

Florida VETERINARIAN

ADVANCING ANIMAL, HUMAN AND ENVIRONMENTAL HEALTH

UF | College of Veterinary Medicine

Poultry veterinarian's hands-on education helps in real world

By Sarah Carey

“Without a highly supportive major professor and an understanding graduate committee, this program would not be possible.”
— Eric Heskett

When Eric Heskett tossed his cap tassels from left to right during the UF College of Veterinary Medicine's 2003 commencement ceremony, he became the first student to receive D.V.M. and Ph.D. degrees simultaneously. It's a distinction Heskett holds near and dear to his heart.

“I do not recommend this joint program to everyone, but for me it was the right fit,” says Heskett, a poultry veterinarian and technical consultant for Elanco Animal Health, a division of Eli Lilly and Company. “There was no summer or Christmas break that I wasn't taking a class or doing research.” Heskett added that the joint DVM/Ph.D. program takes discipline and a focus on an ultimate goal.

“Without a highly supportive major professor and an understanding graduate committee, this program would not be possible, as studies for either vet school or the graduate program could easily fall behind,” he said. Heskett's major professor Gary Butcher, D.V.M., Ph.D., faculty coordinator for UF's poultry veterinary extension program, continues to provide Heskett with advice and support.

“He is not just a professor to me, but also a lifelong friend and mentor,” said Heskett. “When I have a case knocking me in the teeth or life has me down, it is him I call to chew things over with. Every time, he is there.”

Butcher's graduate program was extremely hands-on, Heskett said, preparing him well for the real-world challenges of poultry medicine. Charles Courtney, D.V.M., Ph.D.,



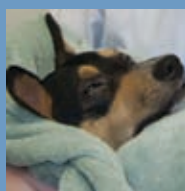
Photo courtesy of Dr. Eric Heskett

Dr. Eric Heskett and a veterinarian employed with a large commercial turkey integrator discuss overall bird health and preventative health programs in large tom turkeys.

the college's associate dean for research and graduate studies, said that while other graduates have received D.V.M. and Ph.D. degrees sequentially, Heskett remains the only student to have finished both programs in the same semester. On top of that, his receipt of both degrees during the professional D.V.M. commencement exercises was the only time a graduate degree was also awarded in the same ceremony. Advanced graduate degrees are generally awarded at a separate ceremony on campus. “The funny thing was, the UF computer system

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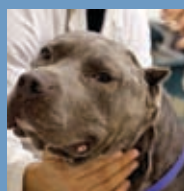
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Dean Glen Hoffsis

is to gain knowledge that helps both man and animals. While this may seem mercenary, it is a fact of life that our faculty cannot conduct research simply because it is important for animal health or because they are interested in it. Considerable amounts of funding are required to conduct quality studies that establish new truths. At the UF CVM, our research budget is about \$12 million per year. Since we have almost no funds appropriated for this purpose, nearly all of these funds are generated by faculty applying to NIH, as well as other granting agencies and foundations. This is an amazing accomplishment, and one that is little known and appreciated outside the UF community.

What's most important is the productivity of a research program. At the UF CVM, we can list many noteworthy accomplishments. Our faculty have discovered new viruses, new mechanisms of tick borne diseases, explained the epidemiology of many diseases, explained important mechanisms of neurologic and respiratory diseases, and made discoveries in toxicology that have helped improve both animal and human health. In the clinical sciences, our faculty have pioneered foal intensive care; developed new knowledge in small and large animal medicine and in the specialties of oncology, cardiology, neurology and ophthalmology as well as zoo medicine and aquatics; have developed new surgical procedures; and are responsible for a whole host of other findings.

Research is heady stuff: Making a true discovery is exhilarating. But it's not easy. To perform high quality research takes lots of training and preparation. It also takes lots of time and so requires patience. Research is the primary reason many faculty are attracted to UF, and those who contribute to the body of knowledge make a tremendous contribution to the university, to our college and to the veterinary profession.

A handwritten signature in dark ink that reads "Glen".

Glen Hoffsis
Dean

Research is one of the basic missions of the CVM. It differentiates a university such as UF from many other educational institutions, and as a member college of UF, we are expected to contribute to the total portfolio of new knowledge discoveries.

As a serious research enterprise, our discoveries must pass the test of truth, which means the research must be conducted under the precepts of the scientific method. In this day of infomercials and hype, the general public does not have a clear grasp of what this means or how discovery is accomplished.

Performed correctly, research is expensive and therefore must be funded. In the UF CVM, more than half of the research is conducted with funds competitively awarded by the National Institutes of Health. Since there is no animal division within NIH (only human), all research applications must have a connection to human health. Our strategy, therefore,

Appeal of pathology is focus, variety

By Sarah Carey

When 21 polo ponies died suddenly April 19 at a tournament in Wellington, Fla., the UF College of Veterinary Medicine's anatomic pathology service, led by Lisa Farina, D.V.M., was catapulted into international media headlines. Six horses were taken to the state's diagnostic laboratory in Kissimmee; the remaining fifteen animals arrived in Gainesville in the middle of the night for necropsy.

It was a night Farina, a member of the UF CVM's class of '99, will never forget.

"We have never done anything like that before involving that many animals," Farina said. "The entire case was full of unanticipated challenges."

Farina and her team of board-certified veterinary pathologists and residents conducted necropsies on all 15 animals and analyzed blood and tissue samples from those and other animals subsequently as faculty raced to determine a cause of death. The verification of an overdose of selenium as the culprit finally came from David Barber, Ph.D., a CVM toxicologist, while Richard Sams, Ph.D., and others at the CVM Racing Lab helped rule out illicit substances as contributing factors.

