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Ways to Help Companion Animals Is Subject of Kemper Series Lecture

Download True Prevention by Richard Meadows, DVM, DABVP, Jackie Kleypas, DVM and Jan Chipperfield, DVM

Richard Meadows, DVM, DABVP, and clinical associate professor at the College of Veterinary Medicine, University of Missouri-Columbia, will detail practical ways to improve the quality of pets in a Kemper Lecture on March 6, 2007.

The lecture will also discuss ways that owners, the public, and veterinarians can enhance the lives of companion animals. Dr. Meadows leads a group of MU volunteers, called Project HOPE, that provides free spay, neutering, and medical care in economically depressed areas of Kansas City. The project’s goals are to help curb pet overpopulation and make the animals more attractive for adoption.

The lecture, sponsored by the MU Student Union Programming Board, will take place 7-9 p.m. in MU’s Jesse Wrench Auditorium in Memorial Union South.

Kemper Lectures highlight professors who have been awarded the Kemper Fellowship for Teaching Excellence. Dr. Meadows was presented the award in 2005.

Dr. Meadows recently received one of veterinary medicine’s highest honors, the 2006 Bustad Companion Animal Veterinarian of the Year Award. The award recognizes the outstanding work of veterinarians in protecting and promoting the human-animal bond.

Dr. Meadows is also the faculty advisor for MU’s Pet Assisted Love and Support (PALS), students and their pets who visit children’s hospitals, retirement homes and other areas where the emotional well-being of people are enhanced by interacting with animals. Dr. Meadows has also conducted research into therapeutic benefits of the human-animal bond. He is a board-certified member of the American Board of Veterinary Practitioners.

Dr. Meadows earned a bachelor’s degree in chemistry from West Texas State University in 1977 and a bachelor's degree in veterinary science from Texas A&M in 1980. He obtained his DVM degree from Texas A&M in 1981. Since arriving at MU in 1999, he has received the Norden Distinguished Teacher Award, the Aesculapius Teaching Award, and the Golden Chalk Award.

Although he considers teaching to be his primary responsibility at MU, Dr. Meadows also actively seeks funding to enhance the College’s teaching facilities and technologies. He has received more than $552,000 in grants that have been used for a variety of projects including the purchase of specialized equipment for veterinary dentistry instruction and the remodeling and expansion of Clydesdale Hall, the veterinary medical teaching hospital.
In Vitro Models Will Minimize Animal Use in Arthritis Studies

MU Researchers Have Developed a Model that Mimics Actual Joints

By Kelsey Jackson

It’s hard to think of scientists in laboratories working toward solutions for medical problems without mice or other laboratory animals, but animals’ roles in at least one major research laboratory may soon be minimal.

Researchers at the University of Missouri-Columbia’s Comparative Orthopaedic Laboratory (COL) have developed an in vitro model using small sections of joint capsule and cartilage typically discarded that mimics arthritic joints. This “joint in a test tube” model can be used to investigate causes and mechanisms for the development and progression of arthritis and to screen new treatments such as pharmaceuticals. The MU research team which developed this model has shown that the results have valid and direct clinical implications for arthritis in dogs and humans.

Often, clinical research is limited by patient numbers, accessibility to appropriate samples and ethical considerations. Using in vitro models eliminates some of these barriers and allows researchers to better understand of the disease’s development, characteristics and responses to various injuries, treatments and loads. The in vitro model acts similar to an actual joint with the same histological, biochemical and molecular changes.

“These in vitro models will allow us to perform our research without using animals while still accurately mimicking situations in real life,” said James Cook, professor of veterinary medicine and surgery and the William C. Allen Endowed Scholar for Orthopaedic Research. “We can screen new drugs for arthritis in a more efficient and cost-effective way such that real progress is achieved more quickly.”

The in vitro models allow for all of the tissue in a normal joint to be “grown” together such that the different types of tissues can "communicate" as they do in the actual joint. COL researchers have shown that this system maintains the tissues' appearance, composition, and function so that they react to health and disease as they would in real life. The system then allows drugs, nutritional supplements and even exercise regimens to be tested on the in vitro model.

For example, scientists can determine the effects of pressure to the joints after running or walking using a bioreactor, a device which loads the tissues in the "test tube" environment. Using this new model, MU researchers will unlock clues, on a molecular level, as to why recovery is important in healthy athletes as well as people with arthritis.

“Using the joints in the test tubes will allow for greater flexibility when studying arthritis,” Cook said. "We can test literally hundreds of different loads on joints in a single day and show results in real time. It is strengthening our research as we are able to explain data on a molecular level and then translate it to what happens to people and pets that struggle with arthritis every day.

“These in vitro models also provide a much safer mechanism for investigating new drugs and therapies. If severe side effects occur, all we have do is assess what has happened to the tissues rather than trying to treat a laboratory animal or a patient with an adverse reaction.”

Cook’s results with in vitro models have recently been published in Current Rheumatology Reviews.
"Bad to the Bone"
MU Professor Advises Against Raw Meat Diet for Pets

Feeding Fido that raw ground beef might not be the best idea. A University of Missouri-Columbia veterinary professor is warning owners about the dangers of raw meat diets for pets.

"We are experiencing a recent national trend where pet owners are feeding their pets raw meat because they think it is healthier, but that couldn't be further from the truth," said Robert Backus, assistant professor and director of the Nestle Purina Endowed Small Animal Nutrition Program. "Feeding your pet raw meat puts the safety of not only the pet in danger, but also the household."

Harmful bacteria, and other microbes and parasites may live on raw meat, which is why Backus urges pet owners to be careful about how they handle it. Salmonella contamination from uncooked, meat-based pet treats has caused outbreaks in both Canada and the United States, the most recent case occurring in Washington, according to the Centers for Disease Control.

Additionally, raw meat can affect the pet's health. Pet owners subscribing to the school of thought that raw meat is what their pet would have eaten in the wild, may be putting their pets' health in danger.

"Sooner or later an animal could hurt their jaw or break their teeth while chewing on a bone. Animals found in the wild have fractured teeth and tend to not live as long as pets," Backus said.

Animals that consume cooked or uncooked bones can experience tears anywhere along their digestive tracts from their mouths to their intestines. Cooked bones can actually splinter more when they are consumed. Pet foods offer a safe alternative to raw meat diets.

"The ingredients found in pet foods are generally more consistent and thereby better provide for nutritional balance. Owners should pay attention to labeling to ensure they are purchasing the correct food for their animal that meets nutritional profiles or passed feeding tests recommended by the Association of American Feed Control Officials," Backus said.

The Association of American Feed Control Officials' recommendations are used by nutritionists to evaluate pet foods and by federal and state officials to regulate pet foods.
Veterinarian Who Rescues Unwanted Animals Speaks at MU College of Veterinary Medicine

Ed Migneco, MU DVM ’86 and winner of numerous awards for his work rescuing stray animals in St. Louis, will speak at the University of Missouri College of Veterinary Medicine at 1 p.m., March 13, in the college’s Adams Conference Center.

The event is sponsored by the American Board of Veterinary Practitioners. Snacks will be served courtesy of the Veterinary Information Network.

Dr. Migneco was named the Hartz Mountain 2007 Veterinarian of the Year and the 2002 Veterinarian of the Year by the Missouri Veterinary Medical Association for outstanding achievements and service to the profession. The St. Louis Riverfront Times selected him at the city’s Best Veterinarian.

The owner of Hillside Animal Hospital in St. Louis, Dr. Migneco serves on the board of the Greater St. Louis VMA and Stray Rescue of St. Louis. A diplomate of the American Board of Veterinary Practitioners, Dr. Migneco is certified in canine and feline practice. He serves as a veterinary consultant for the St. Louis Zoo and is on the advisory committee at the Gateway High School Veterinary Technology Program.

Dr. Migneco volunteers his time to Peking Duck Rescue, Feline Friends, Open Door Animal Sanctuary, PAWS, Pound Pals, English Springer Spaniel Rescue of America, Alaskan Malamute Rescue of Illinois, and Belleville Area Rescue of K-9s.

He is most known for his work with the Stray Rescue organization that rescues abandoned animals trying to survive in urban St. Louis. Sometimes, this pits him against snarling and injured guard dogs trained as killers by drug dealers.

From the beginning of his professional career, Dr. Ed saw how desperately the city’s nonprofit groups needed help. "I just couldn't say no," he said. When he bought the City Animal Hospital from Dr. Norbert Schmelzer in 1986, Dr. Ed immediately made a point of treating abandoned animals.

Michael Mullen of Pets Are Wonderful Support (PAWS) said his group couldn’t work their own wonders without Dr. Ed's help. PAWS provides, in part, veterinary care for people who have HIV or AIDS. PAWS today handles about 300 pets, but 10 years ago, when the group was created and Mr. Mullen solicited veterinarians for discounted care, Dr. Migneco came forward immediately.

"He always says yes,” says Randy Grimm, executive director of Stray Rescue. The non-profit Stray Rescue of St. Louis was founded in the late nineties by Mr. Grim who would see stray dogs, some in packs, pass by his Lafayette Square grooming shop. If these urban wild dogs didn’t die of starvation, he said, diseases such as parvovirus, heartworm, or intestinal parasites would kill them. Dr. Migneco has helped with about a thousand of Stray Rescue’s cases.
Hartz Names Dr. Ed Migneco
Veterinarian of the Year 2007

Edward Migneco, MU DVM ‘86 and a volunteer with several animal welfare groups including Stray Rescue of St. Louis, has been named 2007 Veterinarian of the Year by The Hartz Mountain Corporation.

Hartz created its award in 2001 to honor veterinarians who have demonstrated an outstanding commitment to patients their families and to their communities.

Dr. Migneco balances his community outreach efforts while running his veterinary practice at the Hillside Animal Hospital in St. Louis. Dr. Migneco is also involved in promoting spaying and neutering to counter pet overpopulation. He is also a diplomate of the American Board of Veterinary Practitioners.

One of the most prominent memories Dr. Migneco has of his years as a veterinarian involves a stray dog named Powder who lived in an abandoned house. It took months of daily feedings and contact before a local rescue volunteer could capture him and bring him into Dr. Migneco for treatment.

Dr. Migneco examined Powder and found him to be suffering from multiple problems including mange, malnutrition, intestinal parasites, and heartworm disease. Powder remained in the clinic for several weeks. Powder is now living with a family, but still visits the clinic for yearly exams.

Another case concerns Calypso, a mixed breed stray that roamed the streets of East St. Louis. Like many of the other strays in that area, a group of volunteers would bring food to her each day. One day, a volunteer with the rescue group found her lying on the side of the road. At first, the rescue volunteer thought that she was dead, but on further inspection, she was found to be alive, but only barely. She was immediately brought to Dr. Migneco for help.

Dr. Migneco stabilized Calypso and examined her. Like most of the strays he treats, she suffered from many ailments, including heartworm disease, intestinal parasites, and malnutrition. In addition to that, large wounds on her head and neck had become infected and infested with maggots.

"It took us several hours to clean out Calypso’s wounds," Dr. Migneco said. "She was so weak that there was no need for sedation. We applied new bandages and medications to her wounds each day. Through it all, she would lick our faces while we were treating her."

"Dr. Migneco’s commitment to veterinary medicine and his community has touched the lives of many animals and people," said Dr. Jill Richardson, director of Consumer Relations at Hartz Mountain.

Dr. Migneco was nominated for the award by Dr. Micah Young, MU DVM ’02 and an associate veterinarian at his veterinary hospital.
Veterinary Faculty Achieves Wrestling Officiating Milestone

After helping his students mentally wrestle with the concepts of clinical pathology at the University of Missouri College of Veterinary Medicine, Dr. Chuck Wiedmeyer replaces his coat and tie with a striped shirt and whistle, and heads to the mat to help with a more physical form of the action.

Recently, he achieved a milestone in his avocation.

Dr. Wiedmeyer, assistant professor of veterinary clinical pathology, was recently selected, from nearly 300 registered officials, to officiate at the Superbowl of state wrestling, the state tournament. Of the 32 officials chosen, he was the only one from Columbia.

It was the highlight of his wrestling career. The event is sponsored by the Missouri State High School Athletics Association (MSHSAA), and was held in February.

Dr. Wiedmeyer earned his DVM and PhD from the University of Illinois-Champaign and has been teaching clinical pathology at MU for more than five years.

He earned his wrestling experience starting in his freshman year in high school. "I was way behind my teammates because most of them started much younger," he said. "Because I started late, I was a mediocre wrestler at best. Still, I had a good time and enjoyed the competition."

To stay involved with the sport, Dr. Wiedmeyer obtained his license to officiate in Illinois in 1985 shortly after leaving high school. "I have officiated ever since, 21 years, in fact," he said.

Typically, he officiates six to eight tournaments a year and several dual meets. That equals hundreds of matches per year.

To be selected to the officiate at the state tournament, the official must have experience, good ratings by coaches, recommendations by other officials, and good evaluations by state evaluators. Another plus is experience in officiating in other parts of the state. "If you stay in your area, you’re not noticed enough," Dr. Wiedmeyer said. "I've traveled to St. Louis, Kansas City, Branson, Springfield, Hannibal, and many points in between."

Dr. Wiedmeyer said that while it is easy to get become an official; it is difficult to be an official.

"To become an official all one needs is knowledge of wrestling, pass an open book MSHSAA exam, and attend a rules meeting," he said. "If you are in your first three years of officiating, you must attend a mechanics meeting to work on your signaling mechanics, mat positioning, and how to conduct a match."

You also need a little savvy. "As one novice official commented to me recently, there are many unwritten rules," Dr. Wiedmeyer said. "A new rule book is published every year, but to be an official you have to use judgment, anticipate situations, have a great command of the rules, use good mechanics, and most of all have thick skin. I have been called every name in the book and even physically threatened. All in a day's work, I guess."

