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MVMA Honors Dean, Other Members of CVM

MU College of Veterinary Medicine Dean Neil C. Olson, DVM, PhD, was honored with the President's Award during the Missouri Veterinary Medical Association annual convention held Jan. 22-25, 2015, in St. Charles, Missouri. During the awards banquet, outgoing MVMA President David Prigel, DVM, announced Olson as the recipient he selected for the President's Award. The award is given each year to recognize an individual who was instrumental to the president's efforts to advance the veterinary profession for the betterment of animal health in the state. Prigel thanked Olson for his efforts working with the organization, his responsiveness and his open communication in sharing the college's priorities on issues.

Olson was one of several people with college ties recognized during the event. William A. Wolff, DVM, MS, of Columbia, Missouri, a retired CVM faculty member, received the organization's Veterinarian of the Year Award. The award is given to an individual who has made outstanding contributions to community, state and the people whose lives they have touched. Wolff, who spent many years teaching and conducting research in foreign animal diseases and whose volunteer service includes serving as the director of the Missouri Volunteer Veterinary Corps and the chairman of the MVMA Emergency Management and Public Health Committee, was also honored when the MVMA Volunteerism Award was renamed the William A. Wolff Volunteerism Award. The 2015 recipient of the renamed award was Charles Massengill, DVM, of California, Missouri.

MU Distinguished Librarian Curator of the Medical and Veterinary Historical Collections C. Trenton Boyd received the Missouri Veterinary Medical Foundation's Distinguished Service Award. Clark Fobian, DVM, a member of the CVM Class of 1977 and past president of the American Veterinary Medical Association, received the Robert E. Hertzog Leadership Award.

Ron Cott, DVM, CVM associate dean of Student and Alumni Affairs and director of Advancement, and William Fales, MS, PhD, a professor of bacteriology, infectious disease and microbiology in the Department of Veterinary Pathobiology, were inducted as new Lifetime Members.

During a presentation earlier in the day, the Missouri Academy of Veterinary Practice honored David Wilson, DVM, MS, director of the MU Veterinary Medical Teaching Hospital, as its MAVP Honorary Member.

College faculty were also active giving educational presentations throughout the conference. Leading continuing education lectures were Joan Coates, DVM, MS, professor of veterinary neurology and neurosurgery; Tim Evans, DVM, MS, PhD, associate professor of toxicology; Stephanie Gilliam, RVT, CCRP, a neurology and neurosurgery technician who works in canine rehabilitation; Elizabeth Giuliano, DVM, MS, professor of veterinary ophthalmology; F.A. (Tony) Mann, DVM, MS, professor and director of small animal surgery and emergency and critical care; Daniela Mauler, DVM, assistant teaching professor of neurology and neurosurgery; Richard Meadows, DVM, Curators' Distinguished Teaching Professor and director of the community practice section; Dennis O'Brien, DVM, MS, PhD, professor and Chancellor's Chair in Comparative Neurology; Shannon Reed, DVM, MS, assistant teaching professor of equine surgery and lameness; and David Wilson, DVM, MS, professor of equine surgery and VMTH director.



To view more images from the convention, please go to our [Facebook page](#).

2014 MVMA President David Prigel
presents the President's Award to CVM
Dean Neil C. Olson.



Trenton Boyd, MU Distinguished Librarian Curator of the Medical and Veterinary Historical Collections, was honored with the Missouri Veterinary Medical Foundation's Distinguished Service Award.



Retired CVM faculty member William Wolff was named Veterinarian of the Year at the MVMA Convention. He received his plaque from Bill Jones, DVM.



Other VMA activities included Speed Networking, organized by college's chapter of the Veterinary Business Management Association. The event allowed veterinary students to interview for jobs and preceptorships with practitioners.



A wet lab, held at the Mizzou Animal Cancer Care facility in Wentzville, allowed veterinarians to learn more about conducting an ultrasound of the abdomen from CVM Associate Professor of Radiology Jimmy Lattimer, DVM, MS.



Ron Brown, DVM, 2014 president Missouri Academy of Veterinary Practice, congratulates David Wilson, who was made an honorary member.

Resolve to Improve Your Pet's Health in 2015

Each year nearly half of American adults make New Year's resolutions. With obesity on the rise, losing weight and exercising more are two of the most common pledges, according to the Journal of Clinical Psychology.

But people aren't the only ones who could benefit from these resolutions. The Association for Pet Obesity Prevention estimates that in the U.S. nearly 53 percent of dogs and 58 percent of cats are overweight or obese.

