



OP News

Volume 9 • No 2 • Summer 2009 • Official newsletter of the Faculty of Veterinary Science, University of Pretoria

Faculty Day 2009

This year's Faculty Day was held on Thursday, 27 August 2009, and it was a truly noteworthy event.

Attendance broke all records, and registration was a busy affair, with sponsors receiving plenty of early support, as delegates visited stands in order to take advantage of specials and competitions first. A record number of 15 sponsors attended Faculty Day 2009 and, as always, their generous support and goodwill went a long way towards ensuring the success of the day. The official programme, handed out at registration, did the occasion proud, with colour pictures included for the first time ever, which made the publication an extremely attractive and inviting read!

Proceedings got underway with an address from the dean, Prof Gerry Swan. He had a large audience, as the excellent attendance of staff, visitors and students ensured that the auditorium was filled to capacity.

The first session of oral research presentations followed the dean's address, with the eventual Best Paper Award among them: *Comparative popliteal and mesenteric computed tomographic lymphography of the caudal canine thoracic duct*. Research presented annually at Faculty Day is always of the highest standard, and this year was certainly no exception.



Mr Harry Mahieu from Instavet (right) with Dr Macarena Sanz, recipient of the Instavet Young Lecturer of the Year 2009 Award.

At the end of the first session, it was time for the eagerly awaited Sir Arnold Theiler Memorial Lecture, presented this year by Prof Peter Doherty. Together with his Swiss colleague, Rolf Zinkernagel, he was awarded the Nobel Prize in Physiology or Medicine in 1996 for the team's discovery of how the immune system recognises virus-infected cells.

Prof Doherty proved to be a down-to-earth and extremely entertaining speaker with a sense of humour, immense knowledge and wisdom, and not a little humility regarding his

illustrious career as veterinarian and scientist. The overwhelmingly positive message offered by Prof Doherty was, in essence, 'nothing ventured, nothing gained', and when one considers his many significant achievements, there is no doubt that he is a fine example of the truth of that saying.

After Prof Doherty's lecture, it was time for the awards, and there was the usual sense of anticipation and excitement as students and staff waited to see which of their peers would be honoured.

continued on p 5



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA
Faculty of Veterinary Science



From the Desk of the Dean

As the end of the academic year approaches, we once again say goodbye to our new graduates, after having spent a period of five or more years at the faculty. A record group of 117 new veterinarians and 39 veterinary nurses will be qualifying this year. We congratulate them on their achievement and wish them a great future ahead.

As faculty, we are proud to introduce our new graduates to the profession, confident in the training they have received. Nevertheless, the profession and society have to understand and accept that we can only prepare our new graduates up to a certain level of competency, more recently referred to as day-one competencies. Building on these starting competencies will largely be influenced by the type of employment and level of exposure and mentorship our new colleagues will receive from now on. Their future success therefore does not only depend on their own commitment to continuous development, but will also be shaped by the guidance and support they receive from the profession.

This year, we will similarly be awarding the highest number of postgraduate degrees – a total of 25, including four doctoral degrees. The total number of postgraduate students now exceeds 260, representing more than a quarter of our total student population. Our postgraduate students contribute significantly to the growth in our research outputs.

A very successful postgraduate symposium, organised and run by young staff members and postgraduate students of the Department of Veterinary Tropical Diseases, expresses the leadership role they are starting to assume. The faculty intends to expand this initiative to a southern African regional event due to the large number of postgraduate students that are from the region and wider afield in Africa.

A noteworthy highlight during 2009 was Faculty Day, which was held on 27 August. Since its inception 25 years ago, Faculty Day has contributed significantly to the establishment of a culture of research in the faculty.

My sincere thanks go to the organising committee and sponsors of the day. Their contributions and commitment were instrumental in making this an exceptional day. Congratulations also to the respective winners of the 2009 staff and research awards as reported on page 5.

Approval for the introduction of a revised veterinary undergraduate programme was

recently granted by the Senate. The existing seven-year, two-degree programme will be replaced by a six-year, single-degree, core-elective programme. The new programme will commence in 2011, but already affects new students registering in 2010. It is hoped that the admission of larger numbers of students from the designated population groups will be facilitated with the introduction of the new shorter, single-degree veterinary training programme.

Apart from applying a core-elective approach, the introduction of professional life skills training throughout the duration of the new veterinary programme allows for the development of interpersonal relationships, leadership and communication skills and the instilling of professional ethical values. The core curriculum has to be completed by all students and is, inter alia, intended to provide them with the required day-one competencies. At the end of the programme, students will be able to elect a specialised veterinary tract such as small animals, equines or production animals and receive additional starting competencies in the elected tract(s).

Publication information

OP News is issued by:
Faculty of Veterinary Science
University of Pretoria

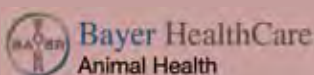
Editor:
Prof Ken Pettey
E-mail: ken.pettey@up.ac.za

Consulting editor:
Janine Smit
E-mail: janine@jses.co.za

Layout:
Janine Smit Editorial Services
www.jses.co.za

Printing:
Business Print Centre

Contributions to OP News
are welcomed. Please submit
any material electronically
to the editor in MS Word.



Quality assurance of veterinary training has been a matter of international debate over the past few years. There is an expectation that all veterinary qualifications provide similar basic competencies and are of a similar standard, but there is a disparity between developed and developing countries. The World Veterinary Association has been propagating a global accreditation mechanism for veterinary institutions for several years. International meetings to discuss the accreditation of veterinary education were held between 1999 and 2007.

In 2007, the South African Veterinary Council (SAVC) was invited to participate in these discussions for the first time. An international working group was formed at the meeting in 2007 to consider whether a combined site visit, which would meet the requirements of the American Veterinary Medical Association (AVMA) Council on Education, the Royal College of Veterinary Surgeons (RCVS) and the Australasian Veterinary Boards Council (AVBC), could be achieved. The first site visit to the Murdoch University, School of Veterinary and Biomedical Science, Perth, Australia, was a complete success. A follow-up meeting of the working group is envisaged to consider the feasibility of future cooperative accreditation site visits with the aim of the global accreditation of veterinary educational institutions in the long term.

