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Kentucky Horse Racing Commission hires CVM racing laboratory to test samples from race horses for banned substances

BY LAURA MIZE

Before the horses line up at the gates at Churchill Downs on May 2 to run the Kentucky Derby, veterinarians will take samples of their blood and urine. Those samples, along with ones taken from the winner and a few other horses after the race is complete, will make their way to the Florida Racing Laboratory at the UF College of Veterinary Medicine. Here, lab employees will test and analyze them, looking for drugs that may have enhanced the horses' performances and unfairly altered the outcome of the race.

Within three working days of receiving the samples, the lab must submit preliminary results to the Kentucky Horse Racing Commission, the state agency that monitors the approximately 350 horse races that take place in Kentucky each year.

Full results must be turned in "within ten working days of receipt of the samples," said Richard Sams, Ph.D., the lab's director and a professor in the College of Veterinary Medicine's department of physiological sciences. Officials will not award prize money to the winner of the race until these results are submitted.

The UF racing lab was one of six labs that bid for the job of analyzing the samples taken before and after Kentucky's horse races. It is one of five labs in the nation accredited by ISO 17025 standards -- the primary international standard for this kind of testing facility.

The selection process required facilities to conduct proficiency tests to identify drugs present in samples, submit written proposals, participate in interviews and give presentations.

"We had a small group that is affiliated with the racing commission who reviewed all the candidates and University of Florida stood out as the best of the applicants we reviewed," said Lisa Underwood, executive director of the KHRC. "We were also impressed with Dr. Sams' presentation. We were impressed with his ability to work with us. We had the impression from his presentation that he would be a team player."

"We know that it will only enhance the reputation of the racing lab at the University of Florida, which only helps us."

Dr. Glen Hoffsis, dean of the College of Veterinary Medicine, said the increased work will help make the lab's work more cost-effective.

"There's so much involved in purchasing high-tech equipment to analyze samples, so if you can do twice the number of samples you can spread the cost," he said.

He also noted that revenue from the KHRC job will bring more revenue to the lab in a tough economy, helping it to stay open and continue providing services to Floridians.

"It is quite an accomplishment to successfully obtain the contract from the state of Kentucky," Hoffsis said. "And it's a tribute to the people that operate and lead this laboratory. This has become one of the premier, truly high-quality leading laboratories that does this kind of work in the United States and in the world."

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—Lisa Underwood
 Executive director, Kentucky Horse Racing Commission

The lab also will provide the commission with very cost-effective services.

"I learned yesterday that our score on the proficiency tests was perfect," said Sams. "I know that we had the lowest cost."

The contract between the two organizations is for one year, but the relationship may be extended beyond that without repeating the bidding process. Sams said the job has big benefits for the lab.

"It's quite prestigious, and it represents a substantial amount of work and the compensation for that work is substantial," he said. "So it represents a significant increase in our workload. It also represents a significant increase in our laboratory income. We are expanding our work force. We will be buying some additional instruments."

The lab already has tested some samples from various races. Underwood said the KHRC was pleased with this work.

Currently, the lab employs about 35 people. Additional employees and instruments will be necessary to allow the lab to analyze the samples and return them to Kentucky in the time stipulated in the contract, Sams said.

The lab also does some sampling work for private individuals and tests samples from horses and greyhounds for Florida's Division of Pari-Mutuel Wagering, a state agency that oversees racing in Florida.

Dave Roberts, director of the division, says the lab does "an outstanding job for us testing the samples we collect."

He added that the new contract with the KHRC will be a boon to the lab and to his organization.

What's all the fuss about?



Standards against drug use in racing horses are higher than those for Olympic athletes, according to Richard Sams, Ph.D.

"Only two substances are permitted for administration within a 24-hour period before race time in Florida," Sams said.

Why such stringent regulations? He cited three reasons for the strict rules.

Safety is one issue. An injured horse receiving drugs before a race to mask pain could be hurt more than helped by the medicine.

"It may injure itself even more," Sams said, "possibly to the extent that there could be a catastrophic injury that not only could have consequences to the horse, but other horses, jockeys."

Drug regulation, he said, "has as an aim the protection of the horse and other competitors in the race."

Another concern is the betting that surrounds horse and greyhound racing.

People placing bets need to believe the races are fair, otherwise, "they're less likely to wager," Sams said. "This is an integrity issue -- integrity of the contest."

Race horse owners are also concerned about fairness for another reason.

"For those horses in the most prestigious races, those horses will become breeding animals," Sams explained. "The owners of those horses make very substantial investments in those horses and a horse owner wants their horse to compete with other horses without any of those horses being treated with drugs."

