

the NEWS FROM THE UNIVERSITY OF FLORIDA • COLLEGE OF VETERINARY MEDICINE
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UF scientists to play key roles in national children's health study

BY SARAH CAREY

Two scientists with the University of Florida colleges of Veterinary Medicine and Public Health and Health Professions will help monitor environmental testing and exposure assessments for Florida's component in an unprecedented national study aimed at improving the health of America's children.

UF's component of the the \$54 million Florida contract amounts to approximately \$10 million, administrators said.

Dr. Nancy Szabo, director of the Analytical Toxicology Core Laboratory and a research assistant professor with the College of Veterinary Medicine, and Dr. Natalie Freeman, associate professor and interim director of the College of Public Health and Health Professions' environmental health program, will partner with lead investigator Dr. Mark Hudak, a UF pediatrician at Shands-Jacksonville, on UF's piece of the project known as the National Children's Study.

One of the largest collaborative efforts in health-related research ever, the NCS will involve a consortium of federal partners including the National Institutes of Health, the U.S. Department of Health and Human Services, the Centers for Disease Control and Prevention and the U.S. Environmental Protection Agency.

The NCS's goal is to ultimately enroll 100,000 children nationally. To that end, the NIH has selected 105 counties in the country, including four in Florida, to participate. Each urban county selected will ultimately assemble a group of 1,000 children and rural counties will assemble a group of 600 children all of whom will be followed prenatally and through the first 21 years of life.

In Florida, the University of Miami's Miller School of Medicine will be taking the lead role as the Florida coordinating center. The University of South Florida and the University of Central Florida are also involved. UF's efforts will primarily focus on 600 children from Baker County, although Freeman and Szabo will also participate in the Orange and Hillsborough county sites.

"Having Mark Hudak as principal investigator of the Baker location makes a lot of sense during the first years of the study, since the primary focus will be on recruiting women before and during pregnancy and following them through delivery," said Freeman, whose background is in residential exposure assessment with a particular focus on children. She and Szabo also are excited about the potential for additional intercollege collaborations that may ensue at UF from spin-off studies.

Freeman said the NCS is essentially an observational exposure assessment study as well as a longitudinal epidemiology study. Environmental assessments will include household, air, water and soil around the household. More specific decisions relating to which contaminants will be analyzed are expected to be finalized in the next few months. Specific contaminants to be tested will vary by region.

"We will gather information about lifestyle activities and collect environmental samples for analysis of a wide range of agents," Freeman said. "Hopefully this data will provide information about what children are exposed to and how it impacts their health."

She added that the Florida contract should provide for many jobs in Dade, Hillsborough, Orange and Baker counties, and ought to be a welcome boon for the entire state in lean economic times.

"It is largely expected that the folks manning the phone banks, trained for home visits and the collection of various environmental/biological samples will come largely from the area," said Szabo, whose primary role will be to provide quality control and quality assurance for the Baker County piece of the study.

"This extends beyond the collection or manipulation of data; it involves verification and evaluation of the personnel involved, biological and environmental protocols, sampling and site activities and verification/evaluation of corrective actions," Szabo said.

Although most of the time-consuming, routine efforts for Baker County — such as phone banks, surveys, site visits for collection of biological and/or environmental samples, have been subcontracted to a company that has its own quality control system, its activities will still be monitored and confirmed by UF personnel.

"Since the NCS coordinating center has not yet finalized decisions regarding what analyses will be conducted or who will provide those analyses on collected environmental and biological samples, whether or not I play a role in that part of things may not be known for several years," Szabo added.

Freeman said that besides Szabo's role in monitoring quality assurance and control —



Dr. Natalie Freeman



Dr. Nancy Szabo

which Freeman called "critical" for a study of this size — it was possible that other veterinary medical faculty who conduct research relevant to both humans and animals might at some point be involved in other aspects of the NCS.

"One of the focuses of the NCS is trying to understand the development of asthma," Freeman said. "In the veterinary college, there already is an established group conducting asthma-related research."

Along with asthma, however, diabetes, obesity and autism are specifically stated interests within the NCS. Szabo and Freeman both said all these areas could afford the possibility of future intracollege collaborations at UF.

"As time goes by and the Florida branch of the NCS gets started, other opportunities of this nature will surely appear," Szabo said.