The disparity in the level of veterinary training has also compelled the World Organisation of Animal Health (OIE) to organise a global workshop on evolving veterinary education for a safer world. At the workshop in Paris in October 2009, deans of veterinary training institutions and key national animal health policy-makers from all over the world exchanged views on veterinary training with the ultimate aim to ensure that future graduates are increasingly able to work in an international environment, applying international standards for disease surveillance, veterinary public health,

food safety and animal welfare. A total of 24 recommendations were formulated for adoption by veterinary training institutions in OIE-participating countries to ensure minimum training requirements for veterinarians. The recommendations could influence the standard of veterinary training worldwide.

In preparation of the OIE workshop, a seminar with the topic *Veterinary education in southern Africa: Matching supply and demand*, was organised by the OIE regional office. The deans of the relevant training institutions and representatives of veterinary professional regulatory bodies in the South African Development Community (SADC) attended. Several resolutions and recommendations were formulated to promote regional cooperation in veterinary and paraprofessional training and professional regulation in the region.

Closer to home, it is my pleasure to congratulate Prof Koos Coetzer, as convenor, and the consortium partners, including the faculty, led by the Department of Veterinary Tropical Diseases in having been appointed by the OIE as a Collaborative Centre for Training in Livestock and Wildlife Management in SADC. A successful symposium was held on 11 November 2009 with consortium partners, stakeholders and collaborators in order to clarify how the centre will be developed and implemented.

Congratulations must also go to two new heads of department, Prof Pete Irons (Production Animal Studies) and Prof Johan Schoeman (Companion Animal Clinical Studies). We wish them every success in their endeavours in taking these departments forward in the near



Prof Gerry Swan (left) with Aaron Mwene, Dean of the Veterinary Faculty in Zambia, at the OIE meeting in Paris.

future. My sincere thanks and appreciation go to Prof Gert Rautenbach and Prof Piet Stadler, who have ably led the respective departments since the restructuring of the faculty in 2002.

This faculty is in an excellent position to respond to the new challenges that the veterinary profession will be facing globally. Through first-rate research, exceptional training, international and regional collaboration and outstanding service delivery and community engagement, we will be able to do our particular part in support of the One World/One Health initiative. However, we will have to continuously position ourselves strategically as an institution of excellence and as a leader, something that is only possible with a team effort.

A big thank you to every staff member who made a contribution in 2009 to ensure that the faculty was successful in reaching its goals. My wife Lina and I wish you a blessed festive season and a prosperous 2010.

Prof Gerry Swan
Dean: Faculty of Veterinary Science

DVTD shines at PARSA conference

Members of the Department of Veterinary Tropical Diseases (DVTD) received various awards at the 38th annual conference of the Parasitological Society of Southern Africa (PARSA) in September 2009. Dr Tshepo Matjila received the WO Neitz Medal for his PhD thesis, and was judged as Best Veteran Presenter in the poster section. Ms Lan He, a PhD student visiting the department from China, won the award for Best First-time Presenter in the poster section, while Ms Anna-Mari Bosman was Runner-up Veteran Presenter in the oral presentation section.

Two DVTD staff members were elected to serve a three-year term of office on PARSA's committee: Prof Banie Penzhorn as president and Dr Marinda Oosthuizen as secretary.

New heads appointed

For the Department of Companion Animal Clinical Studies

Prof Johan Schoeman has been appointed to head the Department of Companion Animal Clinical Studies at the Faculty of Veterinary Science at Onderstepoort. Prof Schoeman has an impressive CV and is highly respected and very popular with all staff and students at Onderstepoort.

Prof Schoeman graduated as a veterinarian from Onderstepoort in 1991. After seven years in private practice in the UK, he returned to academia, initially as a lecturer at Cambridge University in 1999, then as a senior lecturer at Onderstepoort in 2000, where he became a professor in Small Animal Medicine in the Department of Companion Animal Clinical Studies.

He holds specialist qualifications in small animal medicine from the Royal College of Veterinary Surgeons in London (DSAM), the European College of Veterinary Internal Medicine (ECVIM) and a master's degree (MMedVet) from the University of Pretoria. He obtained a PhD in veterinary endocrinology at Cambridge University in 2008 and is currently the only veterinary clinician in the country that holds a B rating with the National Research Foundation.

Prof Schoeman regularly lectures at local and international veterinary meetings and actively publishes in scientific journals. He is a member of many international veterinary societies and is also the chairman of the examination board of ECVIM. He has received clinician of the year, lecturer of the year, UP exceptional young researcher and South African Veterinary Association (SAVA) research and clinical awards. His main work interests are endocrinology, cardiology and infectious diseases. Outside of work, he strives to spend as much time as possible with his wife and five children.

When asked about his vision for the department, he told *OP News* that he was very excited about the prospect of being part of a team of enthusiastic and talented people heading up Onderstepoort.com. There is a

very positive vibe between him, Henry Annandale (Director of the Onderstepoort Veterinary Academic Hospital) and Pete Irons (Head of the Department of Production Animal Studies) as they are investigating innovative ways in which the clinical departments and the hospital will be conducting their business in future.

The major challenge for the Department of Companion Animal Clinical Studies will remain the recruitment and retention of specialist staff. A fun working environment in which specialists will receive market-related remuneration will be a prerequisite for this. The department also needs a sustainable source of third-stream income through clear differentiation and effective external positioning.

He is enthused by the return of three specialists from industry to the department over the past few years, as well as the five American Board-certified specialists that have been appointed or are in the process of being appointed. This is on top of the six European Board-certified colleagues already on board. In addition to this, the sections of small animal medicine, equine medicine, diagnostic imaging and anaesthesiology have all recently been accredited or re-accredited with their respective European specialist colleges.

Furthermore, members of the department have managed to create excitement in the research world by publishing and presenting papers on *Spirocerca lupi*, babesiosis and parvovirus at international conferences and in international journals. It will be important to strengthen



Prof Johan Schoeman

current and explore new collaborative research efforts in this department with its unique and large case load – relating to carcinogenesis, thrombosis, survival in sepsis, equine colic and critical care – that addresses relevant and pressing issues in human medicine.