"Obesity is a significant health concern for both people and pets and can be a debilitating disease in both species," said Allison Wara, DVM, clinical instructor in the MU College of Veterinary Medicine. "Obesity predisposes pets to a variety of conditions including — but not limited to — joint disease, decreased quality of life and a decreased lifespan."

Wara is the program director of the new Renew Animal Clinic at the MU Veterinary Medical Teaching Hospital. The clinic's mission is to provide state-of-the-art techniques in physical rehabilitation and nutritional management in order to maximize a pet's recovery process, mobility and overall well-being.

Through inpatient or outpatient care, patients can receive physical therapy using modalities such as an underwater treadmill as well as a customized nutrition plan.

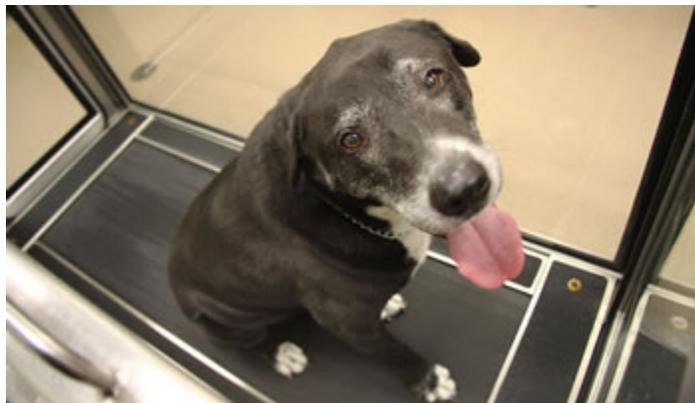
"Targeted nutrition and physical rehabilitation are proven modalities for facilitating successful outcomes after surgery, minimizing the incidence and progression of various diseases, and enhancing quality of life for our dogs and cats," Wara said.

One of the clinic's first patients was Bear, an older black Labrador retriever with polyarthritis, an arthritic condition that affects more than one joint. In the summer, Bear participates in low-impact activities such as swimming, but in the winter he is less active, which leads to increased discomfort and weight gain. His owners brought him to the clinic for physical rehabilitation and a weight-loss plan to assist with his joint disease and to restore him to his ideal body condition.

Bear visits the VMTH three days each week for hydrotherapy with the use of an underwater treadmill, which promotes active range of motion of his joints and strengthening of his muscles. He has also received an individualized weight-loss plan with a prescription weight-loss diet to help manage his arthritis. Weight reduction has been shown to reduce the pain and impact on arthritic joints and improve overall mobility, Wara said.

Since Bear began the program in October, his owners have noticed positive changes in his activity and comfort level at home, Wara said. He is more willing to go for walks, and his endurance level during walks has improved. The clinic team has been able to increase the resistance and duration of his treadmill sessions, changes that Bear has tolerated well.

Bear has been losing weight at a slow and steady rate, which is the goal for long-term success, Wara said.



Thanks to rehabilitation sessions on an underwater treadmill and a customized diet, Bear, a black Labrador retriever with polyarthritis, has been steadily losing weight at the VMTH's new Renew Animal Clinic. Weight reduction has been shown to reduce the pain and impact on arthritic joints and improve overall mobility.



Dogs aren't the only pets who can benefit from the Renew Animal Clinic; cats are welcome, too. Walking on the VMTH's underwater treadmill helped Sunshine, pictured above, lose weight while also taking pressure off of his joints.

The Renew Animal Clinic treats both dogs and cats. Wara said overweight pets with a history of orthopedic and/or neurologic disease are among the most frequently seen patients. However, the clinic also works with pets that are underweight or have muscle loss and require physical therapy for rehabilitation and recovery.

The clinic is co-directed by specialty board-certified veterinarians, including Derek Fox, DVM, PhD (surgery); Joan Coates, DVM, MS (neurology); and Robert Backus, MS, DVM, PhD (nutrition).

Learn more about the clinic at http://www.vmeth.missouri.edu/rehab_nutritional_clinic.html or on its Facebook page, <https://www.facebook.com/MUPetNutritionRehab>. For more information, call the VMTH at 882-7821 and ask to speak to Allison Wara, director and veterinarian, or certified canine rehabilitation practitioners Stephanie Gilliam and Adrienne Siddens.

Manage Your Pet's Weight: Tips for a Healthy New Year

As in humans, obesity in pets can lead to a variety of health conditions. Epidemiological studies have associated overweight dogs with disorders such as orthopedic disease, insulin resistance, pancreatitis, neoplasias, cardiorespiratory compromise and increased risk for anesthesia. In cats, obesity is a risk factor for diabetes mellitus, hepatic lipidosis, lameness, lower urinary tract disease and dermatological disease.