Is it rewarding? "Yes, it's very fun, even though sometimes I have to take a lot of verbal abuse from fans, it still has its rewards," he said. "It does pay, but not a great deal. Call it a hobby."
It is also physically demanding—a great way to maintain fitness.

"Also, I have learned things from officiating that apply to my academic life," he said. "Things like fairness, following rules, patience, being able to accept criticism, confidence, authority, and persistence."

Future plans? "I'll keep doing this until I can't," he said. "I have officiated wrestling for kid's clubs, junior high schools, high schools, and, recently, college. As long as there is wrestling, I'll be officiating."
Doctor Larry Nafe Recognized
By Arkansas Association

Larry Nafe, MU DVM ’76, was named Veterinarian of the Year by the Arkansas Veterinary Medical Association.

He operates the Hillcrest Animal Hospital, Little Rock, Ark. The hospital has been voted "Best of the Best" by the Arkansas Times and Arkansas Democrat-Gazette newspapers for the past ten years. Dr. Nafe is the only board certified internist and neurologist in the state of Arkansas.

The association selected Dr. Nafe for his devotion to the advancement and improvement of veterinary medicine through professional consulting, helping humane and rescue groups, and representing veterinary medicine to the public and media.

Dr. Nafe is a summa cum laude graduate of the MU College of Veterinary Medicine. He was Intern of the Year at The Animal Center, New York, in 1977, and completed his residency in Internal Medicine and Neurology there in 1979.

Upon completion of his residency he joined the staff of College of Veterinary Medicine at Louisiana State University as an assistant professor in the Department of Veterinary Clinical Sciences.

While at LSU he developed the integrated Neuroanatomy, Neurophysiology, and Clinical Neurology course which included all domestic species. Dr. Nafe also developed and directed the Medical Records Unit for the Small Animal Hospital, and developed a protocol for the treatment of Intervertebral Disc disease.

He was named head of Small Animal Medicine in 1981. After leaving LSU he served as an adjunct assistant professor until 1987.

In 1983 Dr. Nafe established the first referral practice in Arkansas where he continues to practice today with his wife in Little Rock. Throughout his career he has been active in the American College of Veterinary Internal Medicine. He has served in various capacities within the College including secretary and treasurer of the Specialty of Neurology, chairman of the Neurology Specialty Examination Committee, and inaugural member of the Internal Medicine Forum committee.

Dr. Nafe has given multiple professional presentations to veterinary associations on a variety of topics including neurology, neurosurgery, and internal medicine. Dr. Nafe has published more than 25 scientific articles on a variety of veterinary topics. He is a member of the Jefferson Club at the University of Missouri as well as other professional associations.

He and his wife breed and race thoroughbred race horses and are members of a variety of thoroughbred associations. They are proud parents of Laura Nafe a Class of 2009 student at the MU College of Veterinary Medicine. They live outside Little Rock on 25 acres with their pets and horses.
Cancer Radiation Treatment:
Not Just for Humans Anymore

With his pointed ears and habit of purring, Percy doesn’t resemble your typical cancer patient, but at the University of Missouri-Columbia's Veterinary Medical Teaching Hospital, even Russian Blue cats can undergo radiation treatment.

Each year, more than 1,200 animal patients are helped through the innovative veterinary oncology program at the MU College of Veterinary Medicine.

Veterinarians with specialty training in oncology see these cats, dogs, and horses. As our animals live longer, they are increasingly being affected by maladies traditionally associated with old age, including cancer. In fact, many types of cancers afflict animals as well as people.

The MU program routinely works in cooperation with human medicine oncologists to find effective treatments for numerous species. Veterinarians at MU use similar techniques of human medicine, including the newest advances in chemotherapy, radiation, and surgery.

"MU is unique in that it is home to a veterinary teaching hospital, a medical school and cancer center, a research reactor, and a life sciences research center, all located on the same physical campus," said Dr. Carolyn Henry, associate professor and director of the Scott Endowed Program in Veterinary Oncology. "This gives us an unparalleled opportunity to create a multidisciplinary team of clinicians and researchers devoted to discovering improved diagnostic and therapeutic options for all cancer patients."

MU has four board-certified veterinary oncologists on staff, as well as a board-certified radiation therapist, three medical oncology and one radiation oncology resident, and one oncology intern.

Cats can develop several cancers, including squamous cell carcinoma, lymphoma, breast cancer, and lung cancer. The demand for veterinary oncologists has increased as more and more people consider pets as members of their families and seek advanced treatment.

In addition, the MU group has developed an oncology clinical trials service for enrollment of animal cancer patients in trials evaluating new cutting-edge therapies. As evidence of their success in this area, the MU oncology program was chosen as one of only 13 sites comprising the National Cancer Institute's Comparative Oncology Trials Consortium. The first trial studying a novel cancer treatment in dogs is underway, with MU serving as one of only four trial sites in the nation.

In the last seven years, Percy has welcomed more than 100,000 museum visitors, received fan letters from people all over the world, and survived a well-publicized kidnapping. He has become a local celebrity. Some of his famous fans include the governor of Missouri; Brad Pitt's mother, who wanted one of his offspring to give to Jennifer Aniston; and artist Harriet Cremeen, who completed an oil painting of the cat three years ago.

MU veterinary oncologists were determined not to let cancerous lesions from Percy's abdomen and left hind leg end his star status. Percy was brought to the veterinary teaching hospital after three previous surgeries did not completely remove his tumors. To combat his aggressive form of fibrosarcoma, the cat had four weeks of radiation therapy by one of the few linear accelerators dedicated to veterinary use. During his stay at the hospital, Percy received 20 doses of radiation to his tumor site.
Percy handled the treatments well, showing no signs of side effects from his time in the teaching hospital’s linear accelerator. Percy was released from the hospital and is doing well, Dr. Henry said, and back to his museum job and fans in Joplin.
MU Veterinary Medical Teaching Hospital Improves Leg Deformities in Abused Tiger
- Tiger Was Part of "Photo for Money" Trade That Exploits Exotic Animals

(click here for the video)

While people paid $25 to have their picture taken with Sulley, a tiger cub, his malnourishment was causing his legs to bow outward when he walked. Nearly two years later, three University of Missouri-Columbia College of Veterinary Medicine surgeons attempted to correct Sulley's right leg with an innovative surgery performed for the first time on a tiger.

"This is a risky procedure in any animal, but deemed to be feasible in Sulley because of his excellent demeanor and his wonderful and attentive caretakers," said Derek Fox, assistant professor of small animal surgery. "Our hope is that by straightening the bones in Sulley's forelimb to match what we believe is more normal for a tiger, the corresponding joints will work more efficiently, and he will not be in as much pain."

For the past few years, Mizzou surgeons have been studying a technique used in humans to correct similar limb deformities in dogs. Fox practiced for Sulley's surgery using models and CT scans of the tiger's right leg. During Sulley's surgery, Fox straightened the affected bones, realigning the joints above and below the affected bones to optimize functional use of the leg and increase Sulley's comfort. Fox, who also is the associate director of the Comparative Orthopaedic Laboratory (COL), was joined by Jimi Cook, associate professor of small animal surgery and director of the COL, and James Tomlinson, professor of small animal orthopaedic surgery.

In the past year, Sulley's condition had worsened, and with the normal weight gain of an adolescent tiger, it was increasingly hard for his front legs to support his body. Without surgery, Sulley's leg deformities were leading to multiple permanent joint malformations, arthritis and pain.

Sulley's condition is similar to that seen frequently in dogs, where the growth and development of the bones that constitute the forelimb is affected by trauma, malnourishment or other systemic juvenile diseases. In Sulley's case, this condition can affect both forelimbs simultaneously.

"We really appreciate the work that Pat Craig and The Wild Animal Sanctuary does and for asking us to participate in trying to help Sulley," Cook said. "I think it is important to help Sulley and try to improve his quality of life, and even more important to educate the public so that we can try to prevent this from happening to any other animal."

Before coming to live at the Wild Animal Sanctuary in Keensburg, Colo., Sulley and four other tiger cubs were bought by an exhibitor from a breeder in Texas. The exhibitor would charge up to $25 at fairs and carnivals for pictures with the tiger cubs. Although this practice is legal if the exhibitor is licensed by the USDA, many of these operations have poorly trained personal who do not give the correct nourishment or care to the cubs. Tiger cubs are often taken away from their mothers as early as 10 days old. Exhibitors need small cubs to replace tigers that are too big.

When Sulley was 12 weeks old, the maximum age allowed by the USDA for these types of operations, he was returned to his base camp with his siblings. A man not licensed by the USDA but willing to try and make a profit anyway, took the five cubs. Living out of his car with five tiger cubs, he drove down to New Orleans and displayed the
cubs in the parking lots. This practice did not last long. After one of the cubs died from being left in the hot car too long, and another died from unknown circumstances, the man was arrested for animal cruelty.

When the local Society of the Prevention of Cruelty to Animals confiscated the tigers, they notified The Wild Animal Sanctuary, where staff members made arrangements to rescue them and take them back to Colorado. All three of the remaining cubs were malnourished and had varying stages of leg deformities. The sanctuary's veterinarian returned the cubs to a carnivore milk formula diet. Two cubs' legs began to improve and straighten with their next growth spurt, but Sulley's legs did not. The Wild Animal Sanctuary contacted Fox, knowing he was researching similar leg deformities in dogs, and asked him if he could perform the surgery.

"Sulley's abuse and rough start in life is very typical for the hundreds and hundreds of exotic cubs born into this terrible system each year," said Craig, executive director of The Wild Animal Sanctuary. "When Sulley's legs didn't straighten out like the other cubs' legs did, we began researching how we might be able to help him. The work of Dr. Fox and the veterinary team at MU is the culmination of an amazing collaboration by a host of individuals, doctors, facilities and medical equipment suppliers. We wanted Sulley to have the best, and he's definitely got it here at MU."

Several companies have made valuable contributions to the surgical care of Sulley. ProtoMED, located in Arvada, Colo. provided custom anatomical models of the affected bones, and Synthes USA, located in West Chester, Pa., provided bone plates and screws for the surgery. A number of similar ongoing research projects at MU's Veterinary Medical Teaching Hospital are focused on re-examining a variety of orthopedic conditions that specifically relate to angular limb deformity corrections in animals.

Mizzou is home to Mizzou Tigers for Tigers, the nation's first tiger mascot conservation program. Faculty, staff, students and alumni from the College of Agriculture, Food and Natural Resources, Department of Fisheries and Wildlife, College of Veterinary Medicine, School of Journalism, Department of Biological Sciences, Department of Environmental Studies, International Center, University Affairs, Alumni Relations, Development and Intercollegiate Athletics are working together to raise awareness about the endangered status of the University's mascot, while raising funds to aid in wild tiger research and conservation.
MU Veterinary Researchers Seek Help In Determining If Our Pets Carry an Antibiotic-Resistant Bacteria

The so-called "super bug" bacteria, Methicillin-resistant Staphylococcus aureus, is a growing problem in the medical profession where common contact can spread the antibiotic-resistant infection from doctor to patient.

But are our dogs and cats also capable of carrying and spreading this bacteria? To find out, researchers at the University of Missouri-Columbia College of Veterinary Medicine are recruiting 750 pet owners to determine if the bacteria routinely exists on our pets.

The bacteria, MRSA, has become prominent in the news because it is resistant to many antibiotics, and has been linked to skin infections, abscesses, joint infections, and death. It is dangerous because common antibiotics like oxacillin, penicillin, and amoxicillin don’t work against it. This forces physicians to use stronger, more expensive, or second- or third-choice medicines that may be less effective or have more side effects.

MRSA bacteria often lives on the skin of healthy people causing little more than an occasional boil or pimple or no symptoms at all. It becomes dangerous when the bacteria enters the body via a cut or puncture where it can produce a serious infection that does not readily respond to antibiotics.

It is particularly dangerous in healthcare settings where patients usually have weakened immune systems. Surgical procedures, dialysis treatment, or common tests that puncture the skin can introduce MRSA bacteria into the body where it can cause life-threatening problems, such as bloodstream infections, surgical site infections, or pneumonia.

While MRSA transmissions are known to occur in prison populations, sports teams, and the military, they seem to be most prevalent in healthcare areas. According to Center for Disease Control data, the proportion of infections that are antimicrobial resistant has been growing. In 1974, MRSA infections accounted for two percent of the total number of staphylococcal infections; in 1995 it was 22 percent; in 2004 it was some 63 percent.

Staphylococcal bacteria are commonly found on human skin and in the nasal passages, but less so in animals. Nonetheless, last year the federal Centers for Disease Control started looking to determine if dogs and cats are a potential carrier of MRSA bacteria and if there is a disease-transfer connection. Specifically, scientists wonder if humans are giving the bacteria to pets, pets are giving it to humans, or if the staphylococcal bacteria is cycling constantly among humans and their pets.

Early data indicates that there is a growing problem in the veterinary world. Veterinarians have reported cases of MRSA infection among dogs who have had surgery such as limb amputation. Methicillin-resistant staphylococcal infections have been found among horses, and outbreaks have occurred in equine hospitals.

Like with people, bacteria on pets may have grown resistant to antibiotics as modern veterinary medicine routinely uses modern pharmaceuticals to save animals who would have died a quarter century ago.

MU’s research study is being headed by Stephanie Kottler, DVM, a resident veterinarian at the Veterinary Medical Teaching Hospital. Co-investigators are Leah Cohn DVM, PhD, associate professor in small animal internal medicine; John Middleton, DVM, PhD, assistant professor of food animal internal medicine; and J. Scott Weese, DVM, DVSc, assistant professor at the University of Guelph Ontario Veterinary College, Canada.

