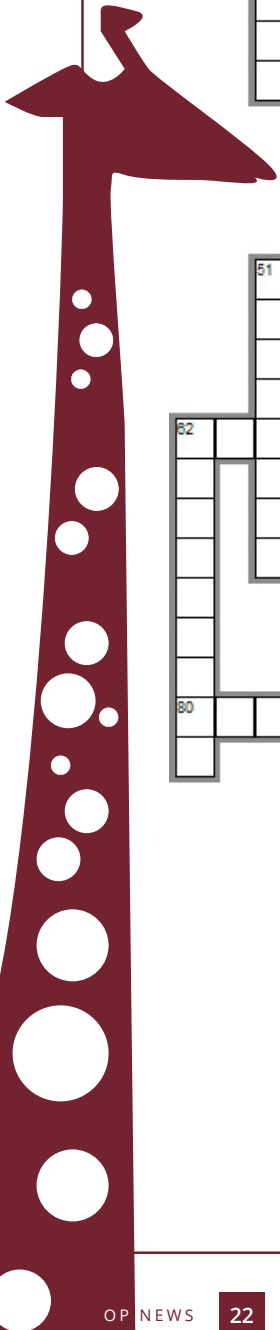
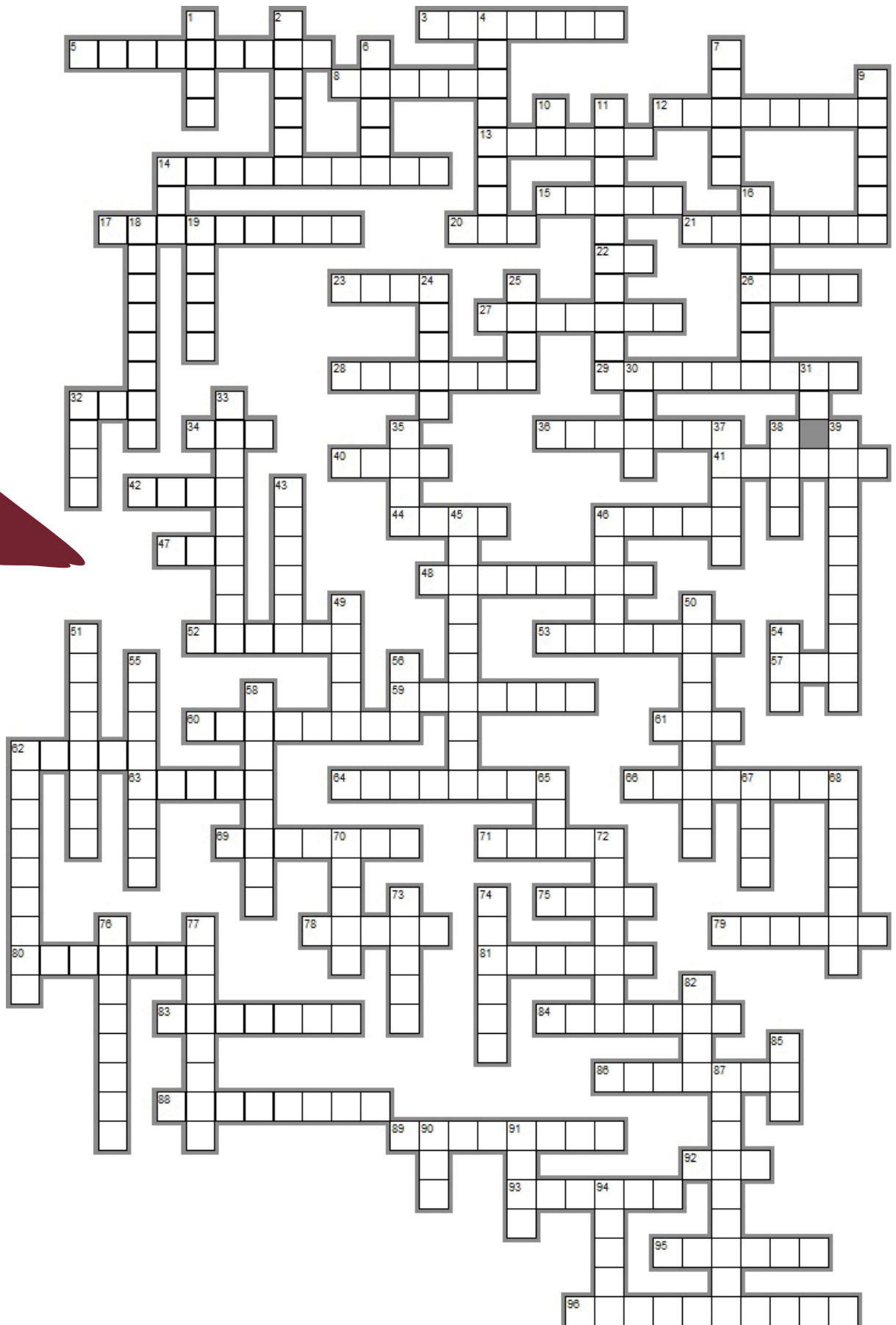
and heritage for future generations. SANParks is the custodian of choice for protected areas.

