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New veterinary outpatient imaging service now available at UF

BY SARAH CAREY

Private and specialty practice veterinarians now have direct access to the Southeast's most advanced imaging diagnostics at the University of Florida Veterinary Medical Center, without needing to refer cases through the center's traditional clinical services.

The new outpatient imaging service, known as GatorVetImaging, began July 14 and will allow veterinarians in Florida and throughout the Southeast the ability to take advantage of the same state-of-the-art imaging technologies used by UF veterinary faculty, specifically magnetic resonance imaging and CT.

"GatorVetImaging brings the best medical technology of the VMC directly to practitioners," said Dr. Matthew Winter, a board-certified veterinary radiologist who heads the VMC's radiology service. "We envision this as a way to assist the veterinary community in handling their more challenging and involved cases within the context of their established client/patient relationships."

While many veterinarians will continue to rely on UF as a traditional referral center offering complete patient work-up, the new imaging service streamlines the diagnostic process for those veterinarians who desire only the advanced imaging piece of the patient care package at UF and wish to maintain direct primary care responsibility for their patients.

"We truly believe the new outpatient imaging service will meaningfully advance the veterinary profession," said Dr. Jim Thompson, the UF College of Veterinary Medicine's executive associate dean. "We're talking about a client-oriented service that is both efficient and cost-effective. It's a win-win for practitioners and for us at UF because we are fortunate enough to have this technology housed at our facility."

The VMC's 1.5 Tesla Toshiba Titan MR unit and the 8-slice Toshiba Aquilion CT unit at UF are 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 joints, carpus, hock and head are regions capable of being examined through MR in the horse, while spiral CT may be used for 3-dimensional reconstruction in fracture repair planning. 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.

"MR allows for exquisite distinction between normal and abnormal tissues," Winter 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."

Winter added that MR also reveals bone, tendon and ligament pathology and can show bruising, meniscal damage and ligament tears 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.

To schedule cases, veterinarians will need to contact the GatorVetImaging coordinator to arrange an appointment. Pre-anesthesia and imaging request forms can be faxed from UF to the scheduling veterinarian, or may be downloaded from the GatorVetImaging Web site at www.GatorVetImaging.com.

Horse owners will be asked to bring their animals to UF the day prior to the scheduled procedure, which will take place the following morning. Small animals will be able to be imaged and discharged on the same day.

At the time of discharge, the animal's owner will receive a folder with a CD containing the images, as well as printed photos showing some of the more significant images from the scan. The owner will meet again with the point-of-contact clinician, who will provide instructions to follow up with the attending veterinarian regarding the next step in patient care.

A VMC radiologist will interpret the images within 48 hours of the imaging procedure, and will fax or e-mail a PDF of the results to the veterinarian. A copy of the results, and a CD with all the images, will be mailed as well.

For more information about GatorVetImaging, go to www.GatorVetImaging.com.



The GatorVetImaging liaisons Melissa Headrick, Christie Hodge and Lynn Varner.

(Photo by Sarah Carey)



Radiology technician Donna Graden positions a dog to receive an MRI.

(Photo by Mark Hoffenberg)

Veterinary parasitologist reflects on life, work and 29 years at UF CVM

BY SARAH CAREY

It's not a fluke that Dr. Ellis Greiner decided to pursue his career in veterinary parasitology, 29 years of which have been spent at the University of Florida College of Veterinary Medicine.

After his very first undergraduate class in the subject at Montana State University, Greiner, a professor of parasitology in the college's department of infectious diseases and pathology, became fascinated with malaria, parasitic worms and insects as disease carriers in animals and in humans. Subsequently, Greiner became a zoology major and was exposed to what he calls "the wildlife side of things" – specifically, his first research on parasites involved removing worms from the lungs of pronghorns.

He never looked back.

"I said, 'I'm going to be a parasitologist,'" Greiner recalled. "I tell people, parasites are the most highly evolved form of life on earth. To back that up, you can look at all the endangered and threatened species and you won't find any parasites on them. Parasites will still be in charge when I give it up, simply because they are able to evolve and change to get around medications and the immune system."

Greiner said it's a wonder that parasites are able to complete their complex life cycles in spite of the odds they face.

"I tell my students, the life insurance of a parasite is fecundity," Greiner said. "Some can put out thousands of eggs in one day. Inside a cow, a liver fluke puts out about 25,000 eggs a day."

