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## MVMA Elects Officers, Honors Service During Convention

[Click here for photos from the 2008 MVMA 116th Annual Convention](#)

More than 600 veterinarians, and veterinary technicians, staff and students attended the Missouri Veterinary Medical Association's 116th Annual Convention Jan. 25-27 in Branson. The convention offered continuing education lectures to participants and was highlighted by an awards banquet during which Dr. Gregory Hammer, American Veterinary Medical Association president, discussed the profession's national priorities and issues.

### Awards presented included:

Missouri State Veterinarian **Dr. Taylor H. Woods (MU CVM 1959)**, California, Mo., was honored with the **Veterinarian of the Year Award**. MVMA directors present the award to an individual who has made outstanding contributions to community, state and people whose lives they have touched.

Woods has a distinguished career serving the public at both the state and federal level. From 2002 to 2005, he served as Missouri's state director of animal health and state veterinarian. Prior to that position, he was a veterinary medical officer with the USDA Food Safety and Inspection Service, and was the director/state veterinarian for the Arkansas Livestock and Poultry Division. He is a lifetime member of MVMA and serves as an ex-officio member of the animal health and regulatory medicine, emergency management and public health, and the veterinary technician committees.

The **President's Award for Outstanding Service** recognizes individuals who were instrumental to the president's efforts to advance the veterinary profession for the betterment of animal health in the state. **Dr. William A. Wolff**, Columbia, Mo., a **retired faculty member at the University of Missouri College of Veterinary Medicine**, was this year's honoree.

Born and raised in Colorado, Wolff received a doctorate of veterinary medicine in 1954 from Colorado State University, along with a master's degree in experimental surgery. He served two years in the U.S. Army Veterinary Corps, 14 years in general practice in western Colorado, and spent many years teaching and conducting research in foreign animal diseases, including spending two years in Colombia in South America and four years in Kenya in Africa. He is a member of AVMA, MVMA, and past chair of the emergency management committee. He is presently chair of the Missouri Volunteer Veterinary Corps; a group of volunteers who are trained to offer their services during disasters.

**Dr. Charles W. Monsees (MU CVM 1954)**, Lake Ozark, Mo., received the **Honorary Membership Award** of the Missouri Academy of Veterinary Practice. MAVP honorary members have rendered distinguished or meritorious service to the veterinary profession.

Monsees is a lifetime MVMA member, joining in 1957. He served as president in 1982. He is also a retired member of AVMA.

**Dr. George F. Fischer (MU CVM 1954)**, and his wife, Doris, of Amity, Mo., were honored as the recipients of the **Missouri Veterinary Medical Foundation Distinguished Service Award**. The award is given to individuals who have dedicated themselves to helping the foundation expand its goals of public and professional education and charitable giving to other worthy organizations.

He has a diverse veterinary background, serving as a commander and educator with the U. S. Army Veterinary Corps and for the United States government. He is a past president of MVMA, and the Northwest VMA. He is a board member of the Missouri Veterinary Medical Foundation, and lifetime member of MVMA, which named him the 2007 Veterinarian of the Year. Doris Fischer has been a partner member for many years, and with her husband is an active volunteer with the foundation.

### MVMA officers for the upcoming year installed during the conference include:

President **Dr. Steve M. Strubberg (MU CVM 1989)**, Hermann, Mo.

Strubberg is the owner/practitioner of Hermann Veterinary Clinic and operates an additional office in New Haven. As president he will preside at all general membership meetings, serve as chair of the board of governors, be an ex-officio member of all committees, and report to the executive board on matters pertaining to the goals of the association.

Strubberg is currently serving as a member of the Missouri Stocker/Feeder Quality Assurance Program Committee and

Rural Veterinary Service Task Force. He is a member of AVMA, American Association of Bovine Practitioners, Society of Theriogenology, Missouri Cattlemen's Association, National Cattlemen's Beef Association, MU Alumni Association, Missouri Dairy Association and local service organizations.

Chairman of the Board **Dr. Michael Pfander (MU CVM 1982)**, Springfield, Mo.

Pfander, owner and practitioner of Cottage Veterinary Hospital in Springfield, will chair the executive board; serve on the nominations committee, budget committee and long-range planning committee; and be a member of the board of governors.

Pfander has been an MVMA member since graduation. He specializes in small-animal medicine at his clinic in Springfield. He was past chair of the public relations committee, and he serves as a member of the convention planning, legislative and emergency management and public health committees. He is also a member of AVMA and is an adjunct professor at Drury University in Springfield.

President-elect, **Dr. Scott A. Fray (MU CVM 1991)**, Boonville, Mo.

Fray is the owner and practitioner of Cooper County Animal Hospital in Boonville. As president-elect, Fray will perform the duties of the president in his absence; serve on the executive board and board of governors; chair the convention planning committee; and serve as a member of the budget committee. He will automatically succeed to the office of president.

Fray is a member of the emergency management and public health, legislative and public relations committees. He is also a member of AVMA, Society for Theriogenology, Missouri and National Cattlemen's associations.

**Dr. Bruce P. Whittle (MU CVM 1994)**, vice president, Trenton, Mo.

Whittle is the owner and practitioner of Honey Creek Veterinary Clinic in Trenton. As vice president, Whittle will chair the statewide membership committee, serve as a member of the budget committee, and fulfill the responsibilities of the president and president-elect in their absences. He and his wife, Dr. Gayla Whittle, established Honey Creek Veterinary Hospital upon graduation.

He has served as the north central district delegate to the executive board, chairs the equine committee, and is a member of MVMA LLC Board of Managers. He is also an MVMA member and member of the American Association of Equine Practitioners.

**Dr. Shelia L. Taylor (MU CVM 1992)**, secretary/treasurer, Springfield, Mo.

Taylor, an instructor in life sciences at Ozarks Technical College, Springfield, will serve as recording secretary at meetings of the executive board, board of governors, budget committee, and general membership meetings. She will retain and secure all MVMA documents for not less than five years; serve as a member of the executive board, board of governors, and budget committee, and be responsible for all MVMA funds.

Taylor serves on the executive board as the southwest Missouri district delegate and is a long-standing member of the veterinary technician committee. She has also served on the convention planning committee and is past president of SWVMA.

**Richard Antweiler** serves as the organization's executive director.

#### **2008 Missouri Academy of Veterinary Practice officers include:**

Dr. Jonathan L. Renfro, president, Richmond, Mo.  
Dr. Peggy T. Fisher, president elect, Jackson, Mo.  
Dr. Christopher C. Morrow, Independence, Mo.  
Richard Antweiler, executive secretary/treasurer, Jefferson City, Mo.

#### **2008 Missouri Veterinary Medical Foundation officers include:**

Dr. V.M. Wilt, chairman of the board, Paris, Mo.  
Dr. William J. Shore, vice chairman of the board, St. Louis, Mo.  
Ann White, secretary/treasurer, Perryville, Mo.  
Dr. James Howard, museum director, Jefferson City, Mo.

## Cott to Lead CVM Development Team

Dr. Neil Olson, dean of the University of Missouri College of Veterinary Medicine, recently named Dr. Ron Cott as the new director of development. Cott, who joined the college in 2001, will serve concurrently in his current position at the college as associate dean for student and alumni affairs.

The appointment will combine fundraising, alumni relations, external relations and special events under one leadership role to enhance coordination between those programs.

"Through his years as a private practice veterinarian in Kansas City, and most recently as an associate dean, Dr. Cott has developed numerous relationships throughout Missouri as well as nationally that will serve him well in his new role," Olson said.

Cott received his doctorate in veterinary medicine from the University of Missouri in 1973. After spending three years in the Army he entered into private companion animal practice in the Kansas City area for the next 25 years. In 2001 he was appointed associate dean for the College of Veterinary Medicine. He serves as instructor and director for the college's Fundamentals of Veterinary Business Management course and teaches business in the clinical community practice rotation.

Cott has chaired the American Veterinary Medical Association's Model Mentoring Task Force, which helped develop the AVMA Mentoring Center. He has served on the Skills, Knowledge, Aptitude and Attitude subcommittee of the National Commission on Veterinary Economic Issues, which promotes the recognition of the non-technical skills of the profession. After more than 30 years of commitment to organized veterinary medicine at the local, state and national levels, he is now serving in the House of Delegates of the AVMA as the delegate representing the Missouri Veterinary Medical Association. He has been recognized as the MVMA Veterinarian of the Year, Alumnus of the Year for the MU College of Veterinary Medicine, and has received the university's Gold Chalk Award in recognition of outstanding achievements in the education, training and development of graduate and professional students.

Cott said he is looking forward to this new challenge.

"Financial issues appear to be part of the norm for the university," he said. "Taking the position of director of development for the CVM provides an opportunity to impact the future of the college in many ways. I look forward to working with the dean and others to develop a visionary concept of where we will need to be in 20 years. It is exciting to play a significant role in the future of the college."

Cott replaces Greg Jones, who left the college last summer to open a law practice.



## Artist Ron Burns Giving Barkley House a Boost

The MU College of Veterinary Medicine is pioneering the way people think of animal care through the development of Barkley House. Supporting Barkley House, pet portraitist Ron Burns will exhibit his work at Perlow-Stevens Gallery in Columbia to raise funds for the project.

Activities planned in conjunction with the exhibition:

- **Guest lecture** as part of Arts and Science Week — 2-4 p.m., Feb. 15, 2008, Middlebush Hall, room 12, on the MU Campus.
- **Book signing and artist's reception** — 6-8 p.m., Feb. 16, Perlow-Stevens Gallery, 812 E. Broadway, Columbia. R.s.v.p. Kelley Marchbanks, [Marchbanksk@missouri.edu](mailto:Marchbanksk@missouri.edu)

The exhibit runs from Feb. 12 through March 29. Burns' original work, Barkley's House will be sold during an auction at 7 p.m. Feb. 16 during the reception.

Barkley House will be a home away from home for families of animals being treated at the CVM Veterinary Medical Teaching Hospital. Dr. Carolyn Henry, an associate professor of oncology in the MU Department of Veterinary Medicine and Surgery with a dual appointment at the MU School of Medicine in hematology and oncology, conceived the Barkley House concept. Barkley House will provide a facility where pets that are undergoing treatment at the University of Missouri Veterinary Medical Teaching Hospital can stay alongside their families.

The plans for Barkley House include designated dog and cat suites with kitchenettes, a resource library, laundry facilities, central dining area, porches, and an exercise area for pets. A central family room will facilitate interaction between guests who wish to speak with others going through similar situations, as well as allow veterinary students a place in which to interact with clients in a more informal setting and to improve their client communication skills.



Having had many canine and feline family members, Ron Burns, whose work has been featured in Extreme Makeover – Home Edition, has dedicated his personal and professional life to making the lives of animals better. When he heard about Barkley House, he sympathized with the families of sick animals who do not have the resources for accommodations while their animal family members are receiving daily treatments such as chemotherapy or radiation, sometimes for several weeks at a time.

Burns has painted a piece called Barkley's House featuring Blaze, the "spokesdog" for Barkley House, along with his kitten buddy. There will be a limited 95 editions on canvas of the piece. For the life of the piece, a portion of the proceeds from the sale of Barkley's House will benefit the Barkley House. Additionally, a portion of the proceeds from the sale of any other pieces sold from the exhibit at Perlow-Stevens Gallery at 812 E. Broadway, Columbia, will also benefit the Barkley House.

Burns has been featured twice on Extreme Makeover – Home Edition, and CNN, Fox News, and other national television spots, including a segment on Good Morning America. Additionally, his art has been in multiple magazines, including TIME, New York Daily News, San Francisco Chronicle, and Forbes, which writes that Burns' style is "extremely collectible." Clients include Elizabeth Taylor, the Princess of Monaco, Joan Rivers and Doc Severinsen.

## **Veterinarian Named as Chancellor's Chair of Excellence in Comparative Neurology**

Parkinson's disease and epilepsy strike millions of people each year. They also affect countless dogs, and veterinarians at the University of Missouri are working to find ways to treat these and other neurological diseases in both species.

Dennis O'Brien, professor of veterinary medicine and surgery and director of the comparative neurology program in the College of Veterinary Medicine, and a team of researchers are investigating the causes and potential treatments for a number of diseases that can be fatal in both humans and animals.

"These diseases have been recognized in dogs for many years, but now we have the tools to do something about it," said O'Brien, who was recently named as the Chancellor's Chair of Excellence in Comparative Neurology. "In the past, there was little that we could do other than treat the symptoms. Now, with pets, we can identify the genes responsible and breed away from some of these problems. We also have the human connection to these diseases, and as we learn from research on both species, we can apply it to both humans and animals and everyone will benefit."

Currently, researchers with the comparative neurology program are investigating several diseases that can affect dogs and humans. These diseases include:

- **Epilepsy** – a common disease affecting both dogs and humans characterized by repetitive seizures. It has many different causes, but it is thought to be a hereditary condition in many dogs.
- **Parkinson's disease** – caused by a loss of the neurotransmitter dopamine in nerve cells. Symptoms include tremors, stiff muscles or movement, and difficulty with balancing and walking. In humans, Parkinson's is a disease of the elderly, while in dogs it is a hereditary disease affecting young dogs.
- **Degenerative myelopathy** – a common neurological disease that affects the spinal cords in adult dogs. Typically, the dog will lose function of its rear legs and, eventually, will be paralyzed.

At the same time that researchers are investigating these diseases, O'Brien and his team also are working in the MU Veterinary Medicine Teaching Hospital, applying their knowledge to help dogs now. For example, the program recently received an underwater treadmill that will help rehabilitate dogs that have suffered spinal or nerve injuries and are temporarily paralyzed.

"Moving in water is great therapy," O'Brien said. "You don't have to support any body weight, but at the same time, the muscles have to work through some resistance. This helps to exercise the limbs."

A portion of the earnings from the Chancellor's Fund for Excellence Endowment, valued at approximately \$7 million, will fund the first Chancellor's Chair of Excellence in Comparative Neurology. The Chancellor's Fund contains unrestricted donations to be used for the University's highest needs and priorities.

"With equipment and financial resources, both our faculty and patients will benefit," said Neil Olson, dean of the College of Veterinary Medicine. "We also know that the continuing research led by Dr. O'Brien and his team will lead to additional insight into the causes of these diseases that affect both dogs and humans. We're excited about the confidence that the chancellor has with us to fund one of his chairs of excellence here in the college."

## Army Veterinarian to Address Graduates

Dean Neil Olson has announced that Col. Gary A. Vroegindewey, U.S. Army Veterinary Corps, will deliver the commencement address during the 59th University of Missouri College of Veterinary Medicine graduation ceremonies May 16.

Dr. Vroegindewey attended the University of Missouri where he was graduated with a bachelor's degree in zoology. He studied microbiology at Virginia Polytechnic University and earned a doctor of veterinary medicine at the University of Missouri in 1978. He went on to earn a master's degree in strategic studies in 2002 from the Army War College, and is a diplomate of the American College of Veterinary Preventive Medicine.

Dr. Vroegindewey was an associate veterinarian, partner and owner of Rolling Hills Veterinary Hospitals on Keene Street and Buttonwood Street in Columbia from 1978 to 1999. In 1999 he entered the U.S. Army Veterinary Corps as the assistant chief stationed at Fort Sam Houston, Texas.

He is the director, DoD Veterinary Service Activity Office of the Surgeon General, Army in Fall Church, Virginia.