Because prior studies have shown that there is a higher prevalence of MRSA bacteria colonization among healthcare workers, the MU study will evaluate 750 pets and their owners divided evenly into three groups 1) pets of human healthcare workers, 2) pets of veterinary healthcare workers, and 3) pets belonging to non-healthcare professionals.
"Results of the study will help define whether pets in households with healthcare workers are a more likely to serve as reservoirs for community-acquired MRSA," Dr. Kottler said.

The study is being funded by the American College of Veterinary Internal Medicine Foundation, the MU Department of Veterinary Medicine and Surgery, and Drs. Middleton and Cohn. Results will be submitted to human and veterinary peer-reviewed scientific journals.

The research study will only take a few minutes of time for participants to complete. A questionnaire is filled out, and then a technician will use a cotton swab to touch the inside of the pet's nose, and another swab to touch the inside of the pet owner's nose. The samples will be cultured to determine what kind of bacteria are present. Results will remain anonymous.

A coupon for dog food or a pet-related gift will be given to each participant.

For more information about the study, contact Dr. Kottler via e-mail at: kottlers@missouri.edu.
MU Researcher Working With Retinal Implants
To Make the Blind See

In Star Trek: The Next Generation, Geordi La Forge is a blind character who can see with the assistance of special implants in his eyes. While the sci-fi character lives in the 24th century, people living in the 21st may not have to wait centuries for the illuminating technology.

Dr. Kristina Narfstrom, the University of Missouri-Columbia College of Veterinary Medicine’s Ruth M. Kraeuchi-Missouri Professor in Veterinary Ophthalmology, has been working with a microchip implant to help blind animals "see."

Results are preliminary, but promising.

"About one in 3,500 people world-wide is affected with a hereditary disease, retinitis pigmentosa, that causes the death of retinal cells and, eventually, blindness," Dr. Narfstrom said. "Our current study is aimed at determining safety issues in regards to the implants and to further develop surgical techniques. We also are examining the protection the implants might provide to the retinal cells that are dying due to disease progression with the hope that natural sight can be maintained much longer than would be possible in an untreated patient."

Dr. Narfstrom is working primarily with Abyssinian and Persian cats that are affected with hereditary retinal blinding disease. The cat's eye is a good model to use for this type of research because it is very similar to a human eye in size and construction, so surgeons can use the same techniques and equipment. Cats also share many of the same eye diseases with humans. The Abyssinian cats that Dr. Narfstrom is working with typically start to lose their sight around 1- or 2-years-old and are completely blind by age 4.

To date, Dr. Narfstrom has performed surgeries in severely visually impaired or blind cats. During the surgery, Dr. Narfstrom makes two small cuts into the sclera, the outer wall of the eyeball. After removing the vitreous, which is the gelatinous fluid inside the back part of the eyeball, Dr. Narfstrom creates a small blister in the retina and a small opening, large enough for the microchip, which is just 2 millimeters in diameter and 23 nanometers thick. The chip includes several thousand microphotodiodes that react to light and produce small electrical impulses in parts of the retina.

"We are really excited about the potential uses for this technology and the potential to create improved vision in some of the millions of people affected worldwide with retinal blindness," Dr. Narfstrom said. "This technology may also be beneficial for pets that have similar diseases because this technology can benefit both animals and humans."

Dr. Narfstrom is working with Optobionics Corporation, the Naperville, Ill., based company that developed the device, and with Machelle Pardue, a researcher with Emory University and the Research Service at the VA Medical Center in Atlanta.
MU College of Veterinary Medicine Receives $2 Million Gift From KC Couple

Tom and Betty Scott of Mission Hills, Kan., have given $2 million to the For All We Call Mizzou campaign at the University of Missouri-Columbia. Their gift will benefit the MU College of Veterinary Medicine.

"Tom and Betty Scott’s generous gift illustrates their enthusiasm for Mizzou," said MU Chancellor Brady Deaton. "The Scotts' gift will help improve the training of future veterinarians and the treatment of animals. We are very grateful for their generosity."

The gift to the College of Veterinary Medicine will be placed in an unrestricted excellence fund for use at the dean's discretion.

"A gift like this shows tremendous faith in the leadership of the college and university," said Dr. Cecil Moore, interim dean of the College of Veterinary Medicine. "It will clearly make a future difference by advancing the veterinary college to a new level and providing flexibility for the leadership of the college to address its greatest needs and opportunities and to develop strategic priorities. All of us in the university and veterinary communities are truly indebted to Tom and Betty for their generosity and desire to make a lasting difference."

The Scotts are animal lovers and the proud owners of two toy poodles, Rags and Nicole. Mrs. Scott also is an avid horsewoman. Their involvement with the MU College of Veterinary Medicine began shortly after they were married and their golden basset hound, Smiley, received treatment for a broken vertebra. At that time, there was little that could be done for dogs with back injuries, but the Scotts were so impressed with the care Smiley received and the kindness of the faculty that they promised to someday repay the college.

Beginning in the 1980s, they began to fulfill that pledge by giving $3,600, in memory of their toy poodle, Muffin, to buy the college a needed ultra-low temperature freezer. The Scotts continued to give to the college, equipping individual equine clinical stalls and helping build the new teaching hospital, Clydesdale Hall. In 1996, they pledged $550,000 to establish the Tom and Betty Scott Program in Veterinary Oncology, a gift that strengthened an emerging effort for veterinary and human medicine oncologists to collaborate on research. In 2006, funds from the Scott Program allowed the establishment of the Scott Cell Culture Laboratory for Comparative Oncology Research, a laboratory designed to speed the culturing of cells from tumors, which allows for faster and more accurate diagnosis of many cancers and aids researchers in learning how these diseases spread.

"We trust this commitment fulfills the promise we made to Smiley and the College of Veterinary Medicine many years ago," said Mr. Scott. "We're happy to have this opportunity to honor our beloved dog by helping other animals."

Mr. Scott attended MU on a football scholarship and graduated in 1958 with a bachelor's degree in business. After graduation, he began a career in insurance that lasted more than 40 years. During his career, he developed a group of companies that operated as the Insurance Management Corporation, one of the top insurance and risk management firms in the US, and he received national recognition in the areas of long-haul trucking and childcare insurance. His company merged with Arthur J. Gallagher & Company in 1996, and Mr. Scott retired in 1998.

Mrs. Scott enjoyed a successful career in business management after attending the MU School of Nursing from 1956 to 1958. She and Mr. Scott met while studying at Mizzou and were married three months after Mr. Scott's graduation.

The For All We Call Mizzou campaign has a goal of raising $1 billion by December 2008. 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 $752.2 million, which is more than 75 percent of the $1 billion goal.
In Memory of Dr. Bonnard Moseley

The College of Veterinary Medicine family was saddened to learn of the passing this weekend of Dr. Bonnard Moseley, former Director of the CVM’s Veterinary Continuing Education/Extension unit. Dr. Moseley was an alumnus of the College, graduating in 1962. Originally from south Missouri, he lived in Columbia most of his professional life. He continued to be a faithful friend and supporter of the College following his retirement from MU approximately 15 years ago.

Highlights of Dr. Moseley’s tenure with the College include memories of his extension and outreach efforts throughout Missouri, his work with former Dean Bob Kahrs in establishing and parading the original mule team as College mascots, and his warm and good-humored nature. One of Dr. Moseley’s legacies was his ability to predict weather based on animal behaviors and signs observed in nature. He spoke widely on this topic throughout the State where audiences found his presentations on this subject both informative and entertaining. He was an avid runner and active participant in the Show Me State Senior Games. Dr. Moseley retired from the College of Veterinary Medicine in August 1989.

Dr. Moseley and his wife Rusty, who survives, were extremely proud of their two sons Joe and John. Joe was a local prosecutor and State Senator for a number of years and is presently a corporate attorney for Shelter Insurance in Columbia. John was an all-american football player for MIZZOU and also currently lives in Columbia. John’s wife Jill is an MU DVM graduate of the class of 1998.

Memorials may be sent to Broadway Christian Church/Youth Programs, 2601 West Broadway, Columbia, MO, 65203.
Role of Veterinarians in Disasters Conference

Up to 120 current and prospective members of the Missouri Volunteer Veterinary Corps (MOVCC) will attend a two day conference at the College of Veterinary Medicine on May 19th and 20th. The conference is a joint effort by the Missouri Veterinarian Medical Association (MVMA), The Missouri Department of Agriculture (MDA), the MU College of Veterinary Medicine and MU Extension.

The conference is designed to provide Missouri veterinarians and veterinary students with an overview of emergency management structure, zoonotic diseases, biosecurity, and the rescue and care of pet animals in the event of a disaster. The conference will also provide a seminar on preparation of small businesses for operation during and after a disaster. “The role of the veterinarian in insuring public well-being during natural or man-made disasters is becoming increasingly important. By helping to sponsor this seminar, the MU College of Veterinary Medicine is helping to serve our state” said Dr. John Dodam, Associate Dean of Academic Affairs for the college.

The conference will feature:

Dr. Vogelweid, Clinical Associate Professor and Director of Graduate Studies for the CVM Department of Pathobiology, will present “Missouri Hazards Risks.”

Dr. Howard Pue, State Public Health Veterinarian for the Missouri Department of Health and Senior Services.

Dr. Bill Wolff of the Missouri Volunteer Medical Corps (Information on the Missouri Volunteer Corps can be found here).

More information about the conference can be found here.
College of Veterinary Medicine Mule Team
Gets Boost From Long-Time Supporter

Virginia Etheridge was no stranger to helping the University of Missouri College of Veterinary Medicine Mule Team.

In the early 1980s, the just-retired veterinary college dean Dr. Roberts Kahrs and his wife Evelyn, were ready to leave Columbia, Mo. and return to Maryland. One problem: Mrs. Kahrs had made it a tradition to feed treats to the college’s mule mascots.

Before the departure, Mrs. Kahrs asked Mrs. Etheridge to carry on the practice. She did, and continued to bring the mules fresh carrots and apples most Sunday afternoons for more than two decades after the original request.

Even after her death in 2005, Mrs. Etheridge is helping the mules. Recently, the college received a $420,862 gift from her estate to supplement an existing Kahrs Family endowment for the mule team and their public relations efforts.

The money will be handled as an endowment with interest used for the team’s travel expenses, care and feeding, passenger wagon maintenance, and support for a truck and trailer. Funds will also support veterinary students who care for the mules and take them to events across Missouri to provide rides and a glimpse back in time when these animals were the backbone of Missouri’s economy.

"Mrs. Etheridge's gift insures the legacy of Bob and Evelyn Kahrs and their passion for the mule team and our students as ambassadors of the college," said Dr. Cecil Moore, College of Veterinary Medicine interim dean.

The mascot mules have represented the college, MU, and Missouri to thousands of people since 1982. Pulling a dozen-passenger wagon, they’ve paraded in MU homecomings, governor inaugurations, Missouri State Fair opening ceremonies, and the St. Louis Charity Horse Show and Kansas City American Royal Parade. They’ve also provided yeoman duty at small town parades, picnics, weddings, and other events. They were spotlighted by television personality Willard Scott on NBC’s Today Show. Tens of thousands of Missouri kids have either ridden in the mules’ wagon or petted a fuzzy mule nose. Often, the MU mules were the first farm animals that many city kids have ever seen in person.

The mules couldn’t have come at a better time. Soon after they arrived, the college saw a dramatic reduction of important funding streams that threatened the organization’s existence. A devastating review by the American Veterinary Medical Association said that if the college didn’t enhance its teaching facilities, the college would be demoted to limited accreditation or worse.

Dr. Kahrs made the team a centerpiece of a statewide public relations campaign for new financial support. The arrival of the mules guaranteed a crowd and Dr. Kahrs made the most of the opportunity to speak about the college’s plight. Missourians responded and enough money was garnered to build the new teaching hospital, Clydesdale Hall. Appropriately, the mule team pulled a plow for the official groundbreaking.

The original pair of mules, Hillda and Louise, a matched pair of sorrel draft mules, hung up their horseshoes in 1995 and retired. They were replaced by Jill and Shirley in the hitch. Mrs. Etheridge and Hill’s Pet Nutrition helped purchase the original team. Mrs. Etheridge and Bayer Pharmaceutical bought the second, along with their fancy black leather and chrome bridles, and a new passenger wagon.

Mrs. Etheridge was no stranger to the college. She worked for the Department of Veterinary Medicine in 1939-45 and lived next door to Dr. John Connaway, considered the college’s founding faculty member in the early Twentieth
Century. She moved to Columbia as a two-year-old with her parents in 1920. She graduated from Hickman High School, class of 1936, and later finished studies at the Rosenthal School of Commerce in Columbia. She married Edward Bruce Etheridge in 1953. She served as secretary to two presidents of Shelter Insurance.

The mascot mules are tended by the college’s Mule Club, about 20 or so veterinary medical students who care for and exhibit the mules. Veterinary medical students are no strangers to hard work, but care, maintenance, cleaning, and grooming of mules, wagon, and related tack are hard and sometimes dirty, thankless tasks. For many events in the outlying parts of the state, students arrive at the college’s mule barn before dawn to feed and prepare the mules, load them into a trailer, drive hours to an event, dress in cowboy hats and smiles, and meet the public with enthusiasm and patience.

When Jill and Shirley retired, the college searched for the third generation of MU mule ambassadors to carry on the tradition. Not any mule qualified. The ideal candidates needed to be a strong and matched set to better pull the wagon as a team. Above all, they had to be gentle and patient among the public, and ignore the distractions of zooming cars while they clomp down the street.

It was a Missouri Ozarks pair, named Tim and Terry, owned Max Eagleberger in Elkland, Mo. that looked most promising to the college mule search committee. MU purchased them courtesy of a donation by Sydenstricker Implement Co., a farm-vehicle dealership with stores across the state.