The liver fluke uses snails, which reside in water on pastures, as an intermediate host. Cows eat the grass containing encysted larvae, which originate in the snails, and in that way become infected.

"The creator did a great job when he or she created parasites," Greiner said. "The diversity in this field is great."

Greiner has worked with reptiles, birds, livestock and aquatic animals, but most recently his focus has turned to the parasites of 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's work on bluetongue, which is transmitted by biting midges, was conducted in collaboration with Dr. Paul Gibbs, a professor of infectious diseases at the college, and spanned nearly 15 years.

"We had a program which covered Central America south of Mexico and throughout the Caribbean, so we were able to look at the whole region," Greiner recalls. "We were able to find that the entire region had bluetongue."

"We found different serotypes; as one virus would make the loop, another one or two (viruses) would circulate in the next year. It was very eye opening."

He worked closely on EPM with Drs. Tim Cutler, John Dame, Siobhan Ellison and Rob MacKay in the 1990s.

"Unfortunately, we were wrong in our initial findings that the cow bird was the intermediate host based on PCR," Greiner said. "However, out of this work came the molecular markers that allowed people to distinguish between the different species of *Sarcocystis*, and the finding that at least four species came out of the Virginia opossum. Then Dr. Andy Cheadle (a former CVM graduate student) determined that striped skunks and armadillos were contributing to the parasites' life cycle, not the bird. So our research ultimately wound up making a difference."

Greiner said he is proud to have been a part of the bluetongue and EPM research conducted at UF, in large part because of the opportunity to work with "extremely bright and energetic people."

"As a part of a team, everyone makes their own contributions," he said.

Sometimes tracking down the origin of a particular parasite involves examining photographs of specimens sent from zoological collections all over the world. Occasionally Greiner has traveled to zoos or other facilities where an infected animal is known to have lived.

In a recent case, Dr. Scott Terrell, a veterinary pathologist and CVM alumnus who works at Disney's Animal Kingdom, sent photos of a bird that had died unexpectedly and been necropsied to determine the cause of death.

"It looked like the bird had all this fat lining its body cavity, but the pathologist had discovered that what resembled fat was in fact, trematodes, or flukes," Greiner said. "We traced it back to the zoo the bird came from. I went there and started looking at some of these animals we knew were infected. Then I went into the free-flight aviary looking for snails in the soil. Soon after, another zoo came to me and said, 'we have the same problem.'"

"I went to that zoo and found a different species of infected snail. Both types of snail were introduced species, never seen before in those environments. No one knows where they originated, and they were widely distributed. So the problem started at one zoo and somehow went to another."

When he's not puzzling through parasitic life cycles, Greiner has his finger on the pulse of a variety of college and university activities. He is passionate about his work on the steering committee of the UF Faculty Senate and has just completed the first of a three-year term. He also just finished his second consecutive term as a UF senator for the CVM.

"You get to see and interact with people on the UF campus who are really in charge," he said. "I'm one of the outspoken ones."

Although Greiner is closing in on retirement — he plans to work a few more years — he makes no bones about his beliefs. Those who know him know he never has.

"I'm a firm believer in shared governance, and doing my damndest to make it be a part of our college," Greiner said. "I tell people, if you want to be a part of things and give directions, you need to volunteer on committees and put some time into making this institution what you want it to be."

In addition to his faculty Senate work, Greiner chairs the CVM's academic advancement



Dr. Ellis Greiner holds two apple snails. He has researched apple snails in an attempt to detect the presence of an exotic nematode that infects people, as these large snails were an introduced species that might carry this nematode. (Photo by Sarah Carey)



Pictured from left to right with Dr. Ellis Greiner, and holding stuffed animals of various parasites, are his laboratory coworkers, Kristen James, Jaimie Miller, Brittany Sears, Jennifer Burroughs and Toni McIntosh. (Photo by Sarah Carey)

committee and has recently served on the UF student conduct code committee as well as the Institute of Food and Agricultural Sciences' review council for faculty development leave requests.

Independent of these university commitments, Greiner has always been active in college life. He's a regular at alumni functions, seldom misses a faculty assembly and participated actively with CVM students and others as an avid cyclist and a member of TeamVetMed.

Despite not being a veterinarian, Greiner said he has always felt accepted at the college, partly because he was on board from the start.

"The only class I did not teach was the charter class," he said.