His awards include: Legion of Merit; Meritorious Service Medal (3OLC); Army Commendation Medal (2OLC); Army Achievement Medal (1OLC); Armed Forces Reserve Medal (M device, Gold X device); Reserve Components Overseas Training Ribbon (11th award); Joint Meritorious Unit Award; Order of Military Medical Merit; Surgeon General's "A" Designator and others.

In addition to his military service, he has served on numerous councils and committees with the American Veterinary Medical Association and the Association of Veterinary Medical Colleges, and served as president of the American Veterinary Medical History Society.

He is married to the former Linda Preston of Columbia and has two children, Christina and Andrew, and three grandchildren.



## **CVM Alumnus and Sled Dog Veterinarian Jim Leach is Callaway Guest of Honor**

*- Article and photo courtesy The Fulton Sun*

Jim Leach never imagined he'd be living in Alaska when he graduated from Fulton High School.

He also never thought that he'd be coming back to Callaway County as the guest of honor for the 103rd Kingdom of Callaway Supper.

But, on March 18, Leach will return to speak at the supper held in the Amy Shelton McNutt Campus Center on the William Woods campus.

Leach, a retired veterinarian, has lived and worked in the harsh climate of Alaska for almost 35 years.

"Alaska is a little more of a land of challenges," Leach said. "There's a lot of freedom up here that isn't always available in the lower 48 states."

He arrived home Tuesday after spending most of February as a trail veterinarian for the Yukon Quest sled dog race. The 1,000 mile race travels between Fairbanks, Alaska, and Whitehorse in Canada's Yukon Territory.

"We've been working with races for well over 30 years," Leach said. "I've done many, many other races around the state, around the country and over into Russia, but this was our first Yukon Quest."

He was chosen as guest of honor by Kingdom of Callaway Supper President Rob Wright after hearing about his work with sled dog races from a neighbor.

"That's what kind of piqued my interest in Dr. Leach," Wright said. "He started out as a small animal vet in California and eventually went to Alaska. He became interested in sled dog races and has been the head trail doc for a number of sled dog races: the Iditarod, the Klondike, Copper Basin and one going from Gnome into Russia. It was all very interesting."

Leach received a degree in veterinary medicine from the University of Missouri-Columbia in 1964. He practiced veterinary medicine in La Crescenta, Calif., until he was drafted in 1965.

"At the time we got out of school, the Korea conflict was over and Vietnam was starting up and getting pretty hot and they were drafting veterinarians," Leach said. "There were two or three out of my class and three or four out of the class following. I was practicing in California when I got my draft notice."

After the Army, Leach worked in several different practices in California, Florida and Colorado before getting the opportunity to move to Alaska.

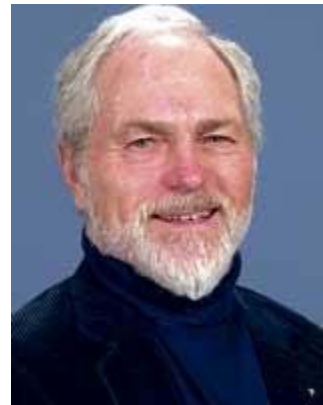
He and his wife, Sarah Ann, started their Alaskan practice in 1974 where they served a more than 1,000 mile area of outlying communities by plane, utilizing Leach's pilot license.

"We both liked the cold weather," Leach said. "We'd take time off to ski every year. So, when the opportunity arose to go somewhere we had cold weather and seasons we jumped at it."

The couple sold their practice in 1980 to pursue gold mining in northeastern Alaska, and enjoy flying, traveling, and painting.

They now reside in the community of Big Lake, 70 miles north of Anchorage.

The Kingdom of Callaway Supper is an annual event that looks to bring all residents of Callaway County together.



"It's an event where all the people who attend just feel the pride that's here in Callaway County," said Debbie LaRue, the supper's secretary. "There are just a lot of strong feelings that you're glad you're part of the Kingdom of Callaway."

Article courtesy JoNel Aleccia MSNBC Health Writer

## When MRSA won't wane, check the family pet

### Drug-resistant staph could be swapped between animals and owners

As if all the angst about drug-resistant staph bacteria wasn't worrisome enough, now it turns out you might get the deadly germ from your cat.

Suspicious about that calico on the couch are being raised this week in the New England Journal of Medicine. German scientists reported that a woman endured a series of nasty abscesses caused by methicillin-resistant *Staphylococcus aureus*, known as MRSA, until a veterinarian screened — and treated — the family cat.

It's not an isolated case, or critter, according to researchers in the U.S. and Canada who are studying the connection between pets, people and this dangerous, drug-resistant bug linked to more than 94,000 infections and nearly 19,000 deaths in the U.S. in 2005.

"We've found MRSA in dogs, cats, rabbits, pigs — even marine mammals," said J. Scott Weese, an associate professor of pathobiology at the University of Guelph in Ontario, Canada. Horses and cows also are routinely affected.

Owners should be aware, but not worried, about the possibility of getting MRSA from their pets, said Weese, who is part of a team led by researchers at the University of Missouri, Columbia, studying the prevalence of MRSA in humans and companion animals.

"The big thing we need to get the mindset around is that we're not a population of dogs, cats and people, we're a population of animals," said Weese.

The question perplexing scientists is whether people and pets swap the MRSA germs back and forth, creating a loop of infection and reinfection that could endanger humans and animals alike.

#### People and pets carry MRSA germs

So far, it's clear that humans and pets can be colonized with the MRSA bacteria, said John R. Middleton, an associate professor of food animal medicine and surgery at the University of Missouri. That doesn't mean they've got active infections, just that they're carriers of the germs that are resistant to most frontline antibiotics.

An ongoing study of some 600 people-pet households across the U.S. showed that staph aureus germs were present in nearly 28 percent of people and about 13 percent of pets. About 10 percent of households had both a human and an animal colonized.

MRSA, the drug-resistant strain, was detected in more than 5 percent of humans and about 3 percent of dogs and cats, Middleton said.

What's not so clear is whether people got MRSA from their pets — or whether they gave it to them, researchers said. One theory is that pets may pick up the bacteria from people, but then serve as reservoirs, harboring the bugs so they can reinfect humans.

"Pets could be innocent bystanders, or they could be significant sources of infection," Weese said. "They're probably somewhere in between."

For many people and their pets, the MRSA cycle is not serious. Most MRSA infections are minor skin lesions that are cured quickly with proper hygiene and secure bandages. The bacteria become dangerous when they travel inside the body, where they can lead to bloodstream or surgical site infections or life-threatening pneumonia.

#### If infections don't heal, test pets

In homes where people are suffering serial MRSA infections or from surgical wounds that just don't heal, it's a good idea to consider the non-human family members, scientists said.

"They'll go ahead and treat all the humans, but they haven't treated the pets," Middleton said.

Most vets should be able to conduct the simple swab tests to determine whether a pet is colonized with MRSA, he added.

If the test comes back positive, don't panic, said Lori Spagnoli, 59, of New Jersey. Her oldest cat, Momo, has had a lingering MRSA infection since 2005. Spagnoli's husband, Joe, tested positive for MRSA colonization once, but not again. Spagnoli attributes her family's MRSA-free status to scrupulous sanitation and supplements that boost the immune systems of people and cats alike.

She never considered giving away 15-year-old Momo, or the cat's offspring, Fluffy and Dotti, both 14. Instead she sought advice from the **United Kingdom-based Bella Moss Foundation**, which helps people whose pets have MRSA.

"I view it as any other bacteria that a family member having it could enter the home," she said. "You're on notice that it might be an issue."

People typically are dosed with stronger-than-normal antibiotics to kick intractable MRSA infections. That's possible in pets, too, but it appears that animals will shed the bacteria on their own, Weese said, given enough time, good hygiene and no reinfection by a human source.

A good thing, too. One effective cure for animals is a dose of antibiotic nasal cream, which is applied more easily in some species than others, said Middleton.

"You can imagine trying to treat a cat," he said.

## **Killer Stairs? Taking the Elevator Could be Worse for Your Body**

In new JAMA study, Mizzou researcher finds that lack of regular physical activity could be a cause of many diseases; effects could start within two weeks

Link: <http://munews.missouri.edu/news-releases/2008/0318-booth-steps-disease.php>

## Durham Honored with Chancellor's Award

The Veterinary Medical Teaching Hospital's own H. Edward Durham has been named a 2008 recipient of the Chancellor's Outstanding Staff Recognition Award. There are four awards given on campus each year, one each in the categories of administration, technical /paraprofessional, office /clerical, and crafts and trades. Durham, a senior veterinary technician, won in the technical services category.

The honor comes with a cash award of \$2,000 and a plaque, which he will receive at the Staff Recognition Award Ceremony on May 21.

Durham has been employed as a senior veterinary technician at the VMTH since 1997. In nominating Durham, Dr. Deborah Fine, his supervisor in the Cardiology Department, noted that he not only rises to the challenge when facing additional duties, but also thrives in an environment of increased responsibility and continues to grow in expertise and knowledge.

Durham's many duties include teaching veterinary students, interns, and residents; performing cardiac ultrasounds; supervising the cardiac catheterization laboratory; communicating with clients; and assisting students and veterinarians with diagnostic and therapeutic procedures.

He frequently leads the daily morning medicine rounds with students on the cardiology rotation, a job for which he consistently receives excellent reviews by the students. He is also a highly skilled echosonographer and is integral to training cardiology residents in that procedure. Durham routinely "scrubs-in" on cardiac catheterization procedures to assist Fine and residents in a highly complex and technically demanding procedure.

Durham's contribution to the Veterinary Medical Teaching Hospital extends beyond the Cardiology Department. In 2005, the hospital switched to an electronic medical records system, the Universal Veterinary Information System (UVIS). Durham was a member of the UVIS implementation committee. This involved many hours of effort over a year's time while the system was set up and integrated with the previous medical records system. Since then he has served as a trainer, teaching students how to operate UVIS, and as a facilitator for other veterinary schools implementing UVIS in their own hospitals. As a member of the clinical curriculum implementation committee charged with revising the third- and fourth-year students' clinical curriculum, his unique perspective as the only technician on the committee has been invaluable.

He is also involved in promoting the College of Veterinary Medicine. In 2006, the college produced a promotional DVD for prospective veterinary students. Durham served as the photography coordinator for the entire hospital. This involved scheduling all of the specialty areas within the small and large animal hospitals for the photography shoots, preparing locations, and maintaining the photography schedule over an intensive two-day period, all the while adjusting for the inevitable emergencies that arise in a teaching hospital. Most recently, he has served as the hospital coordinator for a PBS film crew shooting a documentary on specialty veterinary medicine.

In addition to his duties at the VMTH, Durham is committed to the advancement of veterinary technicians. He is a founding member of the Academy of Internal Medicine for Veterinary Technicians. This group has created an academy within the National Veterinary Technicians Associations for technicians working in advanced specialty areas of internal medicine. He is the director at large for cardiology technicians, and is part of the committee that is writing and preparing the initial certifying examination for technician candidates. He has also been an invited speaker at a number of national veterinary conferences, including the American Animal Hospital Association National Conference in 2007 and the American College of Veterinary Internal Medicine Forum in 2006. In 2005, he was awarded the Best Technician Case Presentation Award at the Veterinary Internal Medicine Forum. Further, he has three first author publications in the Veterinary Technician Journal, and was featured on the cover of this journal in September 2006. Additionally, he has co-authored six journal articles, and 11 poster presentations.



## **Company Donates \$250,000 to Support Veterinary Medicine and Agricultural Economics at MU**

story provided by the MU News Bureau

A recent donation from Smithfield Foods to the University of Missouri will benefit students in the College of Veterinary Medicine and the College of Agriculture, Food and Natural Resources (CAFNR). Smithfield Foods is the world's largest pork processor and hog producer and has several facilities in Missouri.

"Smithfield Foods recognizes the rising cost to recruit and retain high-quality graduate students, and that there is a tremendous need for well-trained veterinarians to serve the agriculture industry," said Dennis Treacy, vice president of environmental and corporate affairs for Smithfield Foods. "We hope that our contribution to these fine colleges at MU will make it possible for them to attract the best students."

From the \$250,000 donation, \$150,000 will endow a scholarship fund for new veterinary medicine students. The remainder of the donation will establish an endowed fund for graduate student fellowships in Agricultural Economics in CAFNR.

"We are appreciative of Smithfield Foods' generous scholarship endowment, which will be made available annually for two incoming first-year veterinary students," said Neil Olson, dean of the College of Veterinary Medicine. "The cost of attending veterinary school is very high and a scholarship greatly helps to lessen a student's debt load."

Increased funding for scholarships and fellowships helps MU compete internationally for outstanding students.

"Graduate students in the Department of Agricultural Economics have the opportunity to work with leading scholars engaged in a diverse range of research projects that develop new knowledge about state, national and international economic issues relating to agriculture," said CAFNR Dean Thomas Payne. "The fellowships provided by the Smithfield Foods Inc. gift create competitive stipends that will help attract the best and brightest students to the graduate program."

The gift is the result of an agreement made last May, between Missouri Attorney General Jay Nixon and Smithfield Foods. Smithfield recently acquired Premium Standard Farms, the largest pork producer in Missouri at the time.

"Educational training in these fields is vital for Missouri to continue to be a national leader in agriculture," Nixon said. "At a time when many Missouri families struggle with paying the costs of college and with student loan rates rising, I am proud that this agreement will establish scholarship endowments for Mizzou students who choose these fields."

Smithfield Foods is a global food company with operations in 13 countries through wholly owned subsidiaries and joint ventures. Headquartered in Smithfield, Va., the company produces more than 50 brands of pork, beef and turkey products and more than 200 gourmet foods. Employing more than 57,000 people across the globe, Smithfield Foods is the world's largest producer and processor of pork and a leader in turkey processing, cattle feeding and beef processing.

The "Smithfield Foods Scholarship in Veterinary Medicine" and "Smithfield Foods Graduate Fellowship in Agriculture Economics" support the For All We Call Mizzou campaign, which will celebrate raising \$1 billion by the spring of 2009. Reaching this goal will enhance MU's ability to compete nationally and internationally for the best students and faculty and will provide broad access for students of all economic backgrounds to Missouri's flagship University. The campaign has raised \$913.67 million, 91 percent of the goal.

## **CVM's Meadows Honored with Governor's Teaching Award**

**Dr. Richard Meadows**, MU College of Veterinary Medicine faculty member and director of Community Practice, has been awarded the 2007-2008 Governor's Award for Excellence in Teaching. Meadows will be recognized, along with other higher education award recipients, during a Teaching Faculty Awards Luncheon to be held April 9 at Lincoln University in Jefferson City.

Dr. Dennis O'Brien, a professor in the CVM Veterinary Neurology program, nominated Meadows for the Governor's Award. O'Brien noted his colleague's many contributions to veterinary medicine, including the HOPE Project that Meadows initiated and leads. The HOPE Project takes participating veterinary students to metropolitan Kansas City and other underserved areas to assist in low-cost spay and neuter clinics aimed at decreasing the numbers of neglected animals in shelters. The students develop their surgical skills while being reminded of why they wanted to become veterinarians – to alleviate animal suffering.



"It is that transcendence from the classroom to the community and from the how to the why that makes Dr. Meadows a very special teacher deserving of this special award," O'Brien noted.

