

the NEWS FROM THE UNIVERSITY OF FLORIDA • COLLEGE OF VETERINARY MEDICINE
veterinary
page



Birth of cloned foal in May first for UF Large Animal Hospital

BY SARAH CAREY

The management of a high-risk pregnant mare and her foal's subsequent birth might be business as usual at the University of Florida College of Veterinary Medicine, but the case of Minnie and Mouse was anything but routine. That's because Mouse, a spindly, dark brown Lipizzaner colt cloned from a Florida resident's beloved stallion, was the first test tube baby delivered at UF.

Nearly six weeks after Mouse's birth May 5 and a month after his discharge from UF's Large Animal Hospital, he is a happy, healthy, bucking foal enjoying the good life at his home in Cocoa, Fla.

"There have been several issues with cloned offspring, and while this isn't the first cloned foal, there are few in the world," said Margo Macpherson, D.V.M., an equine reproduction specialist and associate professor at UF. "So the fact this baby is alive and is currently thriving is a very good thing."

Since the technology was pioneered at Texas A&M University's College of Veterinary Medicine in 2004, TAMU has produced 14 cloned foals, of which 12 survived and remain healthy, according to an article in the May 1 Journal of the American Veterinary Medical Association.

Technically known as somatic cell nuclear transfer, the cloning process that resulted in Mouse's birth also took place at Texas A&M. Because Mouse's owner, Kit Knotts, is a Cocoa Beach, Fla., resident and a longtime client of UF's Large Animal Hospital. Knotts recognized that UF, which itself is a pioneer in the management of equine neonatal foals, had the expertise necessary to be able to carry Minnie and Mouse successfully through the latter part of Mouse's evolution from nuclear transfer-produced embryo to live horse. Teams from UF's equine reproduction, medicine and surgery services were all involved in that journey.

Knotts visited Gainesville in mid-March to meet with several members of UF's reproduction and medicine teams. Two weeks later, Minnie arrived, just shy of 300 days gestation.

Meanwhile, Macpherson and cloning guru Katrin Hinrichs, D.V.M., Ph.D., of Texas A&M, began communicating about Minnie's care and issues encountered in treating other cloned foals. In addition, Malgorzata Pozor, D.M.V., Ph.D., a reproduction specialist and clinical assistant professor, teamed up internally with Rob MacKay, Ph.D., a large animal medicine specialist and professor at UF, and Stephanie Meyer, D.V.M., a third-year large animal medicine resident, to plan the horses' care.

Although veterinarians worried that Minnie would give birth prematurely, a situation that would have meant almost certain death for the foal, the mare held on to carry Mouse to term.

"When we believed the mare was close to foaling, the reproduction, medicine and surgical clinicians communicated regularly," MacKay said. "Taking into consideration the special needs previously cloned foals have had at the time of birth, a strategic plan was formed early that encompassed all possible supportive therapies and intervention needs that may be required at the time of foaling. This included addressing any unexpected foaling complications for the foal and/or the mare."

For example, UF veterinarians knew that for unknown reasons, many cloned foals have needed oxygen support at birth, so they planned ahead of time to start administering oxygen therapy immediately after the foal was born.

"Additionally, we knew an IV catheter was going to be required shortly after birth for administration of plasma, as we were aware that the mare's colostrum quality was poor prior to her going into labor," Meyer said. Plasma is administered to transfer the parent's antibodies to build the foal's immune system.

Mouse's birth proceeded without incident. Minnie passed her placenta within an hour of foaling and the foal was sitting up and alert within 5 minutes – all good signs, veterinarians said.

As time progressed, however, Mouse was unable to stand without assistance. At that point, veterinarians administered antibiotic therapy, supportive fluid therapy and regular feedings of



Kit Knotts, left, with Mouse and Dr. Margo Macpherson. (Photo courtesy of Kit Knotts)



Dr. Stephanie Meyer, left, and Kit Knotts are shown giving Mouse some exercise about a week after his birth.

the mare's milk. The foal's other vital signs were normal, with the exception of mild angular deformities in all four limbs, which did not require correction.

Within the next few days, additional problems were diagnosed, similar to those seen in premature foals, including some temporary brain injury; a bacterial infection; dripping of urine from the umbilical stump – and a large blood clot within his bladder.