Occasionally, however, he reflects on an earlier time when faculty and students interacted more consistently in social environments ranging from parties to athletic events.

"Early on, the college was a much more sociable organization," Greiner said.

"It's not that we're asocial now, but we don't have the social fabric we had when this place started. I miss that."

He is adamant about wanting the CVM and UF to survive the current economic stresses these institutions are currently experiencing. Greiner remains positive that "good things are happening" and urges people to remember this and "not give up the ship."

"We have lived through other economic crises and we will overcome this one," he said, adding that a mutual respect for what everyone is contributing is essential to keep the ship sailing, along with a positive attitude.

"If you are not willing to contribute to making UF and the college a great place, and to respect the contributions of others, you will be part of the problem and not the solution," Greiner said.

Paralyzed dog inspires others by living active life on wheels

BY SARAH CAREY

Although he can no longer move his two back legs, a charismatic dachshund named Lance hasn't missed a beat. Far from being an armchair participant in life, Lance, who received treatment at UF's Veterinary Medical Center earlier this year, is a wheelchair participant — actively bringing cheer to the sick and disabled, young and old.

After an unsuccessful operation in South Florida, Lance's owner, Claudia Machado, of Miami, came to UF to see whether UF could correct Lance's problems through additional surgery.

"Unfortunately, the spinal cord at the affected segment was only a cavity with no substance, so surgery was not going to help," said veterinarian Roger Clemmons, a neurologist specializing in small animals who saw Lance in the UF clinic.

"The technology to re-grow spinal cords in dogs does not exist," Clemmons said. "Although advances are being made in using primitive 'stem cells' to help repair the spinal cord in dogs, these cells have not been used in dogs successfully for that purpose so we did not have any options to offer for Lance's treatment at that time."

However, Machado and her family were told how to adapt to life with Lance as a paraplegic.

"We had to come to terms with the news that Lance would never be able to use his back legs again," said Machado. "Dr. Clemmons was emphatic that there was no solution, and his staff, especially Amy Reynolds, gave me and my husband a lot of support to deal with this reality. Needless to say, we were devastated, but we never gave up on our little guy for a second."

Clemmons and Reynolds, a veterinary neurology technician, suggested the wheels and gave Machado tips on how to properly care for a paralyzed dog. They also recommended a diet including natural-vitamin supplements to help boost Lance's immune system and prevent additional damage.

"Even though we didn't come back to Miami with the news we hoped for, we were very optimistic," Machado said. "Words cannot explain how much comfort Amy offered, sharing her own stories with us and reassuring us that Lance being on wheels would just make us love him even more. And today, every time I have a question for Dr. Clemmons because Lance is acting weird, I e-mail Amy with concerns and I hear back from her immediately."

While Lance's paralysis is still tough on Machado and her family emotionally, they have gotten into a fun routine with him and take comfort in the happiness he brings other people.

"Lance is the happiest dog on the wheelchair," Machado said. "He's full of energy and loves to fetch his ball at the park, run after his Frisbee and swim. Everywhere we take him, people stop and stare at him because he truly is one special little guy."

Lance is now a certified therapy dog and Machado takes him twice a month to visit pediatric patients at Miami Children's Hospital and elderly individuals in wheelchairs at West Gables Hospital.