Gracie graces the Swamp



UF CVM alumnus Dr. Moody McCall (class of '86) is pictured with UF President Bernie Machen in the President's Box during the Oct. 25 UF homecoming game, along with Gracie, a service dog McCall has trained through the Canine Companions for Independence group. Gracie's trip to the sky box was unprecedented for a service dog. McCall said she was quite an attraction and enabled him to educate several people in the box about the CCI program. (Photo courtesy of Dr. Moody McCall)

Interventional therapy saves dogs with portosystemic liver shunts at UF VMC

BY SARAH CAREY

When Delilah, a 6-month-old Labrador Retriever, came to the University of Florida Veterinary Medical Center in July, she was much smaller than normal size for her breed and her liver had almost completely stopped functioning.

“From the beginning, we noticed that she was very sick,” said Delilah’s owner, Robin Fish of New Port Richey, adding that the AKC-registered chocolate Lab was one of 11 puppies in a litter the Fish family helped raise. “She’d snap back for awhile, but never played like the other puppies and she was very listless. Soon after their second shots, she became extremely ill, with severe fevers.”

Delilah had a congenital intrahepatic portosystemic liver shunt, a life-threatening condition through which blood bypasses the liver, leading to organ failure. Because surgery to treat these types of cases is extremely difficult and often not an option, as was the case with Delilah, UF veterinarians took a different approach, using minimally invasive interventional therapy to perform a transvenous coil occlusion of the shunt, enabling the circulatory blood flow to be redirected through its normal channels.

Today, Delilah is one of two canine patients to have been successfully treated at UF for this condition through the use of interventional therapy, which employs diagnostic imaging to guide minimally invasive procedures. Typically the imaging modalities used for interventional procedures are ultrasound and fluoroscopy, but sometimes they involve CT and MRI.

In fact, Fish was so excited by Delilah’s outcome at UF that she mentioned it to another couple she met at a social function whose dog suffered from the same condition.

That dog soon became UF’s second success story for this particular type of treatment.

“People are excited about these new interventional techniques, but few veterinarians have the ability to do it just by themselves,” said veterinary cardiologist Herb Maisenbacher, a clinical assistant professor of cardiology at the UF VMC whose primary interest is in vascular procedures. “I wouldn’t attempt this unless surgeons or radiologists were there to help me. We all bring different skill sets to the table, which makes it possible.”

Various specialized needles, introducers, catheters, guidewires and other devices are used to access the body in interventional therapies. Although interventional techniques have been used for years in human medicine, its use in veterinary medicine is in its infancy in many respects — with only one formal training program in existence at the University of Pennsylvania — UF’s VMC has implemented a team approach in which several specialty services are involved in the planning and execution of many interventional therapies.

“This approach has only improved the care of our patients and our ability to offer cutting edge treatment,” Maisenbacher said. “It’s a realm with a lot of promise and very few limitations. There are many organ system diseases that can be treated by these procedures.”

UF cardiologists were trained in the highly technical procedure to treat intrahepatic portosystemic liver shunts three years ago by interventional veterinary specialist Chick Weiss from the University of Pennsylvania. Delilah’s case gave the UF team its first opportunity to make use of these new skills. The procedure involves placing a wide bore catheter in the jugular vein; using fluoroscopy, or real-time X-rays, to locate the vascular shunt; placing a metal stent in the vena cava and finally deploying coils to create the occlusion.



Dr. Shannon Holmes, left, Dr. Herb Maisenbacher, center, and Dr. Mandi Schmidt, right, are shown watching screens that show fluoroscopic images of a catheter that goes from the jugular vein into the liver with fluoroscopic guidance. The screens that the team are watching show the fluoroscopic images of the catheter in the body, allowing them to move it into position within the desired vessel. (Photo by Sarah Carey)

Advantages of interventional therapies generally include shorter hospital stays and reduced mortality rates but most importantly, these techniques offer alternative treatments of conditions for which no standard treatments may exist, or for which the standard treatment — usually surgery — offers unacceptable risk to the patient. Disadvantages include the procedure’s cost, which can be in the thousands of dollars.

“The metal stent alone costs \$1,500,” Maisenbacher said. “The good thing is, we can take a dog that is very sick and turn it into a healthy dog.”

Veterinary radiologist Shannon Holmes said that currently interventional radiology is used at UF to treat intrahepatic portosystemic vascular anomalies, patent ductus arteriosus, tracheal collapse, urethral obstructions and to deliver regional chemotherapy via arteries supplying a tumor.

“It truly is a team approach, as many specialists are often involved in the procedure,” Holmes said. “It requires an excellent knowledge of three-dimensional radiologic anatomy and is an exciting field of radiologic practice that is rapidly expanding, especially in veterinary medicine.”