In 2007, the team is scheduled to make about 50 appearances across the state, occasionally enjoying apple and carrot treats that Mrs. Etheridge once made it a point to give them.
ReCHAI Director Selected for Fellowship
In The American Academy of Nursing (AAN)

Dr. Rebecca Johnson, Associate Professor (jointly appointed in Sinclair School of Nursing and the Department of Veterinary Medicine and Surgery), has been selected for Fellowship in the American Academy of Nursing. Dr. Johnson is Director of the Research Center for Human-Animal Interaction (ReCHAI) which is based in the College of Veterinary Medicine. Her selection to this Academy brings considerable prestige and honor to both the SSON and the CVM.

The American Academy of Nursing (AAN) is constituted to anticipate national and international trends in health care and address resulting issues of health care knowledge and policy. Not only is the invitation to Fellowship recognition of an individual’s accomplishments within the nursing profession, but also affords an opportunity for that individual to work with other leaders in health care to address critical contemporary public policy issues in the healthcare arena.

The AAN is comprised of 1,500 highly qualified and savvy leaders in the nursing profession who are at the top of their profession, having accomplished extraordinary milestones in their nursing careers. AAN members have been identified by their peers to be the best and the brightest in the nursing discipline.
Tiger Suffers Setback, Is Euthanized
Mizzou Veterinary Surgeons, Animal Sanctuary Personnel
Attempted to Save Animal from Previous Abuse

Sulley, a 400-pound tiger that suffered from severe malformations of his front legs as a result of abuse as a cub, was euthanized on April 14, when he succumbed to post surgical complications. University of Missouri-Columbia veterinarians had attempted to save the tiger by performing a 6-hour surgery during which the surgeons corrected the abnormality in his right leg.

The surgery was the first of its type to be performed on a tiger. Without the surgery to correct his bone deformities, Sulley’s painful condition would have continued to deteriorate.

Sulley’s weight and size contributed to failure of the orthopaedic hardware during the recovery period resulting in the need to euthanize him humanely.

"The staff of the Wild Animal Sanctuary wish to convey their sincerest gratitude to the University of Missouri Veterinary College, the surgeons and their dedicated medical team, the Colorado veterinarians who lent support and aftercare, the medical supply companies who donated time, talent and materials, and to the Sanctuary’s dedicated supporters, who make possible the rescue of abused animals like Sulley," said Pat Craig, executive director of the Wild Animal Sanctuary near Keenesburg, Colo. "We’re deeply saddened by the death of Sulley, who was a much-loved resident with us for more than two years. Every possible option was considered by the Sanctuary and Sulley’s doctors in an effort to save his life."

"In this case, the bad that man did could not be overcome by the good that man tries to do," said Dr. Jimi Cook, associate professor of small animal surgery and one of the surgeons who treated Sulley. "I think the sad end to his sad story should heighten the awareness and education it brings. Sulley’s case highlights the need for prevention of this problem even more since even the best treatments we have could not overcome his former abuse. I think it is important that we keep telling this story to make people aware of the seriousness of animal neglect and abuse. Support groups such as the Sanctuary and Mizzou’s Tigers for Tigers should be commended and supported for their efforts to prevent and stop this abuse."

Dr. Cook, director of the Comparative Orthopaedic Laboratory, was part of the MU surgical team that included Dr. Derek Fox, assistant professor of small animal surgery and associate director of the COL, and Dr. James Tomlinson, professor of small animal orthopaedic surgery.

Before being rescued by the Wild Animal Sanctuary, Sulley and four other tiger cubs were bought by an exhibitor from a breeder in Texas. The exhibitor charged up to $25 at fairs and carnivals for pictures with the tiger cubs. Although this practice is legal if the exhibitor is licensed by the USDA, many of these operations have poorly trained personnel who do not give the correct nourishment or care to the cubs. Tiger cubs are often taken away from their mothers when they are as young as 10 days. Exhibitors replace tigers that are too big with cubs.

When Sulley was 12 weeks old, the maximum age allowed by the USDA for these types of operations, he was returned to his base camp with his siblings. A man not licensed by the USDA but willing to try and make a profit anyway took the five cubs. Living out of his car with five tiger cubs, he drove to New Orleans and displayed the cubs in parking lots. This practice did not last long, however. After one of the cubs died from being left in the hot car too long, and another died from unknown circumstances, the man was arrested for animal cruelty.

When the local Society of the Prevention of Cruelty to Animals confiscated the tigers, they notified The Wild Animal Sanctuary, where staff members made arrangements to rescue them and take them back to Colorado. All three of the remaining cubs were malnourished and had varying stages of leg deformities. The sanctuary's veterinarian returned the cubs to a carnivore milk formula diet. Two cubs' legs began to improve and straighten with their next growth spurt, but Sulley's front legs did not. The Wild Animal Sanctuary contacted Dr. Cook through Dr. Erick Egger of Colorado. Dr. Egger was familiar with MU's expertise in arthroscopy and correction of similar leg deformities in dogs and asked if Drs. Fox, Tomlinson and Cook could perform the surgery.

"Sulley's bright and indomitable spirit has forged a bond among those who strove to save his life," Craig said. "The hope is that Sulley’s story will be an inspiration for many to join together to work tirelessly to educate Americans about the tragic plight suffered by thousands of captive exotic animals, and to ensure that future generations of these magnificent creatures can live in peace and dignity, as they were born to do."

"Sulley was a magnificent member of an often mistreated and misunderstood species," Dr. Fox said. "He and thousands of others like him in this country deserve better than this. Hopefully, his story will awaken people to the
plight of privately owned, captive wild animals that are so often exploited and suffer at the hands of human entertainment for monetary gain."

Mizzou is home to Mizzou Tigers for Tigers, the nation's first tiger mascot conservation program. Faculty, staff, students and alumni from the College of Agriculture, Food and Natural Resources, Department of Fisheries and Wildlife, College of Veterinary Medicine, School of Journalism, Department of Biological Sciences, Department of Environmental Studies, International Center, University Affairs, Alumni Relations, Development and Intercollegiate Athletics are working together to raise awareness about the endangered status of the University's mascot, while raising funds to aid in wild tiger research and conservation.
Human-Animal Center Establishes
Walk a Hound, Lose a Pound Program

Two societal problems, obesity and unwanted pets in shelters, may have a common solution. A research program at the Research Center on Human Animal Interaction (ReCHAI), College of Veterinary Medicine, University of Missouri-Columbia, will pair people needing exercise with shelter animals wanting a walk.

Research shows the benefits of people walking dogs to lose weight and maintain active lifestyles, says Rebecca Johnson, PhD, RN, and ReCHAI director. A previous ReCHAI research study showed that enjoyable interaction with a dog changes body chemistry that enhances a person’s physical well being. Another study demonstrated that owning a dog prompts people to exercise more through dog walking, with the exercise promoting weight loss.

The high rate of obesity in US adults and children creates a compelling need for innovative projects aimed at increasing physical activity, Dr. Johnson states. A community dog walking project would increase physical activity among children and adults, educate the public about the health benefits of walking, increase community awareness about dogs available for adoption, and increase shelter dog adoption rates.

The program, which will begin Saturday, April 21, is a joint project by ReCHAI, the City of Columbia, Mo., Columbia Parks and Recreation Department, PedNet, Happy Tails Animal Sanctuary, Second Chance Animal Rescue, and the Central-Missouri Humane Society. Participation fees of $10 per walker will be donated to local shelters.

The program consists of Saturday community dog-walks held at the Bear Creek Trail in north Columbia. In Walk a Hound, Lose a Pound, adults and families with children walk shelter dogs on existing trails in the park. Shelter dogs participating in the walks are selected by shelter staff based on adoptability, amicable personality, and ability to be walked.

Program participants will receive a t-shirt, and be given the opportunity to enroll in a study of their weight, blood pressure, mood, and physical activity patterns before and after participating in the program. Other organizations, such as the Missouri State Health Department, will provide health and nutritional information. Other health-related organizations may offer free obesity and blood pressure screenings.

“We anticipate that there will be weight loss and an increase in physical activity outside of the weekly dog walks among those who participate in the study,” Dr. Johnson relates. “We will also monitor dog adoption rates at the three local animal shelters before and after implementation of the project. Similar projects have been conducted in Indianapolis and Lubbock with favorable outcomes in people and in shelter adoption rates.”

Dr. Johnson is encouraged that people who start the project will participate each week. In the earlier Walking for Healthy Hearts project, 72 percent of participants consistently walked the dogs because they believed the dogs needed the walking.

For those not electing to participate in the weight-loss study, the Walk a Hound program will be a fun, family-oriented way to increase physical activity, Dr. Johnson says. She states that there is no reason why this pilot program could not be emulated statewide, particularly in rural areas where obesity is a greater problem.

ReCHAI researches ways that positive human-animal interaction can provide non-pharmaceutical therapy and health benefits. Another research project is measuring how visits with a dog affects mood, perception of health, and sense of
coherence among cancer patients undergoing radiation therapy. Other projects are showing how pet attachment enhances the health and well being among ethnic elders, and how pets can help older adults more easily relocate to a nursing home.

Dr. Johnson also is the Millsap Professor of Gerontological Nursing at the MU Sinclair School of Nursing.

For more information about ReCHAI, see the web page at: http://rechai.missouri.edu/
$400,000 Gift Will Support MU Programs on the Health Benefits of Human-Animal Interaction

A $400,000 gift to the University of Missouri-Columbia College of Veterinary Medicine may give man and man's best friend a boost. The gift from The Roetheli Lil' Red Foundation, headed by Dr. Joe Roetheli and his wife, Judy, of Kansas City, Mo., will support the Research Center for Human-Animal Interaction (ReCHAI).

ReCHAI, founded in 2005 in a partnership between the Sinclair School of Nursing and the College of Veterinary Medicine, explores the benefits of human-animal interaction. "We are one of several centers in the United States dedicated to human-animal issues. Many of the centers focus on teaching, animal welfare, and animal advocacy. ReCHAI is focused on conducting programs and research implementing human-animal interaction to facilitate health," said Dr. Rebecca Johnson, director of ReCHAI and Millsap Professor of Gerontological Nursing and Public Policy at the Sinclair School of Nursing.

"We are grateful for the Roethelis' generosity and dedication to this cause," MU Chancellor Brady Deaton said. "Their gift will help improve the quality of life for humans and animals and will provide new opportunities to research this fascinating link."

The Roethelis, creators of Greenies® dog biscuits, hope the gift will lead to a better quality of life for the elderly and sick, as well as for dogs and other companion animals. Dr. Roetheli, who received his doctorate in agricultural economics from Mizzou, said he recognized the importance of human-animal interaction when his father was in a nursing home. When he brought the family's dog, company mascot Max, for visits with his father, Roetheli noticed that not only did his father enjoy seeing Max, but so did many of the other nursing home residents. "Their eyes just lit up," said Dr. Roetheli.

Through The Lil' Red Foundation gift, a new program will make it possible for older adults in nursing homes, retirement facilities and their own homes across Missouri to be visited by animals and their handlers. Such visits have been found to ease loneliness, provide social support and unconditional love, particularly when family members do not live nearby. These results are documented through research at MU.

"With the Baby Boomers soon getting to the age, in general, where they will be needing elder care, I believe a huge opportunity exists for therapy dogs and other pets to play a larger role in their lives and happiness," Roetheli said. "Today, families are much smaller and more geographically dispersed leaving few local relatives to visit those in elder care facilities. Many residents of elder care facilities have been pet owners. Not only were these residents uprooted from their homes when placed in elder care facilities, but they also were separated from their pet.

"The Roetheli Lil' Red Foundation's extraordinary generosity will enable MU's Research Center for Human-Animal Interaction (ReCHAI) to develop a number of important initiatives. A central focus will be a program facilitating animal assisted therapy with older adults across the state of Missouri. We are deeply grateful for the Roethelis' foresight and commitment to human-companion animal interaction," said Rebecca Johnson.

Dr. Roetheli has worked for universities and the federal government, and Judy Roetheli has been a school teacher and stay-at-home mom to their sons, Steffan and Michael.

In 1996, the Roethelis had a dog named Ivan, which Roetheli described as "a beautiful Samoyed with horrible breath." At Judy Roetheli's urging, Joe Roetheli tried to develop a cure in the family's basement. Drawing on his 22-year research career, he "whipped up" a green resin made from wheat gluten, chlorophyll and other ingredients. The resin was irresistible to Ivan and improved his breath.
Two years later, after a veterinary nutritionist tweaked the recipe and the Roethelis shaped the product like a toothbrush, they began selling the resin, which they called Greenies®. They created the company S&M NuTec, LLC, and between their first sales in 1998 and May 2006, they sold more than 750 million Greenies®. The company had sales in every state and accounts in more than 60 countries worldwide. In May 2006, the company was purchased by Mars, Incorporated.

The Roethelis have been honored with many major awards, including the Mr. K Award as top small business in Kansas City in 2005, a Stevie Award as Best Company in America with Under 100 Employees by the American Business Association, Exporter of the Year in 2004 by the National District Export Council and Entrepreneur of the Year in Manufacturing for Western Missouri and Kansas by Ernst & Young in 2002.

For more information about ReCHAI, see http://rechai.missouri.edu/main.htm.

Inquiries regarding prospective gifts for ReCHAI or other College of Veterinary Medicine programs may be sent directly to Greg Jones, CVM Director of Development.
College of Veterinary Medicine
2007 Honors Banquet

The College of Veterinary Medicine’s annual Honors Banquet is a time to recognize students and faculty for a wide array of achievements. Academic proficiency, clinical skills, leadership, professionalism and teaching ability are some of the characteristics that were rewarded. The ceremony also provides the College with an opportunity to recognize individuals and organizations that make the gifts possible. Dr. Cott, Associate Dean for Student and Alumni Affairs presided over this year’s ceremonies held in Columbia, Missouri.