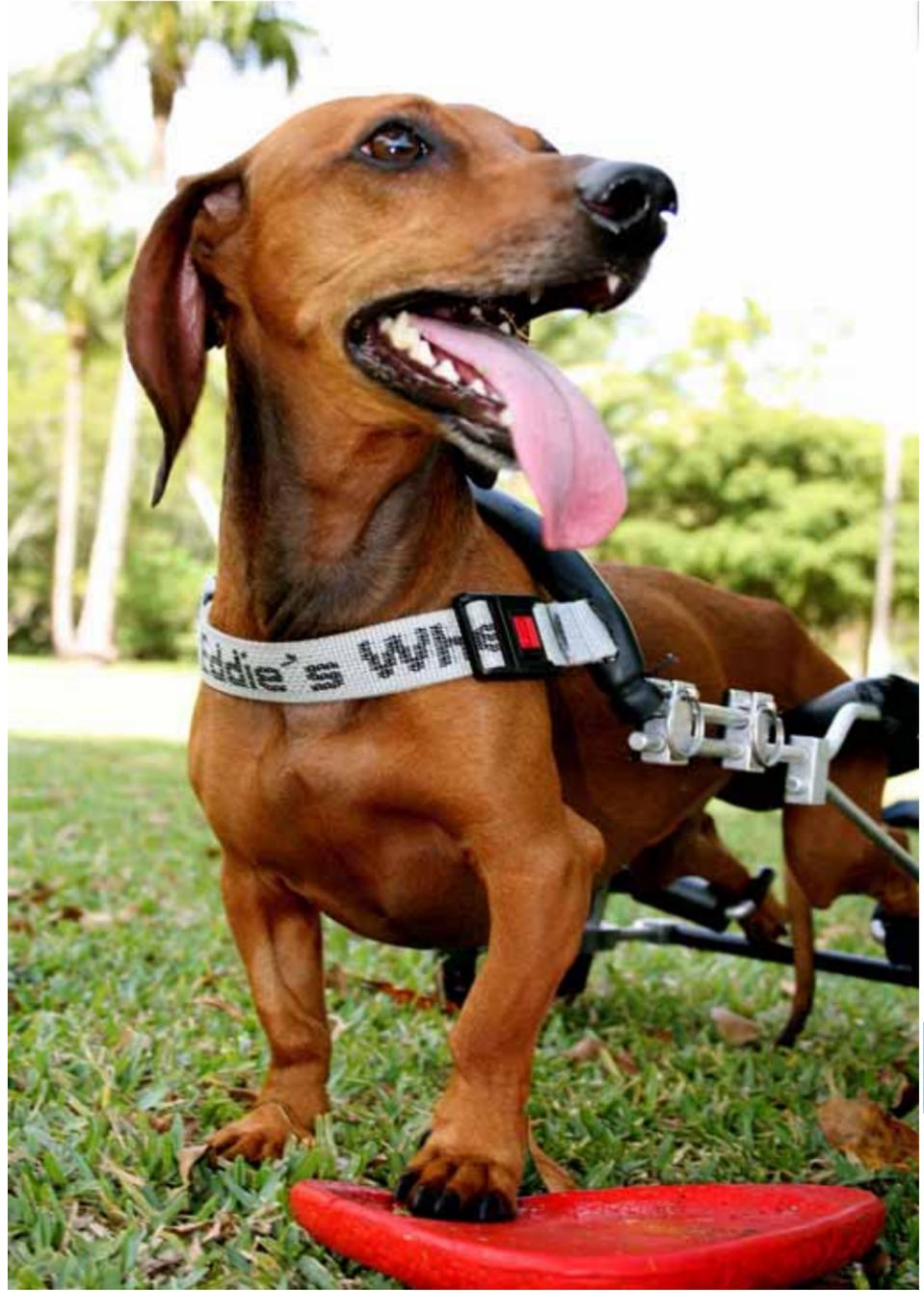
"He gives them so much hope and joy," Machado said. "I don't think there's anything more fulfilling than walking down the hospital corridor with this little guy. He is a super hero."

Lance even has that "Hollywood effect" on people who see him.

"It's like going out with Britney Spears," Machado said. "Everyone runs over to see him, pet him or play with him."

In fact, "Super Lance," starring as himself, will be the main character in a book Machado is producing for distribution to hospital patients.

"All of the work for this book is pro bono," she said. "I had my friends design the logo, write the story, design the animated characters for the book and finally have it printed. It was a true effort of family and friends coming together for a good cause."



Lance's owners say he is full of energy and loves to fetch his ball and chase his frisbee at the park.
Photo courtesy of Claudia Machado

Aquatic animal health director honored for teaching efforts



Dr. Ruth Francis-Floyd

Ruth Francis-Floyd, D.V.M., director of the University of Florida Aquatic Animal Health Program, has received the William Medway Award for Excellence in Teaching from the International Association for Aquatic Animal Medicine.

The award was given via polycom from Rome on May 13. Award recipients are individuals deemed to have made a significant impact over the past 10 years on teaching aquatic sciences.

Francis-Floyd is a professor in UF's College of Veterinary Medicine with a joint appointment in the Institute of Food and Agricultural Sciences' department of fisheries and aquatic sciences.

Board-certified by the American College of Zoological Medicine, Francis-Floyd is a UF veterinary college alumna who received the college's Alumni Achievement Award in 2002. She also is a past president of IAAAM.

In her present position, Francis-Floyd oversees campuswide teaching, research and extension efforts in the area of aquatic animal health.



