



# EXCELLENCE AND LEADERSHIP IN RESEARCH, TEACHING AND SERVICE

SPRING 2012 VOLUME TWO ISSUE TWO

## THE HITCHING POST

### Recognition and Honors

Dr. Fred Winger, CVM assistant professor of neurology and neurosurgery, received the *Young Investigator Oral Presentation Award* during the 13th International Conference on Neuronal Ceroid Lipofuscinosis (Batten Disease) and Patient Organisation Meeting, which took place March 28-31 in London. Winger received the award for his lecture: "Magnetic resonance volumetrics, diffusion tensor imaging and spectroscopy as biomarkers to assess efficacy of gene therapy in a canine model for late infantile NCL (LINCL)." His MRI expertise was also demonstrated in four other oral presentations and one poster presentation representing the canine model of Late Infantile Neuronal Ceroid Lipofuscinosis (LINCL) developed by MU Professor of Ophthalmology and Neurosciences Dr. Martin Katz and the Comparative Neurology Program at the MU CVM. These presentations included results from ongoing studies of therapeutic strategies in long-haired dachshunds with LINCL.

The following members of the CVM Class of 2012 have been selected for internships or residencies following graduation in May:

**Christine Sutherland**, internship at Reata Equine Hospital in Weatherford, Texas.

**Crystal Garnett**, small animal rotating internship at The Ohio State University.

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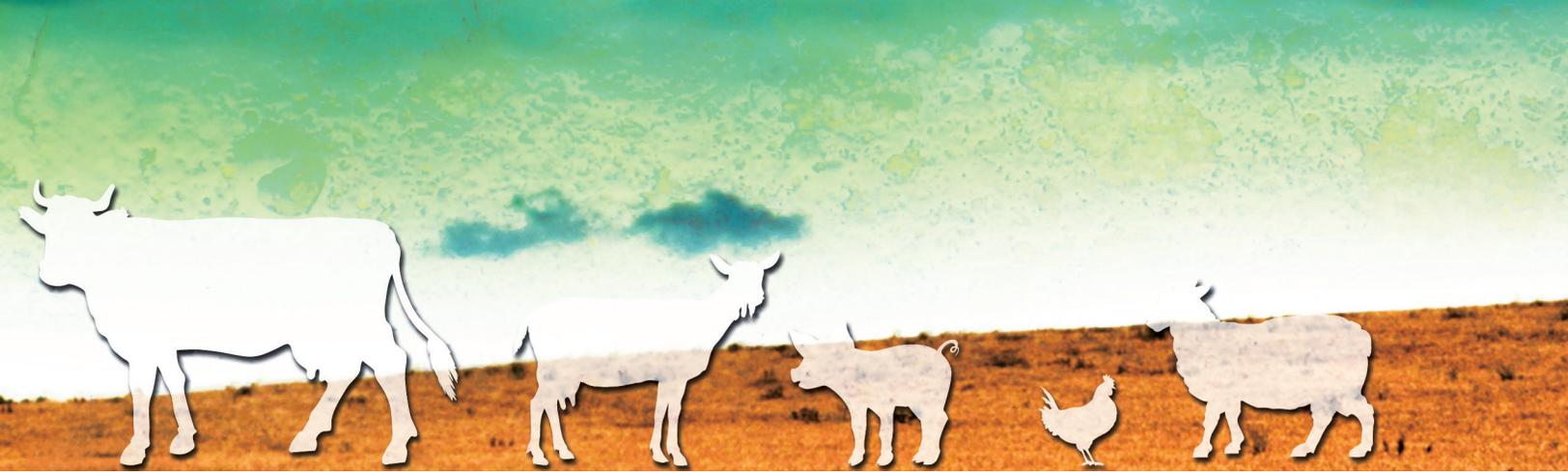
### CVM ADDS PET SCANNER TO DIAGNOSTIC TOOLS

Veterinary oncologists at the University of Missouri College of Veterinary Medicine have a powerful new tool at their disposal in the battle against cancer. Thanks to a gift from Stan and Judy Stearns of Houston, Texas, the Veterinary Medical Teaching Hospital recently received delivery of a positron emission tomography (PET) scanner, as well as a trailer in which the scanner is housed. The state-of-the-art equipment is the only veterinary PET scanner in Missouri and one of only a handful in the country. The PET scanner requires only minimal anesthesia and is one of several imaging tools MU veterinarians can now use to detect cancer in dogs and cats and assess whether the disease has spread. PET scans involve introducing radioactive glucose into the animal's bloodstream and then using the device to detect areas of increased metabolic activity, as measured by abnormally increased uptake of the glucose as occurs in tumors. Additionally, alternate radioactive tracers can be used to detect areas of increased cell growth and areas of altered oxygen usage.