Sams said there's a saying that "the horses should compete on hay, oats and water."

"Even a drug that you and I might take for relief of a minor ache or pain is prohibited in racing for those three reasons."

AVMA Council on Education renews accreditation

The University of Florida veterinary college has been granted a full seven-year accreditation renewal by the American Veterinary Medical Association's accrediting council.

The council gave the college "substantial compliance" in its curriculum standard. Council members noted that certain changes needed to be made within two years for full compliance designation in that area.

"In light of current and anticipated decreases in state funding, the curriculum committee must work with faculty and administration to define overarching curricular learning objectives," the council noted in its report, adding that the college also needed to define and implement its curriculum and learning objectives as well as developing a separate method for students to evaluate their courses.

The college's dean, Glen Hoffsis, noted that progress had already been made toward the curriculum objectives with the faculty assembly's recent passage of recommendations from its curriculum committee to reduce the number of required clinical rotations.

Hoffsis congratulated fellow administrators, faculty and staff for their hard work in making this achievement possible.

"We are very pleased to be fully accredited by the AVMA Council on Education," Hoffsis said. "Achieving full accreditation is a collegewide endeavor that involves the hard work and cooperation of the entire faculty, staff and administration. The very positive nature of the council's report speaks to the excellent program we deliver."

UF's College of Veterinary Medicine admitted its first class of students in 1976 and is one of only 28 accredited veterinary colleges in the country.

Kickin' up a storm for students



The Dandelions from the Class of 2010 were the proud winners of the April 4 kickball tournament sponsored by SCAVMA. The event, held at the Southwest recreational softball fields, was a first-ever fundraiser to assist students planning to attend the SAVMA symposium in Ohio this year. Some 75 people turned out for the kickball tournament and 35 students wound up attending the SAVMA symposium.

"We had a great turnout for the symposium and we were able to get money towards it from the kickball tournament and our alumni store, which we also started this year," said Lara Fine, class of '11, SCAVMA fundraising chairman.

Four teams with 11 members participated, including Cardio (4th place); the Class of 2011 (2nd place); the UF Racing Lab Piss and Vinegar group (3rd place) and the winners, the Dandelions from the Class of 2010.

Pictured are the proud Dandelions. In the front row are Trevor Gerlach, Drew Scarbrough, Jonathan Block, Matt Varney, Greg Merritt, and Gary Clark; in the back row are Carlo Mosca, Bryan Clarke, Hugh McClelland, Ramon Perez and Kyle Marano.

In the photo, team members are holding their crystal awards, provided courtesy of Fine Awards (www.fineawards.com.)

"The Dandelions made those costumes on their own and were really excited about them weeks ahead of time," Fine said. "They even had synchronized warm-up exercises!"

Dr. Kevin Anderson to give keynote address at 2009 CVM commencement

Dr. Kevin Anderson will be the guest speaker at commencement exercises for the Class of 2009, to be held May 23 at UF's Phillips Center for the Performing Arts.

The ceremony will begin at 2 p.m. and 84 students will be receiving their D.V.M. degrees.

Anderson is an associate professor of anatomy and neurobiology in the college's department of physiological sciences.

He received his undergraduate degree from Washington State University in 1977 and subsequently a master's degree from the same institution. He received his Ph.D. in anatomy from the University of Kentucky, Lexington in 1984.

Anderson is the recipient of several Teacher of the Year Awards given by the classes of 1992, 1995, 2001, 2002 and 2009. He also received the collegewide Teacher of the Year Award in 1990.

He was SCAVMA's Basic Science Teacher of the Year in 1993, 1997 and 2007 and received the C.E. Cornelius Young Investigator Award from the college in 1994.

Anderson's research focuses on the characterization of excitatory amino acid (glutamate) in the brains of aged rodents, primates and humans.

The objective is to understand the relationship between excitatory amino acid systems and neuronal death during aging or neuropathology, according to Anderson's departmental Web site.

In addition to his professional work, Anderson serves as faculty advisor and ride team leader to Team Vet Med.



Dr. Kevin Anderson

Department of Agriculture bulletin moves to online format

Because of increasing costs and wide access to electronic mailing, the Florida Department of Agriculture and Consumer Services has discontinued publication of hard copies of its Animal Health Bulletin and now will be moving to an online-only format.

The current issue of the bulletin is available at: http://www.doacs.state.fl.us/ai/pdf/Animal_Health_Bulletin_2009.pdf

Titles of articles in the current winter edition include: Equine Piroplasmiasis Update; Avian Influenza--Then and Now; Rift Valley Fever Exercise; Gertrude Maxwell Save-a-Pet, Inc.; Tuberculosis in a Roping Steer from Florida; The Dangers of Brucellosis in Feral Swine; and Construction of New Necropsy and Incineration Facility for the Bureau of Diagnostic Laboratories (BDL).