"It was important that we had people we could go to for that interdisciplinary work," Farina said.

Less than a week after the horses died, an Ocala pharmacy came forward to admit that selenium had been administered to the horses in an incorrect dose.

"We did everything just as we should have done it, and life being what it is, or death in this case, there was no way to know – without having the good luck of a confession from the pharmacy – what else to test for. In this case we just got lucky in being able to verify the findings as we did."

Farina became attracted to pathology as a specialty after she completed her professional D.V.M. program in 1999 and felt that clinical medicine was not a good fit for her.

"I started out in vet school wanting to be a zoo vet, but I didn't really want to do hoofstock," Farina said. She performed an internship in small animal medicine and surgery after veterinary school but worked closely

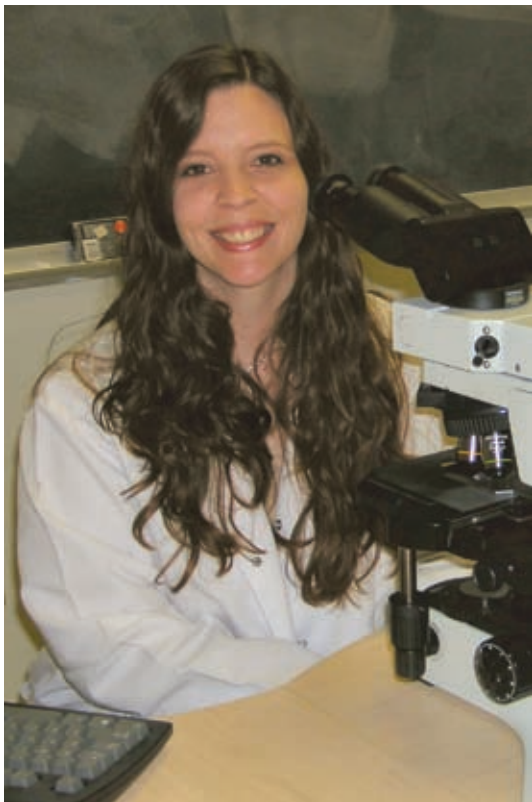
with clinicians who performed a good bit of work with exotic animal patients.

"I just felt like a general practitioner has to be good at so many things – a jack of all trades," Farina said. "I wanted to do something more focused and academic, and nothing is more so than pathology."

Farina returned to UF to perform a residency in anatomical pathology, then went on to complete a two-year fellowship at the University of Illinois Zoological Pathology Program.

That program provides pathology services for the Brookfield Zoo, the Lincoln Park Zoo and Shedd Aquarium. Farina completed her board-certification prior to returning to UF as a faculty member in 2005, then became necropsy service chief in 2008.

"What I really love about my job is that I get to see something new all the time," Farina said. "There aren't too many specialties that cross over all the species."



Dr. Lisa Farina, '99, at her microscope.

We have never done anything like that before involving that many animals. The entire case was full of unanticipated challenges.

It was important that we had people we could go to for that interdisciplinary work.
— Lisa Farina

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Ocala doctors support UF rehabilitation efforts in gratitude for pet's care

By Sarah Carey

Scott Kerns, M.D., a radiologist, and his wife, Suzie Kerns, M.D., a pediatrician, are “people” doctors whose commitment to their animals has taken them all over the country and across the state. Throughout their journey, however, one UF veterinarian has consistently provided care or counsel relating to treatment of their beloved dog, Zozo.

The couple began a relationship in 2007 with Kristin Kirkby, D.V.M., who was then a surgery resident in the College of Veterinary Medicine. Zozo, a mixed breed adopted from Haiti, came to UF in 2007 to receive medical treatment for a head injury sustained in a freak accident that took place just a week before she departed for Florida to be with her new family.

During her first days in the VMC's intensive care unit, she was treated for gastrointestinal hemorrhage after nearly bleeding to death.

“I didn't actually treat Zozo when she first came in for head trauma,” said Kirkby, who now directs the new Small Animal Rehabilitation and Fitness Center. “I saw her and knew how small and frail and hurt she was. But I met the Kernses when I was at a rehabilitation course in South Florida and they came in with Zozo as the ‘class example.’ She had come to be treated by our class instructor, Dr. Laurie McCauley.”

McCauley is an Illinois-based veterinarian certified in canine rehabilitation therapy, acupuncture and chiropractic.

The couple mentioned that Zozo was not spayed and that whenever she would go into heat, she would take giant steps backward in her recovery process.

“I introduced myself to them and said that I could facilitate her being spayed at UF so that she could have a boarded anesthesiologist,” Kirkby said. “When they came up for the procedure, I started telling them about my wish to start a rehabilitation service here. They said that they have had to travel state and

country looking for this service and how great it would be to have something so nearby.”

The Kernses soon had donated money and equipment — resources that Kirkby said were essential in the rehabilitation program's successful development.

“Without them, we would not be where we are now,” Kirkby said. The Small Animal



Photo by Dr. Suzie Kerns

Dr. Kristin Kirkby is shown in the UF Veterinary Medical Center holding Zozo.

Rehabilitation and Fitness Center at UF has now been in operation for about a year and a half, and is gearing up to accept new patients from outside the VMC.

The Kernses have been tireless in their efforts to obtain the best possible care for the dog they say has “richly blessed” them. Zozo's dramatic medical odyssey has spanned two years and has included both human doctors and veterinarians from several states working in the fields of physical therapy, chiropractic and acupuncture.