Meadows was graduated magna cum laude from West Texas State University in 1977 with a bachelor's degree in chemistry. He received a bachelor's degree in veterinary science and DVM magna cum laude from Texas A&M University in 1980 and 1981 respectively.

Since joining the MU faculty in 1999, Meadows has delivered numerous continuing education presentations from regional to international audiences, including the annual meeting of the American Veterinary Medical Association, Central and Western Veterinary Conferences, and a 2003 Veterinary Geriatric symposium in the Netherlands.

Closer to home, Meadows provides both continuing education and extension services through telephone conversations with both practicing veterinarians and the animal-owning public throughout the state and Midwest.

Although relatively few awards for teaching are given to College of Veterinary Medicine faculty, Meadows has received three CVM teaching recognitions, a campus-wide award and a national award. In 2001, he received the Carl J. Norden Distinguished Teacher Award, considered the highest teaching award bestowed on a veterinary professional in the College of Veterinary Medicine by professional students. Senior veterinary students recognized Meadows for outstanding teaching by voting him recipient of the fourth-year class Aesculapius Teaching Award in 2003. Also in 2003, the Professional Graduate Council awarded him the Golden Chalk Award for outstanding professional and graduate teaching. In 2005, he accepted the prestigious campus-wide William T. Kemper Excellence in Teaching Fellowship Award.

Meadows was named the Bustad Companion Animal Practitioner of the Year 2006. This national award recognizes the individual who has made the greatest contribution to promoting the importance of the human animal bond in veterinary medicine and society. One of the prime reasons Meadows received this award was because of his effectiveness in teaching this aspect of the veterinary profession to his students.

Meadows brings to the College teaching expertise in preventative medicine and primary care practice for small companion animals, subjects critical for the professional training of future veterinarians. His background in clinical pathology and experience in small-animal practice enable him to bridge basic and clinical sciences in pathophysiology and clinical diagnostics. His expertise in cytology, otology, dermatology, and dentistry has brought important new dimensions to teaching and Veterinary Medical Teaching Hospital programs and has raised the acumen of students, house officers and peer faculty. As the director of Community Practice, Meadows integrates clinical teaching and clinical service, linking instructional activities directly to primary areas of companion-animal practice. His teaching affects the initial success of MU's new veterinary graduates.

His overall student-derived teaching effectiveness scores have been substantially above the department averages each year with his mean annual student-derived teaching scores between 4.5 and 4.9 on a 5.0 scale. Based on this criterion, this places him in the upper 10 percent of instructors among the 50 departmental faculty members.

**The 2008 Hill's Pet Food  
Senior Cajun Feast**



Hill's Pet Foods once again brought a little bit of the bayou to mid-Missouri with its annual Senior Cajun Feast on April 23. Dr. Charles Thibodeaux was the master Cajun chef boiling up messes of mudbugs to help send off the University of Missouri College of Veterinary Medicine senior class in succulent style.



Feeding the College of Veterinary Medicine graduating seniors, along with clinical faculty and staff, is a family affair for the Thibodeauxs of Louisiana. Dr. Charles Thibodeaux served as the master Cajun chef for the feast as his brother pitched in to help with crawdad boil. Hill's Pet Foods sponsors the event.



Zachary March , clinical assistant professor and director of Information Technology, scoops up servings of crawfish during Hill's Pet Foods annual Senior Cajun Feast on April 23. Faculty and staff at the University of Missouri College of Veterinary Medicine helped prepare and serve the lunchtime meal for their colleagues and students to honor the departing senior class.



Enjoying a meal of crawfish can be a messy business, but that didn't deter the students, faculty and staff lined up to enjoy Hill's Pet Foods annual Senior Cajun Feast held April 23 at the University of Missouri College of Veterinary Medicine.



It may be mid-Missouri, but there was no shortage of Cajun cuisine enthusiasts filling their plates during Hill's Pet Foods Senior Cajun Feast held April 23 at the University of Missouri College of Veterinary Medicine. The annual crawfish boil is held to celebrate the graduating class.

## College of Veterinary Medicine Professor Receives the MU Sinclair School of Nursing's Interdisciplinary Award

Dr. Thomas Reilly, College of Veterinarian Medicine professor, was nominated by nursing students to receive the MU Sinclair School of Nursing's Interdisciplinary award at the school's annual spring banquet.

The Interdisciplinary Faculty Award for Excellence is designed to honor a deserving faculty member from outside the School who has demonstrated a commitment to teaching excellence, who has made outstanding contributions to the nursing program, and who has demonstrated support of the School of Nursing. Students nominate individuals who have made an impact on their education.

As a clinical assistant professor in the Department of Veterinary Pathobiology, Reilly stands out among faculty who educate nursing students before they begin their clinical work.

His enthusiasm, intellect and respect are conveyed in every class he teaches. Reilly's innovative teaching approach includes holding countless study sessions arranged around the majority of the class' schedules; knowing every student's name and calling on them in class to test how well they understand the topic; and finding new and different ways of explaining topics when they aren't being understood.



"Truly a mentor, counselor and friend, Reilly makes microbiology interesting and applicable," said Rose Porter, dean of the school. "Nursing students have told me that once they were in Dr. Reilly's class they didn't look at education the same way. He cultivates minds like cultures on Petri dishes; and he looks for the weak spots to exploit and then strengthen."

Nursing students said they've been able to achieve their greatest potential at Mizzou because of Reilly. They said his welcoming smile, engaging conversations, and unique teaching style were a blessing in their lives. Students, faculty, staff and alumni of the school were honored at the 18th Annual MU Sinclair School of Nursing Banquet held at the Holiday Inn Executive Center in Columbia, Mo., on April 11. The event was held to recognize those individuals who have elevated the reputation, research, teaching and service at the MU Sinclair School of Nursing.

"The school's annual banquet gives us a chance to honor those who have gone the extra mile and in the process elevated the bar of excellence in the field of nursing," Porter said. "Dr. Reilly truly makes a difference in our nursing student's careers and lives."

## **CVM Associate Professor Honored for Research**

Dr. Craig Franklin, DVM, PhD, DACLAM, an associate professor at the University of Missouri College of Veterinary Medicine, was recently named the recipient of the American Society of Laboratory Animal Practitioners Excellence in Research Award 2007. The award honors members of ASLAP and the American Veterinary Medical Association for scientific contributions to laboratory animal medicine and comparative medicine. The organization recognizes individuals for significant and repeated scientific contributions to animal welfare, animal husbandry, animal health or the development of animal models. The award also recognizes studies using laboratory animals that have resulted in contributions to human health either through basic or applied research.

"Your peers have recognized your contributions and resoundingly confirmed your nomination," according to the award letter from ASLAP.

Franklin instructs veterinary and graduate students in immunology, rodent biology, comparative pathology, and laboratory animal medicine. He is a member of the Research Animal Diagnostic Laboratory, which provides diagnostic, reproductive and genetic services for the biomedical research community. His research in the RADIL focuses on two primary areas: the pathogenesis of inflammatory bowel diseases, such as Crohn's disease; and the characterization and study of mutant rodent animal models for human disease.

Franklin will receive his award during the Annual Meeting of the American Veterinary Medical Association to be held July 19-22 in New Orleans. During the conference, he will present to the attendees an area of his research as part of the Contemporary Topics in Laboratory Animal Medicine session. Franklin said he will discuss his current research on inflammatory bowel disease and how this research evolved.

"We currently study intestinal inflammation in mice infected with *Helicobacter hepaticus* as a model for inflammatory bowel diseases, also known as IBD," Franklin said. "I will discuss our current projects that include estrogen-based modulation of IBD; the search for genes involved in IBD susceptibility; and the roles of T regulatory cells and dendritic cells in the pathogenesis of IBD. I will highlight how this animal model and these studies began in the RADIL with studies centered on discovery, characterization and diagnosis of several rodent helicobacters."

Franklin will receive a plaque, an honorarium and ASLAP will provide his travel expenses to the conference as part of the award.

## **CVM Doctoral Candidate Named as Commencement Marshal**

Munashe Chigerwe, a doctoral candidate in the pathobiology program at the University of Missouri College of Veterinary Medicine, has been selected as the doctoral marshal during the MU Graduate School commencement ceremony May 16. Student marshals are nominated by their department and selected based on their academic performance and their contributions to graduate education at MU. Dr. Jeffrey W. Tyler, Chigerwe's faculty adviser, nominated him for the honor. In addition to receiving his PhD, Chigerwe will be receiving a Master of Public Health.

Chigerwe graduated from veterinary school in his native Zimbabwe before coming to the United States to pursue graduate education. The Columbia Missourian recently profiled him in an [article](#) about the path that brought him to Columbia.

During the Graduate School commencement ceremony, Chigerwe will receive a marshal's sash and will lead his peers into the commencement ceremony. His name will appear in the commencement bulletin, not only in the list of graduates, but also in the list of marshals, and he will be the first doctoral student to walk across the stage and have his degree conferred.

Reported May 16, 2008

## Helping Knees Heal Themselves

[http://www.ivanhoe.com/channels/p\\_channelstory.cfm?storyid=18643](http://www.ivanhoe.com/channels/p_channelstory.cfm?storyid=18643)

## **MU CVM is Veterinarian's Final Stop in Quest for Certification**

After spending five years yo-yoing between six states, Dr. Signe Plunkett says she has settled on a personal theme song – Jimmy Buffet's "Changes in Latitude, Changes in Attitude."

Plunkett completed a nontraditional residency May 9 after training at the University of Missouri College of Veterinary Medicine. She must still undergo a three-day exam in September, publish a paper and submit her case logs. If all goes well, she will then be board certified in veterinary emergency and critical care.

When she started down this road it was with the expectation that she would complete her residency in three years. However, when her mentor relocated from Texas A&M to a veterinary school that had no approved program, Plunkett found herself without anybody to directly supervise her residency. Refusing to give up her goal of becoming board certified, she pursued her education by spending time at multiple veterinary practices in her hometown of Phoenix, Ariz., the University of California-Davis, Texas A&M, Colorado State and a Virginia practice that specializes in cardiology. After another unexpected delay during the past year, she was able to make Columbia the last stop on her quest.

"Doctors (Tony) Mann and (Marie) Kerl were kind enough to take me for the final 11 weeks of the program and let me work with the other residents here," she said of the MU CVM faculty who oversaw her studies while here.

Plunkett earned her DVM in 1985 at Oregon State University. She has spent the past 22 years in Phoenix, where she is the director of medicine for Emergency Animal Clinic, a 24-hour practice that includes four facilities, 20 full-time veterinarians and 85 support staff members. The 260 shareholders, including MU CVM alumnus Dr. Chris Snodgrass, are planning to expand the booming practice with three more offices.

Despite already being a seasoned emergency care veterinarian and the author of the veterinary textbook *Emergency Procedures for the Small Animal Veterinarian*, Plunkett said it was important to her to learn how to do her job even better.

"I thought, maybe I can make more of a difference in more people's lives," she said. "My main drive was gaining the additional knowledge and being able to share that knowledge with others and potentially run residency programs myself."

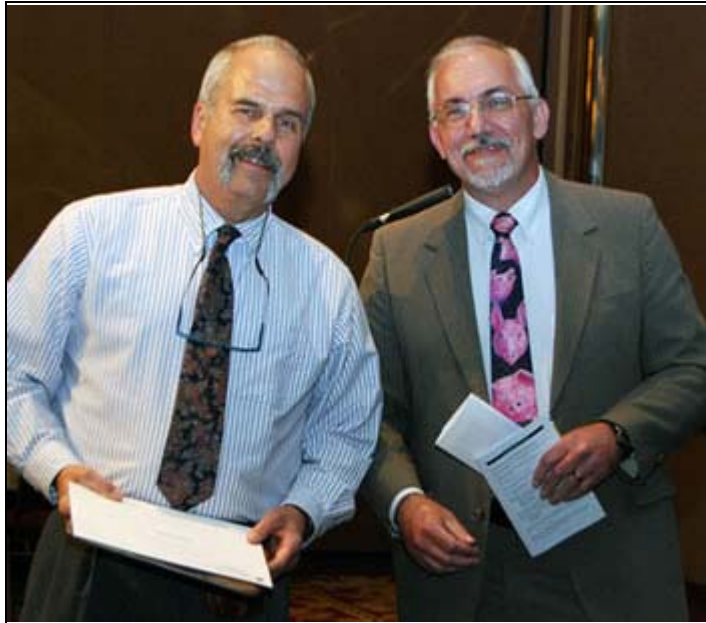
And even though she experienced Missouri's particular latitudes during a time of year that required her to learn to drive in the snow, scrape ice and buy a parka, Plunkett said she will return to Arizona with nothing but warm feelings for the Show-Me State.

"What really surprised me was how nice people are – at the stores, the airports, and at MU they are so into teaching and helping people. I had a three-week break in April and I was surprised by how much I really wanted to come back here."

## Awards Night Honors CVM Students' Accomplishments

University of Missouri College of Veterinary Medicine students received more than \$272,000 in awards during the 2008 Honors Banquet, held May 13 at the Holiday Inn Executive Center in Columbia, Mo. The annual event honoring the accomplishments of CVM students featured the presentation of 140 awards, including scholastic acknowledgment, proficiency, academic and activity recognition and faculty honors.

However, students were not the only honorees; they in turn presented teaching awards, and faculty members recognized one of their own. Both his peers and students paid tribute to Dr. James Schadt, who received both the Dadd Award for excellence in veterinary medicine teaching, determined by his peers and the Carl J. Norden Distinguished Teacher Award, an honor chosen by the graduating class. The Norden Award recognizes an outstanding teacher who, through ability, dedication, character and leadership, contributes to the advancement of the profession. Schadt, an associate professor at the CVM, instructs first-year veterinary medical students in physiology.



Dr. James Schadt (left) received the 2008 Dadd Award for excellence in the quality of teaching veterinary medicine as judged by his peers. Last year's recipient, Dr. Ross Cowart (right), presented the award during the 2008 Honors Banquet.

## Saddle and Sirloin Club Tours VMTH

Members of Kansas City's Saddle and Sirloin Club toured the MU College of Veterinary Medicine and Veterinary Medical Teaching

Hospital to learn what services are offered in equine care. The social club, which dates back more than 60 years, is dedicated to equestrian activities, shooting sports and preserving the traditions of the Old West.



Dr. Dietrich Volkmann demonstrates how ultrasound equipment is used on a on a mare that is within a few weeks of foaling as Dr. Dawna Voelkl explains to club members what they are seeing on a television screen.



Saddle and Sirloin Club members also had the opportunity to see an equine treadmill. The treadmill is used to help pinpoint the cause of lameness in horses being treated at in the VMTH equine clinic.



Dr. Philip Johnson, professor of veterinary medicine and surgery, explains how endoscopy equipment is used to diagnose and treat equine medical problems.

## CVM Graduates 65 New Veterinarians

With an exhortation to keep their passion alive fresh on their minds, 65 members of the MU College of Veterinary Medicine Class of 2008 took the Veterinarian's Oath and became the newest members of the profession on May 16. Students' friends, family and mentors gathered in Jesse Hall on the MU campus to witness the CVM's 59th annual commencement.

After Dr. Jimi Cook, president of the MU CVM Alumni Association, offered greetings to the graduating students, CVM alumnus Dr. Gary A. Vroegindewey, a colonel in the U.S. Army Veterinary Corps, presented the commencement address. Vroegindewey talked about his decision to leave his practice and join the Veterinary Corps in order to reignite his passion for veterinary medicine. He advised the class that while some of them would find that the passion for helping animals and others that had carried them so far would sustain them throughout their careers, in future years others would find themselves at a crossroads wondering what else they could do with their degrees.