As for Delilah, Fish said she is “doing beautifully.”

“I told the doctors at UF, I didn’t know what to do for them or how to thank them, so I just sent them another liver shunt dog so they could save another life,” Fish said. “I was blessed enough to be able to give them another dog to help.”

“Two Lab owners meet at a party...” Shared story leads to second successful liver shunt treatment at UF

BY SARAH CAREY

The grapevine is alive and well, as the Tampa-area owners of two young chocolate Labrador Retrievers can attest. The dogs both are doing well after recently receiving unique interventional therapy at UF’s Veterinary Medical Center to correct life-threatening liver shunts.

Robin Fish and Shiloh Schrantz met at a mutual friend’s birthday party in July and began chatting. Turns out, both women owned puppies who both happened to be extremely ill from the same medical condition.

“We were at a jazz and blues club where there was live music and it was hard to hear because of all the noise,” Schrantz said. “All of a sudden my husband said, ‘Listen to these people; their puppy has issues like ours.’”

“So I went over and said, ‘I don’t mean to be snooping, but it sounds like your dog might have exactly the same problem that ours has,’” Schrantz said.

At this point, Schrantz’s dog, Bear, had survived risky surgery in January but his veterinarians failed to locate the shunt. Schrantz said her vet pushed the couple to obtain additional tests but they were reluctant to pursue other options, partly out of worry that any new procedure would be hard on Bear.

“It was being managed through medication and prescription dog food, but we did stall,” Schrantz said. “He wasn’t thriving.”

Fish, on the other hand, shared with her new friend that Delilah was awaiting a procedure at UF known as interventional therapy.

“Their dog was dying and here I was, with my dog about to get this procedure,” Fish said. “It was a very atypical thing.”

The Fishes had known almost immediately after Delilah, who was one of 11 AKC-registered puppies born to a litter they helped raise, was very sick.

“I saw she was not playing as much as the other pups,” Fish said. “She was picky with her food and very listless. Then she began having severe fevers.”



Bear, a chocolate Lab that was treated at UF through the use of interventional therapy, is shown at home in his yard in Dunedin with his companion, Sammi. (Photo courtesy of the Schrantz family)

When her local veterinarian told them about UF, they immediately scheduled an appointment. UF veterinarians verified through additional tests that Delilah had an intrahepatic portosystemic liver shunt in a hard-to-find spot within the central lobe of the organ, but could not receive surgery until her condition improved.

“They said, ‘we have to get her in a surgical state,’” Fish recalled. “So they put

Team VetMed raises \$26,200 for student scholarships in Horse Farm 100



More than 60 riders participated in this year's Horse Farm Hundred ride as members of Team Vet Med. The group collectively raised more than \$27,000 to support veterinary student scholarships. Top fundraisers included: Dr. Julio Ibanez, who raised \$2,025 in his clinic and matched it for a total of \$4,050 in donations; Chris Spinosa, \$650; Dr. Wade Matthews, \$499; Ruth West, \$300; Dr. Kevin Anderson, \$250; Dr. Kris Cooke, \$200; Alexandra Orlova, \$200; Dr. Wendy Rib, \$150. Photos from the ride are posted at: www.wlcastleman.com/ufvetmed/hf100_08/index.htm.

SHARED STORY, CONTINUED FROM P.2

her on medication and on a no-protein diet, and we had to wait a month.”

It was in that window of waiting for surgery that Fish and Schrantz had their conversation at the party.

“We were so surprised to hear all the good things they said, so we called the university and one thing led to another,” Schrantz said.

The highly technical and sophisticated procedure UF performed on both Delilah and Bear is known as interventional therapy and involves close collaborations between veterinary radiologists and cardiologists to locate the problematic shunt, place a stent and implant coils within the specific vessel to reroute blood flow properly through the circulatory system.

Although UF's team had been trained in the procedure, Delilah was the first patient to receive it at the VMC.

Bear now weighs 83 pounds and is “doing great” despite being a few months behind his companion dog developmentally.

“We could do with not going through the puppy thing twice, but we just sacrificed another pillow to the great god of puppies,” Schrantz said.

Delilah now weighs 61 pounds — a 30 pound increase since her UF procedure.

“We call her, ‘Happy Girl,’” said Fish. “She is our little princess and she is so spoiled.”

Good luck, Zoe!