“Zozo certainly is well-travelled,” said Suzie Kerns, who has visited specialists in Illinois and Oregon as well as in Florida.

Prior to meeting Kirkby, the family took their pet to a therapist who specializes in cranial-sacral work in Illinois, who was recommended by Kerns's sister, Sharon Forster Blouin, D.V.M., a feline practitioner in Corvallis, Ore., and a 1992 graduate of UF CVM.

Later, Kirkby would travel to Illinois to learn more about the therapist's techniques in order to better treat Zozo closer to home. She and the Kernses also visited with a human chiropractic doctor to take advantage of his expertise in functional neurology.

“We aren't sure which treatment modality or therapist or supplement has made the most difference, but we do know Zozo has defied all odds and expectations,” Suzie Kerns said, adding that Huisheng Xie, D.V.M., Ph.D., a UF veterinary acupuncturist, had also played a key role in caring for both of their pets during their hospitalizations at the VMC.

Now Zozo's biggest remaining problem is the tendency to tuck her chin between her front legs and literally somersault when she's agitated or confronted by powerful smells.

“To the casual observer, she has a high stepping, prancing gait and a slight head tilt,” Kerns said. “To us, she is a miracle and the absolute joy of our lives. She has taught us never to give up hope.”



Photo by Sarah Carey

Dr. Kristin Kirkby and veterinary technician Wendy Davies are shown with Kirkby's dog, Bailey, last year during the ribbon cutting ceremony for the new Small Animal Rehabilitation and Fitness Center. (See sidebar story, next page.)

Small animal rehabilitation and fitness center accepting new patients

Pets that suffer from physical ailments related to orthopedic and neurologic disease, arthritis or obesity, may benefit from a variety of treatment tools now available at the University of Florida's Small Animal Rehabilitation and Fitness Center.

The rehabilitation service launched officially last year with an underwater treadmill, but was only available to in-house patients of the UF VMC. Since then the program has expanded to include low level laser therapy, a land treadmill, neuromuscular electrical stimulation, pulsed electromagnetic field therapy, extracorporeal shockwave therapy and stem cell therapy.

"We will begin accepting new patients this month, but until completion of our new small animal hospital, the rehabilitation and fitness center will have a limited number of appointments," said program director Kristin Kirkby, D.V.M., a board certified small animal surgeon who is pursuing her Ph.D. in the area

of veterinary rehabilitation. "Initially, four to six new patients will be seen on Mondays of every week, excluding holidays," said Kirkby, who also is certified in canine rehabilitation.

"The remainder of the week will be dedicated to treating these patients, in addition to post-operative cases and hospital inpatients," she added.


Kirkby's team includes Wendy Davies, a certified canine rehabilitation assistant and veterinary technician who has worked at the VMC for more than 10 years. Davies will assist with new patient appointments on Mondays and be responsible for performing therapy sessions the remainder of the week. Amy Reynolds, a neurology service technician trained in canine rehabilitation, will also be involved in therapy for neurology patients.

"The first and most important part of rehabilitation is establishment of a complete diagnosis," Kirkby said. "Often animals with an obvious or not so obvious injury in one

limb will develop compensatory changes in the rest of the body. A thorough orthopedic and neurologic examination will be performed and all musculoskeletal abnormalities documented and addressed."

Kirkby added that examinations will be performed regularly to assess the effects of therapy and changes in the body.

"Based on the results of the examination and patient history, an individualized treatment plan will be developed for each patient," she said. "A home exercise plan will be a key component, and exercises will be demonstrated to owners during the initial consult."

For more information about the Small Animal Rehabilitation and Fitness Center, go to <http://www.vetmed.ufl.edu/patientcare/services/rehab/>. To make an appointment, contact the small animal hospital front desk at (352) 392-2235. 

Poultry veterinarian's hands-on education... continued from page 1

could not register the fact that this person was, in fact, receiving two degrees at the same time," Courtney said, adding that he and his staff had a good laugh over the bureaucratic snafu, even though his assistant, Sally O'Connell, "was pretty frustrated" at the time.

All was resolved, and Heskett has been with Elanco since graduation, working first as a private consultant investigating outbreaks of *Cochlosoma anatis* in commercial turkey flocks in North Carolina. Soon he moved to the company's world headquarters in Greenfield, Ind., for a full time position as a regulatory consultant, working with the Food and Drug Administration on projects for potential FDA product approval. Then Heskett took a job with the poultry business unit, where he worked in marketing with the commercial side of the organization.

"That role allowed me a great opportunity to work with multiple disciplines across the organization," he said.

In 2007, Heskett accepted his current position and moved his family to North Carolina to be closer to the states that make up his territory. Besides North Carolina, his territory includes Indiana, Ohio, Pennsylvania, Virginia and parts of South Carolina.

"Some weeks I may be on several airplanes in several states and other weeks I will be within driving distance of my house," Heskett said. "I have traveled internationally and hope to do more of that in the future."

Six-plus years after graduation, his days consist of troubleshooting poultry production issues for breeders, hatcheries and processing plants. He also provides routine health surveys to monitor overall bird health, working most frequently with turkeys but also with meat chickens, or broilers. The remainder of the time he works with chickens producing table eggs – leghorns, as they are referred to in the poultry business.

In addition, Heskett conducts field research on Elanco's registered products and provides technical support to sales personnel. The present economic downturn has meant Heskett is increasingly called upon to provide assistance in the areas of health monitoring, disease investigations and grower seminars.