"I want you to imagine where you could be, what you could do and be prepared to follow your passion," he said.

He also counseled his newest colleagues to take their work, but not themselves seriously, and asked them to make their graduation day memorable by picking up the telephone and calling someone who had influenced them to thank them for encouragement, guidance and support.

Dr. Steve Strubberg, president of the Missouri Veterinary Medical Association, led the graduates in reciting the Veterinarian's Oath, after which Dr. Ron Cott, associate dean for Student and Alumni Affairs and director of Development, presented the graduating class. Dr. Timothy J. Evans, assistant professor, Cook, and



Dr. Neil Olson, College of Veterinary Medicine dean, served as master of ceremonies for the college's 59th Commencement.



Commencement speaker Dr. Gary Vroegindewey, colonel in the United States Veterinary Corps, advised the CVM Class of 2008 to measure their success not by what they do, but by who they are.



Under the direction of Missouri Veterinary Medical Association President Dr. Steve Strubberg, the CVM Class of 2008 takes the Veterinarian's Oath.

Dr. John Dodam, associate dean for academic affairs, conducted the investiture. Bo Fraser, vice chairman of the MU Board of Curators, conferred the Doctor of Veterinary Medicine degree to the class members. Veterinarians completing internships, residencies and graduate programs at the CVM also received recognition during the ceremony.

The Class of 2008 selected Dr. Gerald Ryan Bader to offer their response.

Dr. Neil C. Olson, CVM dean, who served as the master of ceremonies, congratulated the class members on their achievement. "... accept your degree with pride and as a symbol of your achievement. It is a treasure that cannot be lost, borrowed, or stolen. It will afford you respect and establish you as an authority figure in animal health. It will open doors to a wide variety of professional opportunities to serve mankind through ministering to the needs of billions of animals on this planet."



Dr. Timothy Evans, assistant professor (left) and Dr. John Dodam, associate dean for academic affairs, conduct the investiture as Dr. Elizabeth Leverenz receives her hood.



Dr. Gerald Ryan Bader offered the response for the Class of 2008.



The switching of the tassel symbolizes the transition from student to newest members of the veterinary profession .



The CVM mules were on hand to provide a photo opportunity for the new graduates and their families.

# Service dogs branch out

Wednesday, May 28, 2008 | 10:00 p.m. CDT; updated 4:45 p.m. CDT, Tuesday, July 22, 2008

<http://www.columbiamissourian.com/a/103222/service-dogs-branch-out/>

## MU Veterinarian Garners Honor Down Under

Dr. Robert C. Backus, College of Veterinary Medicine assistant professor, received the Australian College of Veterinary Scientists' Most Commendable Paper award for 2008.

The award was given to his paper titled, "Oestradiol and genistein reduce food intake in male and female overweight cats after gonadectomy" which was extramurally funded and served as a doctoral dissertation for a veterinarian from New Zealand, Dr. Nick Cave. It was published in *New Zealand Veterinary Journal* during 2007.

"It's nice to be recognized and for MU to be recognized," Backus said. "But it's very important that Nick Cave be recognized as well. He's a very intelligent clinician and researcher."

Backus' work, including the awarded paper, centers on the treatment and prevention of obesity in companion animals, specifically cats. He says that through his work he has come to appreciate how the neutering and spaying of animals is such an influential factor in obesity.

"Oestradiol and genistein reduce food intake in male and female overweight cats after gonadectomy" focused specifically on a compound in soy, genistein, which potentially could be used to replace estrogen lost with neutering and facilitate weight loss in overweight cats. Backus says that through the publicity and through additional research he would like to further explore estrogen replacement as a means to prevent and treat obesity.



## **Dodam Chosen to Lead Veterinary Medicine and Surgery Department**

Dr. John Dodam doesn't have the exact route plotted yet, but he's sure about his intended destination.

"I want this department to be known nationwide for our research, teaching and clinical service," he said. "I want the Department of Veterinary Medicine and Surgery to be attractive to faculty, house officers, and graduate students because of our productivity and our team approach. If we can accomplish that, I'll consider our department to be successful."

Dodam, who has been a member of the MU College of Veterinary Medicine faculty since 1995 and has served as the associate dean of academic affairs since August 2005, recently accepted the position as chairman of the CVM's Department of Veterinary Medicine and Surgery. He will officially take over his new position beginning Sept. 1.

He said elevating the CVM to the level of national prominence he envisions will not be without challenges – challenges that necessitate fundamental changes in the way the department operates.

"Support for both the university and college are insufficient to allow us to continue as we currently operate," he said. "It's imperative that we figure out a way to move forward and enhance education, quality of service, and discovery of new knowledge as resources become even more limited than in the past," he said.

He added that he will look to the faculty and students for solutions to maintaining and elevating the department's level of excellence in the face of a funding shortage.

Dodam will take over the chairmanship of the college's largest department under a new organizational structure that will see him working closely with recently appointed hospital director Dr. Dave Wilson. While Wilson will be tasked with the clinical management of the department, Dodam sees faculty enhancement and hiring as his priorities.

"It's a diverse department," Dodam said, "and we must use the professional diversity to optimize synergism between our faculty."

Dodam grew up in Maple Heights, Ohio. He earned his Doctor of Veterinary Medicine in 1985 from Ohio State University. After two years of private mixed-animal practice, he matriculated to North Carolina State University. There, he completed a residency program in anesthesia and earned a Master of Science in pharmacology and PhD in physiology. At NCSU, Dodam was named a National Institutes of Health postdoctoral fellow, and also served as a clinical instructor.

He joined the MU Veterinary Medical Teaching Hospital in 1995, teaching classes during all four years of the curriculum and graduate level courses, including physiology, pharmacology, anatomy, anesthesiology, emergency and critical care medicine, and clinical anesthesia. After being named associate dean, he continued duties as a member of the anesthesiology, emergency and critical care and graduate faculty in the Departments of Veterinary Medicine and Surgery, and Veterinary Biomedical Sciences. He has also served as the college's Mule Club advisor.



He and his wife, Ginny, reside in Columbia. They have two daughters, Casey, a sophomore at Truman State University, and Page, a junior at Rock Bridge High School.

## **No Rest for the Retired: Veteran Administrator to Step Down**

In July of 1976 the United States was celebrating its Bicentennial and Ron Haffey was celebrating a new position as the administrative associate at the MU College of Veterinary Medicine Teaching Hospital. The 32 years that have passed since then have brought about enormous change, including the construction of Clydesdale Hall and the advent of computers. Haffey's title, too, has changed several times over the years. On June 13, he will spend his last day on the job in his final role at the Veterinary Medical Teaching Hospital, as its administrator. He is retiring – sort of.

While many people view retirement as an opportunity to pursue their pastimes full time, Haffey will spend at least the first six months of his working. He has signed a six-month contract to serve as the hospital administrator for Great Lakes Veterinary Specialists, a Cleveland, Ohio practice that comprises veterinarians who are board certified in surgery, oncology, cardiology and internal medicine. There is also a 24-hour emergency service.



"It's much the same thing as here, but in a different setting on a smaller scale," he said of the position.

Haffey has experience with smaller-scale operations. He has witnessed first-hand the growth of the VMTH from an original expansion that created a cluster of clinics on the ground floor of the Veterinary Medical Building in 1977 to the construction of the teaching hospital housed in Clydesdale Hall in 1993.

"Back then there wasn't the level of specialization as there is today," Haffey said. "Practice was more general in nature. The things we're doing today, we wouldn't have dreamed of then, such as pacemakers and artificial hips. One of my greatest joys was to work with (former Associate Dean of Academic Affairs) Dr. Niemeyer and be a liaison between the contractor and the university for the building of Clydesdale Hall."

While true retirement may still be at least six months away, he is already making plans for the joys that will replace the gratification of a job well done.

Haffey, a canoeing enthusiast, purchased a cabin at the Lake of the Ozarks and is in the process of renovating it. "Something about being near water has always relaxed me," he said. He plans to fulfill that love for water by rafting the top 10 whitewater rivers in the North America – he already has six of them in the bag – and he hopes to visit as many of the country's 131 national parks as he can.

However, retirement won't be reserved strictly for recreation. Haffey plans to devote some time in Christian mission work; he hopes to assist children in Africa orphaned by the AIDS epidemic.

Facilitating care for orphans in Africa would represent a return trip for Haffey. He spent 12 days in South Africa on an AIDS mission trip last February. "I met some remarkable people trying to make a difference," he said. Retirement could give him the chance to become a part of that difference.

## **New Cancer Treatment Targets Both Tumor Cells and Blood Vessels**

*MU researchers develop non-toxic treatment that has broad anti-cancer potential*

It takes more than one punch to fight tumors. Often, tumors have more than one way of surviving, and attacking the tumor alone is not enough. Now, in a new study, University of Missouri researchers have developed a new non-toxic treatment that effectively reduces breast cancer cells, by combining a small molecular drug that targets tumor cells with an antibody that causes selective shutdown of tumor blood vessels.

In 50 percent of breast cancer cases, a mutated protein, known as p53, is present. Previous research has indicated that when p53 is functionally abnormal, tumor cells are prolific and develop quickly. PRIMA-1, a small molecular drug, targets and returns normal function to the mutated p53, but PRIMA-1 alone is not enough to stop tumor growth. Proliferating blood vessels supply oxygen and other nutrients that the tumor needs to grow. However, a specific antibody, 2aG4, has the ability to destroy these blood vessels and prevent future growth. According to the MU research team, no one has previously tried to attack tumor cells by targeting mutated p53 and the tumor-associated blood vessels with this combination of PRIMA-1 and 2aG4.

"Tumors are entities that want to live," said Salman Hyder, professor of biomedical sciences in the College of Veterinary Medicine and the Dalton Cardiovascular Research Center. "They adapt under conditions that would cause anything else to die. In order to effectively treat tumors, treatments must attack the breast tumor cells and the blood vessels that supply nutrients to the tumor. Treatment strategies in our study that targeted both areas resulted in improved and more potent responses."

In the pre-clinical trials, mice bearing tumors of human origin were given the drug combination to combat tumor growth. After four weeks of treatment, the mice that were given the combination showed a dramatic decrease in the development of tumors and had better results than the mice that were given only one of the compounds. In addition, the treatment combination proved to be non-toxic as the mice maintained their body weight and displayed few side effects.

"Mutated p53 in tumor cells plays a key role in promoting tumor cell survival and tumor cell resistance to chemotherapeutic drugs. The mutated protein is found in 50 percent of breast cancer cases," Hyder said. "The results of this study are very promising and show the possibility of broad anti-cancer potential."

The study, "Targeting Mutant p53 Protein and Tumor Vasculature: an Effective Combination Therapy for Advanced Breast Tumors," was presented at the 98th Annual American Association of Cancer Research Meeting. It was co-authored by Hyder 's colleagues at MU: Yayun Liang, research assistant professor in the Dalton Cardiovascular Research Center; Cynthia Besch-Williford, associate professor in the College of Veterinary Medicine; Indira Benakanakere, post doctoral fellow; and by Philip Thorpe from University of Texas Southwestern in Dallas.

## **Veterinarians Combat Malaria One Net at a Time**

A \$10 bill could buy a movie ticket, 2.5 gallons of gas or lunch. For University of Missouri College of Veterinary Medicine faculty, \$10 buys a mosquito net that protects an African refugee from malaria. Carolyn Henry, associate professor and director of the Scott Endowed Program in Veterinary Oncology, organized "Vets for Nets" to raise money for mosquito nets for refugees at a transit center in Conakry, Guinea that houses refugees in need of medical attention.

"Veterinarians have considerable training in the area of infectious diseases, so they know how malaria is spread and what a mosquito net could do for a refugee," Henry said. "They knew by donating to Vets for Nets that they were doing something that could make a big difference. Ten dollars could potentially save a life."

Henry started Vets for Nets by sending an initial e-mail to her colleagues asking for donations for money to buy nets. Within 45 minutes, Henry had raised half of the money she needed and was able to raise the full amount in two days. Working with a contact in Conakry, Henry arranged for purchase of the nets in Guinea and delivery to the 43 refugees at the transit center.

The refugees at the transit center are a diverse group of people from Liberia, Sierra Leone and the Côte d'Ivoire (Ivory Coast). Many have suffered serious, long-term injuries from the civil wars in their countries. With rising food costs, the refugees can barely afford to eat. Buying a \$10 mosquito net to protect themselves against malaria is a luxury they cannot afford, Henry said.

"Nobody claims these people," Henry said. "The United Nations closed their refugee camp in Conakry more than a year ago, and many of the refugees are afraid to go back to their home countries after what happened to them. They are stuck in no-man's land, living on no more than a \$1.50 a day."

According to the Centers for Disease Control and Prevention, malaria kills an estimated 1 million people a year and mostly affects young children in sub-Saharan Africa. Henry hopes to make Vets for Nets a national organization and plans to work with the Against Malaria Foundation to raise additional money for nets for family members of the 43 refugees she helped this spring and others like them. For more information, visit the Vets for Nets Web site at: <http://www.AgainstMalaria.com/Vets4Nets>.

## **CVM Residents Capture Abstract Awards**

The University Of Missouri College Of Veterinary Medicine was well represented at the 26th Annual ACVIM Forum in San Antonio, Texas. The ACVIM, American College of Veterinary Internal Medicine, encompasses small-animal internal medicine, large-animal internal medicine, oncology, neurology, and cardiology. Out of 399 scientific abstracts presented, at least 13 were presented by members of the University of Missouri. Along with the scientific abstracts, faculty members gave 12 50-minute speeches.

Only forum officers and residents are eligible for awards. Dr. Stephanie Kottler and Dr. Wendi Rankin won two of the major awards, both winning their category as outstanding resident abstract presentation. Kottler's abstract presentation was "Prevalence of staphylococcus aureus and MRSA carriage in three populations." The co-authors of the abstract are Dr. John Middleton, Dr. John Dodam, and Dr. Leah Cohn. Rankin's abstract presentation was the Correlation of Survivin and Ki-67 Immunoreactivity in Canine Urinary Bladder Tissues. The co-authors of the abstract are Dr. Carolyn J. Henry, Dr. Susan E. Turnquist, James R. Turk, Jeffrey W. Tyler, Marilyn E. Beissenherz, and Dr. Jonathan Green.

## Art Night Raises \$1,000 for Class

Performers, fledging chefs, a photographer and a budding painter were among the amateur and professional artists who contributed their talents to make the Class of 2011's Art Night a success.

"It was the most successful fundraiser to date for the class," said event coordinator Jennifer Ballard.

The event, held in the Adams Conference Center, attracted more than 50 attendees, primarily students, faculty and friends. Offerings included the works of 15 visual artists, five performance artists and some food artists who sold their treats. The class also raised money by selling cookbooks to inspire those who prefer to make their own art.

A silent auction was held as part of the evening's activities with items sold that were donated by Hallmark, Treats Unleashed, Zou café owner Cindy Durk and her husband, professional photographer Kent Durk, Jbat Photography, and Dr. Cristi Cook, a veterinarian and photographer.

The event placed about \$1,000 in the class coffers, which will be used to pay for the welcome picnic for the new first-year students.