Zoe Seale, longtime senior director of development and alumni affairs for the college, left in October to take a job at UF's College of Liberal Arts and Sciences. She will be the senior director of development and alumni affairs at that college now, after having spent 14 years at the UF CVM. Shown in the above photo are alumni affairs and special events coordinator Jo Ann Winn, Seale and Karen Legato, who has now moved into Seale's job. Seale is holding a border collie figurine, a going away gift from the college. (Photo by Sarah Carey)

Legato, former director of development and alumni affairs, now moves into senior position with the UF CVM

Karen Legato has been named senior director of development and alumni affairs at the University of Florida College of Veterinary Medicine.

Legato has 25 years of fundraising experience in higher education, nine of which have been at UF's veterinary college. She has worked with donor events, corporate solicitations and campus campaigns.

A member of the UF veterinary college's development staff since 1999, Legato most recently has served as director of development and alumni affairs for the college. In her new position, she replaces Zoe Seale, who has taken a job as senior director of development and alumni affairs at UF's College of Liberal Arts and Sciences.

Legato's promotion was effective Oct. 17.

She holds a bachelor's degree in communication from Slippery Rock University, Slippery Rock, Pa. She worked from 1984-1999 at Slippery Rock as both an executive assistant and a special events coordinator in the university's advancement office.

Prior to that, she worked for seven years as a farm manager and equine trainer at Arcadian Arabians in Slippery Rock, and for nine years as the executive secretary to the president of General Nutrition Corporation in Pittsburgh.

In her most recent position at the veterinary college, in addition to fundraising for the college, Legato was responsible for cultivating relationships among several constituencies, including alumni, donors, grateful clients of UF's veterinary hospitals and others from various animal-oriented clubs and industry groups.

Most people think of development as “just fundraising” but there is more to it than that, Legato said.

“My goal is to educate people who already have an interest in the college's mission of teaching, research and patient care about ways in which their contributions can meaningfully advance that mission,” Legato said. “We aren't just asking people for money; we are establishing and nurturing relationships and providing opportunities for people to give financially to a cause they already believe in.”

In the nine years Legato has been at UF, the college has consistently been ranked in the top 10 of the 28 fundraising units across campus, both in terms of money raised and percentage of goal achieved.



Karen Legato

Clinical pathologists at UF, CVM former veterinary resident play key role in diagnosing foreign equine disease

BY SARAH CAREY

A rare and contagious tick-borne disease affecting horses was diagnosed in August by an Ocala equine veterinarian, confirmed by University of Florida faculty members, and contained, thanks to state agricultural officials.

The reportable foreign disease known as equine piroplasmosis (EP) is transmitted by a tick endemic to many tropical and subtropical regions. EP was believed to be eradicated from the U.S. in the 1980s.

UF's involvement began when former UF equine medicine resident Dr. Carol Clark, now in private practice with Peterson & Smith in Ocala, recognized clinical signs and laboratory results suggestive of the disease in a horse being treated at her facility. Clark contacted the College of Veterinary Medicine in hopes that a clinical pathologist could confirm the diagnosis.

"She saw what she thought were protozoal organisms in red blood cells, and sent a blood sample for us to evaluate," said Dr. John Harvey, the college's executive associate dean and a board-certified clinical pathologist.

"I wasn't on duty at the time, but examined a stained blood film after being called by our technologists," Harvey said. "I confirmed that the organisms present most closely resembled *Babesia equi*, which has recently been reclassified as *Theileria equi*." This organism is one of two known causes of piroplasmosis in horses. The other is a larger protozoa named *Babesia caballi*.

Once Harvey confirmed the diagnosis, Clark contacted the state veterinarian's office in Tallahassee to report the finding and arrangements were made to perform a necropsy on the horse at UF.

Dr. Steeve Giguere, professor of equine medicine, examined the horse before it was euthanized. The horse was depressed and had fluid accumulation in his ventral abdomen and legs. His mucus membranes appeared slightly yellow and small hemorrhages were present. His urine appeared reddish brown. These clinical signs, along with anemia documented during blood evaluation, were consistent with EP.

Dr. David Allred, an associate professor in the college's department of infectious diseases and pathology, was contacted to see if he could assist in further characterizing the disease through DNA sequencing.

"We wanted to verify that there wasn't some other previously unrecognized pathogen infecting this horse," Harvey said.