"Our customers have been greatly impacted by the economic downturn, with large job cutbacks occurring, as well as mergers and in some cases, bankruptcy," he said. "That being said, people will always have to eat and poultry is an easily produced, healthy protein source." Heskett relishes the diversity of his responsibilities.

"The rewards I receive from my occupation are having the opportunity to help customers and their growers put food on the table of Americans and people from other countries," he said. "I also enjoy the travel and being outside 85 percent of the time."

His UF education uniquely equips him to meet the day-to-day challenges he faces in his job, Heskett believes.

"I did not get into veterinary school on my first attempt, or even on my second attempt," said Heskett. "But I had my eye set on a goal and would not relent until I had reached it."

He graduated from veterinary school cum laude.

"From explaining ascites in chickens or disease pathogenesis or the mechanism of action of various products, I continue to reach back to my basic training," Heskett said. "I would have to say my veterinary education alone would not have totally prepared me for what I see today, nor would my graduate training alone fully equip me for my present role. The uniqueness and complexity of the poultry industry makes the Ph.D. a great compliment to a D.V.M." 

UF veterinarians treat life-threatening vascular infection in horses

By Sarah Carey

Two horses at risk for life-threatening bleeding caused by an uncommon infection of the internal carotid artery were successfully treated recently by University of Florida veterinarians who used cutting-edge technology to resolve the problem faster and less invasively than traditional surgery would allow.

“The problem both of these horses had involved a disease called guttural pouch mycosis, or a fungal infection in the guttural pouch,” said Herb Maisenbacher, V.M.D., an assistant clinical professor of cardiology at UF’s Veterinary Medical Center. “The infection can eat its way through the tissues in the back of the throat, potentially rupturing the arteries.”

Typical symptoms include bleeding from the nose, Maisenbacher said.

UF veterinarians treated the first horse in October 2008, and the second in May.

“One horse’s red blood cell count was actually dropping because of the bleeding,” he said. “The other had just one nose bleed. The owners knew they needed to do something before it became life threatening.”

Lynne Kimball-Davis of Wellington recalled the late October morning during which she went to feed her horse, a Dutch Warmblood named Upper Class, and discovered him in his stall bleeding profusely from the nose.

“It looked like he had been massacred,” she said.

Kimball-Davis rushed her horse to Palm Beach Equine Clinic, where veterinarians determined a referral to UF was necessary.

“He was stabilized for two days and then Sunday morning, we got him up to Dr. (David) Freeman,” Kimball-Davis said.

She added that Upper Class returned home after about a week at UF, and has made steady progress since then.

“I’m getting ready to show him in the fall again,” she said. “Everyone has told me he’s perfectly fine now and not to give his problem a second thought.”

Freeman, an equine surgeon, collaborated with Maisenbacher’s cardiology team to treat both cases. In each case, a device known as a vascular plug was inserted to occlude the at-risk artery. Before that, surgeons access the carotid artery through a small incision in the neck and use a contrast agent to find the damaged vessels before blocking them off.

“The affected area is difficult to approach surgically, but it’s been done before,” Maisenbacher said. “Another approach has been to place multiple metallic coils inside the vessel to block the flow of blood.



Dr. David Freeman



Dr. Herbert Maisenbacher



Photo by Lynn Kimball Davis

Lynn Kimball Davis rides her horse, Upper Class.

What made our approach unique is that we were able to make the procedure go more smoothly by using newer devices to achieve the same result.”

Freeman, who has used all the various techniques to treat vascular occlusion in horses with hemorrhage from guttural pouch mycosis, favors the new approach.

“The minimally invasive introduction of nitinol plugs seems the best to me,” he said. “It’s also a nice example of teamwork between the small and large animal hospitals that allows us to make use of leading edge technologies that benefit many species.”

Maisenbacher said the vascular plugs are made for use in human medicine, and are believed to have only been used at Purdue University’s veterinary school to treat guttural pouch mycosis in horses. Because of the success UF has had in treating dogs with the devices, Maisenbacher felt a similar result might be achieved in horses.

“Once the animals wake up from anesthesia, they are almost back to their normal selves,” he said. “The other advantage is that the devices offer the ability to access vessels that by traditional methods are very difficult to get to. Plus, there really is no other medical treatment for this condition.”

The procedure takes between two and three hours, he added.

Anyone seeking more information about UF’s Veterinary Medical Center and treatments currently available for pets and horses should call (352) 392-2213 or visit www.vetmed.ufl.edu. 🐾

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THE COLLEGE OF VETERINARY MEDICINE

Honor Roll of Donors for 2008-2009

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Study of isolated snakes could help shed some light on venom composition

By Sarah Carey

While studying a way to more safely and effectively collect snake venom, University of Florida researchers have noticed the venom delivered by an isolated population of Florida cottonmouth snakes may be changing in response to their diet.

Scientists used a portable nerve stimulator to extract venom from anesthetized cottonmouths, producing more consistent extraction results and greater amounts of venom, according to findings published in August in the journal *Toxicon*.

The study of venoms is important for many reasons, scientists say.

“The human and animal health benefits include understanding the components of venom that cause injury and developing better antivenin,” said Darryl Heard, B.V.M.S., Ph.D., an associate professor in the UF College of Veterinary Medicine’s department of small animal clinical sciences. “In addition, the venom components have the potential to be used for diagnostic tests and the development of new medical compounds.”