Anyone who would like to receive the Animal Health Bulletin by e-mail is asked to provide their e-mail address to: strickm@doacs.state.fl.us.

"If people provide us with their e-mail address, we will be happy to send them notification and the link every time there is a new issue, so they can go right to it," said Dr. Thomas Holt, state veterinarian and director of the Division of Animal Industry.

Key dates: Mark your calendars

May 8: Completion ceremony and reception for graduating offshore students will be held at 3:30 p.m. in the equine hospital auditorium.

May 9: The sophomore professional coating ceremony will take place at 2 p.m. at University Auditorium with a reception to follow.

May 23: Commencement exercises for the graduating class of 2009 will be held at 2 p.m. at UF's Phillips Center for Performing Arts. A reception will follow immediately afterward at the Touchdown Terrace, Ben Hill Griffin Stadium.

UF veterinary faculty members honored by feline journal



Dr. Sheilah Robertson



Dr. Julie Levy

BY SARAH CAREY

Two out of three awards given by the Journal of Feline Medicine and Surgery for outstanding contributions were presented April 2 in Birmingham, England, to faculty members at the University of Florida College of Veterinary Medicine.

Known as Star Awards, they were issued as part of the journal's celebration of 10 years of publishing.

The most read/downloaded article in the past 10 years was a two-part paper by Sheilah Robertson, BVMS, Ph.D., a professor of anesthesia and pain management, and her collaborator, Polly Taylor, a freelance consultant in anesthesia in the United Kingdom. The paper dealt with pain management in cats, past present and future.

"In the past, people were not sure what the signs of pain in cats were and they were left undertreated," Robertson said. "Historically, people have also been afraid of drug related side effects in this species, but now many of those fears have been dispelled."

Robertson said she was pleased to have helped spread the word about this topic, and added, "I'm sure many cats would thank us if they could."

The most cited article in the past 10 years was written by Julie Levy, D.V.M., Ph.D., the Maddie's Professor of Shelter Medicine at UF, and Brian Luria, D.V.M., a former small animal medicine resident at UF. The paper was titled, "Prevalence of infectious diseases in feral cats in Northern Florida."

Levy's research and clinical interests center on feline infectious diseases, neonatal kitten health, humane alternatives for cat population control and immunocontraceptive vaccines for cats.

"I am proud that our paper was found to be so useful to others in the feline medicine field," Levy said. "The JFMS has elevated feline medicine to new levels, something that can only benefit our feline friends."

Discovery highlight

Review of how cough medicines affect the brain to control coughing



Dr. Donald Bolser and scientist Melanie Rose . (File photo)

Dr. Donald Bolser has written a review of how cough medicines affect the brain areas that control coughing. When cough medicines are taken and absorbed into the blood, it is generally assumed that the cough drugs enter the brain fluid to act in the brainstem and inhibit cough. However, recent work in humans has raised the possibility that cough medicines can also suppress cough by their action in higher function brain areas. Bolser reports that for drugs that may act in the brainstem, the specific locations, types of nerve cells affected and specificities of the cough medicine compounds are important issues on how cough-suppressants work.

Bolser's research studies indicate that two areas of the medulla of the brainstem are important to the cough suppressing action of the cough drugs. There are also other brainstem regions contain nerve cells that participate in the production of cough and may be important sites of action of cough medicines.

Bolser further reports specific proteins on the nerve cells that have been associated with the suppression of cough. Unfortunately, relatively little is known about the nerve cell protein specificity of cough medicines in many brainstem and higher brain areas.

Bolser is continuing his research on how humans and animals cough to better understand of the action of cough medicines. His work will lead to a new understanding of cough and the development of better cough medicines.

Bolser DC. Central mechanisms II: pharmacology of brainstem pathways. *Handb Exp Pharmacol.* 2009;(187):203-17

Off to the races



Pictured at Gulfstream Park during Florida Derby Day on March 28 are members of the park's charity committee and the Gulfstream Barbaro Award winners. From left to right are: Chef Kas Willis, UF veterinary student Erica Rosen, jockey Kent Desormeaux, UF veterinary student Megan Lamb, Jan Hansen, UF graduate student Astrid Grosche, Jeff Humke and Shirley Horn. (Photo courtesy of Gulfstream Park.)

Dr. Matt Winter receives universitywide award in faculty category



Dr. Matt Winter, associate professor of radiology in the department of small animal clinical sciences, has received a universitywide Superior Accomplishment Award in the faculty category.