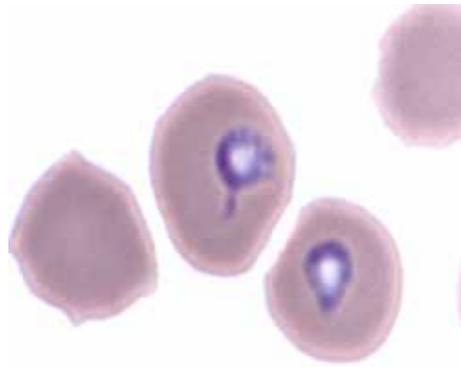
Allred said the gene sequencing project has not been completed yet, but that "evidence so far points to *T. equi*."

"*T. equi* is not cycling in wildlife reservoirs in Florida," Allred said. "Some piroplasmosis species are able to jump between hosts under the right conditions, which is another good reason for understanding exactly what species we're dealing with."

While UF's veterinarians focused the identifying the specific organism involved, Florida agricultural officials began an extensive epidemiological investigation to determine if other horses were infected and to find out how this horse became infected.

A total of 19 horses tested positive on seven premises and all positive animals have been euthanized to prevent spread of the disease. No foreign ticks or ticks carrying the EP causing organism have been found, officials said.

Current evidence suggests that two infected Mexican horses were brought to Florida and EP was spread among those horses using contaminated needles and blood. Officials speculate that this may have involved blood doping of horses in an attempt to improve racing performance as part of an illegal gambling enterprise.



Coming home for the Gators ...CVM Homecoming activities draw crowd of alumni back to campus



Dr. Carlos Risco, class of '80; Dean Glen Hoffsis; and Dr. Julio Ibanez, class of '80.



Dr. Susan Anderson, class of '83, and Dr. Karen Zimmerman, class of '87.



Dr. Richard Hill visits with Dr. Steve Groves, class of '05.

Break ground with us!

Groundbreaking ceremony for new small animal hospital is 10 a.m. Nov. 21



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

More Homecoming photos

Final score: Florida Gators, 63;
Kentucky Wildcats, 5

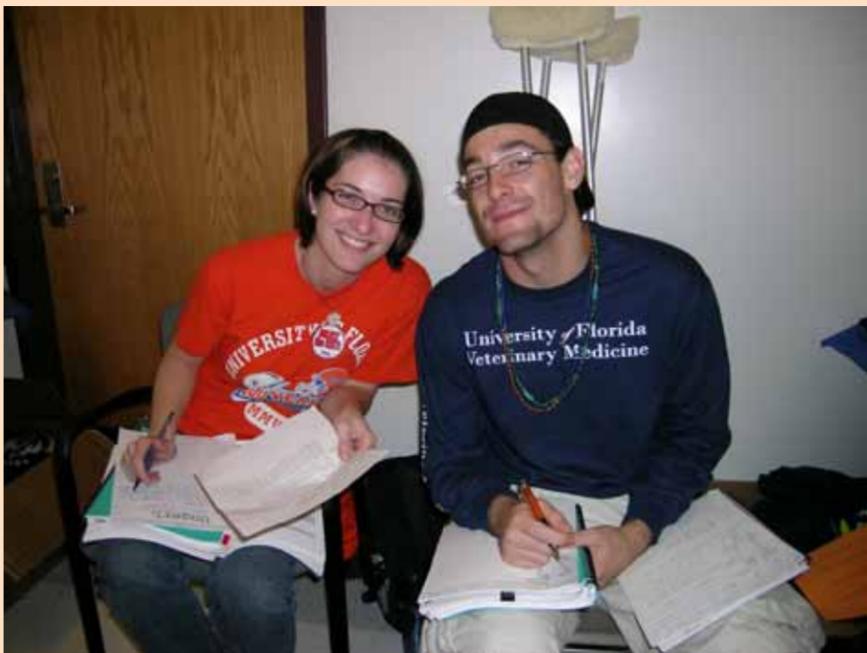
Pictured at right are student ambassadors Chetica Maus and Cassie Carroll, both from the class of 2009, who helped keep things moving during the event by assisting with a variety of tasks.



The college's new senior director of development and alumni affairs, Karen Legato, joins Dr. Toots Banner, class of '87, and his wife, Ronda, in the serving line.



Dr. Marcia Schwassmann, class of '89, with former classmate Dr. Laurie Covington and Dr. Kelley Phillips.



Lauren Unger and classmate Alex Alvarez, both from the class of 2012, cram for an embryology exam in between selling t-shirts for their class.



Dawn Keenan and Gina Ushi both served as student ambassadors from the class of 2009.



Dr. Kim Tyson and Dr. Neil Shaw, both from the class of '93.



Dr. Lacy Douglass and Dr. Patti Gordon, both from the class of '84.