“I am very privileged to preside over such a young and vibrant department, which I believe is standing on the precipice of making some major contributions in clinical and postgraduate research training, especially in the SADC region,” he says. His main aims are to engender enthusiasm for academia and life in general among the staff. People should focus on high-impact activities, which will enhance the collective sense of achievement and raise the international impact of the department’s scholarship.

For the Department of Production Animal Studies

Prof Pete Irons, the new head of the Department of Production Animal Studies, is a man with a mission... to stem the erosion of veterinary inputs in farming and food production. While he is quick to point out that some of the contributing factors are beyond the control of the faculty, he is of the opinion that factors related to the training of veterinarians and specialists and the research support to the agricultural sector need to be addressed.



Prof Pete Irons

He graduated from Onderstepoort in 1987, after which he did an internship at the University of Florida, national service as a veterinarian at the University of Bophuthatswana, and spent

three years in mixed practice in the United Kingdom. He has been at the faculty since 1994, where he has trained and worked as a specialist in veterinary reproduction. In this time, he also obtained his MMedVet (Gyn), and became a diplomate of the American College of Theriogenologists.

He has written three book chapters, and has written and presented widely for both lay and professional groups.

Over the last four years, Prof Irons added a private fertility clinic and being veterinarian at Taurus to his portfolio, while maintaining a part-time position at Onderstepoort. During this time, he completed his PhD at Utrecht University. The main focus of his recent research has been on the role of infectious diseases in cattle reproduction, particularly trichomonosis and lumpy skin disease. However, being a reproduction specialist at heart, he has a typically broad perspective with regard to

species, and has been involved in clinical work and research in various species.

Prof Irons is particularly excited about the human capital the faculty is gifted with. Onderstepoort's students are the elite and its staff are well qualified and experienced. This makes for a very fulfilling working environment and gives the faculty the opportunity to play an important role locally, regionally and internationally, and have a positive impact in the vital areas of food provision and community health.

Pete, his wife Brigitte – a veterinary practitioner and practice owner – and their family of three daughters enjoy life on their 24-hectare plot in Kameelfontein, where they keep horses and take pride in the resident wildlife, even if this does include a healthy population of snakes and other creepy-crawlies. He has been prominent in conservation in his local community, chairing the Seringveld Conservancy for several years. He is also a keen birder and plays squash.

continued from p 1

Staff awards for 2009

Pfizer Lecturer of the Year 2009:	<i>Prof Tony Shakespeare</i>
Pfizer Vet Nurse Lecturer of the Year 2009:	<i>Dr Leon Venter</i>
Instavet Young Lecturer of the Year 2009:	<i>Dr Macarena Sanz</i>
Bayer Researcher of the Year 2009:	<i>Dr Vinny Naidoo</i>
OBP Young Researcher of the Year 2009:	<i>Dr Monty Saulez</i>
Young Researcher of the Year 2009 (non-teaching staff):	<i>Dr Lyndy McGaw</i>
Bayer Best Paper of 2009:	<i>Dr Ian Millward</i>
Bayer Best Poster of 2009:	<i>Ms Raksha Bhoora</i>

With the awards and tea out of the way, it was back to the fascinating and diverse oral presentations. Lunchtime provided a welcome break to browse through the photographic display and cast a vote for whichever picture inspired the most. Research posters were also on view, and each one displayed the immense knowledge and effort that went into the making of it. This year, lunch took the form of a variety

of finger snacks, which were offered on trays placed on the tables of willing sponsors. This led to plenty of interaction between delegates and sponsors, and excellent product/service exposure, which was very well received by our valued partners in industry.

The afternoon sessions continued to offer well-presented and interesting research, and once the last session was concluded, it was time to unwind at the cocktail party to round off the day. This informal event provided an opportunity to network and socialise after the day's scientific programme, while enjoying delicious refreshments. The winners of the various photographic categories were announced, together with the winners of the Bayer Best Paper and Bayer Best Poster awards. The dean, Prof Gerry Swan, officially closed the day's proceedings on a relaxed note of thanks and appreciation for all who had made the day possible.

Feedback from sponsors and delegates after Faculty Day 2009 has been very positive, and while no event can be said to be perfect (because glitches occur no matter how good the planning!), there is no doubt that Faculty Day 2009 was a very successful and enjoyable day indeed.

Geoff Fosgate joins the faculty

Geoffrey T Fosgate is an epidemiologist who recently joined the Department of Animal Production Studies. He received his BS degree in Animal Science from Cornell University in Ithaca, New York, USA, and has veterinary qualifications (DVM) from the same institution.



He spent two years in veterinary practice working predominantly in the field of large animal medicine and surgery. He subsequently obtained his PhD in Epidemiology from the University of California, Davis, USA, and qualified as a diplomate of the American College of Veterinary Preventive Medicine.

analytical statistical and epidemiological methods, and working in multi-institutional and multidisciplinary environments. His research interests include public health and zoonoses and his expertise is the validation of diagnostic tests for the surveillance and control of infectious diseases of cattle.

Geoff occupies a permanent post in the Department of Production Animal Studies. His hobbies include wildlife photography and hiking. His best friend, Baalu, a Neapolitan mastiff who is five years old, will be joining him in December. Geoff lived in Nepal for two years while doing voluntary work in livestock nutrition and animal health in various villages under the US Peace Corps. It was in Nepal that Geoff obtained Baalu (the name means 'bear' in Hindi). Hardly anyone speaks English in Nepal, so Baalu only understands Hindi. Geoff speaks fluent Hindi and is hoping to be fluent in Afrikaans soon. When Geoff was asked about any plans he has for the future, he replied "I want to travel from Cape Town to Cairo on a Harley!"