UF equine surgeons then operated on Mouse to remove the blood clot and his umbilical remnants, eliminating the urinary problem and the source of blood loss into his bladder. In about a week, the infections had greatly improved. Knotts was at Mouse's side throughout his treatment.

"It was a complete pleasure to work with Kit. She was supportive of any therapies, preventative interventions and critical care monitoring recommendations that we felt would not only increase the foal's chance of survival, but also his optimal health," Meyer said. "I think this foal helped demonstrate that we are good at what we do. When challenged with new and unusual circumstances, we can have successful outcomes."

UF veterinarians said that in addition to having the facilities and round-the-clock nursing staff to support critical cases, they also had a unique camaraderie amongst a team of veterinary

Congratulations to our UF Health Science Center Service Pin Recipients!

Five Years:

Christa L. Best, Susanne Benson, Dina L. Demcovitz, Maryann Dixon, Max E. Donner, Sarah R. Eichner, Sara E. Keith, Amanda K. LaMar, Mark Milks, Brooks H. Nelson, Richard Newbold, Wayne Newport, Janis E. Peterson, Erika Riley, Jennifer Sager, Mike Sapper, Inta Stillwell, Lavern Turner, Boyd Westerman, Mary Wilson, Leslie Whitworth.

10 Years:

Melissa Bass, Honore Busch, Karen Legato, Lila Pittman, Susan Starke, Lashand Williams, Brandy N. Woodley

15 Years:

Alice Bliss-Dodd, Gary Geiger, Karen Scott, Theresa Torres

20 Years:

Judy Chastain, Danielle Mauragis, Leonard McDonald, Mary Ring, Brenda Sigmon

25 Years:

Jay Gilbreath, Brett Rice, Anthony Ross, Ana Zometa

30 Years:

Debra Couch, Frances Edwards, Kathleen McCartin, Virginia Simmons



From left to right are Virginia Simmons, Debbie Couch and Frances Edwards, recipients of the 30-year service pin.



Karen Legato gets a handshake from Dr. John Harvey after receiving her 10-year service pin.

Zimmel named chief of staff for UF Veterinary Hospitals



Dr. Dana Zimmel, a clinical associate professor at UF's College of Veterinary Medicine, has been named interim chief of staff of UF's Veterinary Hospitals.

Zimmel has served as associate chief of staff for the UF Large Animal Hospital since January, but due to recent administrative restructuring, both the large and the small animal hospitals will now be supervised by a single chief of staff.

The UF Veterinary Hospitals function as a major referral center treating more than 18,700 animals annually. A new \$58 million small animal hospital is currently under construction and will be unique among veterinary colleges nationwide when it opens this fall. The new hospital will include a linear accelerator, a cardiology catheterization laboratory and state-of-the-art diagnostic equipment, including MRI and CT. Patients seen in both hospitals are referred by veterinarians throughout the state. Routine wellness and outpatient medicine clinics are also available.

In her new role, Zimmel will be responsible for all issues relating to patient care as well as overall hospital operations.

A 1995 UF veterinary school graduate, Zimmel is certified in equine practice by the American Board of Veterinary Practitioners and in large animal medicine by the American College of Veterinary Internal Medicine. She performed an internship in equine field services at North Carolina State University and subsequently completed her residency there in large animal internal medicine and equine practice.

After working in private practice, then teaching for two years on the large animal medicine faculty at the University of Georgia College of Veterinary Medicine, Zimmel joined UF's faculty in 2002 as an assistant professor of equine health extension. She was the college's equine extension agent and chief of extension services until 2006. She became a clinical assistant professor of large animal medicine at the college in 2006, and has served as large animal medicine service chief since 2007.

Zimmel has received two UF Superior Accomplishment Awards for her service, in 2010 and in 2006, as well as numerous other awards for her contributions to equine health. She has served on the boards of the American Association of Equine Practitioners and the Florida Association of Equine Practitioners, and has performed committee work for AAEP, the American College of Veterinary Internal Medicine and the American Board of Veterinary Practitioners.