A radiograph (x-ray) may reveal that an animal has nodules in its lungs, but is limited as a diagnostic tool because the nodules may indicate tumors, or may be scar tissue from an old infection. Another challenge that veterinarians face in diagnosing and treating cancer is measuring the response of the illness to the therapy. Combining the PET scan technology with computed tomography (CT) scans or magnetic resonance imaging will allow MU veterinary oncologists to co-register an abnormality, effectively creating a three-dimensional image that shows not only the size of a growth, but also its metabolism.

"Sometimes a tumor is responding to therapy, but it doesn't immediately shrink, and it may never shrink, but it may have been neutralized and no longer poses a threat," said Kim Selting, a veterinary oncologist at the MU Veterinary Medical Teaching Hospital. "The PET Scanner allows us to look at a tumor and determine that while the growth may

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## Recognition and Honors

(Continued)

**Natalie Fording**, small animal surgery and medicine rotating internship at Veterinary Emergency Referral Group in Brooklyn N.Y.

**Stephanie Carle**, internship in small animal medicine and surgery to prepare for zoo/marine medicine at Florida Veterinary Referral Center and 24 Emergency And Critical Care in Estero, Fla.

**Jennifer Menning**, small animal medicine and surgery internship at VCA Alameda East Veterinary Hospital, Colo.

**Rachael Cohen**, residency in comparative medicine/laboratory animal medicine and joint PhD program at Johns Hopkins University School of Medicine in Baltimore, Md.

**Laurie Frasher**, small animal rotating internship at VCA Specialty Center of Seattle.

**Ashley Erbe**, small animal medicine and surgery internship at University of Pennsylvania College of Veterinary Medicine.

**Carin Ahner**, laboratory animal medicine residency and joint PhD program at RADIL.

**Kimberly Doller**, equine internship at New England Equine Medical and Surgical Center in New Hampshire.

**Tyler Holtmeyer**, private practice equine internship at Texas Equine Hospital in Bryan, Texas.

**Amanda Perman**, small animal rotating internship at University of Virginia/ Maryland Veterinary Teaching Hospital.

### *PET Scanner continued*

still be present, the therapy has effectively killed it.” Conversely, if a tumor is still showing metabolic activity, a clinician may consider a different course of treatment, such as adding or changing the chemotherapy protocol. PET scans are also useful in seeking out cancers that may be hiding somewhere in an animal’s body.

The PET Scanner can also be used by other veterinary services within the MU Veterinary Medical Teaching Hospital. The scanner can be used to look for infections, evidence of fracture healing and abnormal bone activity, and the source of seizure activity. In addition to advancing patient care, veterinary PET scan capability is expected to put MU in the forefront to attract new research studies and cancer therapy trials focusing on translational medicine. The availability of the PET scan technology, as well as both a Comparative Oncology Program and Comparative Internal Medicine Laboratory, has already attracted a new two-year study to test a new immunotherapy. The therapy uses detoxified bacteria to stimulate the immune system to control tumors without the use of chemotherapy drugs, explained MU veterinary oncologist Jeffrey Bryan. The agent has shown promise in treating dogs with carcinomas, skin cancers and some oral cancers.

“We will be selecting dogs for the study, evaluating them with the PET scan and treating them,” Bryan said. “Our Comparative Internal Medicine Lab will evaluate the immune response in the study dogs. This project could not have come together in this way without the PET scanner, and MU is one of only a few institutions that could conduct this trial. Having this PET scanner also positions us to participate in select trials through a national trials consortium to which we belong (the Comparative Oncology Trials Consortium through the National Cancer Institute). Those trials are designed to evaluate therapies in dogs with cancer that are destined for translation to use in people. That way, both animals and people can benefit from the same cancer therapy.”

Stan and Judy Stearns, who donated the scanner, know all too well the emotional toll cancer can take on the family of an affected pet. Their St. Bernard, Gabriel, was diagnosed and ultimately succumbed to bone cancer leaving them with a desire to find better treatments for this disease. Having worked with biomedical instrumentation for many years, Stearns has invested substantial time, effort, and resources into developing tools to treat bone cancer. His generosity has extended to many veterinary schools across the country as he has supported unique needs of individual oncology programs.