Geoff recently worked at Texas A&M University where he was an associate professor in Epidemiology. He has extensive experience in the design, conduct and completion of field and clinical investigations,

Prof Banie Penzhorn receives SAVA Gold Medal

Prof Banie Penzhorn of the Department of Veterinary Tropical Diseases recently received the highest accolade of the South African Veterinary Association (SAVA), the Gold Medal. This was awarded to him for his exceptional sustained scientific achievements as researcher, as well as his academic commitment to a range of biological disciplines, including various fields in veterinary science, as well as in zoology and nature conservation. Prof Penzhorn is one of the most productive and esteemed researchers in veterinary science and zoology in South Africa, as is reflected by his recent B grading by the National Research Foundation.

His sustained commitment to research is best illustrated by his impressive number of scientific publications (124, at the last count) since his first paper in 1968 – the year in which he was appointed at South African National Parks. His more recent research themes are coccidia and blood parasites, more specifically babesias and theilerias, of wildlife and domestic animals. Further contributions are textbook chapters, published full-length conference papers, invited plenary papers, frequent participation in local and international conferences, workshops and short courses. International collaborators with whom he worked include researchers at Montana State University, the University of California-Davis, Utrecht University and the Institute of Tropical Medicine, Antwerp, Belgium.





in control with BAYER

TICK RESISTANCE in South African cattle herds



The use of ACARICIDES is one of the most important measures in the control of ticks. Compulsory dipping has been abolished and the choice has been left to the individual farmer whether to, and how often to, dip. Intensive use of acaricides has unfortunately led to the development of tick resistance to each of the three major

groups of acaricides (amidines, synthetic pyrethroid and organophosphates) currently used to control cattle ticks in South Africa.

Resistance can be defined as the ability of the tick to survive the lethal effect of the chemical active used against it. Most confirmed cases of tick resistance are reported from the commercial farming sector; however resistance is present in the emerging market. A comparison of tick resistance results from KwaZulu Natal and the Eastern Cape provinces from collections during 1998-2001 with those tested between 2005 - 2008 showed a decrease of 29.1% in tick populations with mostly susceptible individuals; an increase of 7.4% tick populations with individuals resistant to only one acaricide; an increase of 18.5% populations resistant to two acaricide groups; and an increase of 3.3% populations resistant to all three acaricide groups. The trend is an overall shift towards resistance. The highest occurrence of resistance takes place where high dipping frequencies are used. Tick resistance to the current chemical groups is thus a major threat to all livestock farmers and the veterinary industry. Effective products are declining resources that need to be protected, as novel, new actives are limited.

Resistance of ticks to chemical products is inherited. Resistance genes may already be present in a tick population or may be introduced, e.g. via introduction of tick-infested animals into the herd. Once resistant ticks are established, they survive chemical treatment and multiply, thereby 'diluting' the susceptible tick population further. This eventually results in the majority of the resident tick population surviving the chemical control applied; and economic losses due to tick burden or tick-borne disease.

Tick resistance is more common with the single-host tick of the *Rhipicephalus Boophilus* spp. This is because

the larvae, nymph and adult feed on a single host for 21 days; all stages are exposed to, and 'selected' by, products applied. Resistance against actives is uncommon with multi-host ticks, e.g. *Amblyoma* spp., as the immature stages of the ticks, which mostly occur on game, are not exposed to chemical products. The presence of the ticks on game and birds thus helps decrease selection pressure.

The development of resistance in a tick population depends on the level of resistance present, the strength of acaricide and the dip frequency used. Increased numbers of the population would be killed if the strength of the acaricide were increased; however this leads to higher selection pressure and the potential survival of 'super-resistant' individual ticks, which is not desired. The maximum concentration of acaricide used is limited due to safety and toxicity effects on the animal. Additionally, economic considerations determine the concentration that is registered for use, i.e. the concentration that gives the best control.

Tick resistance may be confirmed by submitting a sample of engorged female ticks to a laboratory such as the Pesticide Resistance Testing Facility at the University of the Free State.

Management practices, type of livestock, tick species present, and the intensity of the tick challenge are important factors to consider with resistance. The use of an integrated tick control program, ideally customised for the particular farm, which incorporates managemental control measures as well as the use of high quality, proven chemical products, and regular monitoring of resistance status, is recommended.

**For more information please call
Bayer Animal Health at 011 921 5736**



Bayer HealthCare
Animal Health

Registration Holder: Bayer (Pty) Ltd., Animal Health Division.
Co. Reg. No. 1968/011192/07. 27 Wrench Road, Isando, 1601, South Africa.
Tel: + 27 11 921 5736. Fax: + 27 11 921 5751. www.bayeranimalhealth.co.za



Veterinary education in South Africa: The Class of 1937

Although the Class of 1937 consisted of six students, three (JA Badenhorst, JM De Wet and TH Sandrock) also featured in the photograph of the Class of 1936 and were therefore clearly 'supers' who were repeating the final year. Their careers have already been dealt with (see OP News 9 (1)).

By RD Bigalke, Secretary:
Veterinary History Committee of the South African Veterinary Association



James Lewis (Jim) Doré

James Doré was born on 25 June 1913 in Koffiefontein. He matriculated at Bishops, Cape Town in 1931 and then went to the University of Cape Town to study industrial chemistry. Switching to a veterinary career in 1934, he graduated at the end of 1937. Doré joined the Division of Veterinary (Field) Services in January 1938 as state veterinarian and saw service as follows: Allerton Laboratory,

Tanganyika (now Tanzania) from May to October 1938 on secondment for rinderpest control purposes, and Nongoma and Dundee from 1939 to 1944. Resigning from the government service, he entered private practice in Durban in January 1945 for a career lasting 33 years. He retired in 1978 and settled down in Margate to grow anthuriums. Dr Doré died from a heart attack on 26 May 1989 at the age of almost 76.