Director honored for disaster relief work during 2010 Governor's Hurricane Conference

John Haven, the UF CVM's director of medical/health administration, recently was honored by Governor Charlie Crist for his work with disaster relief and response efforts on behalf of the college and the state.

Haven received the Distinguished Service Award during the 24th Annual Governor's Hurricane Conference, held May 23-28 in Fort Lauderdale. The award was given "for significant contributions to the state disaster preparedness and response efforts involving the rescue and care of large and small animals."

A Florida-licensed CPA, Haven has held the director's position at the college since 2004. He previously served as the chief financial officer for the UF Veterinary Hospitals.

He serves as the college's representative to the Florida State Agricultural Response Team and also represents the college on the American Association of Veterinary Medical Colleges' task force on Veterinary Medical Teaching Hospital Best Practices. That group is currently developing standard operating procedures for teaching hospitals, and redefining the comparative data report to be more accurate and consistent across schools.

Haven was instrumental in forming the college's Veterinary Emergency Treatment Service following the 2004-2005 hurricanes. The team has since responded to Hurricane Wilma, the Bugaboo wildfires, and an equine herpes disease outbreak.

In September 2007, Haven launched Vet Corps, the statewide reserve corps of veterinarians and technicians. Both Vets and the Vet Corps are partnerships between the college, the state veterinarian's office, and the Florida Veterinary Medical Association. He also helped establish the National Alliance of State Animal and Agricultural Emergency Programs.



John Haven, right, accepts the 2010 Distinguished Service Award from Governor Charlie Crist during the Florida Governor's Hurricane Conference in Fort Lauderdale.



Dr. Kristin Kirkby, Dr. Russ Snyder, Dr. Dena Baker and Dr. Bern Levine were this year's Distinguished Award Program winners.

Winners of the 2010 CVM Alumni Council's Distinguished Award Program honored May 29 during commencement ceremony at UF's Phillips Center

The owner of a Miami-area attraction and the developer of three pet-related businesses joined a retired Jacksonville veterinarian and a small animal surgeon on the list of those honored as 2010 Distinguished Award winners by the UF College of Veterinary Medicine. Sponsored by the college's alumni council, the program offers recognition to deserving alumni, faculty and others who have contributed meaningfully to UF and/or to the veterinary profession.

Dena Baker, D.V.M., of Naples, received the college's Alumni Achievement Award. Baker graduated from the college in 2000 and started Mobile Pet Vet in 2003. She provides full-service, in-home veterinary care to Naples-area pet owners and also cofounded Innovative Veterinary Products, a company that makes disposable items used by veterinarians, in 2004. She recently started a third business, Neapolitan Gourmet Pet Food, which produces high quality, veterinary formulated diets, and is in the process of opening a new pet resort and wellness center with an attached veterinary clinic for dogs and cats.

The Outstanding Young Alumnus Award went to Kristin Kirkby, D.V.M., a board-certified small animal surgeon and 2003 graduate of the college. Kirkby received undergraduate and master's degrees from UF and stayed at the college to complete her residency in small animal surgery in 2008.

During her training, Kirkby developed a keen interest in physical therapy and postoperative rehabilitation — treatment methods well known in human medicine but less developed in veterinary medicine. As a result of her efforts, the college received funding to implement a physical therapy service, complete with a state-of-the-art underwater treadmill. Kirkby now is a certified canine rehabilitation therapist and serves as director of UF's Small Animal Rehabilitation and Fitness Center. She also is pursuing a Ph.D. at the college, focusing on the effects of low-level laser therapy on intestinal ischemia-reperfusion injury in the rat.

Russ Snyder, V.M.D., a retired veterinarian from Jacksonville, received the Distinguished Service Award. Since helping with the original plans to establish a veterinary college at UF several decades ago, Snyder has remained an active advocate of the school. He has actively supported the college through local and state veterinary associations as well as politically in the Legislature. As president of the Jacksonville Veterinary Medical Society, Snyder played a key role in establishing two scholarships to benefit UF veterinary students. He also contributed personally and solicited additional private support from colleagues to help build UF's new small animal hospital.

He has served on the college's admission committee and has been a member of its advisory committee for more than 25 years.