## VETERAN RANCHER, VETERINARIAN JOINS CVM

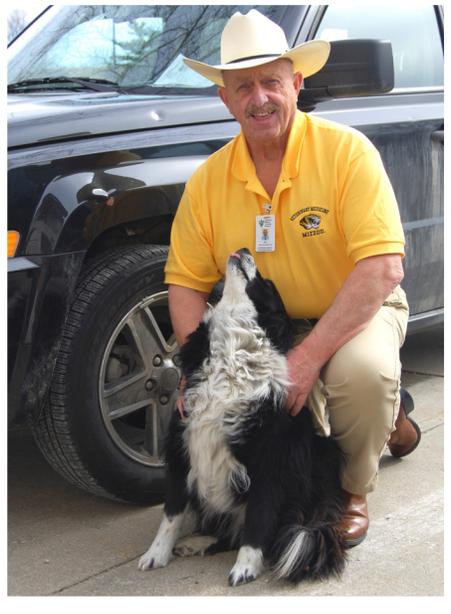
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**W**ithin the MU Veterinary Medical Teaching Hospital, Bob Sager has decorated the walls of his office with two reminders of Montana. This first is a photograph depicting a stark winter landscape. A jack fence stretches along the edge of a pasture, marking the boundary between Sager's 300-acre ranch and a snow-covered plain that recedes into the foothills of the Crazy Mountains rising up in the distance. The second is the mounted head of Oscar, a bison bull that was culled from a herd in Yellowstone after testing positive for brucellosis.

Oscar is not only a memento of home and a conversation piece; he's also a reminder of a mishap from the long career in veterinary medicine that Sager, DVM, MS, brings to his new position at the College of Veterinary Medicine. In 1983, while vaccinating cattle against brucellosis, Sager accidentally stuck a needle in his own hand infecting himself with the same organism that led to Oscar's demise.

The mishap nearly ended Sager's life too, but he has so far survived eight relapses of the disease that in humans stays persistent in the lymph nodes and blood cells.

"The attenuated vaccine mimics the disease in cattle," Sager said. "Cat-



tle naturally develop immune status, but the amount of the organism I gave myself was overwhelming."

Despite a pronounced limp – a consequence of the illness – he dismisses the incident with a good-natured shrug as a hazard of spending a lifetime around cattle. Sager was born in south central Montana and raised on his parents' cattle ranch. He received a bachelor of science in animal nutrition at Montana State University and his DVM at Colorado State University. He then returned to Montana where he spent four years working as an associate in another veterinarian's practice before opening two of his own practices.

He treated all species, but focused on beef cattle.

Sager spent more than three decades practicing veterinary medicine and with his wife raised seven children. But he said he always had a desire to return to school, citing a belief that when taking the Veterinarian's Oath, practitioners commit to a life-long process of self-improvement and education. He became board certified with the American Board of Veterinary Practitioners in 2008, which further stimulated his interest in advancing his education. He sold his practice to two associates and in 2009 returned to Montana State. Last spring, he completed a master's degree in ruminant nutrition with an emphasis on micromineral nutrition as it affects the immune system of beef cattle.

Sager recently left the wide-open spaces of his home state to accept a position at MU as a food animal clinician working in the field and with the ambulatory service. He also lectures in ruminant nutrition. He hopes to further his own education by pursuing a PhD in the future.

"I mentored 243 students in my career and I had been missing that. I was blessed with this opportunity to work and have a second career in an area where I have a real passion. I'm hopeful I can help the departments

*Continued on page 4*



*Bob Sager, continued*

and be of value teaching the students here,” he said. “Dr. Sager brings a wealth of food animal experience as a rancher and veterinarian, and his dual perspective will be beneficial to both our clients and students,” said John R. Dodam, chairman of the College’s Department of Veterinary Medicine and Surgery. “Just as important, Dr. Sager has great enthusiasm for agriculture, veterinary medicine and for teaching. His certification by the American Board of Veterinary Practitioners and recent completion of a graduate degree in ruminant nutrition are evidence of his passion for veterinary medicine and education. We are happy that he chose to join us.”