Lance is shown in his customized "wheelchair."

Photo courtesy of Claudia Machado

The Veterinary Page is the college's electronic internal newsletter. Story ideas should be submitted to Sarah Carey, editor, at careys@vetmed.ufl.edu.

Retiring after years of service

Linda Lee, Small Animal Clinical Sciences



Small animal clinical sciences administrative assistant Celia Yemma, left, stands with department chairman Dr. Colin Burrows and Linda Lee during a recent retirement party held in Lee's honor. Lee worked for the State of Florida for 24 years, including two years in the Small Animal Hospital and 15 years in the department of small animal clinical sciences. (Photo by Sarah Carey)

Large animal clinical sciences well represented at colic symposium

More than 20 percent of the 101 presentations given during the recent Equine Colic Research Symposium in Liverpool, England were made by University of Florida faculty members.

"That is an astounding number," said Dr. Eleanor Green, chair of the UF College of Veterinary Medicine's department of large animal clinical sciences.

UF's presenters included Dr. David Freeman, Dr. Chris Sanchez, Dr. Ali Morton, Dr. Astrid Grosche, Max Polyak, Dr. Laura Javiscas, Dr. Louise Husted, Dr. Johanna Elfenbein, Dr. Anna Rotting (featuring collaborative work between UF and the University of Hanover), Dr. Abel Ekiri, Dr. Sarah Matyjaszek and Dr. Ben Stoughton.

Ekiri, Matyjaszek and Stoughton were unable to attend, so UF faculty members presented their work for them.

Freeman, Sanchez, Morton and Matyjaszek are faculty members in the department of large animal clinical sciences. Freeman also serves as director of the Island Whirl Equine Colic Research Laboratory.

Grosche is a Ph.D. student at the college and holds the Deedie Wrigley-Hancock Equine Colic Research Fellowship.

Husted studied at UF as part of the Intervet Denmark scholarship for young veterinary-scientific researchers. She received her Ph.D. from the Royal Veterinary and Agricultural University in Denmark.

Max Polyak, a second-year veterinary student also associated with the Transplant Center and Department of Surgery, UF College of Medicine, collaborated with the UF team on developing an isolated perfusion system to study intestinal injury in horses.

Elfenbein and Javiscas are residents in equine medicine and Ekiri is currently pursuing his Ph.D. degree in epidemiology, working with Dr. Jorge Hernandez. Ekiri also serves as the college's biosecurity officer. Stoughton is a new graduate of the UF veterinary college.

"Colics probably account for the majority of emergencies seen at any large animal referral hospital, including UF," Freeman said.

The term colic is used to describe abdominal pain from any cause in horses.

Tonie Henry, Office for Students and Instruction



Tonie Henry, a program assistant with the Office for Students and Instruction, retired recently after 35 years of service with UF. At right, she is pictured during the UF Health Science Center's pinning ceremony in May, during which she was honored along with three other HSC employees who also were celebrating 35-year employment anniversaries.

Henry worked most recently with Dr. Tom Vickroy, interim associate dean for students and instruction, but also worked under Dr. Jim Thompson, Dr. Nancy Bailey and Dr. Jim Himes.

(Photo by UF Biomedical Media Services)

CVM's Deriso Hall acknowledged for sustainability design features



Deriso Hall was recently acknowledged with UF's LEED certification. LEED stands for Leadership in Energy and Environmental Design. The UF campus desires all new buildings to be constructed with an emphasis on and commitment to sustainability by meeting performance standards that stress conservation of energy and a positive benefit to the environment. From left to right are Dr. Jim Thompson, executive associate dean; Dr. Owen Rae, chief of the food animal reproduction and medicine service; Dr. Paul Nicoletti, professor emeritus of infectious diseases; and Miles Albertson, associate director of facilities planning and construction for UF's Health Science Center. (Photo by Mark Hoffenberg)

Congratulations are in order

Congratulations to Drs. Carrie Goldcamp and Jennifer McCown, who both just completed their residencies in small animal medicine, for passing their qualifying and certification examinations, becoming Diplomates in the American College of Veterinary Internal Medicine. Drs. Rowan Milner, associate professor of small animal medicine, and Karri Barabas, oncology resident, also successfully passed their qualifying examinations in ACVIM, as did Dr. Jeremy Frederik, who just completed his residency in large animal medicine.