Bern M. Levine, D.V.M., owner of the Parrot Jungle Island tropical theme park in Miami, received the Special Service Award. Levine received his bachelor's degree from UF and his veterinary degree from Auburn. He has supported the UF veterinary college for years by serving on its capital campaign committee and by providing his park as a venue for continuing education and fundraising activities to support UF's new small animal hospital.

He has supported scholarships for UF veterinary students and has worked to expand the college's outreach not only in Miami but throughout the state.

The awards were presented May 29 at the Phillips Center for the Performing Arts during college commencement exercises.

The Veterinary Page is the UF College of Veterinary Medicine's monthly electronic internal newsletter. Please send stories to Sarah Carey at careysk@vetmed.ufl.edu.

Farewell, Dr. Greiner

A retirement reception was held May 25 at the Paramount Plaza Hotel in Gainesville to honor Dr. Ellis Greiner, who served as the CVM's professor of parasitology for 32 years. Many present and former faculty, staff and students gathered to pay their respects. For more photos, see Dr. William Castleman's link:

<http://www.wlcastleman.com/ufvetmed/greiner052510/index.htm>



Former college dean Dr. Joe DiPietro joined Dean Glen Hoffsis in honoring Dr. Ellis Greiner, shown here with his wife, Mary.



Dr. Maureen Long, Dr. Charles Courtney and Dr. Siobhan Ellison were among the guests.



Joining Dr. Greiner for his farewell party were CVM alumni Dr. Dale Kaplan-Stein ('81) and Dr. Rich Kane ('84).



Drs. Diane Lewis, ('85) Joy Barbet and Pam Ginn were happy to be able to attend.

Junior veterinary student lends her voice to CVM life



Tiffany Tupler sings "The Star Spangled Banner" at the Sophomore Professional Coating Ceremony on May 6.

Tiffany, we will always love you.

Since junior veterinary student Tiffany Tupler's rendition of the classic Whitney Houston ballad during the Freshman Orientation Leadership Event in the fall of 2008, her presence has been, well, a bright note in college life. After being asked to sing "I Will Always Love You" during karaoke at FOLE – Tupler says she can't turn down a request – UF College of Veterinary Medicine student event organizers have called on her to sing at two commencement ceremonies and even at her own class's professional coating ceremony this past May.

"I guess you can say I've always been a singer, ever since I was a little kid," said Tupler, a classically trained soprano who studied voice at the University of Miami. "My dad found out I could sing when I was in third grade, because he 'overheard' me singing to the radio. He promptly turned the radio down, and yelled: 'Ha! You can sing; I knew it!'"

Tupler said she loves music and always will. She sang competitively in high school, winning many awards and honors for her voice, and says music is her way of expressing her emotions and feelings.

While continuing her voice studies at the University of Miami, Tupler learned that she was very good at sight reading and music theory, but some of the passion and excitement she had always derived from singing was starting to fade. She began to feel burned out. After a year, she decided that singing all the time and doing it for a living just was not enjoyable.

"I really did it for the people around me; my soccer teams really liked it, and it was awesome to do karaoke and have people walk up to me and say, 'Wow, that's amazing. Have you ever thought about American Idol?' or 'Thank you so much for singing, it really touched me.'"

Tupler remembers when the decision she had to make – to stop pursuing voice as a career – became clear to her.

"I was standing in my last-ever juries, which is when a performer is judged by a panel after singing two pieces, when I begged for them to let my 10 friends come in and hear me sing. It was the last and only time they would ever hear opera out of my mouth, and really, where do you find places to just burst out opera? The juries flat out told me no, since they felt having my friends there would disrupt my attention."

So instead, Tupler cracked the door and allowed her friends to listen and cheer from the outside.

"When they asked me why I was leaving the school of music, I replied, 'because I sing for them, pointing out the door, not for me or for you.'"

Tupler changed her major to history with a minor in political science, biology and music. She specialized in classic Greek and Roman history and also studied American history specifically from the Revolutionary War to the Civil War. She also took several classes in international politics, and focused on prerequisite classes for veterinary school.

Tupler even founded the pre-veterinary society at the University of Miami.

"We had no help for pre-vet students and I found it hard to know what to take and what to do in order to get in," she said, adding that the very small group she started has now grown to more than 50 members.