Ernest Bruno Kluge

Ernest, the son of German immigrant parents, was born in Uitenhage on 9 October 1912. He received his high school education at Grey College, Bloemfontein, where he matriculated in 1930. His sisters were the main financiers of his veterinary studies and money was not easy to come by. He was an excellent athlete and was a member of the team representing UP in 1936. He qualified as

veterinarian in 1937, was appointed a state veterinarian and immediately sent to Zululand (now KwaZulu-Natal), where he ran the Nagana Research Station at Msimba in the Umfolozi Game Reserve for many years, doing research on the bionomics of the tsetse flies occurring in the area. When it dawned on the Directorate of Veterinary Services in 1941 that the eradication of game and the use of RHTP Harris's flytraps were not going to solve the nagana problem, Kluge took over Harris's research. By 1949 he had mapped the breeding sites of the tsetse flies, which led to the successful aerial spraying campaign with DDT and BHC, resulting in the

complete elimination of *Glossina pallidipes*, the most important vector of nagana, in Zululand.

He was subsequently stationed at Nongoma with much wider responsibilities, which included the control of East Coast fever (ECF) and corridor (or buffalo) disease. In later years, he also organised South Africa's involvement in the control of tsetse flies in neighbouring countries such as Mozambique and Rhodesia (now Zimbabwe). In 1961 he was appointed a Subdirector of the Division of Veterinary Services, and in 1966 he was transferred to Pretoria. His title was changed to Assistant Director in 1970. Dr Kluge served as external examiner for the subject Protozoan Diseases at the faculty for several years in the late 1960s.

Ernest married Jaqueline Susanna Nel at Nongoma and the couple had two sons and a daughter. He died in Pretoria on 7 September 1986 at the age of almost 74.



Ludwig Johann Frederick von Maltitz

Ludwig was born on 18 December 1913 and matriculated at Grey College Bloemfontein. He joined the Division of Veterinary (Field) Services as state veterinarian after qualifying at the end of 1937 and was immediately sent to South West Africa (now Namibia). Here he was first stationed in Windhoek and then successively in Keetmanshoop,

Otjiwarongo, Okahandja and Mariental. He finally served as Assistant Director of Veterinary Services of the South West Africa Administration, Windhoek. After retiring in 1976, he was appointed by the Division of Veterinary Services as meat hygiene officer in the Western Cape Veterinary Region.

Dr Von Maltitz also served the veterinary profession with dedication, inter alia, as chairman of the South West Africa branch of SAVA for several years. He furthermore owned the farm Schlettwein in the Otjiwarongo district, where he farmed with beef cattle. He died on 7 December 1987 aged 74 years.

On study leave from Australia

by Philip G Kerr

My university in Australia granted me study leave to work in the Phytomedicine Programme at Onderstepoort for five months. I arrived in South Africa on 20 July after having departed from Wagga Wagga, New South Wales. This city of around 60 000 is the largest regional city in the state (Sydney is the capital), and is home to an air force base (Forrest Hill), an army base (Kapooka) and the Wagga Wagga Campus of Charles Sturt University (CSU).

The city has a (sometimes) wet winter and a hot dry summer, unlike the humid subtropical climate of Gauteng. But we have the same red and black soils, so the colour of the earth is familiar and makes me feel very much at home.

For the first three months of my stay at the lovely Onderstepoort Campus, I was a 'voortrekker'. My wife Ruth (pictured below with me)



and our youngest of six children, Stephen, joined me later. We will leave this beautiful country (DV) on 11 December, to return to the rest of our family in Australia.

Since my arrival, I have been engaged with the many postgraduate students and postdoctoral candidates in the Eloff Kingdom of Phytomedicines. The Department of Paraclinical Sciences houses the Phytomedicine Programme as one part of this multidisciplinary school. I have enjoyed good company and hospitality in the 'tea room'. We have talked of vultures, crocodiles, tulip poisoning and the phytochemistry of the Combretaceae – plants not found in Australia.

Ever since I saw Prof Koos Eloff's e-mail signature, "The leaves of the tree were for the healing of the nations" (Revelations 22:2b), I have wanted to come and work with him. By coincidence, I have the same verse from the Bible in my e-mail signature. That suggests that we have a common perspective and interest in the chemistry of plants and their potential as medicinal agents. I am hoping to take the ideas and techniques used here at Onderstepoort back to Australia with me with a view to engaging with the veterinary fraternity (and others) at Charles Sturt University in order to establish a similar programme that investigates the uses of Australian native plants for human and animal health.

Department of Paraclinical Sciences

hosts NUFU



The dean, Prof Gerry Swan, in discussion with Dr Dacia Correia (dean) and Dr Luis Neves, both from the University of Eduardo Mondlane, Maputo.

The Department of Paraclinical Sciences hosted this year's meeting and workshop of the Norwegian Programme for Development Research and Education (NUFU). It was held in Mossel Bay from 16 to 19 August 2009. The NUFU project is a collaborative research project between the veterinary faculties of universities in Africa (Uganda, Tanzania, Zambia, Zimbabwe, Mozambique and South Africa), the Norwegian School of Veterinary Science and the National Veterinary Institute in Oslo, Norway. The deans of the participating veterinary faculties in the south and Norway were also invited to the meeting. During the meeting, the six PhD students reported on their progress and indicated their future plans. While environmental toxicology and zoonoses breakaway group discussions were held, the deans had a separate meeting where they discussed various aspects of mutual interest and cooperation.



by Dr Jan Myburgh

Are our wild crocodiles trying to tell us something?

The recent die-off of Nile crocodiles in the Kruger National Park raised serious questions about the condition of South Africa's freshwater ecosystems. Dr Jan Myburgh of the Department of Paraclinical Sciences is involved in two projects – one on the Olifants River system in Mpumalanga and the other on Lake St Lucia in KwaZulu-Natal – to identify causes of pollution and degradation in rivers, as well as the effects of aquatic pollution.

Freshwater ecosystems in southern Africa

Aquatic ecosystems are particularly vulnerable to environmental changes and many in South Africa are severely degraded at present. Freshwater fish, invertebrates and crocodylians are among the most endangered animals on the planet. Even some of the most pristine dams, rivers and streams, which provide drinking water for local communities, are affected. Major harm is caused by loss and degradation of habitat, in particular due to sedimentation, pollution, eutrophication, unsustainable water extraction and the introduction of alien aquatic species.