## Two VMTH Veterinary Technicians Earn Credentials

The level of care offered in veterinary medicine continues to advance. Veterinary technicians are the nurses of the veterinary medicine world. The Academy of Internal Medicine for Veterinary Technicians (AIMVT) credentialed its charter members on June 3 while in attendance at the American College of Veterinary Internal Medicine Forum in San Antonio, Texas.

Columbia residents Jane Ebben RVT, VTS (LAIM); and H. Edward Durham Jr. CVT, LATG, VTS (Cardiology), were credentialed as veterinary technician specialists during the forum. Ebben and Durham are employed as veterinary technicians at the University of Missouri Veterinary Medical Teaching Hospital.



The academy was formed in 2003 and obtained its recognition from the National Association of Veterinary Technicians of America in 2006. AIMVT comprises veterinary technician specialists working in four subspecialties: cardiology – diagnosis and treatment of diseases of the heart; large animal internal medicine – diagnosis, treatment and internal medicine of ruminants and equines; oncology – diagnosis and treatment of cancer; and small animal internal medicine – diagnosis, treatment and internal medicine of companion animals.

Veterinary technician specialists are graduates of a program in veterinary technology and/or credentialed to practice in their state. VTS receive advanced training, often under a veterinary diplomate of internal medicine, cardiology or oncology. They possess advanced knowledge of wellness and preventative medicine, a detailed knowledge of complex, acute and chronic disease states, and a thorough knowledge of the anatomy, pathology and pathophysiology of animals. In addition, they have the ability to perform advanced technical skills associated with their specialty. These skills can include assisting with the implantation of cardiac pacemakers, recording echocardiogram images, placing a multi lumen intravenous catheter to monitor a critical horse patient, obtaining a radiograph of a hoof, administering chemotherapy to a dog with cancer, counseling an owner on side effects of radiation therapy, performing blood gas analysis of a cat under anesthesia for diagnostic testing, or evaluating a slide of a dog's bone marrow for sampling technique.

The credentialing process is arduous and contains many requirements, including the completion of advanced skills and knowledge lists, continuing education, work experience, case logs, case reports, letters of recommendation, examination in internal medicine and examination in the specialty.

Veterinary technology specialization is a growing field. Currently, veterinary technicians can specialize in the areas of emergency and critical care, anesthesia, dentistry and internal medicine. AIMVT is unique in that it is the first umbrella academy to offer the opportunity to specialize in one of four areas of internal medicine.

**Animal health innovations can help humans, too (KC Star)**

**Broken link:** <http://www.kansascity.com/business/story/685886.html>

## Animals Still Integral as Veterinarian Becomes Novelist

A teacher asked her students to write down what they wanted to be when they grew up. At that moment, James Czajkowski made a choice. In his 9-year-old heart, he had always known what he wanted to do, but the third-grader had not yet learned how to spell veterinarian. "I thought, maybe I should put down 'fireman'," he recalled. Instead, he took down a dictionary and looked up the troublesome word. While it cost the world a future fireman, Czajkowski took not only his first step toward becoming a veterinarian, but also his second profession – writer.

Czajkowski was born in Chicago, one of seven children. He spent a portion of his childhood in Canada before his parents moved to St. Louis. He said his love of animals and interest in science made veterinary medicine a natural choice, but even as a child he showed an affinity for writing. "I was the storyteller of the family, or what my mom called 'the liar'," he joked.

While he enjoyed crafting stories in junior high and high school, he thought that his lack of a literary pedigree, meant his writing would be relegated to a hobby, not a career. He was accepted into the College of Veterinary Medicine after his second year at the University of Missouri and with the rigors of the CVM curriculum, he put aside thoughts of becoming a writer.

After graduation he settled in Sacramento, where he had spent summers home from college (his parents had again relocated) working in a veterinary clinic. Over time he became the owner of his own practice and was responsible for employing 24 people.

One sleepless night he was up late watching infomercials on television when motivational speaker Tony Robbins came on the air to peddle his tapes. Czajkowski ordered a set thinking they could have some applications at his clinic.

He listened to the first tape in which Robbins told his audience to close their eyes and write down what they wanted to do with their life. Czajkowski wrote down that he wanted to be a writer. The next direction was to take one step toward making that dream a reality. Czajkowski set aside an area of his house where he would write.

"I never opened the rest of the tapes," he said.

However, his success as a writer wasn't immediate; it demanded persistence and flexibility.

He began his writing career by penning short stories – all of which remain unpublished. His first novel, "Subterranean" met with greater success. However, marketing it was a long process. "I got rejection after rejection from literary agents," he said. "I thought, maybe I can't write thrillers, so I started looking at fantasy," he said.



After being rebuffed 50 times, "Subterranean" was finally accepted by a literary agent, but his new agent informed Czajkowski that she didn't represent fantasy and he was on his own when it came to his work in that genre. While she worked to sell "Subterranean," he attended a fantasy writing conference and entered one of his books in a contest. It received runner-up honors that led to a three-book deal. After years of struggling to get his work in print, Czajkowski found himself inking contracts at two different publishing houses within a week.

His pen name for his thrillers became James Rollins, taken not from Rollins Road on the campus of his alma mater, but rather as a tribute to his father, Ronald, whose name he modified. His fantasy books pen name became James Clemens, in honor of Missouri's favorite author, Samuel Clemens, better known as Mark Twain.

This summer two of Czajkowski's books have been released under the James Rollins moniker. One is the novelization of the newest Indiana Jones movie, "Indiana Jones and the Kingdom of the Crystal Skull." The other, "The Last Oracle" is a globe-spanning thriller about an effort to establish a new world order that involves polluting the earth with radiation from Chernobyl and a toxic Soviet lake while exploiting the gifts of a group of autistic savant children.

The novelization of "Indiana Jones and the Kingdom of the Crystal Skull" came out the same day the movie hit theaters. Czajkowski's publishing house owned the rights to the novelization and suggested Czajkowski to George Lucas and Steven Spielberg. The filmmakers approved the choice based on Czajkowski's previous works that melded ancient history, archeology and adventure. However, he said he never met the duo, working instead with the screenwriter.

"About a year ago I read the script. I had to drive to Lucas Films studio in San Francisco and read it under lock and key," he said. His goal was to avoid simply regurgitating the script, and he was able to craft about 15 scenes that are not in the screenplay or movie. However, some of the touches Czajkowski created were later removed by Spielberg who wanted certain questions left unanswered, such as the circumstances behind the death of Jones' father. Spielberg also vetoed having Jones' son, Mutt, enrolled in Marshall College at the end of the book.

Czajkowski said that when he first started publishing books some of his veterinary clients questioned his subject matter.

"People wondered why I wasn't writing the next 'All Creatures Great and Small'. For me, writing was an escape, I didn't want to write about veterinary care," he said. However, he came to realize that his love of animals was still guiding his career path.

"I had someone write and ask me why all of my characters had an animal sidekick. About the time I stopped practicing (veterinary medicine) full time, animals started creeping into my writing," he said.

"The Last Oracle" continues that pattern, with animals, both heroic and threatening, integral to the plot. An animal even figures into an end-of-story plot twist. Czajkowski's science background and interest in evolutionary biology, and his passion for adventure sports, such as spelunking, scuba diving and rock climbing also are evident in his stories.

Czajkowski has published 10 novels as James Rollins and seven as James Clemens. He has sold his practice and his veterinary skills are now put to use helping the Sacramento Council of Cats. He spends about eight hours per month working for the council spaying and neutering cats and testing them for and vaccinating them against diseases. In an interview eight years ago, Czajkowski expressed a desire to earn his living as a writer while "dabbling" in veterinary medicine. Today, he has realized that dream.

## Youngquist Named Academic Affairs Associate Dean

When Dr. Robert Youngquist came to Missouri it was with the intention of completing a two-year residency before returning to Minnesota to become a dairy practitioner. He never made it back. Now, 36 years later, as his career reaches what he calls "its twilight," the road he thought he would be following has once again detoured.

MU College of Veterinary Medicine Dean Neil Olson recently named Youngquist as the associate dean of academic affairs. He will take over the position Sept. 1, replacing Dr. John Dodam, who has accepted the position of chairman of the CVM's Department of Veterinary Medicine and Surgery – a post that Youngquist has filled in an interim capacity for nearly two years.

"Both Dr. Dodam and I will have a job and a half until Christmas," Youngquist said. "We need to spend a few days with each other, but neither of us have had time. I imagine there's going to be lots of trips across the parking lot" as the offices are traded.

Youngquist said he does not anticipate making drastic changes to the associate dean's office. His priorities will be recruiting good students, giving them the tools to succeed and working with the faculty to make sure the curriculum is up to date.

"The half-life knowledge (in veterinary medicine) used to be seven years. It's probably five years now," he noted. The curriculum must change to meet the evolving needs of veterinary practice, he added.

Youngquist said one of his goals is to increase the college's outreach to prospective students while they are still in high school to help guide their academic choices and increase their potential. He also said the college must be ready to address the looming shortage of veterinarians facing the country, particularly those working in food animal medicine.

"The problem is we're full," he said of the need to educate more veterinary students. "I don't know what the chances are for increased facilities, but we're planning in that direction. It certainly makes sense to increase the class size of existing schools, rather than build new ones."

Youngquist was born in Odebolt, Iowa. He earned a DVM at Iowa State University in 1971 and worked as an associate veterinarian in Tyler, Minn., before pursuing a residency in theriogenology at MU. At MU he has held the positions of assistant professor, associate professor and professor of Veterinary Medicine and Surgery; coordinator of the Food Animal Hospital; instructional leader in theriogenology; director of graduate studies; and interim associate chairman, associate chairman and acting chairman of the Department of Veterinary Medicine and Surgery.

He and his wife, Bonnie, reside in Columbia. They are the parents of two children and one grandchild.



## **Ribbon Cutting Planned to Welcome Discovery Park's Newest Tenant**

A ribbon cutting for the new home of the MU College of Veterinary Medicine Research Animal Diagnostic Laboratory will be held at 4:30 p.m. on Monday, Aug. 4, 2008, at Discovery Ridge. RADIL Director Dr. Lela Riley will discuss the laboratory's mission before introducing speakers Dr. Brady J. Deaton, MU chancellor; Dr. Neil Olson, College of Veterinary Medicine dean; and Dr. Michael Nichols, UM vice president of research and economic development.

After the ribbon cutting, tours of the new facility will be offered and refreshments will be served.

RADIL is the second tenant to locate in Discovery Ridge. Columbia's Analytical Bio-Chemistry Laboratories moved some of its operations to the 500-acre research park earlier this year. RADIL is the second-largest research animal diagnostic laboratory in the world and the only one that is part of an academic institution. The facility serves more than 1,000 clients, including universities, pharmaceutical companies, research institutes, biotechnology companies, and hospitals. As part of its academic role in the College of Veterinary Medicine, the program has trained more specialists in comparative medicine than any other program in the country.

RADIL was started in 1968 with funding from the National Institutes of Health. When NIH no longer funded rodent diagnostic laboratories 15 years ago, the laboratory became a fee-for-service based business. In FY08, revenues from the laboratory services totaled nearly \$9.2 million.

Construction of RADIL's \$15.5 million Discovery Ridge facility was funded with laboratory revenues without use of state tax dollars. RADIL, generates an annual payroll of \$3.3 million, and employs nine faculty members, 52 full-time staff members, and 48 post-doctoral fellows, graduate and undergraduate students. The new center will expand opportunities for economic growth in mid-Missouri and create more jobs for researchers, skilled staff and technicians.

Discovery Ridge, located on the University of Missouri South Farm, encompasses 125 acres adjacent to Highway 63, three miles southeast of the main Columbia campus. During the next 25 years, planned expansion is expected to increase the park to 500 acres; create 300,000 jobs, \$17 billion in personal income and \$1.2 billion in net general revenue; and have a \$33 billion economic output.

## Two CVM Veterinarians Join Team to Battle Cancer

Veterinarians usually spend their time caring for the lives of our four-legged friends. However, these two veterinarians have found the time to save the lives of humans as well. University of Missouri College of Veterinary Medicine faculty members Drs. Marie Kerl and Philip Johnson are training to run the 2008 Chicago Marathon Oct. 12 with the Team in Training program through the Leukemia and Lymphoma Society.

The Leukemia and Lymphoma Society started in 1949 by the de Villiers, whose son Robert died at the age of 16 from leukemia. In 1988, Bruce Cleland formed a team to run the New York City Marathon to raise money for the society and honor his daughter Georgia, a leukemia survivor. They called themselves the "Team in Training." This year TNT is celebrating its 20th anniversary. The first team raised \$322,000, and during the past 20 years that number has grown to more than \$850 million for cancer research. The program, which started out as 38 runners the very first year, has seen more than 360,000 participants.

This is the second year both Kerl and Johnson will run in the Chicago Marathon for TNT. The two have a common interest that keeps them training – Keegan. Keegan Burke Grant lost his battle with cancer at the age of 8 in the summer of 2006. He was diagnosed with leukemia when he was 6, and his TNT Team was formed soon after his diagnosis. Keegan loved his team and he would attend events and training when he was able to.

"He kept tally of the money his team raised, sure that he was going to make a difference and cure cancer," recalled his mother, Mimi Noonan. "Once, he told another kid, newly diagnosed with leukemia, 'hey man, I got a whole team working to cure your cancer'."

Keegan's mantra became "Happiness is a choice," his mother said.

Keegan's mother is a close friend of both Dr. Kerl and Dr. Johnson, and it is in memory of Keegan and others who have battled cancer that the two are running this marathon for TNT. "That Marie and Philip are willing to do this for Keegan is a testament to the effect he had on everyone who knew him. He had an incredible spirit, and it lives on in everyone who met him," Noonan said.

Training for a marathon is a daunting task for anybody. Juggling the demands of their positions at the Veterinary Medical Teaching Hospital while



finding time to train, demands a great deal of commitment from the two veterinarians.

"Balancing time between work and training is challenging," Johnson said. "My work often (at this time of the year) requires me to be here in the teaching hospital for long hours standing and walking on the concrete all day – it's quite hard to run at the end of the day." Although the middle of the day is hot and humid, he said he finds it easier to run during those times. He also has more time to run when he is not on clinic assignment.

"Training for a marathon is completely doable – it just takes time and sticking to a training plan, which Team in Training provides for us," Kerl said. Running relieves stress and is a good source of exercise, she said. Kerl finds it best to run in the mornings before the muggy mid-Missouri temperatures hit their peak. She has a group that she runs with on Tuesday and Thursday mornings at 5:30. The closer the two get to the race, the longer their runs become. The longest run before the race is a 20-mile distance, which is set up through the TNT training schedule.

Cindy Fotti is the local TNT coach. Her job is to supervise and inspire the runners and walkers in the area by creating a schedule for them and keeping them motivated. "People like Marie and Philip don't need my help much past that because they have no problem remembering why they are raising money and training. Whenever I say 'remember the reason' to them it just brings a smile to their faces because they are very aware of why they are doing this," Fotti said.

Participants raising funds each year to support the marathon and cancer research must meet a minimum target. When that amount is met, TNT will pay for travel expenses and the race entry fee for the participant. Johnson has a goal of \$3,400 to raise, while Kerl is working toward a goal of \$5,000. They gather that support by sending letters to family, friends, colleagues and other contacts. They also have individual Web sites through TNT that allow for people interested to donate through a secure website. There are also opportunities for organizations to sponsor individuals or whole teams.