More than one-quarter of a million dollars was distributed in scholarships and gifts. Among this year’s awards were six new scholarship funds. Following is a list of the new scholarships and a brief description of their origin and intent.

**Mule Club Scholarship** – This award is presented to an outstanding member of the Mule Club. This gift was given by the Southeast Jefferson Saddle Club in memory of George Radin.

**Don Blenden Memorial Scholarship Fund** – This scholarship, established in honor of the late Dr. Don Blenden, was given to a 3rd or 4th year College of Veterinary Medicine student with an intention to enter the Veterinary Public Health field. This year’s award was presented by Dr. Robert Herzog. Dr. Hertzog is an alumnus of the College of Veterinary Medicine (MU Class of 1956) and a past Executive Board Chair of the AVMA.

**Joy and George Shelton Veterinary Medical Scholarship** – This award was established to provide an annual scholarship to an entering 4th year veterinary medicine student. The recipient is required to demonstrate leadership skills and an express interest in organized veterinary medicine. Dr. Shelton served in 1944 and 1945 as a radio operator on a B-25 Mitchell strafer-bomber in the Southwest Pacific. After discharge, he attended veterinary school at Texas A&M. He had an illustrious career in veterinary medicine which included roles as a private veterinarian, Professor and Associate Dean of UMC College of Veterinary Medicine and Dean at Texas A&M College of Veterinary Medicine. Dr. Shelton is also a published author and has written a fictional story based on the real experiences of a Mitchell strafer-bomber combat crew that flew in the Southwest Pacific in 1944-1945. The late Joy Shelton stood by her husband’s side as he led students to their degrees. Her passion for the students was unending.

Dr. George Shelton
John W. Pierce Scholarship in Food Animal and Equine Veterinary Medicine – This award was presented by Dr. John W. Pierce, Jr., D.V.M., a 1952 graduate of the MU College of Veterinary Medicine and his family. Dr. Scott and Dr. Stuart Pierce, also in attendance, have tendered the sum of $10,000 with the commitment to add additional funds to the University for the purpose of establishing a permanently endowed scholarship fund at the University of Missouri, Columbia to benefit students who have excelled in Food Animal (swine and bovine) or Equine veterinary medicine and/or surgery. Also in attendance was the fourth family veterinarian, Dr. Stephanie Pierce.

Karen L. Campbell Scholarship – This award is presented to a 4th year student who has demonstrated academic excellence by ranking in the top 25% of their class at the completion of their 3rd year at the UMC CVM. The Karen L. Campbell Scholarship is established in perpetuity by Dr. John R. and Eunice J. Campbell in honor of their daughter, Karen, in recognition of the high level of academic excellence she consistently demonstrated as a student in the UMC CVM (1979 D.V.M., summa cum laude). Dr. Karen Campbell achieved board certification in two veterinary specialties—the American College of Veterinary Internal Medicine (Small Animal Internal Medicine) and the American College of Veterinary Dermatology. This year’s award was presented by Dr. and Mrs. John Campbell.

Nelson Stone Scholarship Fund – This scholarship is given to a 3rd or 4th year student who is interested in becoming a small animal veterinarian and is from southeast Missouri. This award is in honor of Dr. Nelson Stone ’55 of Jackson, MO. His former client Gwen Winningham, provided a gift to the university in her estate planning to establish a scholarship fund for veterinary medical students.

The College of Veterinary Medicine would like to thank both our new and existing supporters for their generosity and dedication to our students, the veterinary profession and Missouri’s only College of Veterinary Medicine.
Dr. Kristina Narfstrom, professor of veterinary ophthalmology at the University of Missouri-Columbia Veterinary Medical Teaching Hospital, will rub elbows with Hollywood stars at the June 16, 2007 Vision Awards.

The black tie event, held at the Beverly Hilton Hotel, Beverly Hills, Calif., will present Dr. Narfstrom with the Scientific Achievement in Ophthalmology Award for her research in genetic retinal blinding diseases.

This will be the 34th annual Vision Awards. Earlier galas have been hosted by Hollywood stars Charlton Heston, Vin Scully, Mike Meyers, Paula Abdul, and Matt Damon. This year’s 1,000 person black tie gala will be hosted by Army Archerd, columnist for Variety magazine.

The program will be broadcasted to millions of people via KCOP Los Angeles, Fox, PAX Television, Direct TV, and the DISH Network.

Funds raised during the ceremony will benefit medical research into blinding retinal diseases.
Zimbabwe to Boston and Points in Between

The Boston Marathon is widely recognized as the premiere running event in the US and abroad. For 26.2 miles, approximately 20,000 runners push themselves to their limits while being cheered on by over a half million spectators. Among this year’s finishers was Dr. Munashe Chigerwe.

Like many of the marathon runners, he traveled a great distance to Hopkinton, Massachusetts to be among the thousands to partake in the annual Patriot’s Day celebrations and marathon kick-off. Originally from Zimbabwe, a slight detour brought Dr. Chigerwe to the College of Veterinary Medicine where he has been a food animal resident since 2003.

Many train for years to build their endurance and strength to even qualify for the marathon. Growing up on a farm and miles away from school, Dr. Chigerwe's training began at an early age. He fondly recalls running to school with his five siblings after morning chores to beat the bell.

Like many young boys in Zimbabwe, soccer was the main attraction with Dr. Chigerwe. While several of his siblings trained to be both short and long distance runners, he stuck with soccer through high school. Due to the lack of organized soccer here in the US, he decided to run in the time that he had.

Starting modestly with locally organized 5k runs, Munashe soon came to the conclusion that these “short runs” were not much of a challenge. A trip to Des Moines, Iowa in 2005 provided the first opportunity for him to test his long distance running. His summation of the marathon was, “hard.”

Undaunted, Dr. Chigerwe continued to train and participate in marathons when time permitted. On his fourth marathon, he qualified for the 2007 Boston Marathon. The 2007 race was characterized by bad weather including thirty-six mile per hour winds, rain and temperatures below 40 degrees.

The marathon itself as Dr. Chigerwe described was not only a physical, but mental roller coaster. Starting from corrals containing a thousand other runners, they began the first part of the race on relatively level terrain for the first twenty miles as they spaced out and found a comfortable pace. The remainder of the race is known for its increasingly challenging terrain of long rolling hills, including “Heartbreak Hill,” which depleted most of his energy reserves by the time he descended into Boston on adrenaline alone.

With one Boston Marathon under his belt, he has set his sights on another challenge. In a bid to qualify for the Marathon once again, he intends to run at least one marathon in every state before returning home to Zimbabwe. His current count is at eight with only forty-two more to go.
Dr. Olson Appointed Veterinary Medicine Dean

Dr. Neil Olson, associate dean for research and graduate studies at the College of Veterinary Medicine at North Carolina State University, has been appointed as dean of the University of Missouri-Columbia College of Veterinary Medicine, MU Provost Brian Foster announced today. Olson will start the new position on Sept. 1.

"This is an incredibly important position on this campus and is a central component of what we do here at Mizzou as well as across the state," Foster said. "We're very pleased that Neil Olson accepted the position. He received a very positive reception from both on and off-campus constituents when he came here for an earlier visit."

Olson earned a bachelor's degree in veterinary science in 1973 and a doctorate of veterinary medicine in 1975 from the University of Minnesota. He also earned a doctorate in physiology from Michigan State University in 1982. He has been a faculty member of North Carolina State University (NCSU) since 1982.

Olson has held a number of administrative appointments at NCSU including director of graduate programs, director of the Summer Research Internship Program, and director of the Biomedical Imaging Center. He was appointed to his current position as associate dean in 1998.

"I'm very excited about this position, and I think that MU's College of Veterinary Medicine has many areas of strength that are especially important today including the faculty's expertise in infectious diseases, their work with outreach programs to the rest of the state and region, and the nature of their collaborations throughout campus and the nation," Olson said. "This is the only veterinary college in the state, and I would like to see this college ranked in the top five veterinary schools in the nation in a short period of time. I'm looking forward to this exciting challenge."

Olson said that he has plans to be on campus in mid-August to greet students and faculty members when they return for the fall semester. He also hopes to schedule visits with veterinarians throughout the state soon.

Olson received a National Research Service award from the National Institutes of Health in 1979. He also was awarded an Outstanding Scientist Award from Sigma Xi in 1986, received the Distinguished Scholarly Achievement Award at the NCSU Honors Convocation in 1986 and was recognized with the Basler Taler Coin Award in Recognition for Outstanding Research in Animal Health in 1993. Olson has served as a chairperson at the annual meetings of the Research Workers in Animal Disease and the Comparative Respiratory Society. He also was elected to the National Board of Directors for the Comparative Respiratory Society in 1985 and 1991. His research has focused on cardiopulmonary health and disease.
MU Degree Program Focuses On  
Prevention & Management of Zoonotic Diseases

The threat of a zoonotic outbreak is considered by many to be a product of Hollywood. In reality, zoonotic diseases are important to us all. Over the past 25 years, 38 new pathogens have been identified, and 75% of these originated as animal diseases. Avian influenza and mad cow disease (BSE) grab headlines, and concerns related to Escherichia coli and salmonellosis have never been higher. Veterinarians play a vital role in maintaining the public health and the safety of the food supply. The College of Veterinary Medicine has expanded this role by helping to initiate a Masters of Public Health Program on the MU campus.

Starting in the fall of 2007, MU students will be able to pursue a Masters of Public Health (MPH) degree. The MPH program allows students to focus on one the three following domains: Health Policy and Administration, Health Promotion and Disease Prevention, or Veterinary Public Health.

The Veterinary Public Health emphasis area will be of particular importance to veterinarians and other professionals engaged in livestock health and production. Graduates with the MPH or the MPH in combination with a traditional veterinary degree will be uniquely suited to manage the interface of animal and human health.

Career prospects for veterinarians with a Masters of Public Health degree are particularly bright. The skills in epidemiology, population health management and zoonotic disease will prepare veterinarians for government service careers related to the control of diseases transmitted from animals to people, research careers requiring knowledge and experience related to experimental design and data analysis and livestock production medicine.

Dr. Kristofer Hagglund, Interim Director of the Program states “The Masters of Public Health (MPH) is the standard professional degree recognized throughout the world for public health practice. Our students will be well-qualified to tackle some of the most important challenges facing Missouri in the coming years.”

For more information about the MPH program, please contact Lise Saffran at SaffranL@health.missouri.edu or visit their web page here.
Veterinary Enrichment & Teambuilding Orientation - Class of 2011

The College’s incoming class of 2011 experienced very hot and dry Missouri weather as they took part in the “Veterinary Enrichment & Teambuilding” (VET) orientation program held in the Lake of the Ozarks designed to introduce them to the College and their new classmates. Typical of the dog days of summer, the temperatures reached over 100 degrees but that did not stop the Class of 2011 from having a great time getting to know their peers and experience learning opportunities in the areas of communication, self awareness, leadership, and trust. The goal of this event is to assist these future veterinarians in the best possible way as they pursue their educational and professional careers.

The newly named VET, the third annual orientation event, was sponsored by several partnerships with industry. Nestle Purina and Hill’s Pet Nutrition were gold sponsors for the event with Bayer, Pfizer*, Merial, Novartis, AVMA/GHLIT, MVMA, SCAVMA, and the CVM also providing support.

For three days the class took part in a rather fast paced, activity packed program that was designed with challenges that focused on communications, leadership, and team work. More importantly, the class simply got to know and trust each other. The activities were designed to challenge strangers, both mentally and physically, bringing them together in ways known to quickly build trust, respect, communication, discipline, integrity, and honesty. Dr. Ron Cott, Associate Dean for Student and Alumni Affairs, organized the experience. His goal was to not only help the incoming students to become acquainted with each other but also to strengthen the needed non-technical skills to be successful as they matriculate through the veterinary curriculum. “Success in our profession not only depends on technical skills, but relies heavily on the ability to be a leader and team player, and exhibit excellent communication and interpersonal skills. By providing an opportunity to interact as a class at the beginning of their veterinary educational experience, we anticipate that we see a class that works and plays well together.”

*The original story posted on September 14, 2007 did not include Pfizer in the list of sponsors. Pfizer has a solid history of supporting the CVM.
MU Vets Seeing More Horses with Nutritional Issues This Year
-Expert warns selenium poisoning, vitamin E deficiency a result of last year's drought, bad hay

Mizzou Spotlight on Science (courtesy of KFRU)

While much of the Midwest has recovered from the drought that parched the area last year, horses are continuing to experience effects from the hot dry summer of 2006. Due to a bad hay crop, University of Missouri-Columbia veterinarians are reporting an increased number of horses with chronic selenosis and vitamin E deficiency, problems that can be fatal.

"Last year's drought meant that Missouri's hay crop, which is usually balanced very well for a horse's nutrition, was much poorer than usual," said Philip Johnson, professor of veterinary medicine and surgery. "Because of the poor Missouri hay crop, horse owners imported hay from other states nearby and possibly fed their horses hay that was too high in selenium. This can have very grave consequences for horses. Owners also may have fed their horses poor quality hay from Missouri or other places, which led to deficiencies in vitamin E, another very dangerous problem for horses."

Selenium is a naturally occurring element and is an essential part of horse diets. However, too much or too little can create problems for a horse. When chronic selenosis, or selenium poisoning, occurs from eating too much of the element, horses can lose the hair in the mane and tail and develop a form of laminitis, a painful condition that affects the hoof. If left untreated for too long, a horse with chronic selenosis may require euthanasia as a result of severe laminitis.

Johnson said that the amount of selenium in hay can vary by county throughout the nation, but that Missouri hay typically has just the right amount of the essential element. For a small fee, horse owners can have their hay tested to determine if it has the right amount of selenium in it.