The recent die-off of Nile crocodiles in the Kruger National Park (KNP) highlighted the fragility of freshwater ecosystems and the vulnerability of top predators, such as crocodiles. The two largest populations of Nile crocodiles in South Africa occur in the KNP and in the parks in northern KwaZulu-Natal. Crocodiles are fast disappearing from those freshwater ecosystems not protected by national parks. However, not even crocodiles protected in national parks are safe, as was clearly seen with the crocodile die-off in KNP – rivers flowing into protected areas most often bring with them, like a Trojan horse, pollutants generated by human activity on the outside of the protected areas that negatively affect entire aquatic ecosystems.

Olifants River system

The Olifants River is one of the most 'hard-working' rivers in South Africa. It has been used and abused for the past five decades, and pollution is getting progressively worse. This can be seen in the character of the water quality, which has worsened markedly over the years. Several of the smaller rivers in the upper catchment area (Bronkhorstspuit,

Witbank and Middelburg districts) are without fish (and other aquatic animals), due to anthropogenic pollution.

Freshwater animal die-offs are regularly reported in the inflow area of Loskop Dam, which receives water from the upper parts of the Olifants River. During a fish health survey (as part of the ongoing Nile crocodile pansteatitis investigation), several fish species from the Olifants River (Loskop Dam and Olifants Gorge) were found to be subclinically affected and could therefore be classified as unhealthy. This is based on pathological changes that were observed in the gills, livers, kidneys and red blood cells of mature fish.

During last year's crocodile crisis in the Olifants Gorge, KNP, large numbers of Nile crocodile carcasses were found. Post-mortems indicated that these crocodiles died of a condition called pansteatitis. Pansteatitis was also diagnosed two years ago in Nile crocodiles and serrated hinged terrapins that died in Loskop Dam (upper Olifants River) after a fish die-off.

A multidisciplinary upper Olifants River research project was started during October 2009. A large number of experienced scientists (mostly from the University of Pretoria and the Council for Scientific and Industrial Research), representing several scientific disciplines, will be involved. This diversity of scientific skills, together with the knowledge of local volunteers, will contribute to identify the specific causes of degradation and pollution in the upper Olifants River catchment. Dr Jan Myburgh and Dr Johan Steyl, also of the Department of Paraclinical Sciences, will investigate the health of fish from the upper catchment area. Dr David Huchzermeyer, a PhD candidate from the Department of Paraclinical Sciences, is investigating the health of fish in the lower Olifants River, including the Olifants Gorge in the KNP.



Above: Xander Combrink, Hannes Botha, Jonathan Warner, Jan Myburgh and Mark Robertson after attaching the first transmitter to a Lake St Lucia Nile crocodile.

Northern KwaZulu-Natal

Dr Myburgh and Hannes Botha (of the Mpumalanga Tourism and Parks Agency) recently joined a team of scientists from the University of KwaZulu-Natal and Ezemvelo KZN Wildlife to attach transmitters to crocodiles from Lake St Lucia as part of the KwaZulu-Natal Nile crocodile research programme. This Nile crocodile population is second in size only to the KNP population. The largest population of Nile crocodiles in KwaZulu-Natal is found in Lake St Lucia. The St Lucia estuary is very rich in biodiversity and has been granted world heritage status. It forms part of the iSimangaliso Wetland Park (formerly known as the Greater St Lucia Wetland Park).

The northern KwaZulu-Natal crocodile research programme focuses on crocodile conservation (crocodile numbers, tracking of movement by using transmitters, reproduction and nest ecology, number of hatchlings born per nest, nutrition, external threats, aquatic pollution, etc). Two PhD and two MSc students are involved. Northern KwaZulu-Natal is a most appropriate area to 'restart' the Nile crocodile research, because this is where Tony Pooley started his crocodile research about 50 years ago. Tony is internationally recognised for his groundbreaking work on crocodile biology and behaviour. Most of his findings were published in a book called *Discoveries of a Crocodile Man*.

Dr Myburgh will be directly involved with some of the crocodile projects in KwaZulu-Natal – especially those focusing on the effects of aquatic pollution (such as lead).



Jan Myburgh examining an emaciated crocodile.

New veterinary science degree programme

The University's Faculty of Veterinary Science is the only veterinary faculty in South Africa. As such, it is important to ensure that the degree programme that allows graduates to register and work as veterinarians in South Africa is relevant and world-class. A number of problem areas have been identified with the current double degree structure, and a revised structure has been approved for implementation in 2011.

The problems that were identified with the current structure – a three-year BSc (Veterinary Biology) degree followed by a four-year BVSc degree – include the fact that the admission and selection processes are rigid and only based on academic performance. Selection to BSc (Veterinary Biology) III, and thus to BVSc, only occurred at the end of the second year of study, so students wishing to be admitted to veterinary science could not always be identified during the first two years of study, nor could they readily secure bursaries. There was also a general misconception that the programme

is biased towards the delivery of small animal practitioners and does not address the needs of the country.

Following an accreditation visit of the South African Veterinary Council in 2006, various strategic discussions were held at faculty level, as well as extensive internal and external consultations. It was important to take heed of local need, relevance and impact in the revision of the training programme, while remaining internationally competitive.

The new core-elective six-year single degree structure that has been developed follows international trends and entails candidates completing a core curriculum over four-and-a-half years (nine semesters), followed by a chosen elective over four months. This will give graduates increased competencies to enter the profession in their chosen career paths. The training will be concluded with approximately 14 months of experiential training in the core and chosen elective components.

New admission requirements and basic selection procedures have also been approved. Once the programme is fully implemented, a set number of school-leavers will be selected on the basis of their Grade 11 and Grade 12 results, together with other criteria such as proficiency tests, and an interview if required. The remaining students will be selected at the end of the first semester on the basis of their first semester results, proficiency tests (if not already done) and an interview if required. The suggested selection procedure at the end of the first semester will also make the programme accessible to students in the extended programme at the Mamelodi Campus. Provision will be made for international students and students with tertiary exposure and/or completed degrees. The possibility for top-up selection at the end of the second semester also exists, based on the same criteria.