They also have individual Web sites through TNT that allow people to make secure donations. There are also opportunities for organizations to sponsor individuals or whole teams. Contact Kerl or Johnson for more information.

# MU vet invents lameness detector for horses

Wednesday, August 6, 2008 | 9:26 p.m. CDT

<http://www.columbiamissourian.com/a/104853/mu-vet-invents-lameness-detector-for-horses/>

## **Overall Health, Longevity of Horses at Center of Joint Research Project**

Researchers at the University of Missouri and Stephens College have joined forces with the Saint Louis Zoo's Department of Animal Health and Nutrition and a supplement company in a research project for the betterment of horse health. The study examines new technologies in diagnostics, prevention and treatment of lameness in horses, with possible applications for other hooved mammals.

"The major goals of the collaboration are to deepen the understanding of equine lameness issues, improve the longevity of equine athletes, and improve the overall quality of life for horses," said Dawna Voelkl, clinical assistant professor in the MU College of Veterinary Medicine.

Researchers will use horses at Stephens College in the study to determine methods by which animals susceptible to joint ailments may be identified earlier. Students and faculty from Stephens College and MU are working closely to prepare the horses for blood, urine and gait analysis. The first portion of the study will focus on establishing baseline values of certain components found in blood and urine, as well as determining the overall soundness of individual horses through wireless techniques.

"The hope is that diagnosis at an earlier stage will assist with treatment and decrease progression of the problem," said Trista Strauch, assistant professor of resident instruction in the MU College of Agriculture, Food and Natural Resources. "We are looking for biological markers with the hope that we can help horses with arthritis."

The second portion of the study will involve the administration of a patent-pending nutraceutical product – STEADFAST™ EQUINE – marketed by ARENUS, a retail brand of Novus International, Inc. The research is sponsored by Arenus.

STEADFAST™ EQUINE is described as a complete structural support product designed to maintain normal health, performance and longevity of all components of a horse's framework – including joints, bones, hooves and other connective tissues. These components may be impacted over time due to athletic performance, environmental conditions and aging.

"Arenus is committed to research that will help deliver better results to our customers," said Jeremy Moore, marketing manager for Novus Nutrition Brands. "We are excited about our relationships with the University of Missouri, Stephens College and the Saint Louis Zoo. Hopefully, this is yet another step toward earlier diagnosis of equine joint and bone issues as well as a better understanding of alternative therapies that can help our horses lead longer, more enjoyable lives."

The research satisfies a requirement for a Mizzou student in the Saint Louis Zoo's Department of Animal Health and Nutrition, supported by Novus International.

"This collaboration of our programs reflects the equine community's strong commitment not only to research and education, but also to the promotion of equine wellness programs," said Ellen Beard, chair of Stephens College Equestrian Studies.

## Exercise Pill is No Replacement for Exercise

*MU expert lists benefits of exercise that were not tested in recent "exercise pill" study*

Recently, researchers at the Salk Institute for Biological Studies, a research organization focused on biology and its relation to health, published a study in the journal *Cell* on the results of a substance that increased exercise endurance without daily exertion when tested in mice. Media reports have described this substance as an "exercise pill," potentially eliminating the need for exercise. Frank Booth, a University of Missouri expert on the science of inactivity, says the "exercise pill" study did not test all of the commonly known benefits of exercise and taking the pill cannot be considered a replacement for exercise.

In the *Cell* paper "Exercise Mimetics" the researchers demonstrated that AMPK-PPAR $\delta$  pathways, which is a cellular messenger system, can be targeted by orally active drugs to enhance training adaptation or even to increase endurance without exercise. However, Booth cautions that some of the commonly known benefits of exercise were not tested in the *Cell* paper including:

- Decreased resting and submaximal exercise heart rate
- Increased heart stroke volume at all exercise work loads
- Increased maximal exercise cardiac output
- Lower blood pressure and arterial stiffness
- Increased aerobic capacity

A complete list of the 26 benefits not tested in the paper is included below.

The prevention of the increased risk of chronic disease produced by lifelong physical inactivity also was not tested in the *Cell* paper. According to Katzmarzyk & Janssen (*Can J Appl Physiol* 29:90, 2004), human physical activity decreases the risk of:

- Coronary artery disease (decreases risk by 45 percent)
- Stroke (decreases risk by 60 percent)
- Hypertension (decreases risk by 30 percent)
- Colon cancer (decreases risk by 41 percent)
- Breast cancer (decreases risk by 30 percent)
- Type 2 diabetes (decreases risk by 50 percent)
- Osteoporosis (decreases risk by 59 percent)

Until targeting AMPK-PPAR $\delta$  pathways by drugs is shown to have all the above listed exercise benefits in humans, it is premature to use the term "exercise mimetics" from the very limited observations of the *Cell* paper, Booth said. Booth's expectation, based upon his more than 40 years of research experience in exercise and physical inactivity adaptations, is that the drugs in the *Cell* paper will only partially imitate exercise. In order for any "exercise pill" to counter physical inactivity, the pill must be polygenic, or control many genes at once; therefore the *Cell* drugs are not likely to provide all of the benefits of comprehensive physical activity. In Booth's opinion, the drugs used in the *Cell* paper were not conclusively proven to mimic exercise, contrary to media reports.

Booth has more than 40 years of research experience in physiological, biochemical, molecular and genetic adaptations that occur during exercise. He is a professor in the MU College of Veterinary Medicine and the MU School of Medicine and a research investigator in the Dalton Cardiovascular Research Center. He is a member of the editorial boards of *Journal of Applied Physiology*, *American Journal of Physiology: Cell Physiology*, *Physiological Genomics* and *CardioMetabolic Syndrome*.

Commonly known benefits of exercise not tested in the *Cell* paper were:

- Decreased resting and submaximal exercise heart rate
- Increased heart stroke volume at all exercise work loads
- Increased maximal exercise cardiac output
- Lower blood pressure and arterial stiffness
- Increased aerobic capacity
- Increased strength and cross-sectional area of skeletal muscle
- Delayed loss of muscle mass and strength with aging and physical frailty

- Improved balance and coordination
- Improved flexibility
- Reduced osteoporosis
- Reduced joint stress and back pain
- Decreased gallstone disease
- Improved endothelial function
- Decreased incidence of myocardial ischemia
- Less myocardial damage from ischemia
- Decreased oxidative stress
- Decreased inflammation
- Improved immune function
- Decreased liver steatosis and fatty liver disease
- Improved insulin sensitivity and reduced risk of type 2 diabetes
- Less likelihood of depression, anxiety, stress and poor psychological well-being
- Ameliorating hyperlipidemia: lower total cholesterol, higher HDL, and decreased blood triglycerides
- Improved cognitive function in the elderly
- Increased blood flow and neurogenesis in the dentate gyrus of the hypothalamus
- Prevention of the loss of brain volume in the elderly
- Delay in decline of physiological reserve in organ systems with aging

## Barkaritaville Party in Paradise

->More than 340 supporters attended the second annual Barkaritaville, Party in Paradise, Aug. 9 at the 3 rd Degree Glass Factory in St. Louis. The event raised money for Stray Rescue of St. Louis and Barkley House. Barkley House will be a temporary lodging facility where pets undergoing medical treatment at the University of Missouri Veterinary Medical Teaching Hospital can stay with their owners.



<-St. Louis band Gumbohead brought the sounds of New Orleans to Barkaritaville. While enjoying the live music, attendees bid on more than a hundred items donated for a silent auction.

→Russo's Gourmet Catering continued the Barkaritaville Party in Paradise theme with an array of treats that included tropical salad, coconut shrimp with sun dried cherry sauce, chicken and pineapple kabobs and Tuscan grilled vegetables.



<-Dr. Carolyn Henry (left), a veterinarian oncologist at the University of Missouri College of Veterinary Medicine who conceived the Barkley House concept, address the guests at Barkaritaville. She is joined by Randy Grim (center), founder of Stray Rescue of St. Louis, and the evening's emcee, Andy Banker of Fox 2 News.

->Barret Jackman of the St. Louis Blues was a special guest during the second annual Barkaritaville.



<-Katie Ortyl, fourth-year veterinary medicine student at the University of Missouri College of Veterinary Medicine in Columbia, brought a furry friend to Barkaritaville. Among the evening's activities were dog contests.

## **Horses Falling Ill with Disease Uncommon in Missouri**

### ***MU Veterinarian Warns Owners to be on the Lookout for Symptoms***

A potentially fatal disease is being reported among horses in the St. Louis area in unusually high numbers. Dr. Philip Johnson, a veterinarian at the University of Missouri College of Veterinary Medicine specializing in equine medicine and surgery, said he has treated six cases of Potomac Horse Fever this summer and is aware of a dozen additional cases treated by St. Louis-area veterinarians. Johnson said the disease is uncommon in the Midwest.

“Potomac Horse Fever crops up as mini epidemics when conditions are right,” he said. “We don’t usually see it in Missouri and we’ve seen a lot of it this year on both the Illinois and Missouri sides of the Mississippi River.” Johnson said the wet summer and subsequent flooding would favor promulgation and dissemination of the infectious agent that results in disease.

Potomac Horse Fever is caused by *Neorickettsia risticii*, an infectious agent found in snails, swallows, bats and flies that live near rivers. Exposure in horses often occurs when flies – stoneflies, mayflies, dragonflies, damselflies and caddis flies – pick up the infection in the river environment and then spread out. When they die, their bodies can fall onto pastures or water troughs where horses unknowingly consume them. The resulting bacterial infection of the large intestine can result in fever, colic, diarrhea, toxemia, laminitis and pregnant mare abortions. Without treatment, the disease is often fatal.

Fortunately, a new type of testing is now available to diagnose Potomac Horse Fever. Polymerase Chain Reaction (PCR) testing involves examining an ailing horse’s blood and feces employing scientific processes similar to that used in DNA fingerprinting, Johnson said. When combined with observation of clinical signs, PCR testing is a far more accurate process to diagnose Potomac Horse Fever than old-fashioned blood tests, he said.

Once Potomac Horse Fever has been diagnosed, it can be treated using oxytetracycline, a medicine not commonly prescribed to horses due to the potential for side effects (including diarrhea, paradoxically one of the signs of Potomac Horse Fever), but that is effective in treating this disease.

If you suspect that your horse is exhibiting symptoms of Potomac Horse fever, contact your veterinarian and request a PCR test.

## Retired Pathology Professor Passes

Dr. Loren Don Kintner, 86, of Kissimmee, Fla., died Aug. 21, 2008. Dr. Kintner taught veterinary pathology for 36 years at the University of Missouri College of Veterinary Medicine. He joined the college in 1949 as an instructor in veterinary pathology. From 1952 to 1956, he was an assistant professor, becoming an associate professor in 1956 and a professor in 1963. He began his second career at the State Animal Diagnostic Lab in Kissimmee after his retirement from the university. He found it challenging working with exotic birds, fish, manatees and other marine life.



He was born Feb. 7, 1922, to John and Mertie (Eberly) Kintner in Bryan, Ohio. He received a bachelor of science degree in 1948 from Manchester College in North Manchester, Ind., before going on to earn his D.V.M. at Ohio State University in Columbus in 1949. He was awarded a Master of Science in veterinary pathology in 1952 from the University of Missouri. In 1956 he was named a Diplomate by the American College of Veterinary Pathologists.

Among his numerous honors, Dr. Kintner received the Norden Distinguished Teacher Award in 1966 and 1977, the Gamma Sigma Delta Outstanding Teacher Award in 1968, the Amoco Good Teacher Award, University of Missouri, Columbia, in 1977, and the Award of Merit from the Veterinary Medical Alumni Association in 1973.

On Aug. 25, 1946, he married Treva (Carpenter) Kintner. She survives along with one daughter, Susan Kintner, of Orlando, Fla.; one son, David (Diane) Kintner of Granville, Ohio; one brother, Marion (Helen) Kintner of Oregon; and one granddaughter.

He grew up in the Church of the Brethren and loved canoeing and working in his garden with all the sub-tropical plants of Florida.

In lieu of flowers, memorials may be given to the Heifer Project. Online condolences may be sent at [www.rrefh.com](http://www.rrefh.com). The MU College of Veterinary Medicine awards a scholarship each year honoring Dr. Kintner. To contribute to the scholarship fund, send donations to the University of Missouri, W205 Veterinary Medicine Building, Columbia, MO 65211, and designate the contribution for the Loren D. Kintner Veterinary Diagnostic Laboratory Award.

## MU's Veterinary Research Scholars Wrap Up Successful Summer

*(image gallery below)*

The MU College of Veterinary Medicine recently completed its fourth annual Veterinary Research Scholars Program (VRSP). Sponsored by Merck, Merial, Pfizer and the MU CVM, the VRSP gives students in the Pre-Veterinary Medical Scholars Program and first- and second-year veterinary students the opportunity to spend their summer break exploring research.

As outlined in several publications, including "National Need and Priorities for Veterinarians in Biomedical Research" and "National Needs for Research in Veterinary Science," veterinarians, with their broad knowledge of animal biology, have a tremendous and unique potential to contribute to numerous scientific disciplines. These publications have also identified a critical shortage of veterinarians who pursue research-oriented careers.

MU's vibrant research community is an ideal setting for the development of veterinarians as biomedical researchers. The VRSP provides a foundation in research methodology through an intensive research experience that includes experimental methodology, seminars and discussions that give a broad exposure to biomedical sciences, and social events that foster interaction and a sense of community.

The 2008 VRSP scholars began designing and implementing research projects with their faculty mentor in February. When the summer break began, scholars hit the lab full time. Almost immediately, they began preparing for the focal point of the program, the National Merck-Merial Symposium, which this year was held at Michigan State University in East Lansing.

The symposium provides a forum where scholars from summer research programs across the country gather to network and share their science. Attending scholars prepare research posters and present their data to peers and faculty from other programs. They also attend seminars and mini-symposia led by prominent scientists and learn about post-DVM training programs in biomedical research. In 2008, more than 330 scholars from 25 programs from the United States and Canada participated. VRSP posters were well received and can be viewed at the VRSP Web page (<http://www.cvm.missouri.edu/vrs/>).

Social and networking activities are also a critical component of summer research programs, as they facilitate development of a research community among veterinary students. In addition to the national symposium, MU scholars participated in several activities, including tours of Bayer and the Stowers Institute in Kansas City, Mo., a trip to the University of Oklahoma Health Sciences Center's BSL2 and baboon breeding facilities in Oklahoma City, and a trip to Pfizer in St. Louis, Mo. One highlight of the program was meeting scholars from Kansas State University and Oklahoma State University at Kansas City's Worlds of Fun amusement park. Participants got to know each other during the 'Lab Olympics,' where four mixed teams of MU, KSU and OSU scholars competed in events such as the pipette race, the gel toss, and the biohazard sack race. The national symposium also featured social activities including a barbecue at the Potter Zoo, where a few lucky MU scholars actually assisted in a wound repair of a gray fox.

The 2008 VRSP attracted 14 students from MU, as well as two students from the University of Tennessee. Moreover, one of the 2007 MU scholars, Rachael Cohen, ventured off to Kansas State University to further explore research as part of the KSU VRSP. The program has been well received by scholars and mentors alike.

For more information about the MU Veterinary Research Scholar's Program, visit the VRSP Web page at <http://www.cvm.missouri.edu/vrs/>.