In addition, hay that is not fresh can lack vitamin E, an antioxidant which is important for nerve health in a horse. Some horse owners unknowingly compensate for this deficiency by feeding their animals with nutritional supplements. Those horses that suffer from a vitamin E deficiency typically show symptoms that include weakness, loss of weight, trembling and changes in the retina at the back of the eyeball. A quick blood test can determine if the animal is suffering from a vitamin E deficiency. Johnson recommends that horse owners who imported hay from unknown sources last year either have the hay tested or keep a close watch on their horses. Horses that do not have access to green grass and that are being fed old yellow hay are at risk.

"Usually, by the time the horse is showing symptoms of either problem, it may be too late to reverse the disease completely," Johnson said. "However, if a horse owner has other horses that are feeding from the same food source, it's important to have those animals treated before the damage is permanent."

Craig Roberts, a professor of agronomy in the College of Agriculture, Food and Natural Resources at MU, says the quantity of this year's hay crop will be down 50 percent to 75 percent from normal, but the nutritional value will be good.

"Last year, we had the drought, which affected both the quantity and the quality of the hay," Roberts said. "This year, we had a late freeze, which mainly affects the yield. Overall, we will be down, but the drought last year was far worse."
CVM Mule Team
Makes a Hit at TigerPlace

Tim and Terry were very well received during their recent visit to TigerPlace, Columbia's pet-encouraging retirement residence on Bluff Creek Drive. Driven by Dr. John Dodam, and CVM students, Jesse Chavers and Josh Schaeffer, the mules were admired, patted, talked to and well photographed by the older adults and facility staff attending their visit. In addition, those who could get into the wagon enjoyed the special treat of having a ride. Residents and staff alike commented on the beauty of the mules, their wonderful behavior, and how enjoyable it was to have them come to TigerPlace.

The visit was part of the “PAWsitive Visits,” weekly animal visitation program that has been ongoing for over a year at TigerPlace. Implemented by the CVM’s Research Center for Human Animal Interaction (ReCHAI) (Dr. Rebecca Johnson, Director), the program aims to promote human animal interaction and education about animals. A wide variety of animals have visited TigerPlace including several of the PALS dogs and their owners, a certified animal assisted therapy cat, a pot-bellied pig, and the MU CVM Raptor Club.

TigerPlace is an “aging in place” residential facility, where the CVM maintains a veterinary medical exam room for pets living in the facility. A faculty clinician goes with a student to see the resident animals for regular care. This feature makes TigerPlace the only one of its kind in the US. The CVM presence there is an excellent opportunity for students to work with older clients and their pets, and for older adults and their families to learn about veterinary medicine.
Taking Flight - *Bald Eagle Rehabilitated & Released*

MU’s Veterinary Research Scholars Program Attends Symposium at the National Institutes of Health

The MU College of Veterinary Medicine is currently hosting its third annual Veterinary Research Scholars Program (VRSP). The VRSP, co-sponsored by funds from Merck, Merial, Pfizer, and the MU CVM, gives pre-veterinary scholars 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. Unfortunately, these publications have also identified a critical shortage of veterinarians that 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 state-of-the-art experimental methodology, seminars/discussions that give a broad exposure to biomedical sciences, and social events that foster interaction and a sense of community.

The 2007 VRSP scholars began designing and implementing research projects with their faculty mentor in March. 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 at the National Institutes of Health in Bethesda, MD.

The National 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 lead by prominent scientists and learn about post-DVM training programs in biomedical research. In 2007 more than 260 scholars from 22 programs from the US and Canada participated. VRSP posters were very well received and can be viewed here.

This year’s Symposium was unique in that it overlapped with the AAVMC conference entitled “Veterinarians in Biomedical Research – Building National Capacity.” This conference provided a venue to explore strategies to recruit more veterinarians into research careers. Student representatives of each program, including Kira Moore and Julie Freebersyser from MU, attended this AAVMC meeting to participate in the discussion.

Social and networking activities are also a critical component of summer research programs, as they facilitate development of a research community among veterinary students. MU scholars participated in several activities including tours of the Merial farm in Fulton, Missouri and the Stowers Institute in Kansas City, Missouri. One highlight of the program was meeting scholars from Kansas State University’s program at Kansas City’s World’s of Fun amusement park. They really got to know each other during the ‘Lab Olympics,’ where four mixed teams of MU and KSU 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 on the national mall.

The 2007 VRSP attracted 14 students from MU, as well as students from the University of Georgia and Tuskegee University. Moreover, one student, Heather Burckhardt, performed a dual program where she spent 9 weeks at Kansas State University and 3 weeks at MU. The program has been well received by scholars and mentors alike. According to Rachael Cohen, “I couldn’t think of a better way to spend my summer.”

For more information about the MU Veterinary Research Scholar’s Program, visit http://www.cvm.missouri.edu/vrs/.

For general information about research opportunities for veterinary students and veterinarians, see http://cvm.msu.edu/ORG/rgs/nationalwebsite.htm.
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<td>Heather Burckhardt</td>
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VM2, University of Missouri  
Kim Walker  
VM2, University of Missouri

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| Jan 24        | Evening meeting at MU to announce program call for applications  
| Feb 9         | Deadline for applications  
| March         | Scholar selection and orientation meetings  
| March 23      | 2007 Phi Zeta Research Day  
| April-June    | Mentor/scholar meetings to outline project/goals and begin research  
| May 21 / 24   | Experimental design workshop – Dr. Kevin Keegan and VRSP faculty; welcome Tiffany Taylor, Tuskegee  
| May 29 / June 4 | Elevator statement (describing your research in 5 minutes) workshop – Dr. Tim Evans; welcome Alton Swennes, Univ of Georgia  
| July 4        | Full-time effort in laboratory begins for MU VM2/3 scholars  
| July 5        | Translational Research – Dr. Jimi Cook  
| July 11-12    | MU / Kansas State Veterinary Research Scholars Program joint meeting – trip to World’s of Fun amusement park  
| July 12       | Welcome Heather Burckhardt, Kansas State Univ at MU  
| July 18       | Tour of Merial Research Farm in Fulton, MO – Drs. Greg Royer, Marlene Dragg and Jeff Blair  
| July 19       | How to design a poster– Mr. Howard Wilson and Dr. Craig Franklin  
| July 26       | Meeting with CVM post-DVM grad students  
| August 2-4    | Attend Merck-Merial Symposium in Bethesda, MD  
| August 9      | MU / Kansas State Veterinary Research Scholars Program joint meeting – tour of Stowers Institute and biomedical ethics discussions with Drs. Craig Franklin, Lisa Freeman and Cathy Vogelweid  
| August 16     | Grantsmanship – Dr. Lela Riley  
| March 21, 2008 | 2007 scholars to present at 2008 Phi zeta Research Day  

**MU VRSP activities**

*VM2, University of Missouri*

*Kim Walker*

*VM2, University of Missouri*

*Dr. Randy Prather*

*Development of Defined Conditions in Pig Embryo Culture – The LDL Receptor*

*VM2, University of Missouri*

*tularensis* and *Bacillus anthracis* Chimeric Class C Acid Phosphatase Enzymes

*Kim Walker*

*VM2, University of Missouri*

*Dr. Randy Prather*

*Development of Defined Conditions in Pig Embryo Culture – The LDL Receptor*
Veterinary Medicine Pioneer Has Passed

After a long battle with Parkinson’s disease, Dr. Joseph E Wagner passed away the morning of Oct. 26, 2007. To those who knew him, Dr. Wagner was an icon in laboratory animal medicine. His research on infectious disease of laboratory animals was central to the establishment of many of the paradigms we take for granted today. He led the charge in development of novel diagnostic methodologies of laboratory animal medicine and founded the Research Animal Diagnostic Laboratory. Moreover, he touched so many through his leadership in the University of Missouri Comparative Medicine Training Program and his activities in AALAS and ACLAM.

Dr. Wagner was born July 29, 1938, in Dubuque, Iowa. He received his Doctorate in Veterinary Medicine from Iowa State University. He earned an MPH from Tulane University and a PhD in pathology from the University of Illinois. He served residencies in lab animal medicine at Tulane and in veterinary pathology at the University of Illinois. He joined the faculty of the University of Missouri College of Veterinary Medicine in 1969. He served as an Associate Professor and Professor in veterinary pathology for the CVM, Principal Investigator and Director of the CVM Research Animal Diagnostic and Investigative Laboratory, Interim Chairman and Chairman in the CVM Department of Veterinary Pathology and Chairman Area Faculty in Laboratory Animal Medicine, Graduate School.

Among his numerous awards, he was honored in 1989 as the recipient of the Curator’s Professorship, and in 1993 he received the College of Veterinary Medicine Dean’s Impact Award.

He will be missed.

Visitation was held Oct. 29, 2007 at Memorial Park Funeral Home, 1217 Business Loop 70 West Columbia, MO 65202.

The family wishes donations be made to the Joseph E. Wagner Comparative Medicine Training Fellowship (C/O Pat Parry, E116 Veterinary Medicine Building, 1600 E Rollins Rd. Columbia, MO 65211) or University of Missouri American Parkinson Disease Association (APDA-St. Louis Chapter@ Campus Box 8111, 660 S. Euclid Ave., St. Louis, MO 63110).
Pets Could be Source of Multi-Resistant Bacteria Infections in Humans, MU Researchers Investigate

The next time you have difficulty fighting a bacterial infection, your next trip to the doctor might be to the family veterinarian. A new University of Missouri-Columbia study is investigating whether the family pet could be a reservoir for infections of multi-resistant bacteria in humans.

Antibiotic resistant bacteria are a growing problem in the medical profession as doctors are prescribing second and third choice medicines when common antibiotics don't work. In many cases, these other medicines might be less effective or cause more side effects. One particular type of bacterium, Methicillin-resistant Staphylococcus aureus (MRSA), which can be fatal in humans, is the focus of a new research project led by MU veterinarians Stephanie Kottler, Leah Cohn and John Middleton.

"We used to think of these antibiotic-resistant infections as a healthcare issue that appeared in post-operative or long-term patients," said Kottler, a resident at the MU Veterinary Medical Teaching Hospital. "However, we have been seeing more of these infections that have been acquired throughout the general population, or 'community acquired' infections. It's important to know what environmental factors might be encouraging or prolonging these infections."

MRSA bacteria can live in the noses or on the skin of humans and animals where it might not produce any symptoms. The bacteria become dangerous when they enter the tissue through a cut or puncture, producing a serious infection. In some cases, the bacteria can cause life-threatening problems, such as bloodstream infections or pneumonia. While the infections are most often found in patients after hospitalization, there is an increasing occurrence of community-acquired infections among prison populations, sports teams, military personnel and the general public. Kottler believes that pets might be an important factor behind the increase in community-acquired infections.

MRSA rates have increased dramatically since the 1970s. In 1974, MRSA infections accounted for two percent of the total number of staphylococcal infections; in 1995 it was 22 percent, and in 2004, it was 63 percent, according to the Centers for Disease Control.

"This study will help us evaluate the various risk factors associated with this problem," said Middleton, an associate professor of food animal internal medicine. "Are pets a risk factor? This study will help us track where the disease started and determine what questions the physician should be asking if a patient is diagnosed with MRSA."

Currently, the Mizzou researchers, aided by J. Scott Weese, an assistant professor at the University of Guelph Ontario Veterinary College in Canada, are taking samples from 750 to 800 pairs of owners and pets. To date, they have collected about 500 samples and are sorting them into three groups: human healthcare workers and pets, veterinary healthcare workers and pets, and non-healthcare professionals and pets.

The study is being funded by the American College of Veterinary Internal Medicine Foundation and the MU Department of Veterinary Medicine and Surgery.

For more information about zoonotic diseases, click here.
Governor Recommends $500,000 to Ease Veterinarian Shortage

Missouri Gov. Matt Blunt has announced that one of his Fiscal Year 2009 budget priorities will be to address the critical shortage of large animal veterinarians by fully funding the state's Large Animal Veterinary Student Loan Program. In a news release issued Oct. 5, 2007, Blunt proposed spending $500,000 for the new program that encourages students to pursue large animal veterinary medicine careers in rural areas of the state.

Officials at the University of Missouri College of Veterinary Medicine have been working with the Missouri Veterinary Medical Association, legislators and industry leaders for several years to develop and implement the loan program. Associate Dean for Academic Affairs Dr. John Dodam testified before the state Senate Committee on Agriculture attesting to the college's support of the program and its importance in helping decrease students' debt load. The university's CVM is the only veterinary medicine school in the state, and one of only 28 in the country.

In his news release, Blunt stated, "This funding will create a corps of young, talented veterinarians ready to serve family farmers in underserved areas across the state, helping to ensure that the next generation of Missouri's family farmers has the veterinary resources available to continue our state's agricultural tradition."

The release went on to state that the governor signed legislation creating the Large Animal Veterinary Student Loan Program to ensure that family farmers in underserved areas of the state have access to large animal veterinary care. The student loan program provides incentives for students pursuing a degree in veterinary medicine and was championed this past legislative session by Senators Dan Clemens and Bill Stouffer and Representatives John Quinn, Steve Hobbs and Brian Munzlinger whose support was critical to securing passage of the important program.

"There is a growing unmet need for large animal veterinarians in rural Missouri, and Governor Blunt's action is a big step forward toward meeting this need. It will also provide new opportunities for students who might not otherwise consider an advanced degree," said Dwayne Schad, Morgan County Cattleman and Farm Bureau Board Member.

"We have a critical shortage of veterinarians in rural Missouri and this program will have a real impact on animal agriculture. I appreciate Governor Blunt for his leadership and his commitment to veterinary medicine," said Dr. Bud Hertzog of Lee's Summit Animal Hospital.