He is one of only six individuals to receive this award and the only winner in his category.

The Superior Accomplishment Award program recognizes staff members who contribute outstanding and meritorious service, efficiency and/or economy, or to the quality of life provided to students and employees. Recognition by one's peers is the highest point of achievement.

Winter received \$2,000 and a commemorative plaque, and an invitation to the President's Box for a Gator football game.

He also is the third consecutive UF veterinary college faculty member to receive this award, following in the footsteps of Dr. Ali Morton (2007) and Dr. Natalie Isaza (2008).



Dr. Matthew Winter

Enthusiasm for learning, variety leads UF graduate student to program in aquatic animal health

BY SARAH CAREY

From an early age, UF veterinary graduate student Jennifer McGee showed curiosity about the animals and invertebrates that populate both land and sea. As a child, she collected bugs and often searched for frogs and crawfish. She grew more interested in wildlife, becoming a licensed wildlife rehabilitator at the age of 16. Soon after, McGee began attending Adventure Camps sponsored by SeaWorld and Busch Gardens, honing her interest in a variety of marine mammals.

Now a doctoral student in UF's Aquatic Animal Health program, McGee, 27, said the Adventure Camps helped shape her skills in animal husbandry and her interest in a career working with animals. Wearing a UF College of Veterinary Medicine t-shirt, McGee recently served as a past-camper spokesperson for the camps in a promotional campaign filmed at Sea World of Orlando's manatee exhibit. The campaign will be rolled out soon in various media outlets aimed at teenage girls.

"I attended my first camp at Sea World San Antonio over spring break in high school," McGee said. "I loved everything about it and found out about two more the next summer and attended those as well." She said that while she loved all of the animals she worked with, her favorites were the penguins – and a particular sloth named Harry.

"The camps were a lot of fun and I absolutely loved working with the animals," McGee said. "I developed a lot of respect for training and husbandry and all the things you can learn from animals in captivity but also the education component. You really saw the value."

Her college years at Long Island University provided opportunities for overseas travel in countries including Australia, Brazil, and Tonga and a variety of internships in subjects including tropical field biology and sustainable development, as well as marine mammal and sea turtle rehabilitation. From there, McGee pursued a master of science degree in marine mammal science at the University of Wales, Bangor, UK. Her research focus was acoustics of Amazon River dolphins in Brazil. After graduation, McGee spent time studying humpback whales in Australia and eventually returned to the states. In 2006, she landed in Volusia County, Fla., where she coordinated various aspects of the Manatee Protection Program, including Manatee Watch.

Cathy Beck, a wildlife biologist with USGS, manages the manatee photo-identification database. She said McGee contacted her and offered to contribute images of scarred manatees collected in Volusia County as part of her work with Manatee Watch.

"I explained the protocols for image submission and she quickly proved herself to be hard-working, energetic and very thorough in providing me with useful images and data," Beck said. "Even better, she set up a protocol that her colleagues in Volusia County have followed to continue to submit images and data to the database."