For general information about research opportunities for veterinary students and veterinarians, see <http://www.merckmerialscholars.com/> and <http://cvm.msu.edu/research/summer-research-program-1/merck-merial-veterinary-scholars/merck-merial-veterinary-scholars-national-and-canadian-research-opportunities-for-veterinary-students>.

### 2008 University of Missouri Veterinary Research Scholars

Scholar	Mentor	Project Title
Cynthia Alvarado, VM2, University of Tennessee	Dr. Bob Livingston	Serodiagnosis of Murine Norovirus in Mice Using Recombinant Virus-like Particles
Emily Basler, VM2, University of Missouri	Dr. John Middleton	Characterizing Staphylococci from Mammary Quarters Co-infected with Another Mastitis Agent
Michael Betley, VM2, University of Missouri	Dr. Yuksel Agca	Motility Comparison of Epididymal Rat Sperm after Exposure to Various Molar Concentrations of Trehalose
Annie Chih, VM2, University of Missouri	Dr. Rebecca Johnson	Exercise Motivation and Fitness Through Dog Walking Among Older Adults
Maria Evola, VM2, University of Missouri	Dr. Marc Hamilton	Don't Just Stand for That! Effects of Posture on Muscle Recruitment
Rachel Halpin, VM2, University of Missouri	Dr. Charlie Brown	The Role of Fish Oil in Limiting Inflammation
Mark Harmon, VM2, University of Missouri	Dr. Cathleen Kovarik	The Effect of Estradiol on GnRH mRNA Expression in Old Mouse Hypothalamic Tissue
Kimberly Hause, VM2, University of Missouri	Drs. Leah Cohn and John Middleton	Classification of Methicillin-Resistant Staphylococcus Aureus Strains in Cystic Fibrosis Patients
Katharine Horzmann, VM2, University of Missouri	Drs. Harold Laughlin and James Turk	Adipocyte Diameter and Adipose Inflammation in Swine
Jessie Krause, VM2, University of Missouri	Dr. Susan Schommer	Evolution of PRRSV in an Experimentally Infected Swine Herd
Christine Nagel, VM2, University of Missouri	Dr. Jimi Cook	Effects of Resection Technique on Cell Viability, Metabolism, and Tissue Architecture of Normal Menisci
Paul Nolen, VM2, University of Tennessee	Drs. Craig Franklin and Matt Myles	Estrogen Modulation of Innate Immunity in a Mouse Model of Inflammatory Bowel Disease
Amanda Perman, VM2, University of Missouri	Dr. Elizabeth Bryda	Characterization of a New Gene Causing Male Infertility in the M366 Mouse Model

VM1, University of Missouri		
Rachel Ray, VM3, University of Missouri	Dr. Rebecca Johnson	Shelter Dog Adoptability Through Dog Walking: A Study Benefiting Shelter Dogs and Older Adults
Heather Wise, VM1, University of Missouri	Dr. Kevin Keegan	Response to Hock Flexion Test in Sound Horses as Measured by a Wireless, Inertial Sensor-Based Motion Analysis System
Ben Yarnall, Pre-Vet Scholar, University of Missouri	Dr. Aaron Stoker	Analysis of Chondrocyte Metabolism <i>In Vitro</i> Utilizing Different Culture Methodology



The 2008 University of Missouri Veterinary Research Scholars enjoy a break at Oceans of Fun in Kansas City.



Cynthia Alvarado visits the Potter Zoo as part of the National Veterinary Research Scholars Program Symposium in East Lansing, Mich.



Marie Evola auscultates a gray fox that is having a wound repaired at the Potter Zoo. Evola was on a zoo visit while attending the National Veterinary Research Scholars Program Symposium in East Lansing, Mich.



Annie Chih is the model in the "dress your partner in PPE" Science Olympics event at Worlds of Fun amusement park in Kansas City with scholars from the Oklahoma State and Kansas State VRSPs.



Ben Yarnall and Heather Wise are all smiles riding the Mamba at Worlds of Fun amusement park in Kansas City.



Heather Wise discusses her poster at the National Merck-Merial Symposium in East Lansing Mich.

## Cyclists Raise Funds to Fight MS

Two dozen MU College of Veterinary Medicine students, alumni, faculty, residents, technicians and friends pushed their pedals to raise money for the National Multiple Sclerosis Society. The group took part in the MS 150 – a two-day bicycle tour through and around Columbia Sept. 6 and 7.

The ride began at the Midway Expo Center each day. Riders could opt to cycle 75 miles each day, 100 miles each day, or 75 miles one day and 40 on the second. Each participant agreed to contribute at least \$250 to the MS Society by October in order to ride in the tour. So far the team has raised \$5,920 of its \$6,500 goal. Purina sponsored the CVM team by providing members with cycling jerseys.

Multiple sclerosis is a chronic, often disabling disease that attacks the central nervous system made up of the brain, spinal cord and optic nerves. According to the National Multiple Sclerosis Society, "Symptoms may be mild, such as numbness in the limbs, or severe, such as paralysis or loss of vision. The progress, severity, and specific symptoms of MS are unpredictable and vary from one person to another. Today, new treatments and advances in research are giving new hope to people affected by the disease." In the United States, there are approximately 400,000 people with MS and 200 more are diagnosed each week. Worldwide, the disease is estimated to affect more than 2.5 million people.

The people in the photo are those who made up the MU Veterinary Cycling Team:

Back row from left: Wes Kimberlin, Stephanie Twigg, Brad Twigg, Michele Watson, Kayla Terry, Elliot Pennington, Dr. Linda Berent, Dr. Marlyn Sue Whitney, Ashley Stich, Dr. Craig Franklin, Mike Hutsel; middle row: Brian Hutsel, team captain Krystle Azerolo, Erin O'Toole, Jane Ebben; front row: Sarah Schlink, Rachel Halpin, Kira Moore, Jenny Wolf, and Meghan Duhadway.



Two alumni, Dr. Erick Lutzeier and Dr. Tom Millis also participated in the ride as part of the team, but are not in the photo. Dr. Joan Coates and Dr. Jeanetta Perry raised funds for the event, but were unable to ride.

For more information about the event, contact Krystle Azerolo.

## Author Addresses Connaway Society

Members of the John W. Connaway Society met for their annual brunch Sept. 21, 2008, as part of the University of Missouri College of Veterinary Medicine's Alumni Weekend. CVM Director of Development and Associate Dean for Student and Alumni Affairs Dr. Ron Cott served as the emcee for their event and welcomed those gathered at the Columbia Country Club.

Dr. Neil Olson, CVM dean, discussed progress within the Development office toward meeting the college's fundraising needs. MU Provost Brian Foster then offered a campus-wide perspective of the university before the program speaker, John Campbell, Ph.D., was introduced.

Campbell, a 1955 graduate of MU's College of Agriculture, Forestry and Natural Resources, taught and researched at MU for 20 years before serving as dean of agriculture at the University of Illinois and president of Oklahoma State University. He has authored and coauthored a number of books on animal science, agriculture and higher education. He coauthored the book "Companion Animals: Their Biology, Care, Health, and Management," along with his daughter Dr. Karen Campbell, DVM. During the Connaway Society gathering, he discussed working with his daughter to develop the book from concept to selling the idea to a publisher to the evolution of the content.

The John W. Connaway Society was established to help continue the vision of Dr. Connaway. The society is a symbol of the abiding interest of its members on the welfare of the MU College of Veterinary Medicine. Its membership is dedicated to securing the future of the college. Through their active involvement, founding members maintain the college's leadership role and sustain Dr. Connaway's vision of excellence.

For more information about the Connaway Society, contact the Development office at 573-882-0548.



Author John Campbell, who taught and conducted research at MU for 20 years, discusses writing the book "Companion Animals: Their Biology, Care, Health and Management."



John Campbell (left) looks for a page to autograph in his book for MU CVM alumnus Dr. Gerald Carey, '68, Blue Springs, Mo.

Members of the John W. Connaway Society, along with CVM faculty and staff, gathered at the Columbia Country Club Sept. 21, 2008, to listen to author John Campbell talk about the experience of writing his book.



## **Dog Jog Promotes Fitness for a Cause**

The weather was cool and sunny and wagging tails were aplenty for the 15th Annual Dog Jog at the MU College of Veterinary Medicine. Members of the Veterinary Class of 2010 sponsored the event on Sunday, Oct. 12, 2008. The Dog Jog started on the College of Veterinary Medicine campus and the more than 70 participants followed either a 5k run course or walked 2.5k.

Proceeds from the registration, which was \$15 in advance or \$20 on race day, will benefit the Class of 2010 and the Central Missouri Humane Society. Human participants received a long-sleeve T-shirt and had the opportunity to purchase a photo of themselves with their dog. The event was not restricted to dog owners, runners and walkers were also welcome to get some exercise without a four-legged friend.



## **Vet Products Night Sets New Records**

The MU CVM's Veterinary Products Night held Oct. 21, 2008, drew its largest crowd ever. Approximately 275 MU veterinary medicine students, faculty and clinicians attended the 12th annual event held in the Adams Conference Center. Those attending had the opportunity to meet with representatives of 21 companies that offer animal food and care products, as well as representatives of the U.S. Army and the USDA.

The evening included a food buffet featuring a variety of appetizers, as well as drawings for prizes, such as an iPod, barbecue pit and snowboard, as well as scholarships. Winning \$500 scholarships each were: Austin Williams, VM-1; Hillary Hellstern, VM-2; Erin O'Toole, VM-3; and Jeff Anderson, VM-4.

Companies and agencies attending the networking forum included, Addison Biological Laboratory Inc., AVMA GHLIT, Banfield, Bayer Animal Health, Butler Animal Health Supply, DVM Resources, Fort Dodge Animal Health, Greenies, Hill's Pet Nutrition, Jorgenson Laboratories, Merial Ltd., MWI Veterinary Supply, Natura Pet Products, Nestle Purina Pet Care, Novartis Animal Health, Pfizer Animal Health, Radiologic Resources, Royal Canin Veterinary Diet, U.S. Army Health Care Recruiting Team, USDA Food Safety and Inspection Service and Virbac Animal Health.



Second-year veterinary student Hillary Hellstern (right) meets with Viki Farrow of Merial during the 12 annual Veterinary Products Night at the MU College of Veterinary Medicine.



Kim Long hands a goody bag filled with Greenies dog and cat dental treats to veterinary student Emily Basler during Veterinary Products Night.



Karlin Yaeger of Addison Biological Laboratory explains some of the products his company produces to improve animal health to veterinary students Kelvin Urday, Heather Davis (center) and Natalie Fording.

## More than Symbolic: Veterinary Students Ready to Roll up Sleeves of White Coats

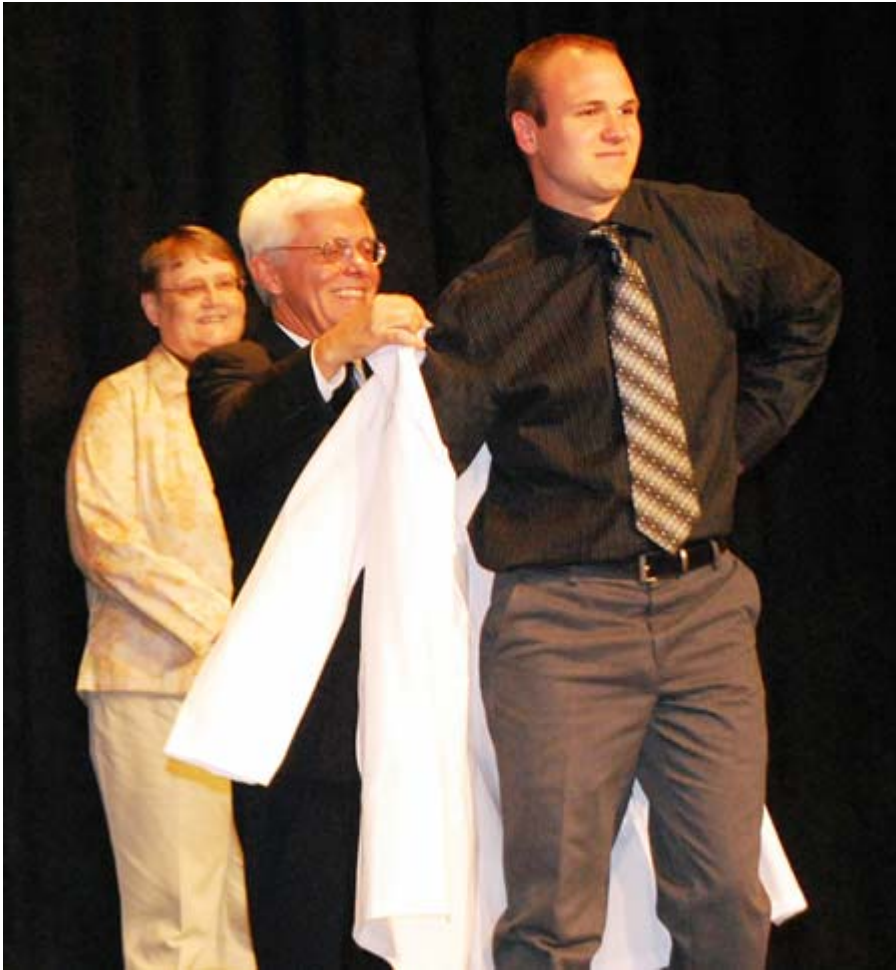
Members of the MU College of Veterinary Medicine Class of 2010 celebrated the beginning of the clinical portion of their veterinary education during the eighth annual White Coat Ceremony, Oct. 20, 2008. The event was held at the Columbia, Mo., Holiday Inn Executive Center.

The 65 members of the class received their laboratory coats from a family member or mentor whom they selected to make the presentation. Hundreds of other well-wishers were also present to congratulate the students after the ceremony.

The White Coat presentation traditionally takes place after students successfully complete more than two years of classroom education as they prepare to begin working with animal patients that are brought to the Veterinary Medical Teaching Hospital for care. The students will next spend nearly two years working in the hospital's Small-Animal, Large-Animal and Food-Animal clinics on their way to completing their DVM degrees.



Mary Factor helps her son Mike don his white laboratory coat as Dr. Neil C. Olson, CVM dean, watches and waits to congratulate the veterinary student and his mother. Olson told the Class of 2010 to take heart in the fact that they had passed the half-way mark toward becoming veterinarians.



CVM Dean Dr. Neil Olson helps student David Maledy into his white laboratory coat as CVM Admissions Advisor Kathy Seay looks on



Dr. Gheorge M. Constantinescu, CVM professor in the Department of Biomedical Sciences, greets Peggy Moore, mother of veterinary student Kira Moore, as they prepare to walk on the stage for the presentation of Kira's white laboratory coat



After the students received their coats, they were congratulated by Dr. Neil Olson, CVM dean; Dr. John Dodam, CVM Chairman of Veterinary Medicine and Surgery; Dr. David Wilson, director of the Veterinary Medical Teaching Hospital; Dr. Clark Fobian of the American Veterinary Medical Association; Dr. Steve Strubberg, president of Missouri Veterinary Medical Association, and Richard Antweiler, MVMA executive director, who also presented the students with veterinary lapel pins from the MVMA.



Jeanie Welker, president of the Class of 2010, gave her fellow students' response during the eighth annual White Coat Ceremony. She reminded her classmates that the road to anywhere worth going isn't always easy.