Sager’s desire to continually improve himself isn’t limited to academics. He has competed for more than 30 years in national and international track and field individual throwing events, such as shot put, weight, discus and javelin, capturing two bronze World Masters Athletics medals. Not satisfied, in his mid-40s he stepped up his training and started throwing the hammer too so that he could also compete in the throws pentathlon. In addition to competing, he has served as a track and

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*“I was blessed with this opportunity to work and have a second career in an area where I have a real passion.”*

— CVM Food Animal Clinician Bob Sager

field official for 30 years and is certified to officiate in all throwing events, as well as weights and measures. Sager, who has officiated at two Olympic trials and numerous college competitions, has already provided assistance at MU’s home track and field meets. “I’d like to become involved in activities throughout the campus,” he said.

Sager jokes that when he came to Missouri he brought Oscar the bison, his books and a beloved border collie – leaving his wife behind to tend to their ranch and 100 head of cattle. However, he will return to Montana this spring, albeit briefly, to collect his master’s degree. He delayed graduation in order to go through the ceremony at the same time as his son, who will also graduate from Montana State with a bachelor of science degree in sports nutrition.

## ***CVM Alumnus Awarded Merial Lifetime Achievement Award***

In recognition of his commitment to helping identify the causes of and treatments for laminitis, Donald M. Walsh, a 1969 graduate of the MU College of Veterinary Medicine, was awarded the Merial Lifetime Achievement Award at the seventh annual International Equine Conference on Laminitis and Diseases of the Foot. The award is given annually to a veterinarian or farrier who has dedicated their career to treating horses with laminitis and whose commitment goes beyond the day-to-day care of the horse.

Walsh currently serves as the director of clinical research at Homestead Veterinary Hospital in Pacific, Mo. In private practice since 1969, he has dedicated his career to understanding equine laminitis, a debilitating disease that continues to plague horse owners.

In addition to publishing significant original research and speaking to horse owners, veterinarians and farriers about the topic, Walsh founded and is the president of the Animal Health Foundation, a St. Louis-based organi-

zation dedicated to raising research funds for laminitis-founder complex in horses. Through Walsh’s efforts, the foundation has been able to award more than \$1.8 million to researchers since its establishment in 1984.

“We are honored to present this award to Dr. Walsh,” says Beckie Peskin, product manager for Merial. “His lifetime of dedication to researching the causes and treatment of this devastating disease is inspiring and very important to horse owners and veterinarians around the world.”



## HENRY LEADING RESEARCH AT ELLIS FISCHEL

Carolyn Henry, DVM, MS, a professor of veterinary oncology at the University of Missouri College of Veterinary Medicine, has been named the interim associate director of research for the Ellis Fischel Cancer Center, part of the University of Missouri Health Care facilities. She shares responsibility for leading the cancer hospital with Paul Dale, MD, who was appointed as Ellis Fischel's interim associate director of clinical services while a search committee seeks a replacement for former Medical Director Bill Caldwell, MD, who retired in November.

Henry is the MU faculty facilitator for the University's One Health/One Medicine Mizzou Advantage initiative, which focuses on fostering multidisciplinary research and education relating to translational medicine and the convergence of human and animal health. She said her work connecting MU with outside entities, and clinical scientists with researchers, is part of the reason she was appointed to the post at Ellis Fischel. Henry said she is unaware of any other human cancer treatment center that has a veterinarian directing research.

"The fact that they put a veterinarian in this position, such an unusual move, speaks volumes about the University and the unique strength we have here in the field of comparative medicine," she said. Henry said her goal during the period of her appointment is to further build partnerships between researchers on campus and clinicians at Ellis Fischel. While there is a fair bit of clinical trial work under way at Ellis, there isn't a great deal of investigator-initiated research, she noted. She hopes that by strengthening that area of the center's operations, when a permanent director is identified, that individual will retain translational medicine as a priority.

"It is one way we can distinguish ourselves from other cancer centers across the country," she said.

Henry possesses a bachelor of science in biology and animal science with a chemistry minor from Eastern Kentucky University. She earned a master of science in veterinary medicine and surgery, and a DVM at Auburn University. She joined MU in 1997 after serving as an assistant professor at Washington State



University. Henry has a dual appointment in the Department of Veterinary Medicine of the CVM and in the Department of Internal Medicine, division of hematology and oncology at the School of Medicine. She also serves as the director of the Scott Endowed Program in Veterinary Oncology.