"Fully funding the Large Animal Vet program emphasizes the importance of animal agriculture to Missouri and our state's economy. Governor Blunt understands the needs of agriculture and livestock producers in rural Missouri. This program will have an impact next year, and for years to come as we bring new vets into underserved areas," said Director of Agriculture Katie Smith.
Vet Products Night Draws A Crowd

More than 200 MU veterinary medicine students, faculty and clinicians attended the annual Veterinary Products Night held at the Adams Conference Center in the Veterinary Medicine Building Oct. 16. Those attending had the opportunity to meet with representatives of nearly 20 companies that offer animal food and care products, as well as representatives of the U.S. Army and Air Force and the USDA.

The fun evening included a food buffet featuring a variety of appetizers, as well as drawings for prizes and scholarships. Winning $500 scholarships each were: Drew Martin, VM-1; Stefanie Young, VM-2; Laura McKee, VM-3; and KT Boyle, VM-4.

Students Celebrate Next Step and Don White Coats

With parents, spouses, siblings, friends, mentors and peers proudly looking on, 70 University of Missouri students began the next phase of their veterinary medicine education Oct. 14. The seventh annual White Coat Ceremony represented the transition in the students’ education from a demanding basic sciences curriculum to the start of clinical training.

Members of the Class of 2009 received their white laboratory coats from a family member or mentor whom they selected to participate in the ceremony. Hundreds of other well-wishers gathered at the Holiday Inn Executive Center in Columbia for the presentation.

“We have chosen the traditional white laboratory coat to present to you at this time as a symbol of medicine and surgery,” noted Dr. Ron Cott, associate dean for student and alumni affairs, who served as master of ceremonies.

After the students received their coats, they were congratulated by Dr. Neil Olson, CVM dean; Dr. John Dodam, associate dean for academic affairs; Dr. Clark Fobian of the American Veterinary Medical Association; and Dr. Michael Pfander, president of Missouri Veterinary Medical Association, and Richard Antweiler, MVMA executive director, who also presented the students with veterinary lapel pins from the MVMA.

“It should be comforting to know that you are over half-way there,” Dean Olson told the Class of 2009. He noted that much of their additional veterinary medicine education will take place in Clydesdale Hall, which houses the CVM teaching hospital. There they will receive hands-on training in common and complex diseases among numerous species. He cautioned the students to nurture their people skills as they learn to care for animals, noting, “Both the veterinary profession and the MU CVM are in the midst of a rapidly changing environment with respect to how veterinarians serve society. There is a growing public recognition regarding the critical role veterinarians play in the public arena, such as public health, food safety, biomedical research, comparative medicine and academic veterinary medicine.”

He concluded by telling the class he looks forward to greeting them on the podium at Jesse Hall in May 2009. “I congratulate you in reaching this milestone.”
FFA Honors CVM for Convention Support

The National FFA Organization honored the University of Missouri College of Veterinary Medicine for its outstanding support at a five-year exhibitor at the FFA National Agricultural Career Show, held Oct. 24-26 at the Indiana Convention Center in Indianapolis.

The career show is an integral part of the National FFA Convention and highlights career opportunities for agricultural students. Representatives of agribusiness, universities and industry associations met with students throughout the three-day event, which represented the group’s 42nd annual show. Representing the MU CVM were Kathy Seay, admission advisor for the college, and Morgan See, administrative assistant for student and alumni affairs. They were joined by more than 415 other exhibitors who showcased the diversity of agriculture and its related fields and presented information in a trade-show setting.

There were more than 54,000 members of FFA, advisors and guests in attendance at the convention and career show. The 2007 theme, “Blue Jackets; Bright Future,” celebrated students’ promise, spirit and success. The efforts members devote to personal, career and civic achievement engenders hope in local communities and inspires confidence in a new generation and future of agriculture.

FFA is a national youth organization of 500,823 student members preparing for leadership and careers in the science, business and technology of agriculture. There are 7,358 local chapters in all 50 states, Puerto Rico and the Virgin Islands. FFA strives to make a positive difference in the lives of students by developing their potential for leadership, personal growth and career success through agricultural education.
Always a gentle and soft-spoken man, Stuart Lindberg Nelson Sr. had many passions, including his family, his veterinary work and his faith. “My husband was a very careful individual. He never swore or anything like that and was very aware of his words,” said his wife, Helen Marie Kurch. Dr. Nelson, of Columbia, died Monday, Dec. 3, 2007. He was 84.

He was born on May 23, 1923, in Solon, Ohio, to Ogle Wyatt and Caroline Laverne (Jerome) Nelson. He married his wife on December 16, 1943. They were two weeks short of reaching their 64th wedding anniversary.

Dr. Nelson was a member of the U.S. Navy during World War II. He was also very active in the veterinary field and highly regarded by his colleagues. After graduating from Ohio State University’s College of Veterinary Medicine in 1952, he went on to earn his master's degree and doctorate in philosophy at Purdue University in 1959 and 1961. A board-certified pathologist, Dr. Nelson also served as an instructor of veterinary pathology at Purdue University and became an ambulatory clinician.

As a working father, Dr. Nelson took his son to work sometimes. But no one knew that Stuart Lindberg Jr. would eventually follow in his father’s footsteps. “Stuart (Jr.) would come home saying he heard daddy talking to the farmers,” his wife said. “He listened to his dad and never said much about being interested in the field, but he later became a veterinarian.”

After three years of service at the Florida Animal Diagnostic Laboratory as a veterinary pathologist, Dr. Nelson became a professor at MU’s College of Veterinary Medicine in 1965. He worked there until retirement, and then became a professor emeritus in 1989.

Dr. Nelson was also a member of the American Veterinary Medical Association, the Missouri Veterinary Medical Association, the New York Academy of Sciences, Phi Zeta, Alpha Psi and the National Honor Society. He held diplomat status with the American College of Veterinary Pathologists. Dr. Nelson became known for his contributions to the Veterinary Medical Diagnostic Laboratory at MU. He was instrumental in mentoring a new generation of veterinary pathologists.

He was also an active member of the Evangelical Free Church, where he worked closely with the prison ministry. Mr. Nelson read and taught the Bible to prisoners, and had such an impact that one of those prisoners will be a pallbearer at his funeral. “He was so loved by his family and was such a wonderful example to all of us,” his wife said.

Dr. Nelson is survived by his wife; a son, Stuart Nelson Jr.; and a daughter, Kimberly Nelson. Visitation will be held from 5 to 8 p.m. Friday at Evangelical Free Church, 600 Silvey St. Funeral services will be held at 2 p.m. Saturday at the church. Interment will follow at Memorial Park Cemetery.

In lieu of flowers, contributions may be made to the Gideons International Ministry, 1008 Hardin St., Columbia, MO 65203. Online tributes may be left at memorialfuneralhomeandcemetery.com.
FDA Approves Knee-Injury Device for Humans
- MU Researchers Helped Developed Device That Allows for Repair of Torn Knee Meniscus

A new knee-surgery device investigated by University of Missouri-Columbia researchers that will help to repair meniscus tears, which were previously defined as irreparable, has been approved by the FDA for use in humans.

Previous treatment options forced surgeons to completely remove the damaged portion of the meniscus. Typically the removal of the meniscus leads to painful, debilitating arthritis in the knee. Herb Schwartz, president and CEO of Schwartz Biomedical, LLC, and James Cook, MU professor of veterinary medicine and surgery and William C. Allen Endowed Scholar for Orthopedic Research in MU's College of Veterinary Medicine, developed the BioDuct Meniscal Fixation Device. Schwartz and Cook believe that patients with meniscus tears will now be able to have their meniscus saved along with long-term knee function.

"In the past, when faced with meniscus injuries, surgeons were often forced to completely remove the torn meniscal cartilage, leaving a deficient knee that was doomed to develop arthritis," Cook said. "With the BioDuct Meniscal Fixation Device, surgeons will be able to repair torn menisci and induce healing. People with meniscus injuries now have a better future ahead."

The meniscus, a padding tissue that provides shock absorption and joint stability in the knee, is crucial for normal knee function. Surgeries for meniscus tears are common with approximately one million occurring in the United States each year. When meniscus function is deficient, bone rubs on bone and arthritis is likely to develop and progress. Because two-thirds of the meniscus is avascular (lacks a blood supply), a tear in that region will not repair itself. This new device will transport blood and cells from the vascular portion of the knee to the avascular portion of the meniscus. Supplied with blood and cells for healing, the previously untreatable meniscal tear now has the potential for allowing the knee joint to be saved.

Cook's research team performed the BioDuct surgery on 25 dogs that had worst-case scenario meniscal tears. With the BioDuct Meniscal Fixation Device, the meniscus in the dogs' knees had complete or partial repair after a few weeks in all cases.

"Currently, there are no other devices that can provide improved fixation over time," Schwartz said. "Therefore, the BioDuct device is set apart from the rest of the field."

In his research, Cook found that the device will significantly improve healing of avascular meniscal tears both biologically and biomechanically, which should lessen the long-term effects of meniscus injuries, including osteoarthritis. Cook's recent findings were published in the American Journal of Sports Medicine.

"The BioDuct device could impact the industry by improving repairs of the meniscus to such an extent that fewer patients develop arthritis that results from removing the meniscal tissue," Schwartz said. "Thus, with fewer patients developing arthritis, the result could be fewer total joint replacements or at least delaying the need for a total joint replacement."

Cook recently won the national Thank Your Vet for a Healthy Pet award from the Morris Animal Foundation and Merial and Bow Tie Inc. Cook was chosen from more than 1,100 nominations. The award is given to those veterinarians who demonstrate compassion and unwavering commitment to helping their clients. Cook will be presented with the award in February at the Western Veterinary Conference in Las Vegas, Nevada.
Columbia Couple Give Veterinary Hospital Staff
A Reason to Give Thanks

Barbara Levy wanted to change her life. She had just gone through two emotionally draining years that culminated in spending a joyless Thanksgiving dining at a St. Louis eatery. On the drive home she turned to her husband, Ken, and made a vow: "I’m not doing this again."

He agreed.

What she would do instead she didn’t know. Months passed as Barbara Levy pondered how she could inject some thanks back into Thanksgiving. Then one morning the following April, she had an epiphany and rushed to share her plan with Ken. She says she had come to realize, "the best way to change your life is to change what you do."

What the pair decided to do was celebrate the next Thanksgiving by preparing a traditional dinner for everyone whose work at the University of Missouri Veterinary Medical Teaching Hospital prevented them from enjoying the holiday at home with their own families. Eleven years later, the Levys still cook a Thanksgiving feast and personally deliver it to the hospital for the clinicians, students, technicians and support staff who spend Thanksgiving the same way they spend the other 364 days of the year – helping animals.

Barbara Levy laughs when she recounts the hospital staff’s puzzlement the first year she showed up unannounced with enough food to feed 30 people. But by the third year of the endeavor, the Levys found themselves eagerly greeted at the hospital door by a hungry medical team armed with a gurney to haul the food back to the lounge.

"I have benefitted from the Levys’ kind gesture on several Thanksgivings,” noted Dr. John Dodam, vice dean of academic affairs at the College of Veterinary Medicine and an anesthesiologist. “It gives everyone who can’t be with family on the holiday a nice dinner, a real boost. And students always appreciate a good meal."

The Levys know from first-hand experience that illness and injury don’t take a holiday so caregivers can’t either. One Thanksgiving morning Barbara had to rush one of her own Cavalier King Charles spaniels to the veterinary hospital. As she dropped Mikey off with the clinician, she assured the team she would be back within a few hours with their dinner. She then returned home, cleaned up and went back to cooking.

Over the years, Barbara Levy has fine-tuned the menu to meet the needs of a busy hospital staff that can be pulled away from their meal at a moment’s notice to attend to emergencies. She avoids any ingredients that could spoil if the food sits out for any length of time. She serves up fresh vegetables because, she explains, they hold up longer than salads. Ham and turkey are pre-sliced allowing second shift workers to grab a late-night sandwich. Food is packaged in foil pans that can easily be tucked back into the refrigerator – which the Levys also provided to the hospital when they realized the one refrigerator in the lounge was often too full to also accommodate the Thanksgiving dinner leftovers.

And while Barbara Levy modestly says that the dinner she and Ken prepare isn’t fancy, in addition to the staples like turkey and pie, this year’s menu includes sweet potato pudding and stuffing made from brown and wild rice with apricots and pecans.

After 11 years, the Levys have no plans to end what has become a tradition. “I’ll do it until I can’t move any more, or until my cooking gets so bad that they say, ‘thanks, but no thanks,’” Barbara says.
MU College of Veterinary Medicine Veterinarian Wins America’s Best Vet Honor

-Dr. James Cook Chosen from More Than 1,000 Nominations for “Thank Your Vet for a Healthy Pet Contest”

Veterinarians play a critical role in keeping our pets healthy, happy and living longer. For University of Missouri veterinarian James L. Cook, DVM, Ph.D., going above and beyond when it comes to caring for animals is second nature. In recognition of his dedication to improving the lives of animals, Cook has been named the grand-prize national winner of the “Thank Your Vet for a Healthy Pet” essay contest. He was chosen from more than 1,000 nominations from pet owners throughout the country.

Cook, who is the director of the Comparative Orthopaedic Laboratory at the University of Missouri, was also the Midwest regional winner. Four regional winners were named: James Thomas, VMD, of Eagle Veterinary Clinic, Havertown, Pa., for the Northeast; Bob Encinosa, DVM, of Boyette Animal Hospital, Riverview, Fla., for the Southeast; Tim R. Stone, DVM, Rittiman Road Animal Hospital, San Antonio, for the Southwest; and Thomas R. Nickerson, DVM, of Trinity Animal Hospital, Weaverville, Calif., for the West.