## **New MU Study Indicates that Exercise Prevents Fatty Liver Disease**

(Story courtesy of the University of Missouri News Bureau)

It's easy to go to the gym on a regular basis right after a person buys the gym membership. It's also easy to skip the gym one day, then the next day and the day after that. A new University of Missouri study indicates that the negative effects of skipping exercise can occur in a short period. The researchers found that a sudden transition to a sedentary lifestyle can quickly lead to symptoms of nonalcoholic fatty liver disease (hepatic steatosis), which affects at least 75 percent of obese people.

"We found that the cessation of daily exercise dramatically activates specific precursors known to promote hepatic steatosis," said Jamal Ibdah, professor of medicine and medical pharmacology and physiology in the MU School of Medicine. "This study has important implications for obese humans who continually stop and start exercise programs. Our findings strongly suggest that a sudden transition to a sedentary lifestyle increases susceptibility to nonalcoholic fatty liver disease."

Nonalcoholic fatty liver disease is a reversible condition that causes fat to accumulate in liver cells of obese people. As Westernized societies are experiencing a weight gain epidemic, the prevalence of the disease is growing, Ibdah said.

In the study, researchers gave obese rats access to voluntary running wheels for 16 weeks. Scientists then locked the wheels, and transitioned the animals to a sedentary condition. After 173 hours, or about seven days, the rats began showing signs of factors responsible for promoting hepatic steatosis. In the animals tested immediately at the end of 16 weeks of voluntary running, there were no signs of hepatic steatosis.

"Physical activity prevented fatty liver disease by 100 percent in an animal model of fatty liver disease," said Frank Booth, a professor in the MU College of Veterinary Medicine and the MU School of Medicine and a research investigator in the Dalton Cardiovascular Research Center. "In contrast, 100 percent of the group that did not have physical activity had fatty liver disease. This is a remarkable event. It is rare in medicine for any treatment to prevent any disease by 100 percent."

The study, "Cessation of Daily Exercise Dramatically Alters Precursors of Hepatic Steatosis in Otsuka Long-Evans Tokushima Fatty (OLETF) Rats," was published in *The Journal of Physiology*.

## **MU CVM Students Capture Fourth Place in Animal Welfare Contest**

Five MU College of Veterinary Medicine students captured team and individual honors during the Eighth Annual Animal Welfare Judging/Assessment Competition. The MU CVM students were among approximately 70 contestants competing at Michigan State University in East Lansing.

Cia Johnson, Melissa Austin, Claire Beckmeyer, Rachael Cohen and Naomi Turner formed team Crazy Heifers and represented the MU CVM – the first time the CVM has taken part in the event. However, their novice status did not stand in the way of their success; they took fourth place in the team competition with Cohen placing fourth in the overall individual category and Johnson earning fifth-place individual honors.

The team contest entailed making observations and gathering data during a visit to a Michigan State poultry farm where chicken, turkey and quail are raised. The individual contests focused on cat, dairy cow, and Przewalski's Horse scenarios. In each instance, at least two animals were involved in a house, farm or research setting. The contestants had to determine in which scenario the animal's welfare and needs were best met. The students presented their arguments to a panel of judges. Team tallies were compiled from the individual scores.

First-year veterinary student Cohen said the contest gave her an opportunity to build on the knowledge she has gained from science classes and research experiences about the philosophy and ethics behind animal welfare. To prepare for the contest she conducted online research into laboratory-animal medicine and drew on her personal experiences in agriculture and shadowing veterinarians.

The annual contest is open to undergraduate, graduate and veterinary students.



**The MU CVM Crazy Heifers team included (from left) Melissa Austin, Naomi Turner, Rachael Cohen, Cia Johnson and Claire Beckmeyer. Faculty member Dr. Richard Meadows helped coach the team to fourth-place honors.**

## Plaques Memorialize Founders' Contributions

Members of the MU College of Veterinary Medicine Class of 1958 recently unveiled bronze plaques commissioned to honor two of the College's founders. Local sculptor Sabra Tull Meyer created the plaques, which feature the likenesses of Dr. Aaron Holland Groth and Dr. Stanley N. Smith.

Groth served as dean during the transition of what is now the College of Veterinary Medicine from a department within the College of Agriculture to the School of Veterinary Medicine in 1949. His leadership in bringing together the faculty has been credited with ensuring that the first class of 1950 graduated with the degree of DVM and in bringing about the future success of the College. Smith, a professor of Veterinary Medicine and Surgery, brought his clinical practice to MU in order to provide the school with the clientele needed for AVMA accreditation.

The Class of 1958 paid tribute to these two leaders by collecting the contributions needed for the plaques. The plaque honoring Smith will be displayed in the reception area of the Veterinary Medical Teaching Hospital's Large-Animal Clinic. Groth's plaque is on display in the Veterinary Medicine Building Auditorium.



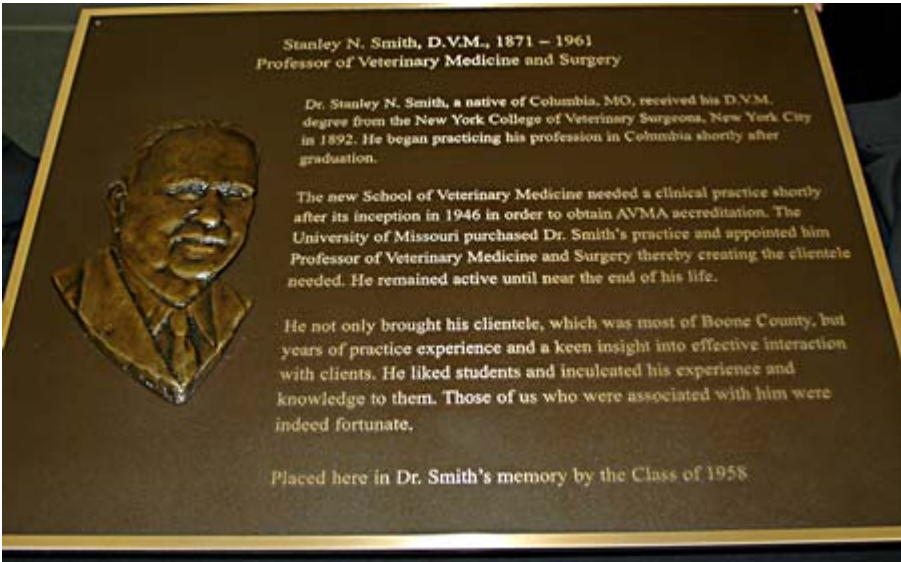
Renowned Columbia sculptor Sabra Tull Meyer removes the covering to reveal the plaque dedicated to Dr. Stanley Smith as retired faculty member Dr. George Shelton (front left), Dr. Charles Middleton, DVM '58 (front center) and other members of the Class of 1958 and former instructors look on.



Dr. Charles 'Bud' Middleton, DVM '58, who spearheaded the effort to have bronze plaques created in honor of Dr. A. H. Groth and Dr. Stanley Smith, unveils the Groth memorial as classmates, former instructors and the sculptor who created the works, Sabra Tull Meyer, watch.



Columbia sculptor Sabra Tull Meyer displays one of the bronze plaques she created honoring two of the founders of the College of Veterinary Medicine. She is flanked by members of the Class of 1958 who helped organize the effort to commission the plaques, Dr. Allen Hahn (left) and Dr. Charles 'Bud' Middleton.



The bronze plaque honoring Dr. Stanley Smith will be displayed in the Veterinary Medical Teaching Hospital Large-Animal Clinic.



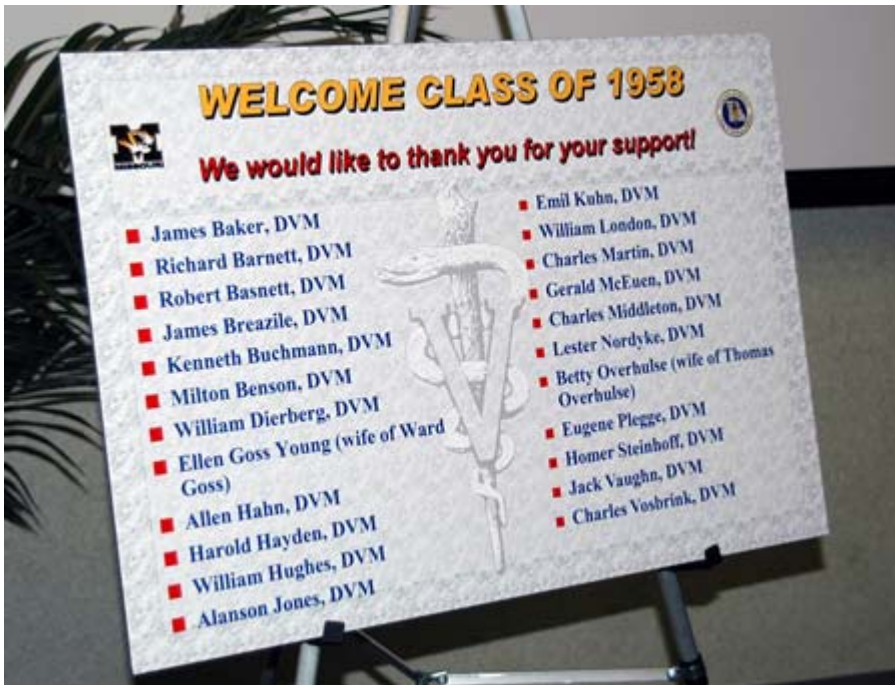
The bronze plaque honoring Dr. A. H. Groth is on display in the Veterinary Medicine Building Auditorium.



Margaret Niemeyer, wife of retired CVM faculty member Dr. Kenneth Niemeyer, greets Dr. Charles 'Bud' Middleton and CVM Dean Dr. Neil Olson during a reception following the unveiling of plaques honoring Dr. Stanley Smith and Dr. A.H. Groth.



Members of the Class of 1958 and their spouses enjoy a buffet lunch following the dedication of plaques honoring CVM founders Dr. Stanley Smith and Dr. A.H. Groth.



Members of the Class of 1958 donated the funds to commission the plaques honoring Dr. Stanley Smith and Dr. A.H. Groth.



Dr. Charles 'Bud' Middleton (left) greets fellow Class of 1958 member Dr. William Dierberg during the reception following the dedication of the plaques honoring two of the CVM founders.



Retired CVM faculty member Dr. George Shelton (right) visits with Dr. John Rhoades, DVM '61, during the reception held following the unveiling of plaques to honor college founders Dr. Stanley Smith and Dr. A.H. Groth.



Retired CVM faculty member Dr. Larry Morehouse visits with CVM Librarian Trenton Boyd prior to the unveiling of the plaques honoring Dr. Stanley Smith and Dr. A.H. Groth.



MU CVM Dean Dr. Neil Olson welcomes the Class of 1958 and other guests to the unveiling of the plaques honoring two of the College's founders.



After the plaques honoring two of the College's founders are unveiled in the Veterinary Medicine Building Auditorium, attendees of the event took the opportunity to greet new acquaintances and reminisce with old friends.

## Regional Biocontainment Laboratory Dedicated on MU Campus

*Researchers will study new treatments and vaccines to fight infectious agents*

University of Missouri researchers will have an opportunity to play a critical part in the nation's effort against bio- and agro-terrorism with the completion of the new Regional Biocontainment Laboratory (RBL) on the MU campus. The RBL facility gives researchers the necessary tools to study emerging infectious diseases such as West Nile virus and tularemia, pathogens commonly found in Missouri.

The facility was created after MU scientists received a \$13.4 million grant from the National Institutes of Health. One of 13 facilities in the country, the lab is designed to assist in national, state and local public-health efforts in the event of a bioterrorist or infectious disease emergency. MU researchers will help develop drugs, treatments and vaccines to combat microorganisms that pose a threat to public health. The facility will allow scientists to diagnose and detect emerging infectious pathogens that might be used in bioterrorism, as well as to provide training for graduate and postdoctoral students and laboratory animal medicine veterinarians.

"This state-of-the-art laboratory will enable MU scientists and students to remain at the forefront of pathogen study and will attract world-class researchers to our university," said George Stewart, professor and chair of the MU Department of Veterinary Pathology. "The facility was built to the highest standards to ensure the safety of those who work in or around the building."

Because research on emerging infectious diseases requires a very specialized facility, the strictly controlled RBL is designed with specialized ventilation and waste management systems to protect the researchers and to prevent microorganisms from being disseminated into the environment. The building has its own air supplies, filters, power supplies and decontamination systems. All critical systems are built with backup units. For example, all air that comes out of the building will be filtered through high-efficiency particle filters, making the air leaving the building cleaner than the air entering the building.

The RBL, located behind the MU Animal Sciences Research Center off of East Campus Drive, was dedicated at a ceremony featuring several speakers including Brady Deaton, MU chancellor; Samuel Stanley, Jr., director of the Midwest Research Center of Excellence for Research in Biodefense and Emerging Infectious Diseases at Washington University in St. Louis; and Michael Kurilla, deputy director of the Office of Biodefense Research at the National Institute for Allergy and Infectious Disease.



MU Chancellor Dr. Brady Deaton (left) helps to cut the ribbon dedicating the new Regional Biocontainment Laboratory at the University of Missouri, assisted by (from left) Dr. Neil Olson, dean of the MU College of Veterinary Medicine; Dr. George Stewart, director of the RBL; and Columbia Chamber of Commerce Ambassador Chair Elect Nancy Fay with Mary Kay Cosmetics.

## **Molecular Therapy for Spinal Muscular Atrophy Closer to Clinical Use**

*-MU researcher improves efficiency of trans-splicing therapy*

Spinal muscular atrophy, a neurodegenerative disorder that causes the weakening of muscles, is the leading cause of infant death and occurs in 1 in 6,000 live births. While trans-splicing (a form of molecular therapy) has had impressive results as a treatment for spinal muscular atrophy in cell-based models of disease, scientists have been unable to translate the therapy to the human body. A University of Missouri researcher has developed a strategy that will enhance trans-splicing activity and bring it closer to being used in the clinical setting.

Spinal muscular atrophy is caused by the loss of survival motor neuron-1 (SMN1). In humans, a nearly identical copy gene is present called SMN2. Because of a single molecular difference, SMN2 alone cannot compensate for the loss of SMN1, but it can be used as a primary target for therapeutics, including trans-splicing. Trans-splicing therapy relies on splicing, or uniting, of mutant RNA and therapeutic RNA in order to correct RNA sequence.

To improve efficiency, the researchers developed a trans-splicing system that uses a strand of RNA that can bind to a gene and inactivate it. Turning the gene "off" reduces competition at splice sites and improves the likelihood of achieving the desired results.

"The key to introducing trans-splicing in clinical settings is developing efficient trans-splicing systems," said Chris Lorson, investigator in the Christopher S. Bond Life Sciences Center; associate professor of veterinary pathobiology in the MU College Veterinary Medicine; and scientific director for Fight SMA, a private spinal muscular atrophy research foundation in Richmond, Va. "We have found that reducing the competition between the splice sites enhances the efficiency of trans-splicing. This strategy provides insight into the trans-splicing mechanism and significantly improves trans-splicing activity in a mouse model of spinal muscular atrophy. "

The study, "Development of a Single Vector System that Enhances Trans-splicing of SMN2 Transcripts," was published in *PLoS ONE* and was co-authored by Lorson; MU researchers Tristan H. Coady, Travis D. Baughan and Monir Shababi; and Genzyme Corporation neuroscience researcher Marco A. Passini.

*Story courtesy of the University of Missouri News Bureau*