With her new responsibilities added to an already full schedule, Henry said she has cut back her patient care duties at the Veterinary Medical Teaching Hospital, but will continue her work in clinical trials. Jeff Bryan, DVM, PhD, who joined the College of Veterinary Medicine in 2011, has taken over some of Henry's clinic responsibilities. Bryan is also serving on the search committee for a new medical director at Ellis Fischel – further testimony, Henry noted, to the University's commitment to translational medicine.



## MILLER NAMED VETERINARIAN OF THE YEAR

The Missouri Veterinary Medical Association (MVMA) named Robert B. Miller, DVM, as its **Veterinarian of the Year**. Miller, of Columbia, retired from the MU College of Veterinary Medicine as an associate professor of veterinary pathology in 1999. He is the director of the College's Missouri Institute for Cattle. He operated a mixed animal practice in Warrensburg, Mo., before entering academia.

The MVMA Board of Directors selects the Veterinarian of the Year based on the candidate's contributions to their community, state, and to the people whose lives they have touched. Miller is a 1955 graduate of Kansas State University College of Veterinary Medicine. He is diplomate emeritus and past-president of the American Board of Veterinary Practitioners. He was the 2011 MVMA West Central District president and is an honorary member of the Missouri Academy of Veterinary Practice. He has published numerous articles in veterinary journals.

Miller was honored during the MVMA 120th Annual Convention on Jan. 28 in Saint Charles, Mo. Other awards given included:

**The President's Award.** Dana Gillig, MVMA executive board chair, presented this year's award to Michael C. Muhlbauer, DVM, of St. Louis, Mo., the 2011 chair of the MVMA Animal Welfare Committee. Muhlbauer is a board certified



*Robert B. Miller*

for five years before pursuing advanced training in diagnostic imaging. In 1994, Muhlbauer cofounded Veterinary Imaging Specialists, P.C., headquartered in St. Louis, Mo.

**Distinguished Service Award.** Gregory Popp, DVM, Jefferson City, Mo., and Ann White received the Distinguished Service Award from the Missouri Veterinary Medical Foundation. Popp has been a dedicated volunteer and fundraising chairman for more than 20 years and has helped expand the foundation's mission of public education and charitable giving to worthy organizations. Popp is owner/practitioner at Weathered Rock Veterinary Clinic, Jefferson City, Mo. For the past 13 years, Ann White has been the foundation's secretary and treasurer and coordinator of many fundraising events.

**Honorary Membership Award.** Richard D. Antweiler received the

veterinary radiologist. He received his Doctor of Veterinary Medicine degree from the CVM in 1983. He was in private practice

Honorary Membership Award of the Missouri Academy of Veterinary Practice (MAVP). Antweiler has been the executive director of the association for 12 years assisting the membership with professional education, legislative issues and public relations initiatives to enhance the quality of veterinary medicine in Missouri. He is also secretary and treasurer of the MAVP and past president of the American Society of Veterinary Medical Association Executives.

**Volunteerism Award.** Linda J. Scorse, DVM, Joplin, Mo., was presented the MVMA's 2012 Volunteerism Award for her many years of service to veterinary medicine in Missouri, and her dedication to relief efforts following the Joplin, Mo., tornado in May 2011. Scorse is owner/practitioner at Joplin Veterinary Hospital. She is an ex-officio member of the MVMA Executive Board and is presently Missouri's delegate to the American Veterinary Medical Association.

**Bruce P. Whittle, DVM, Trenton, Mo.,** was honored with an award for his educational efforts to members of the Missouri legislature on behalf of veterinary medicine. Dr. Whittle and his wife, Gayla, are owner/practitioners of Honey Creek Veterinary Hospital, Trenton, Mo.



## CVM STARTS SHELTER MEDICINE PROGRAM

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**T**he University of Missouri College of Veterinary Medicine and the Central Missouri Humane Society have begun a shelter medicine program to benefit both partners.

CVM students will spay and neuter animals from the humane society, gaining valuable hands-on experience in such areas as:

- Anesthesia
- Surgery
- Physical examination
- Parasitology
- Clinical pathology
- Infectious disease management
- Behavioral assessment.

The services provided by our faculty and students will have a direct and positive effect on cash-strapped humane societies. The CVM's participation will help the Humane Society reach its goals of controlling the population of unwanted animals, and will help maximize the adoptability of animals in their care.

The shelter medicine is a two-week rotation staffed by a faculty member and a technician and affiliated with the community practice rotation. The college has repurposed a building located at Middlebush Farm that provides space for animal holding, laboratory procedures, a surgery suite, and animal examination. Computers, library materials, and classroom space are also available at the farm.