In August 2014, Dr Marais and Dr Steenkamp also received a Rhino Conservation Award from the Game Rangers Association of South Africa for this project.



Dr Johan Marais and Dr Gerhard Steenkamp with their award.

OP News Crossword Puzzle

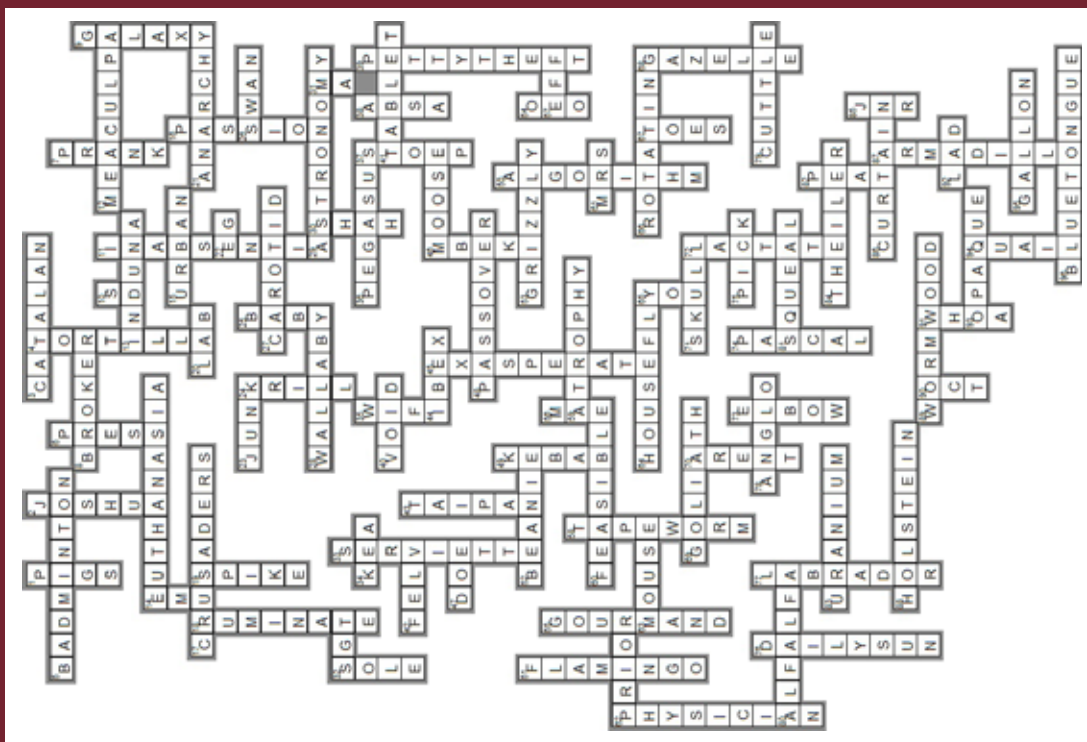


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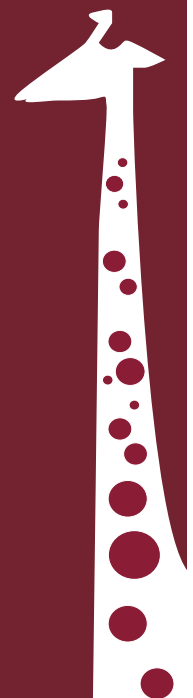
- | | | |
|--------------------------------|-----------------------------|--------------------------------|
| 3. Language in Catalonia | 36. Flying horse | 66. Moving around its own axis |
| 5. Shuttlecock game | 40. Empty | 69. Giant beetle |
| 8. Middleman | 41. Medicine or gadget | 71. Bony case for brain |
| 12. By my fault (3/5) (I) | 42. Feline leukemia virus | 75. Select |
| 13. Zulu headman | 44. Mountain goat | 78. English (comb form) |
| 14. Gentle and easy death | 46. Large deer | 79. Ink-fish |
| 15. In the city | 47. Female rabbit | 80. Lucerne |
| 17. Super rugby runners-up | 48. Jewish spring festival | 81. Shriill cry |
| 20. Short for laboratory | 52. Close-fitting hat | 83. Radioactive element |
| 21. Absence of government | 53. ...bear | 84. Arnold... |
| 22. <i>Exempli gratia</i> | 57. Malema's party | 86. Window cover |
| 23. Discarded things | 59. Wasting away | 88. Cattle breed |
| 26. Previous dean | 60. Possible | 89. Bitter herb |
| 27. Great artery | 61. Female title | 92. Boy |
| 28. Kangaroo | 62. Earlier | 93. Not transparent |
| 29. Science of heavenly bodies | 63. <i>Rodentia muridae</i> | 95. 4.54 L |
| 32. Sergeant (abbr) | 64. <i>Musta domestica</i> | 96. Sheep disease |
| 34. Green parrot | | |

Down

- | | | |
|--|------------------------------------|-------------------------------|
| 1. When...fly | 32. Flatfish | 62. Doctor |
| 2. OT book | 33. Table napkin | 65. SA magazine |
| 4. Latin-am flat maize cake | 35. Wireless | 67. Foot digits |
| 6. Force or media | 37. Veranda | 68. Antelope |
| 7. Practical joke | 38. SA bank | 70. Are not |
| 9. Stars or phone | 39. Larceny (5/5) | 72. Secrete milk |
| 10. South Dakota (abbr) | 43. Type of snake | 73. Arm joint |
| 11. In his absence (2/8) (I) | 45. Make worse, irritate | 74. Unit of pressure |