But in addition to showing the extraction method is safer, more effective and less stressful to both snake and handler than the traditional “milking” technique, Heard and Ryan McCleary, a Ph.D. candidate in biology in UF’s College of Liberal Arts and Sciences, discovered the venom from these particular snakes differs from that of mainland snakes, likely because of their unique diet of dead fish dropped by seabirds.

Heard and McCleary collaborated to develop a safe, reliable and humane technique for collecting venom from cottonmouths as part of a larger study on a specific population of snakes that reside on Seahorse Key, an isolated island near Cedar Key on the Florida’s Gulf Coast.

The venom collection study included data from 49 snakes on Seahorse Key.

“Snakes on this island are noted for their large size,” said Heard, a zoological medicine veterinarian with additional expertise in anesthesia. He added that Harvey Lillywhite, Ph.D., a professor of biology at UF and McCleary’s predoctoral adviser, has confirmed that cottonmouths on Seahorse Key eat primarily dead fish dropped by birds in a large seabird rookery.

Lillywhite also directs UF’s Seahorse Key Marine Laboratory, located in the Cedar Keys National Wildlife Refuge. McCleary hopes to build on earlier studies about the snakes’ ecology and to explore whether evolutionary changes may have affected the composition of the snakes’ venom.

“My interest is in the evolutionary aspect,” McCleary said. “If these snakes already have an abundant source of dead prey, why do they need venom?”

Preliminary findings show some differences in venom components, he added.

Traditionally, venom has been collected from venomous snakes by manually restraining the animal behind the head and having it bite a rubber membrane connected to a collecting chamber.

“This requires the capture of an awake snake, which increases the risk of human envenomation and is also stressful to the snake,” Heard said, adding that manual collection of venom also does not guarantee that all of the venom is collected.

The nerve stimulator is used in human anesthesia to measure the effect of muscle relaxants.

“It delivers a series of electric stimuli, of very low voltage and amperage, and causes no pain or tissue injury,” Heard said. “The electrodes are placed behind the eye, across the area of the venom gland. The nerve stimulator sends a current across the gland, causing reflex contraction and expulsion of the venom.”

The technique allows collection from snakes that might not otherwise give up their venom, which is an essential in the process of creating antivenins for victims of snake bite, Heard said.

“The stimulator is battery-powered and relatively inexpensive,” he said. “In

addition, the anesthetic we used, known as propofol, can easily be transported.”


Propofol, which has been prominent in news headlines recently as being linked to the death of singer Michael Jackson, is a short acting anesthetic administered by intravenous injection. The drug is commonly used to anesthetize animals in veterinary clinical practice, but it is not believed to have previously been used to anesthetize snakes for venom collection. 



Photo by Sarah Kewel

Dr. Darryl Heard, an associate professor in the UF College of Veterinary Medicine’s department of small animal clinical sciences, anesthetizes a cottonmouth snake in preparation for venom extraction on Sept. 9. Heard and Ryan McCleary, a Ph.D. candidate in biology in UF’s College of Liberal Arts and Sciences, have collaborated to develop a safe, reliable and humane technique for collecting venom from cottonmouths — an essential part of the process of making antidotes for snake-bite victims.



Photo by Sarah Kewel

Electrodes placed behind the eyes of the cottonmouth deliver painless electrical current that facilitates the expulsion of venom. Ryan McCleary, a Ph.D. candidate in biology in UF’s College of Liberal Arts and Sciences, keeps the snake still as the process begins.

National parasitology group honors UF professor



Dr. Ellis Greiner

Ellis Greiner, Ph.D., a professor in the University of Florida College of Veterinary Medicine's department of infectious diseases and pathology, has received the American Association of Veterinary Parasitologists' Distinguished Veterinary Parasitologist Award.

The award consists of a plaque and \$1,500 and was presented during the AAVP's annual meeting this month in Calgary, Canada.

The award honors the outstanding contributions of an AAVP member to the advancement of veterinary parasitology.

Recipients are nominated by association

members and the winner is selected by their awards committee.

Greiner has served on UF's veterinary faculty for more than 30 years. His research has involved reptiles, birds, livestock and domestic pets, but most has been centered on sea turtles and marine mammals. Earlier in his career at UF, he worked extensively with bluetongue, a viral disease affecting sheep and cattle, and with a devastating neurological disease that affects horses, known as equine protozoal myeloencephalitis, or EPM, caused by a parasite known as *Sarcocystis neurona*.

Greiner chaired the UF Committee on Committees and the veterinary college's Academic Advancement Committee. He recently served on the UF student Conduct code Committee and is now on the same committee for the Health Science Center. He is in his third year on the UF Senate Steering Committee.

Students receive awards for research

Two University of Florida veterinary students were among 11 veterinary students nationwide who were honored in Morris Animal Foundation's annual research competition for projects that improve the lives of companion animals and wildlife.

Courtney Varney, a senior student, received second place in the equine division and was awarded \$2,500. Santiago Diaz, a junior student, received third place in the wildlife category and \$1,500.

Thirty veterinary students whose projects were funded through the foundation's Veterinary Student Scholars program participated in the competition. Members of the foundation's scientific advisory boards judged the competition.

Varney's project examined the cardiovascular effects of N-butylscopolammonium bromide (Buscopan), a drug used to treat colic in horses. She performed her project during her summer vacation in the veteri-



Photo by Mark Hoffenberg

UF Veterinary students Santiago Diaz and Courtney Varney received Morris Animal Foundation awards for their research.

nary college's Island Whirl Equine Colic Research Laboratory under guidance and supervision from Alison Morton, D.V.M., an assistant professor of equine surgery.