Matthew Prator, DVM, directs the program. He is a 2001 graduate of the University of California at Davis, School of Veterinary Medicine. He completed a private practice internship in small animal medicine and surgery and spent the next nine years in small animal general practice. His experience in private practice will not only be helpful in educating students, but will also serve him well as he interacts with shelter veterinarians and personnel.

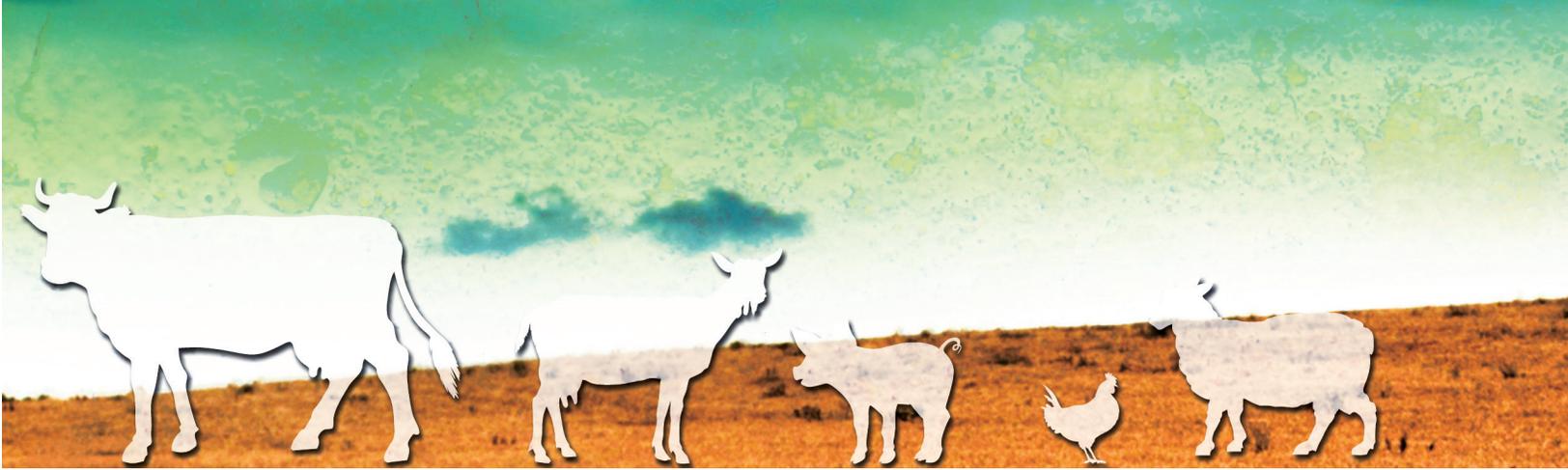


Mindy Jacobs is an experienced technician who has spent time in private practice and has worked in academia as an anesthesia technician in the Veterinary Medical Teaching Hospital.

“By fixing these animals before they are put up for adoption, it gives them a better chance to actually be adopted,” said Prator.

Currently, MU is only working with the Central Missouri Humane Society, but officials may expand the program to shelters in rural areas throughout Missouri. This program is for adoptable, shelter-owned animals only.

It is not open to the public.



## 4D CARDIAC ULTRASOUND MOVES TREATMENT FORWARD

**H**igh-tech imaging continues to advance at the MU Veterinary Medical Teaching Hospital with the acquisition of a new 4D cardiac ultrasound machine. The machine allows veterinary cardiologists to see not only the two-dimensional structures of the heart, but also image the organ’s three-dimensional structure and movement in time — “4D imaging.” The new equipment is a Toshiba Artida and the VMTH is the only veterinary hospital in Missouri with access to the advanced technology.

Structural and valve abnormalities are the most common problems in animals’ hearts, explained Deborah Fine, DVM, associate professor of cardiology at the CVM. The new ultrasound improves the cardiology team’s ability to diagnose those problems. The echocardiograph machine, which replaced equipment that the veterinary hospital has used since 2002, is also the only model that uses strain imaging, which shows how well each segment of the heart is moving relative to every other segment. Having this type of data available allows Fine to identify functional abnormalities too subtle for the previous ultrasound equip-

*Continued on page 9*



### Heart Device Developer to Address Graduates

University of Missouri College of Veterinary Medicine alumnus James O. Gilkerson, DVM '74, will address the CVM Class of 2012 on Friday, May 11, during commencement ceremonies. The program begins at 1 p.m. in Jesse Hall on the MU campus.