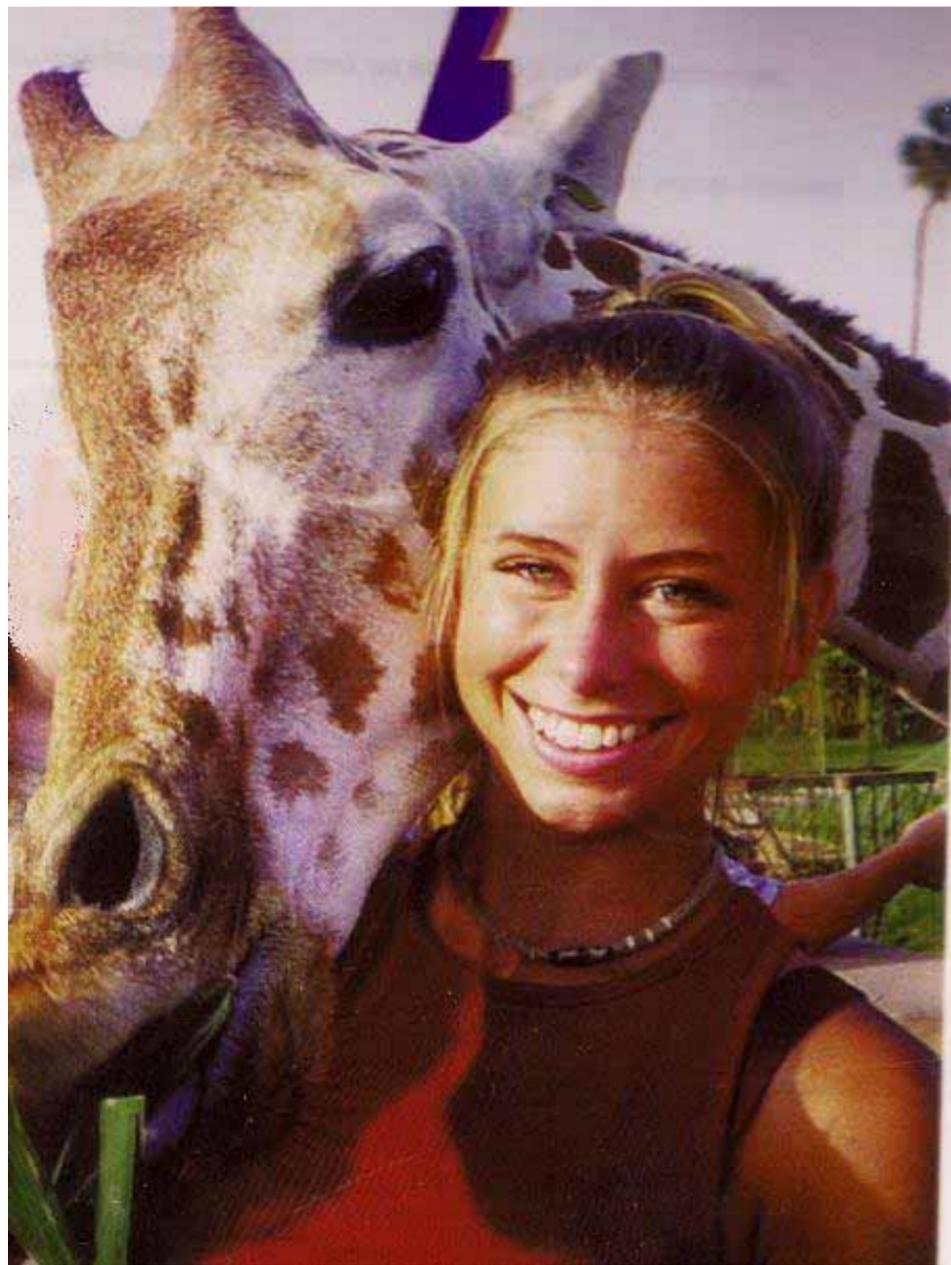
Beck added that before long, McGee and her team from Volusia County's Manatee Protection Program wanted additional experience in manatee capture and handling and subsequently volunteered to assist the USGS project with captures of wild manatees for biological assessment.

"Jen has attended most of our captures since then, and has been anxious to learn and willing to be trained on any technique she has been given the opportunity to try," Beck said. "When she decided to apply to graduate school at UF, I was delighted, and personally benefited because during her first semester at UF, she volunteered some time helping me with tedious lab duties – cheerfully and without uttering one word of complaint."

She called McGee "a quick and tireless learner" who is very competent in field situation.

Beck's husband, Bob Bonde, who coauthored "The Florida Manatee: Biology and Conservation" with UF veterinary college professor Dr. Roger Reep, is also a doctoral student in the Aquatic Animal Health program. Bonde invited McGee to a manatee assessment in Crystal River, where she met most of the members of UF's team, including Dr. Ruth Francis-Floyd, Dr. Iske Larkin and Dr. Mike Walsh.

"I saw a posting for graduate assistant positions through the marine mammal listserv, and I applied," McGee said. She visited UF the following week and met with all program faculty



UF doctoral student Jennifer McGee with one of her many animal friends. (Photo courtesy of Jennifer McGee)

members that day. She even was assigned an advisor, provided she was admitted to the program. She was.

McGee's research project involves looking at different aspects of mucosal immunity in manatees and in species historically related to the manatee, such as the Asian elephant, with a special focus on tear film analysis.

"We want to see how tear film can be used to monitor health," McGee said.

McGee hedged when asked what she plans to do when she completes her graduate program.

"I always have a general idea and work out the specifics as I learn more and as people teach me," she said. "I thought I knew just what I wanted to study when I got here, but then I spoke to the experts and it helped shape everything my project is developing into."

CVM alumni from the class of '84 gather for brunch at UF during Silver Society weekend at UF



Ashley Baker, class of '10; alumni affairs secretary Genevieve Perez; alumni affairs coordinator JoAnn Winn; and Reggie Rodriguez, class of '09 visit during the Silver Society weekend brunch held at the college April 19 for the class of '84. (Photo by Sarah Carey)



Dr. Frances Carter, center, a member of the UF CVM's class of '84, is shown with her daughters Sara, left, and Dixie at the Class of '84's Silver Anniversary breakfast, held April 19 at the college. (Photo by Sarah Carey)