Diaz's project examined the use of elephant-specific monoclonal antibodies and recombinant antigens of *Mycobacterium tuberculosis* to improve an enzyme-linked immunosorbent assay, or ELISA test, to identify elephants infected with this disease-causing microorganism. His project was performed under the supervision of Ramiro Isaza, D.V.M., an assistant professor and zoological medicine service chief at the University of Florida.

"The future of veterinary medicine depends on these outstanding students and their fellow classmates," said Patricia N. Olson, D.V.M., Ph.D., the foundation's president and CEO. "By giving students the opportunity to work on MAF-funded projects while they are in veterinary school, we hope to encourage them to consider a career in animal health research."

Surgery team shines at VOS meeting

Several UF small animal surgeons were honored for their presentations during the annual meeting of the Veterinary Orthopedics Society, held Feb. 28-March 7 in Steamboat Springs, Co.

"The meeting was dominated by the UF small animal surgery section, our comparative oncology group and the collaborative orthopedics and biomechanics laboratory," said Dan Lewis, D.V.M., a professor of small animal surgery.

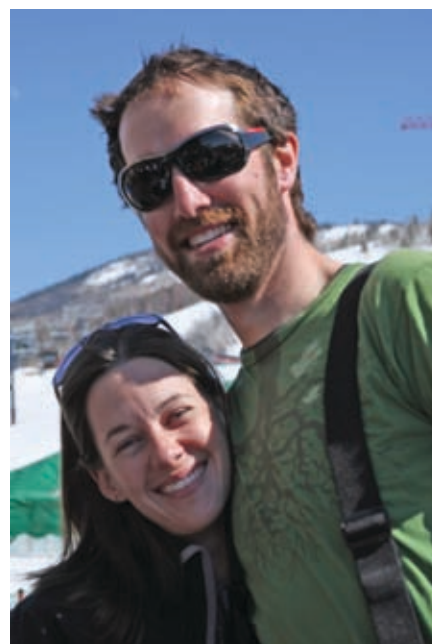
Alastair Coomer, who completed his small animal surgery residency this past July, received a Mark S. Bloomberg Award, which provided funding for seven residents to attend the VOS meeting and present their research. Coomer subsequently received the award for the Best Research Presentation in the Bloomberg session for his paper on "Anti-Tumor Effects of Radiation Therapy, Carboplatin and

Combrestastatin-A4 Phosphate Combination Therapies in a Mouse Model of Xenografted Canine Osteosarcoma."

According to Lewis, Coomer's work may significantly improve the survival of dogs affected with osteosarcoma.

Kelley Thieman, D.V.M., now a second-year small animal surgery resident, received the award for the week's best podium presentation. Her topic was "The Contact Mechanics of Meniscal Repairs and Partial Meniscectomy as Treatment for Simulated Bucket Handle Tears in the Stifle of Dogs."

Thieman's presentation was "beautifully illustrated," Lewis said, adding that the work provided a rationale for



Former UF surgery resident Alastair Coomer, right, and surgery resident Kelley Thieman take a break on the slopes with others on the UF surgery team between presentations at the annual meeting of the Veterinary Orthopedic Society in Steamboat Springs, Colo.

preserving meniscal function which should help mitigate the development of arthritis in dogs with cranial cruciate ligament ruptures and meniscal damage.

Antonio Pozzi, D.V.M., an assistant professor of small animal surgery at UF, won the award for Best Clinical Poster Presentation in the clinical category.

His presentation was titled, "Minimally invasive percutaneous tarsal and carpal arthrodesis."

Pozzi's poster examined an innovative means of performing arthrodeses, or fusion of the joints. His techniques appear to decrease post-operative morbidity and make possible faster fusion of the joints.

Distinguished awards nominations due November 15

The college's Distinguished Awards program, sponsored by the UF CVM Alumni Council, is now in its ninth year. The program offers an opportunity to recognize individuals whose commitment to the veterinary profession, the college and/or their communities are unique and significant.

The four categories in which awards are given include Alumni Achievement, Distinguished Service, Special Service and Outstanding Young Alumni. The nominations period is open through Nov. 15. Please contact Jo Ann Winn at winnj@vetmed.ufl.edu for more information or find nomination forms and process posted at www.vetmed.ufl.edu/college/alumni.

Recent Himes Scholarship recipients reflect on late mentor

By Sarah Carey

A gentleman and a scholar. A friend. A mentor. All of those descriptions are commonly used to describe the late Dr. James A. "Jim" Himes, associate dean emeritus for students and instruction at the college. As the one-year anniversary of Himes's death approaches, the two students who received the Himes Scholarship in 2009 reflected upon the man who inspired them, as well as so many UF College of Veterinary Medicine alumni in previous years.

Dr. An Nguyen and Dr. Greg Long, who received the scholarship as senior veterinary students, now are both practicing small animal medicine in the St. Augustine and Newberry, Fla., areas respectively.

"The night of the senior award ceremony, when my name was called as a recipient of his memorial scholarship, I felt at that time that no other award given out that night really mattered, that no other honor was more honorable and that's nothing else I would rather have been recognized for," Long said. "Of course, I'm not trying to diminish other recognitions that evening, with all recipients of all awards being truly deserving. It's just that the level of pride I felt having been named for the Himes Scholarship in particular made me feel very good about myself.

"And that's by far the most important thing that Dr. Himes did for everyone who met him. He made them feel better about themselves. There are few God-given personal qualities more important than that in this world."

Nguyen added that Himes had encouraged him when Nguyen was contemplating applying to veterinary school.