"Vet school was always a big dream," Tupler said. "I remember most teachers telling me that I didn't have what it takes for vet school and that music was my future. I didn't have the grades or the scores and why would I waste such a talent, blah, blah, blah. But for some reason I kept going."

She took summer classes at night while working full time jobs, just for the opportunity to apply to veterinary school. Then life took more unexpected turns.

Her best friend died, and Tupler began doubting herself. She moved to Atlanta to pursue "bigger and better things" and wound up passing the national veterinary technician board examinations. She worked for veterinary specialists who "performed miracles" in her mind, and after four years the experience convinced her to give the vet school application process just one try.

The rest is, well...history.

"I can't lie. Vet school is hard," Tupler said. "Sometimes I didn't think I was going to make it. I can't believe to this day I'm walking around the halls in a white coat on clinics, but I'm seriously doing something I wanted to do. I may not be the best at it, or make trillions of dollars, but in the end I'm living a dream that most people will never have the chance to."



Tiffany Tupler is shown with her mentor, Dr. Cynda Crawford, after Crawford presented Tupler with her new white coat during the Sophomore Professional Coating Ceremony on May 6 (Photo by Sarah Carey)

Although she loves surgery, particularly orthopedics, she also has a passion for shelter medicine and likes the thought of making a difference, not only in the lives of pets, but also the community.

But those are decisions that can be made another day. Tupler said she's really not a show-off and that most people are shocked when they find out she's a trained classical soprano.

"I love to do nice things for people, and I knew a few of my classmates would have enjoyed me performing at the coating ceremony, so I agreed," Tupler said.

She also performed the national anthem at the 2009 and 2010 CVM commencement ceremonies, and was on the program to conclude the latter event on May 29 with the singing of the UF Alma Mater. However, there was a last-minute change, and at the end of the program, Dean Hoffsis asked for a volunteer from the graduating class to step up. Laurie Kallenborn, who the night before at the Senior Award Banquet had received the Angel Dogs Scholarship, gamely made her way to the podium to lead the audience in an emotional rendition of the final song.

CLONED FOAL, FROM P.1



Mouse, taking a break from his walk outside the UF Large Animal Hospital.

specialists.

"Ultimately, the patient benefits from the wealth of knowledge and expertise that each veterinarian here has to offer," MacKay said.

Meanwhile, Knotts could not be happier. After arriving back home, Mouse quickly bonded with Marc, his healthy and sound 30-year-old DNA twin. Knotts has owned Marc, a Dressage champion, for 24 years. It was as a tribute to him — and after a futile nationwide hunt to find another horse she really wanted — that Knotts first embarked upon the odyssey of the cloning process.

She has no regrets. In fact, another surrogate mare pregnant with Marc's next cloned twin is expected to journey from Texas A&M to UF in mid-August for management by equine specialists.

"I think the whole team approach we have is so outstanding," Knotts said. "It's not just the doctors; it's the students and the nurses, even the stall cleaners. They're just the most amazing crew I have ever encountered. The team is just top notch."



Kit Knotts spent lots of time with Mouse in his stall at the UF Large Animal Hospital after his birth.

New graduates get advice, congratulations and warm send-off during commencement May 29

BY SARAH CAREY

Members of the University of Florida College of Veterinary Medicine's largest graduating class ever – 89 students — were inspired, challenged and encouraged to seek success and find balance in their lives during 2010 commencement exercises held May 29 at the UF Phillips Center for the Performing Arts.

From Destiny Prezzano, president of the college's Alumni Council and a member of the Class of 2005: "Find a mentor and a vision, and the sky's the limit." Prezzano also urged graduates to think of the college as their resource for good and useful information relating to patient care; to attend Referring Veterinarian (RDVM) Day; and to keep up with college news.

From Alexa McDermott, who was only the second – following Prezzano – student to serve as class president all four years, came the admonition to "push yourselves professionally and personally."

"Life comes at you fast, and I can't believe four years have gone by so fast," McDermott said. "I would have never gotten through these years without all of my friends who have given me a hug and told me I could do it when I thought I just couldn't anymore."