For more information on the revised programme, contact Joe Vhengani at 012 529 8061 or joe.vhengani@up.ac.za or Antoinette Burger at 012 529 8193 or antoinette.burger@up.ac.za.



International Sheep Veterinary Association

Members of the worldwide community of veterinarians working with sheep have formed an international organisation to cater for various needs in this field. Its formation was spearheaded by South African veterinarians.

Prof Gareth Bath took the initiative by drafting the founding documents, including the explanation of the need for such an organisation, a constitution and application procedure.

Membership is based on national veterinary associations, and the existence or formation of a division that caters for the needs of veterinarians who render services to sheep farmers and the industry is specifically encouraged. Apart from arranging international congresses, the newly

inaugurated International Sheep Veterinary Association (ISVA) will act as an international reference point for veterinary aspects of the sheep industry, promote and improve sheep farming internationally, promote harmonisation of terminology and standards, arrange and facilitate scientific meetings and exchanges, recognise individuals or organisations for their contributions, and establish relationships with organisations with similar or related interests.

Membership is open to all countries with veterinary associations, and the founding members were those countries that had already hosted an international congress. These are Australia, the United Kingdom (UK), Greece, New Zealand, Norway and South Africa. More countries joined at the 7th International Sheep Veterinary Congress held in Stavanger, Norway, from 12 to 16 June 2009. At this congress, the office-bearers for the next four years were elected. They are Prof Gareth Bath (South Africa), President, Prof Dave West (New Zealand), Vice-President, Dr Chris Lewis (UK), Secretary/Treasurer, and Prof Mary Smith (USA) and Dr Erik Grandqvist (Norway) as additional members of the Executive Committee. They will transact business for the ISVA and oversee the organisation of the next international congress, which will be held in New Zealand in 2013.

During the Norwegian Congress, the European Union specialist college, known as the European College for Small Ruminant Health Management, also accepted Prof Bath as a member. He is the first South African to achieve this distinction. The small South African contingent from the Faculty of Veterinary Science (including Prof Ken Pettey and Dr Rhoda Anderson) also represented their country well, and between them delivered six scientific papers or posters, and took part in two round-table discussions. In addition, Prof Pettey prepared an excellent video that formed part of the opening ceremony and dealt with past congresses, especially the 2005 congress held in Greece.



Prof Gareth Bath getting the lick of approval from a Norwegian Fjord horse on a farm in Norway.

Slovenia-Austria-South Africa exchange 2009

Raphael Taylor and Martin Cameron-Clarke

After a year of planning and back-and-forth emailing, 15 South Africans were on their way to Slovenia and Austria for the second group exchange programme that the International Veterinary Students' Association (IVSA) South Africa has been involved in.



Participants in the group exchange programme of IVSA.

The participants started their tour in Slovenia on the family farm of Matej, one of the students. It is located in Prlekija, a region well known for its rich cuisine, top wines and trotter horses. The students were exposed to all these facets of Slovenian culture by a delicious lunch, a demonstration of trotting horses by Matej's father, and a tour of the wine cellar on the farm.

After that, they departed for Ljubljuna, Slovenia's capital city, where they had a tour of the Baroque Old Town, and spent time at the University of Ljubljuna, where they became acquainted with the Slovenian system of veterinary education and attended various lectures. On their fourth day, the students visited Lake Bled and the Savica Waterfall in Gorenjska. The next morning they were up early to make their way to the Soča Valley for an extreme sports experience: river rafting. After that, it was the turn of Lipica, the birthplace of the legendary Lipizzaner. Everyone enjoyed the exclusive tour of the stables and the talk about the history of this world-famous stud farm.

Their journey led the students through Postonja, where they saw an advanced small animal oncology hospital. They were welcomed with lunch and an interesting lecture about how small animal oncology is changing due to the modern advances in chemotherapy and radiation treatment. Slovenia's 'Siberia' was their next destination, and as the sun disappeared and the temperature dropped quite substantially, the reason for this nickname became evident. They visited Hubertus, an asylum for wild

animals, which is run by the parents of one of their Slovenian friends, Jaka. They explained their methods of helping and rehabilitating harmed animals, mainly deer that locals bring to the shelter.

Their final day in Slovenia took them to Novo Mesto, where they visited the pharmaceutical company, Krka, and the private Lipizzaner stud farm, Hosta, for a demonstration on high dressage and a ride on the horses.

The next morning brought with it the end of the Slovenian segment of the exchange. They said their goodbyes to the group of people who had not only graciously hosted them, but had also become their friends. One important detail that should not be excluded was the fantastic food. The organising

committee should be commended for their thoughtfulness with regard to even the smallest details.

Their first stop on the way to Vienna was Piber, home to the Austrian Lipizzaner horses. A beautiful afternoon followed with an extended tour around the stud and lunch at the cafe. The three days in Vienna were jam-packed with sightseeing trips of interesting and beautiful places. Particularly impressive was their veterinary faculty, and the small animal and equines sections left the students in awe. With every possible gadget and machine ready for use and extensive facilities, it was extraordinary.

The students were kindly taken in and their every need met by the Wurger family, and the Austrians gave them a true taste of Viennese life and culture. When it was time to fly home everyone admitted to being deeply honoured to have been allowed to go on this trip. They learnt so much about the way of life of the European veterinary students, from their studies and universities to the culture and social aspects of their everyday lives.

Since getting home, the students have organised their committee and launched themselves into projects and fund-raisers for hosting the Europeans next year. The first agreement they unanimously made was that the students are determined to far exceed their expectations with the South African part of the exchange.

The 58th IVSA World

Summer Congress in Poland

by Raphael Taylor

On our first night at the 58th International Veterinary Students' Association (IVSA) World Summer Congress in Poland, 18 South African veterinary students were greeted by a sea of friendly, but unfamiliar, faces around the welcoming barbeque being held at the Warsaw University residence. Within no time two facts became apparent. Firstly, the excellent itinerary awaiting us, together with our new and amazingly diverse group of international friends, was going to make the following 10 days a mind-blowing and unforgettable experience. Secondly, even the infamous African mosquitoes have nothing on the ferocious Polish variety that feasted on the unsuspecting students sitting around the fire.