“Veterinarians are so important in strengthening the human-animal bond,” said Patricia N. Olson, DVM, Ph.D., president/CEO of Morris Animal Foundation. “We were delighted that so many pet owners wrote to honor their veterinarians for the good work that they do on behalf of animals. These professionals truly deserve recognition.”

The “Thank Your Vet for a Healthy Pet” contest was sponsored by Morris Animal Foundation, Merial Limited and BowTie, Inc. Cook is featured in the December issues of BowTie’s Dog Fancy, Cat Fancy and Veterinary Practice News magazines as well as on DogChannel.com and CatChannel.com. A full list of nominees is available at www.MorrisAnimalFoundation.org.

“Merial is proud to honor all of the nominees and we are especially proud to recognize Dr. Jimi Cook as the national winner,” said Howell "Hal" Little, DVM, director, Field Veterinary Services for Merial. “Dr. Cook truly is an awe inspiring veterinarian who has been honored with numerous teaching and research awards, is in demand as a national and international lecturer, and is recognized as a gifted surgeon, teacher and clinician. Armed with vision, dedication, and drive, Dr. Cook has committed his life’s work to improving the health and lives of animals and the people that love them.”

Michael Ray of Deltona, Fla., and Sherri Rusch of Warrensburg, Mo., both nominated Cook, known as Jimi to his clients. Cook performed eight surgeries over nine years to help Rusch’s Labrador-golden retriever mix, who suffered from multiple disorders affecting both hips and both knees. Ray, who was paralyzed nearly 30 years ago by a gunshot wound, contacted Cook after his service dog, Eagle, developed lameness in his front left leg. Cook had developed an arthroscopic procedure that had a high success rate for treating conditions like Eagle’s and upon Ray’s request, Cook flew to the University of Florida to perform the surgery and train the staff at the university.

“Eagle is back to normal again,” Ray says. “Not only did Jimi save my best friend and companion from a life of pain and misery, he also gave me back my service dog.”

Cook is well known for his orthopedic research, which has benefited both dogs and humans. He and his wife, Cristi, also have spent time in Africa, building houses with Habitat for Humanity and rebuilding a school in Rwanda that was destroyed in the 1994 genocide. Cook says he is extremely honored to win the national award and appreciates the time his clients took to nominate him.

“I’ve been fortunate to receive a number of different awards in my career, but this award is probably the most meaningful,” he says. “I want my work and my life to make a difference in people’s lives and animal’s lives. In these cases, making a difference in a dog’s life, made such a difference in these special people’s lives and this award helps me always remember that and be motivated by it.”

All of the winners will be honored in front of their peers at the Western Veterinary Conference in Las Vegas on Feb. 19, 2008.
Magazine Celebrates CVM Mules

The Draft Horse Journal, a quarterly publication based in Waverly, Iowa, features the University of Missouri College of Veterinary Medicine Mule Club in its Winter 2007-2008 issue. The five-plus-page article, entitled “Missouri Mules,” details how the mules became goodwill ambassadors for the college at a university that celebrates the Bengal tiger as its official mascot. In an in-depth interview, CVM Associate Dean for Academic Affairs, Dr. John Dodam, details the history of mules in Missouri, along with information on the animals’ strengths, including intelligence and a patient temperament and disputes the mules’ reputation as being stubborn.

The article recognizes key players for the roles they have played in acquiring the three mule teams that have served as the college’s mascots and the time those individuals have devoted to the development of the Mule Club. Dr. Robert Kahrs, former CVM dean, first pursued mules as CVM mascots. He worked with Dr. Melvin Bradley, an MU professor, scientist and farmer, to seek out a suitable pair of animals. Missouri farm equipment dealer Sydenstricker Implement is credited with donating funds that allowed the college to purchase its third mule team: Tim and Terry (Hills pet food company and a private donor provided funds for the first mule team). Dr. Jim Thorne, who with Dodam helps to oversee the Mule Club program, is interviewed and acknowledges Clarence Koch for teaching veterinary students to drive the teams and for helping to secure the current team of Tim and Terry. Thorne also discusses the efforts of Jim Cunningham, a former breeder; Clay Robinson, who has helped with leatherwork; Jerry Brown, who manufactures wagons; and John Chipman, who hails from a long line of mule breeders, sold the university its second mascot team, and has advised the Mule Club students on numerous occasions.

This year’s Mule Club President, Jesse Cheever, discusses the educational benefits that veterinary students gain while participating as Mule Club members, as well as the pleasure of developing a relationship with the animals.

Journal writer Cappy Tosetti goes on to include information about the CVM Research Center for Human-Animal Interaction and the enjoyment nursing home residents take from mule team visits. She also shares an anecdote about how while researching the mule article for the Draft Horse Journal she met a couple who are her neighbors, but with whom she hadn’t spoken before. In a strange twist of fate, the wife is the daughter of Bradley, who played such an instrumental role in the early success of the CVM mule program.

To check out the publication, log on to https://www.drafthorsejournal.net/.
MU Study Finds That Sitting May Increase Risk of Disease
MU Professor Offers Solution: Just Stand Up!

Most people spend most of their day sitting with relatively idle muscles. Health professionals advise that at least 30 minutes of activity at least five days a week will counteract health concerns, such as cardiovascular disease, diabetes and obesity that may result from inactivity. Now, researchers at the University of Missouri-Columbia say a new model regarding physical activity recommendations is emerging. New research shows that what people do in the other 15 and a half hours of their waking day is just as important, or more so, than the time they spend actively exercising.

“Many activities like talking on the phone or watching a child’s ballgame can be done just as enjoyably upright, and you burn double the number of calories while you’re doing it,” said Marc Hamilton, an associate professor of biomedical sciences whose work was recently published in Diabetes. “We’re pretty stationary when we’re talking on the phone or sitting in a chair at a ballgame, but if you stand, you’re probably going to pace or move around.”

In a series of studies that will be presented at the Second International Congress on Physical Activity and Public Health in Amsterdam, Hamilton, Theodore Zderic, a post-doctoral researcher, and their research team studied the impact of inactivity among rats, pigs and humans. In humans, they studied the effects of sitting in office chairs, using computers, reading, talking on the phone and watching TV. They found evidence that sitting had negative effects on fat and cholesterol metabolism. The researchers also found that physical inactivity throughout the day stimulated disease-promoting processes, and that exercising, even for an hour a day, was not sufficient to reverse the effect.

There is a misconception that actively exercising is the only way to make a healthy difference in an otherwise sedentary lifestyle. However, Hamilton’s studies found that standing and other non-exercise activities burn many calories in most adults even if they do not exercise at all.

“The enzymes in blood vessels of muscles responsible for ‘fat burning’ are shut off within hours of not standing,” Hamilton said. “Standing and moving lightly will re-engage the enzymes, but since people are awake 16 hours a day, it stands to reason that when people sit much of that time they are losing the opportunity for optimal metabolism throughout the day.”

Hamilton hopes that creative strategies in homes, communities and workplaces can help solve the problem of inactivity. Some common non-exercise physical activities that people can do instead of sitting include performing household chores, shopping, typing while standing and even fidgeting while standing. Given the work of muscles necessary to hold the body’s weight upright, standing can double the metabolic rate. Hamilton believes that scientists and the public have underestimated common activities because they are intermittent and do not take as much effort as a heavy workout.

“To hold a body that weighs 170 pounds upright takes a fair amount of energy from muscles,” Hamilton said. “You can appreciate that our legs are big and strong because they must be used all the time. There is a large amount of energy associated with standing every day that can’t be easily compensated for by 30 to 60 minutes at the gym.”

Only 28 percent of Americans are getting the minimal amount of recommended exercise. Hamilton predicts that eventually there will be health campaigns with doctors advocating limiting sitting time, just like they ask people to limit sun and second hand smoke exposure.

“The purpose of medical research is to offer effective new strategies for people whom the existing therapies are not working,” Hamilton said. “Because our research reveals that too little exercise and excessive sitting do not change health by the same genes and biological mechanisms, it offers hope for people who either are not seeing results from exercise or can not exercise regularly. The lifestyle change we are studying is also unlike exercise because it does not require that people squeeze an extra hour into their days and/or get sweaty at the gym, but instead improving the quality of what they already are doing. One misrepresentation is that people tend to say ‘I sit all the time, so your studies suggest that I can't even work,’ but Ben Franklin and Thomas Jefferson showed us that you can be very productive and still do great work in an office with a ‘standing’ desk.”
Laye Earns Laughlin Scholarship

Matthew Laye, a doctoral candidate in the department of Medical Pharmacology and Physiology, School of Medicine, at the University of Missouri, is this year's recipient of the M. Harold Laughlin Scholarship. Laye earned a bachelor of science degree in exercise biology at the University of California-Davis. He has focused his graduate studies at MU on exercise physiology and the effects of inactivity on laboratory rats.

An anonymous donor established the permanently endowed scholarship fund at the University of Missouri in honor of Dr. M. Harold Laughlin, chair of the Biomedical Sciences Department at the College of Veterinary Medicine and a faculty member in the Health Activity Center at MU. The recipient of the $500 award must embody Laughlin's characteristics of high integrity and genuine caring for the health of humans or animals. The scholarship recognizes an outstanding graduate student, post doctoral fellow, medical student, intern, or resident or veterinary student, intern, or resident who has contributed outstanding research in physical inactivity and chronic disease or promoted physical activity and health, which are focal points of the Health Activity Center at the University of Missouri.

The Health Activity Center is dedicated to education and promotion of research leading to ending the 35 inactivity-related disorders. The center's faculty members work to determine the biological basis of how physical inactivity makes the body susceptible to chronic disease and disorders such as obesity, type 2 diabetes, atherosclerosis, hypertension, physical frailty, cancer and arthritis. As companion animals have some of the same inactivity-induced disorders, comparative medicine and human-animal bonding experiments are also performed. The vision of the center is to reduce the human suffering that occurs when the body weakens and becomes diseased because of physical inactivity.

Laye was recognized not only for his research, but for “walking the walk” in promoting a physically active lifestyle. A former captain of the UC-Davis cross country team, Laye serves as a coach of a youth cross country team, is a competitive runner for the Columbia Track Club and demonstrates his commitment to incorporating a healthful and active lifestyle into daily activities such as commuting, grocery shopping, and traveling throughout town by bicycle. He recently completed a month-long “No-Car Diet,” sponsored by PedNet.

Upon leaving the University of Missouri, he hopes to continue studying physical activity using human subjects and basic science techniques in the lab of Dr. Bente Pedersen in Copenhagen, Denmark.
ReChai Director Inducted into the American Academy of Nursing

The American Academy of Nursing was formed in 1973 to serve the public and the nursing profession by advancing health policy and practice through nursing knowledge. The Academy’s members – known as fellows – are nursing’s most accomplished leaders in education, management, practice and research. They are recognized for their extraordinary nursing careers and are among the nation’s most highly-educated citizens.

This month, professor Rebecca Johnson, who holds a joint appointment with the College of Veterinary Medicine and the Sinclair School of Nursing at the University of Missouri-Columbia, and who is the director of the Research Center on Human-Animal Interaction (ReCHAI), was inducted into the Academy. Dr. Johnson is also the Millsap Professor of Gerontological Nursing and Public Policy. Her interdisciplinary research is receiving international recognition, focusing on the health benefits of human-animal interaction.
Pets: Good for Your Health?

BY KAREN SPRINGEN 1/10/08 AT 7:00 PM

Link to Newsweek article: http://www.newsweek.com/pets-good-your-health-87191
MU Vet named Independent Adult Equestrian of the Year

Choosing Dry or Wet Food for Cats Makes Little Difference

COLUMBIA, Mo. – Although society is accustomed to seeing Garfield-sized cats, obese, middle-aged cats can have a variety of problems including diabetes mellitus, which can be fatal. The causes of diabetes mellitus in cats remain unknown although there has been a strong debate about whether a dry food diet puts cats at greater risk for diabetes. A new study from a University of Missouri-Columbia veterinarian suggests that weight gain, not the type of diet, is more important when trying to prevent diabetes in cats.

Because dry cat food contains more starch and more carbohydrates than canned cat food, some have argued that a diet containing large amounts of carbohydrates is unnatural for a cat that is anatomically and physiologically designed to be a carnivore. Carbohydrates constitute between 30 percent and 40 percent of dry cat food. Some have been concerned that this unnatural diet is harmful to cats and leads to increased incidence of diabetes. Wet cat food, on the other hand, is high in protein and more similar to a natural carnivore diet.

In the study, Robert Backus, assistant professor and director of the Nestle Purina Endowed Small Animal Nutrition Program at MU, and his team of researchers compared a colony of cats in California raised on dry food with a colony of cats in New Zealand raised on canned food. After comparing glucose-tolerance tests, which measures blood samples and indicates how fast glucose is being cleared from the blood after eating, researchers found no significant difference between a dry food diet and a wet food diet. They also compared the results between cats less than three years of age and cats older than three. The MU veterinarian indicated that allowing cats to eat enough to become overweight is more detrimental to their health than the type of food they eat.

"Little bits of too much energy lead to weight gain overtime," Backus said. "We did find that cats on canned or wet food diets have less of a tendency towards obesity than cats on dry food diets."

Forty percent of all cats in middle age are overweight or obese. According to Backus, male cats should weigh between 10 and 11 pounds, and female cats should weigh between 5.5 and 7.7 pounds. Besides diabetes, overweight cats are prone to other conditions such as skin diseases, oral diseases and certain cancers. When cats are spayed and neutered, they have a tendency to eat more and gain weight. Backus suggests monitoring the food even more closely at this time and not allowing the cat to eat in excess.

"The most effective thing you can do is be the one who determines how much your cat eats," Backus said. "We have been conditioned to fat cats, but cats should have only between 18 percent to 20 percent body fat."

Backus’ research was presented recently at the American College of Veterinary Internal Medicine Conference in Seattle.