McDermott told her classmates, "Life's full of unknowns" and that she couldn't wait to see where all of them wound up. She also said members of the Class of 2010 should remember that as veterinarians, they all will play a special role.

"We get to take care of the animals that can't speak for themselves," McDermott said.

Dean Glen Hoffsis also addressed the class, reminding them that they had something in common – both started their experience at the UF veterinary college at the same time. Hoffsis began his first year as the college's dean in 2006.

Together, he said, they'd experienced several important health developments relating to veterinary medicine, including avian influenza outbreak of 2006, the melamine pet food recall of 2007, and H1N1 in 2009.

"All of this really is a reminder that there really is just one health, one medicine," Hoffsis said, alluding to the One Health Initiative, a movement that has been underway to forge co-equal, all inclusive collaborations between physicians, veterinarians and other scientific-health related disciplines.

He added that during the past four years, he and the Class of 2010 had jointly experienced three UF national championships and weathered severe budget cuts, yet managed to see funding procured to build the new small animal hospital that will open this fall.

Hoffsis also acknowledged several longtime members of the CVM faculty who were retiring: Dr. Alistair Webb, pharmacology; Dr. Carlos Romero, virology; and Dr. Ellis Greiner, parasitology, and the audience applauded all of these individuals for their years of service to the college.

Dr. Michael Schaer, emergency and critical care specialist and special assistant to the dean, talked about why he felt the Class of 2010 was unique, alluding to several individuals with unusual backgrounds.

"There are two questions that I repeatedly ask day after day while on clinic duty: 'Where Am I, and Where Am I going?'" Schaer said. "For me, those questions might imply my advancing age, but for you, I would like you to use them throughout your professional careers, along with the 31 other maxims, in order to help you navigate through many of life's imposing challenges."

He added, "In the field of clinical medicine, the 'Where Am I' part will help you avoid the pitfalls of tunnel vision that will cause you to lose your objective and analytical approach to your patients. It will prompt you to step back to see the entire picture, rather than becoming inundated and entangled in a mass of potentially blinding and mind boggling data, as you might have witnessed during this past year's clinical rounds discussions."

Schaer said the new graduates should remember that if the diagnostic test results do not make sense, it would behoove them to return to square one in order to capture the truth about their patient.

"I can only hope that your pursuit of the truth will be a constant driving force throughout your clinical careers," he said.

Schaer told the class that they should ask themselves whether a diagnosis is one of convenience or whether it represented the truth, and that it was the truth that would make the difference between mediocre and excellent, sometimes even life and death.

He also stressed the importance of the pathologist's role.

"Do not hesitate to let the pathologist reveal the facts, for without their findings, you will always be right and be forever free from making and having to admit to mistakes," Schaer said.

He extolled the importance of having passion in both life and career.

"Without passion, there would have been no important discoveries, and all too many of life's historical triumphs would have been lost," he said. "Passion is the one possession that is entirely yours and one of life's essentials for your ultimate fulfillment and happiness."

In closing, Schaer quoted Sir William Osler, who advised his students: 1) do the day's work well and not worry about tomorrow; 2) to act the Golden Rule toward colleagues and patients and 3) to cultivate such a measure of equanimity or calm "as will enable you to bear success with humility, the affection of your friends without pride and to be ready when the day of sorrow and grief comes, so that you will meet it with the courage befitting a mature person."

Schaer told the class they could be certain that the faculty was confident they would heed Sir William's words of wisdom and wished them all congratulations.

Before he sat, however, Schaer asked everyone in attendance to join in a special prayer for the peace and comfort of Dr. Kevin Anderson, who was unable to be present at the ceremony due to illness.

A long moment of silence ensued.

Within minutes, the ceremony was completed; all graduates had tipped their tassels to the left and had spilled outside on a sunny day, many joining family and friends for their last official gathering as a class, a farewell reception held at UF's Touchdown Terrace.



Dr. Antonio Pozzi and new graduate Christopher Gauthier.



New graduates Linwood Starks and Marcy Sumling.



New graduates Danielle Tyner and Shannon O'Reilly stand outside the UF Phillips Center.



Dr. Ellis Greiner, who retired in May, performed his last official duty for the college by serving as Grand Marshal during commencement exercises for the Class of 2010.