"Once I was in, he understood the difficulty of the curriculum," Nguyen said. "He regularly checked on my progress. Now that I've graduated, he serves as a role model for a lifelong dedication to the veterinary profession. I was fortunate to be able to speak with him just days prior to his passing. Even then, he asked me how school was and

how I was doing. That's the kind of person he was."

Last year, the Himes Scholarship Fund reached the \$100,000 threshold necessary to qualify for state matching dollars. At press time, the fund's value was \$108,000.

Himes Scholarship recipients are chosen by the college's scholarship and awards committee and are selected because they are deemed to display the sincere, caring and unselfish attitude associated with Himes, in addition to having financial need.

For more information about how to donate to the Himes Scholarship Fund, contact Karen Legato at legatok@vetmed.ufl.edu or call (352) 294-4256. 🐾



Dean Glen Hoffsis, Dr. Jim Himes and Dr. Link Welborn in 2008 during the UF alumni reception at the North American Veterinary Conference, where it was announced that the Himes Scholarship had reached the \$100,000 threshold for endowment.

Photo by Sarah Carey

UF veterinarians use acupuncture to treat a variety of animals

By Sarah Carey

Sitting on a yellow mat, surrounded by people petting him, Buddah allows several inch-long needles to pierce his skin on the top of his head and side of his face.

It's been a year and a half since the big, dark gray pit bull was attacked and bit on the head by another dog, leaving him with nerve damage, muscle atrophy and paralysis.

Since May 2008, Buddah has visited UF's Small Animal Hospital every month for his acupuncture treatments. In the first month, his facial paralysis subsided. Over the nine months of treatment, Buddah has regrown much of the muscular tissue he lost.

A timid and friendly dog by nature, Buddah has gotten used to his appointments. He doesn't seem to notice the very thin needles being hooked up to a machine that sends electric signals, a measure used to augment the normal acupuncture practice of needles stimulating points on the body. Buddah's head starts to droop.

"Points on the head cause more sedation. He gets really sleepy fast," said Carolina Medina, D.V.M., one of two faculty members in the Acupuncture Program at the College of Veterinary Medicine.

Acupuncture rose in popularity for humans in the 1990s, though the idea of needles in the body for healing purposes still hasn't reached full understanding or acceptance in the Western world. Using the practice on animals may seem a little out of the ordinary, but the ancient Chinese healing technique first recorded more than 2,000 years ago was also performed on animals.

Though the traditional practice is based on the release of energy through points in the body, Medina explained the inner workings of acupuncture from a more scientific view. For example, if you got a cut, your body sends signals to the brain, which sends painkillers to the wound.

"What acupuncture does is basically speeding up that process and making your brain release more substances than you could on your own," Medina said. "It's kind of like your body's healing itself but faster than you could and stronger than you could."

The UF program, founded about 10 years ago, is headed by Huisheng

Xie, Ph.D., a third-generation veterinary acupuncturist, often revered as the best in the U.S. The clinic sees about 20 to 30 animals each week, Medina said. Though mostly dogs, cats and horses receive the treatments, Xie and Medina care for a variety of species.

Because of Xie's reputation, people and their animals will often travel to receive services at the UF clinic. One man drove from Michigan with his old dog. Another brought an elephant from the Northeast.

Lynn Sickinger makes the nearly six-hour round trip drive from Ponte Vedra Beach, Fla., once every two months with her beloved border collie, Chutney, to see Xie.

When 10-year-old Chutney's high liver enzyme levels started to get out of control, rising into the 2,000s, far above the normal level of 118, she tried everything to help. Sickinger had experienced the benefits of acupuncture herself, so she decided to bring Chutney to a nearby Jacksonville

acupuncturist. The blood workup from her regular veterinarian showed the treatment had not helped.

After some research on the Internet, a Colorado man told her she had "the best of the best in Gainesville." She immediately took Chutney to Xie, and the dog's liver enzyme levels dropped for the first time in almost 10 years.

Sickinger said her neighbor's 11-year-old beagle has the same problem and has tried only a Western medicine approach. Though not all cases are the same, she said the differences between the two dogs are "day and night."

Acupuncture, herbs and other recommendations from Xie have given Chutney a happier quality of life. She runs like a puppy (a common benefit of acupuncture for dogs), her coat has improved and her liver enzyme levels are safely declining.

Jennifer Burroughs, a third-year veterinary student who took acupuncture as a two-week summer elective, said she became interested in acupuncture at a local barn where she rode horses. She saw Xie's acupuncture treatments cure a lame horse.

Without the opportunity at UF, she doubts acupuncture would have crossed her mind. The practice isn't really discussed in classes, but the elective fills up quickly. Hoping to become an equine veterinarian, Burroughs said she plans to take acupuncture courses to include the method in her own practice.

"This is our only chance to learn this," she said. "And it helps so many people and animals."

Buddah, the sleepy pit bull, has made progress in regrowing muscles, a difficult process that sometimes doesn't yield a result. After his 20-minute session, he arose with a wagging tail, kissed the people who had surrounded him and headed for the door.

Medina takes all her tools and fits them into a case no bigger than a child's shoebox.

Buddah will be back again next month.

"He's still receiving treatments so hopefully one day his head will look normal," Medina said. "But right now it is much better than it was last year." 🐾



Photo by Sarah Kewell

With the assistance of visiting professor Dr. Jose Zilberschtein, veterinary acupuncturist Dr. Carolina Medina performs acupuncture on Buddah, who receives monthly treatments. The treatments have helped the gray pit bull recover much of the muscular tissue he lost when another dog attacked him last year.