Gilkerson is a distinguished corporate fellow and medical advisor for research and development at Boston Scientific Corp.’s Cardiac Rhythm Management Group, a design group within the larger Cardiac, Rhythm and Vascular Division. He serves as medical advisor to the senior vice president of research and development. Gilkerson has been the system architect for the VENTAK AV implantable defibrillator family, PRIZM implantable defibrillator family, and most recently COGNIS and TELIGEN cardiac rhythm management devices. He holds more than four dozen patents.



### *Ultrasound, continued*

ment to detect, such as in early stages of heart disease or when a problem affects only one region of the heart.

The availability of the new ultrasound will advance research at the College, we well as offer improved diagnostic capabilities for patients, she said. “We are pushing the boundaries of what we consider state-of-the-art care.”

Fine said access to greater diagnostic information helps veterinarians provide animal owners with the most accurate information in recommending treatment. “It helps us with the questions, when to initiate therapy, if therapy needs to be al-

tered to try a different medication, or if therapy is necessary?”

Even if drug therapy is not expensive, it can be a tremendous time commitment to dispense medication to an animal at specific times throughout the day for the life of the pet. “It’s important to identify which pets can really benefit from therapy and which won’t,” Fine said. “This device helps us make those decisions.”

Fine said the VMTH runs about 600 cardiac ultrasounds a year. While the procedure is usually performed on dogs and cats, she has performed echocardiographs on creatures as small as a pet rat and as large as a camel.

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***“It’s important to identify which pets can really benefit from therapy and which won’t. This device helps us make those decisions.”***

— CVM Associate Professor of Cardiology  
Deborah Fine

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Also enhancing the veterinary hospital’s care, the cardiology section recently acquired a newer version of a trans-esophageal probe. The probe is used during repair procedures and allows the cardiac team to view the heart through the esophagus. This type of imaging allows precise evaluation of cardiac structure for guiding decision during cardiac catheterization guided repairs.

## ***Dean’s Office Welcomes New Staff Members***

The CVM Dean’s Office recently welcomed two new members to the team. Kylene Richardson joined the Office of Development for the CVM as the new development officer. Richardson brings seven years’ experience in development work at Stephen’s College and with Big Brothers Big Sisters. She was born and raised in Jefferson City and earned a bachelor’s degree in communications at the University of Missouri. She is currently pursuing a master’s of business administration.

She and her husband are fans of Mizzou athletics and St. Louis Cardinals baseball. They also enjoy spending free time cooking and traveling.

Jennie Graves has taken the position of administrative assistant in the Office of Student and Alumni Affairs. Graves was born and raised in Cheyenne, Wyo. She earned a bachelor’s degree in business administration at Columbia College before going on to Canisius College in Buffalo, N.Y., where she earned a master’s degree in sports administration. She is pursuing master’s level work at MU in social work.

She is married with two sons, 15 and 3, and enjoys Mizzou athletics, as well as the New York Giants and Mets. She also owns her own bakery, Delizioso’s. She joins the CVM after several years of work in the Mizzou Alumni Association.



Kylene Richardson



Jennie Graves

# REAR HITCH

## ONE DAY — TWO FABULOUS EVENTS

*Join Us April 21 for Open House and the Gentle Doctor Benefit!*

**Open House 9 a.m. to 2 p.m.**

**Veterinary Medical Teaching Hospital Tours**

**Explore the Human-Animal Bond**

**See the Equine Treadmill in Action**

**Interested in Becoming a Veterinarian?**

**Learn What it Takes**

**Purina Incredible Dogs Performances**

**Therapeutic Underwater Treadmill Demonstrations**

**Enter a Reptile Exhibit ... if You Dare!**

**Enjoy a Ride with the Mule Team**



The 25th Gentle Doctor Benefit returns to the Holiday Inn Expo Center this year. The event, a fundraiser for student scholarships, will begin with a silent auction at 5 p.m., followed by dinner at 7 and a live auction at 8. R.S.V. P. to Gina Damico Landeck by Friday, April 6, at 573-882-5972.

### ***Correction:***

In the previous issue of *The Hitching Post*, Dr. Philip Johnson's name was inadvertently omitted from the list of faculty members who served on the Vision 2020 Graduate Study and Research Subcommittee.