Students enjoy a night out.



This was a once-in-a-lifetime opportunity for the students.

On the first day, we went on a guided tour of the Veterinary Medicine Faculty and the University of Warsaw. It was impressive, but secretly we all realised just how lucky and proud we should be to study at Onderstepoort. Our faculty may not have as many expensive machines and gadgets, but we have excellent lecturers, a hospital renowned for its professionalism and, to top it off, we are completely encompassed by nature and hordes of animals!

The rest of the time was spent on lectures on a variety of topics, interesting sight-seeing tours and social events. IVSA workshops, run by the officers of the Executive Committee, were also held on various topics, such as local chapter activities, the running of symposiums and congresses and animal welfare. Hands-on workshops on treating injured birds and suturing/ultrasound techniques were presented at the Warsaw Zoological Gardens and the university respectively.

The sight-seeing trips included a tour of the Warsaw Old Town, the Janów Podlaski Arabian Horse Stud and the Faculty of Veterinary Medicine in Olsztyn (both accompanied by workshops), and an African ostrich farm, a strangely surreal experience for the South Africans. It was interesting to learn about how our great birds could live in a country that drops to temperatures as low as -30° C in winter!

The guided tour of Auschwitz Birkenau, the German Nazi concentration and extermination camp, was a very emotional experience for every student. It was a humbling experience. We all realised that one cannot begin to understand what real hardship is and how blessed we are for all that we have.

Arriving home, there were mixed feelings – we were both sad to have left Poland, but also very happy to be home. We all realised just how amazing our country and our people are. That fact was evident by the way the South Africans made an impression on the other delegates and many compliments were given to our group for the vibrant, dynamic attitude with which we took on tasks.

IVSA encompasses culture, heritage and history, as well as all veterinary aspects relevant to such an assembly of people, and every student present grew remarkably in each of those spheres. We would like to thank the Faculty of Veterinary Science at Onderstepoort and Prof Swan for supporting our participation in this once-in-a-lifetime opportunity.

Footnote from the editor:

Three Onderstepoort students were elected to the Executive Committee (International Board of IVSA) for 2009/10: Raphael Taylor and Stephanie Friedman were both elected as trustees of the IVSA Executive Committee, and Riette van Zyl as Chief Exchange Officer of the Executive Committee. Congratulations, everyone at the Faculty of Veterinary Science is proud of you. We know that you will be good ambassadors for the veterinary profession and South Africa.

The Onderstepoort

AI Challenge 2009

by Leanie Geldenhuys

What do you get when you give vet students who have the theoretical know-how of oestrus synchronisation and artificial insemination a couple of cows and tell them to get them pregnant? Udder chaos? No, you get the Onderstepoort AI Challenge!



The challenge was initiated in 2008 to give students a chance to apply their theoretical knowledge in practice. This year, five groups were given the chance to purchase six cows and get them pregnant. They could either use the natural cycles of the cows or oestrus synchronisation methods. Economics came into play to find the cheapest method to get the cows pregnant.

A period of two months was allocated to get the cows pregnant. That meant three normal oestrus cycles. Whether a synchronisation programme was used or not, oestrus still needed to be detected, with standing oestrus being the most reliable sign. Most groups went for the early morning and late afternoon check. Kamar stickers were also an option.

The next challenge was to find the cervix when inseminating the cows. Sounds easy enough, but take my word for it, it's not! After a tense waiting period, it was time to see who were proud new 'fathers'. Emotions ran high – some students

were disappointed and some pleasantly surprised. One group was lucky to have three of their six cows pregnant. Other groups had two pregnancies and others only one. Overall, nine out of the 29 cows fell pregnant. The group that succeeded in getting three cows pregnant was the overall competition winner, even though they actually spent the most money of all the groups!

The challenge was more than just getting a couple of cows into calf. It was also a chance to get to know your fellow students better, working together as a team and becoming familiar with the drugs and products used in practice.

We would like to extend a heartfelt thank you to the sponsors, Pfizer, Taurus, V-Tech and Intervet Schering-Plough Animal Health, for making this challenge possible. Thanks also to Dr Steckler for the time and energy spent in making this challenge a success. Dr Steckler, sorry for leaving you with so many cows to re-inseminate!

Onderstepoort calendar

The Onderstepoort calendar 2009 raised a whopping R11 500! The popularity of the calendar is growing rapidly and we must thank our sponsors, Hills and Bayer, and all the staff and students at Onderstepoort who continue to support us. The 2010 calendar will be published during November 2009 and will make excellent Christmas presents. All the proceeds go to the Street Cases Fund, so please continue to support the calendar and help the animals in need. Please contact Tiffany for copies of the Onderstepoort calendar 2010 at s24013545@tuks.co.za.



OP rugby and netball

teams excel in superb fashion

The Faculty of Veterinary Science's rugby and netball teams experienced a remarkable season. Not only did the first rugby team play in the final of the Winter House League for the first time in the Onderstepoort Campus's history, but the first and second netball teams ended second and third in the A and B division of the Intramural League, respectively.

In a nail-biter final on 8 September, OP played to a 17-17 draw against Maroela after the game went into extra time. As a result of a somewhat controversial rule, Maroela was declared the winner because they scored the first try in the game. The two teams scored a try apiece. OP's rugby team was also the only unbeaten team in the top eight of the House League.

In the TuksNetball Intramural League, OP's first team played in the final against Curlitzia and lost 14-17, while the second team beat Katjeepering 12-6. OP received the Spirit Trophy.

The Dean, Prof Gerry Swan, said the teams had made the faculty proud. "It was a very successful season for them and we congratulate them for their dedication, hard work and discipline. Seeing that the 2008/09 OPVSC Committee was also awarded the Faculty House of the Year Award by the Student Representative Council of the University, this was a very successful year for our students."



The first netball team in action.

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 (VAH)	8064	083 269 8874
- Prof Frik Stegman (VAH)	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
- Mrs Susan Myburgh		083 235 6778

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