| 14. Flightless bird | 46. Former president | 76. SA newspaper |
| 16. Strong emotion | 49. Shish... | 77. Type of retriever |
| 18. Chew the cud | 50. Process for calculation | 82. Carbonised plant material |
| 19. Sharp point | 51. Pink wading bird | 85. Junior |
| 24. Whale food | 54. Office of economic opportunity | 87. Armour-plated animal |
| 25. Throw the...out with the bathwater | 55. Glutton | 90. Octavo (abbr) |
| 30. Iranian monarch | 56. ...West | 91. Command to stop |
| 31. Master of arts | 58. Segmented intestinal parasite | 94. Type of partridge |



Find the answers here



Run4Rhinos

a tremendous success

Melissa Sussens, Run4Rhinos Committee Chairperson

In 2014, around 996 rhinos have been poached. This figure is astonishing when compared to only 10 in 2004. In order to continue the fight against rhino poaching, veterinary students organised the third annual Run4Rhinos fun run. The event took place at the University of Pretoria's LC de Villiers sportsgrounds on 6 September 2014 and a record number of 765 people participated.

Run4Rhinos is a unique event because it is not only in aid of a worthy cause, but also a family-friendly, fun morning of fresh air and exercise. Whether participants are avid runners or would just like to give their dogs some exercise, Run4Rhinos offers something for everyone.

The event astounded the organising committee by raising R45 450 from entry fees and generous donations. This feat would never have been possible without all participants, as well as the event's sponsors, which ensured that the event could be organised without expenses and that the profit could go directly to charity. Thank you to Spar, PETSA pet products, Nu-World Industries and Danie Cornelius from TuksAthletics for making this possible.

The money will be donated to the RhODIS database project at the Faculty, Stop Rhino Poaching and Vets United Against Poaching.

If you are already looking forward to next year's event, keep an eye on the website (www.run4rhinos.org) and Facebook page (www.facebook.com/run4rhinos) for future information, as well as pictures of the fun run of 2014.



The Run4Rhinos Organising Committee for 2014.