Photo by Sarah Kewell

UF VMC's diagnostic imaging service gets boost with new, state-of-the-art MR unit

By Sarah Carey

A new MR system now in place at the University of Florida Veterinary Medical Center will enable veterinarians to obtain diagnostic images of previously inaccessible and larger parts of the body, such as the upper legs of horses, veterinarians say.

The new 1.5 Tesla Titan MR, made by Toshiba, has never previously been used by any academic veterinary medical center in the U.S. and will provide private practitioners and pet owners with a highly sophisticated, state-of-the-art tool for pinpointing and treating disease in their animals.

"There are many advantages to the Titan, notably its 71-centimeter patient aperture -- known as the open bore -- which will be a benefit in examining large animals," said Clifford "Kip" Berry, a professor of radiology at UF and chief of the VMC's radiology service.

Berry said the new equipment is "faster, bigger and better" than what has previously been available, and provides UF with one more powerful tool in its toolbox to provide veterinarians and their clients with first-class, state-of-the-art imaging services.

"There is more space available inside the machine to accommodate patients, which should allow for better imaging of the mid to upper extremity of horses," Berry said. "The Titan also is quieter than existing MR equipment, making it less likely that acoustic noise will awaken patients during diagnostic examinations."

Animals should not have to be repositioned during an MR study, since the coils through which the examination is delivered are built into the Titan's gantry, where the animal is situated. Veterinary technologists also have the flexibility to load large animal patients into the equipment from the back end.

The new MR will provide veterinarians with a more detailed anatomic picture through high-resolution imaging, and will enable them to image arterial and venous blood flow with the injection of an intravenous contrast medium, UF veterinarians said.

The VMC's new MR unit and the 8-slice multidetector row Toshiba Aquilion CT unit now available at UF are among the

most powerful imaging tools currently available for veterinary diagnostics in the Southeastern United States. Both capabilities allow for rapid imaging with exceptional contrast and spatial resolution.

The MR unit allows highly detailed images to be obtained in multiple planes of bone and soft tissue in all species. Foot, fetlock, suspensory ligaments, carpus, hock and heads are regions capable of being examined through MR in the horse, while spiral CT may be used for 3-dimensional reconstruction in complex fracture repair planning of the extremity or stifle in large animals. In small animals, both modalities are routinely applied to neurologic and orthopedic cases at the VMC, with additional studies performed for radiation planning and metastasis evaluations.

“There is more space available inside the machine to accommodate patients, which should allow for better imaging than what has previously been available.”

— Clifford “Kip” Berry

“MR allows for exquisite distinction between normal and abnormal tissues,” Berry said. “The use of specialized sequences further increases the ability to distinguish between different types of pathology ranging from hemorrhagic infarctions to primary brain tumors and inflammatory disorders.”

Dr. Matthew Winter, assistant professor of diagnostic imaging at UF's VMC, added that MR also reveals bone, tendon and ligament pathology and can show bone bruising, meniscal damage and ligament tears



A front view of the new Toshiba Titan MR unit, which was recently installed in the UF VMC.

that go undetected when using traditional radiography.

"All of our radiologists have strong interests in cross-sectional imaging, which gives UF a unique ability to serve the advanced imaging needs of Florida veterinarians," Winter said.

In addition to MR and CT, UF's VMC offers nuclear medicine, or scintigraphy, to both small and large animal patients. Teleradiology, or film reading via satellite, is a fee-based service UF's veterinary radiologists also offer to private veterinary practitioners who want to make use of UF's expertise remotely.

Prospective small animal referral clients should call (352) 392-2235, ext. 4875. For small animal outpatient services, call (32) 273-8585 or go to www.gatorvetimaging.com. For information about large animal imaging, call the large animal hospital at (352) 392-2229. In-house patients at the UF VMC will have automatic access to all diagnostic imaging equipment when requested as part of a comprehensive diagnostic work-up.

Calendar ■ 2009/10

Nov. 7 CVM Alumni Homecoming will be held on a different date than traditional UF Homecoming this year. A pre-game meal will be served at Florida Gym four hours before game kickoff. The Web site has all the information needed for alumni to purchase pre-game tickets and football tickets (limited to two per alumnus.) Registration runs through Oct. 30. For more information, go to www.vetmed.ufl.edu/college/alumni

Nov. 15 Nominations remain open until this date for the 2010 CVM's Distinguished Awards program. The four categories for awards include Alumni Achievement, Distinguished Service, Special Service and Outstanding Young Alumni. Find both the nomination form and more information about the process posted at www.vetmed.ufl.edu/college/alumni

Jan. 16-20 The annual North American Veterinary Conference will be held in Orlando. To register or more info, go to www.tnava.org. The college will host an alumni reception from 7 p.m. to 10 p.m. on Sunday, Jan. 17, 2010 at the World Center Marriott Hotel.

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Chilling Out



Sophomore veterinary students Michael Piccione, Eric Rubin and Jeremy Faris ham it up with their multifavored snowcones during CVM faculty, staff and student appreciation day Oct. 5th in the courtyard.

Dr. Thomas Vickroy, associate dean for students and instruction, Dr. Rowan Milner, associate chief of staff of the small animal hospital, and Dr. Michael Schaefer, special assistant to the dean, dish up snowcones for hungry takers.



Junior veterinary student Max Polyak takes a break from clinics to enjoy a snowcone. He's shown here in the courtyard with sophomore veterinary student Megan Brown.

Photos by Sarah Carey