Scientific research has shown that dogs maintained at a lean body weight lived longer, and were considerably healthier, than overweight or obese dogs.

Allison Wara, DVM, program director of the Renew Animal Clinic, offers the following advice to pet owners:

Use a Body Condition Score system to monitor your pet at home. There are several methods available; the VMTH uses [this one](#). With this system, a BCS of 4 or 5 out of 9 is considered normal and healthy for dogs, while a BCS of 5 out of 9 is healthy in cats. Each unit increase in BCS above 5 is approximately equal to 10 to 15 percent above ideal body weight. By monitoring body weight and BCS, you can more easily determine your pet's ideal body weight and recognize weight gain sooner.



Dr. Allison Wara, DVM

Ask your veterinarian for advice to detect early signs of obesity and implement a treatment and prevention plan. Together, you and your veterinarian can work as advocates for your pet's long-term health and wellness.

Meal-feed your dog or cat instead of leaving food available all day (free-feeding). This is especially important for indoor cats that have less opportunity for exercise and may eat out of boredom. Aim for at least two to three meals per day.

Measure each meal accurately. Use a standard 8-ounce measuring cup or gram scale to ensure that portion control is achieved.

Limit the amount of treats, snacks and human foods your pet consumes. Focus instead on spoiling them through one-on-one interaction, play sessions with new toys and physical activities such as walking. Use interactive toys, balls or laser pointers to promote physical activity in any environment. If treats are necessary, a general rule of thumb is to ensure that treats contribute to less than 10 percent of the pet's daily calorie intake so as to avoid unbalancing the diet.

Dental Weekend to Focus on Practical Skills

The 2015 MU/Zoetis Dental Continuing Education Weekend will be held April 25-26 at the University of Missouri College of Veterinary Medicine. Dentistry can be a profit center for veterinary practices while simultaneously allowing veterinarians to meet the dental needs of patients and improve their quality of life and that of their owners. Practical information and skills for both DVMs and veterinary technicians and assistants will be the priority for this year's dental weekend.

Lectures are available on an open basis. Attendance at the lectures is required for entry into the wet labs. The lab portions will be hands-on and practical with a good teacher/student ratio. Attendance at the Sunday (DVM only) wet lab will be limited to 36 veterinarians. In the bonus lab session Sunday afternoon, to the extent possible, lab attendees' requests to learn specific procedures will be accommodated.

All lectures will be held at the University of Missouri College of Veterinary Medicine Adams Conference Center and Auditorium. Wet labs will be in the Anatomy Lab in the Veterinary Medicine building.

For questions about the program, please contact Dr. Richard Meadows; MeadowsR@missouri.edu (573) 882-7821. For registration questions, please contact Kate Stottle; muconf2@missouri.edu or (573) 882-9551.

Complete information about the agenda, speakers and topics, as well as online registration information can be found [here](#).

MU College of Veterinary Medicine Receives Support for Shelter Medicine

With grant support from nonprofit [PetSmart Charities](#), the largest funder of animal welfare efforts in North America, 365 veterinary students at four different universities will be trained in spay/neuter surgery and will perform roughly 11,000 surgeries within the first year of each grant.

The University of Missouri College of Veterinary Medicine is one of four recipients of the grant funding from PetSmart Charities. The college will receive \$429,352 over two years to support operational expenses to expand the shelter medicine program, a two-week required course for third- and fourth-year veterinary students. The rotation provides hands-on spay and neuter training for approximately 120 students for each of the two years, with students conducting an average of 32 spay and neuter surgeries each, with an estimated average of 30 percent of those surgeries being conducted on pediatric cats and dogs.

Training more veterinary students on spay and neuter procedures can have a positive and direct effect on the pet homelessness problem. Currently, about half of the 8 million pets that end up in U.S. shelters each year are euthanized because there aren't enough homes. Spay and neuter helps eliminate unwanted litters, so there are fewer homeless pets overall.

The other recipients of the PetSmart Charities grants are:

- The Ohio State University in Columbus, Ohio, which will receive \$508,919 over two years to support the operational expenses to expand the university's shelter medicine and surgery program, a two-week rotation required for all fourth-year veterinary students.
- Midwestern University in Glendale, Arizona, which will receive \$352,725 over 18 months to support the operational expenses for the university's new shelter medicine program in its inaugural year. The program will be an extracurricular learning activity that will be used as a platform to build a required shelter medicine rotation.
- Kansas State University in Manhattan, Kansas, which will receive \$200,000 over two years to support the operational expenses for the university's new shelter medicine program, a two-week elective rotation for fourth-year veterinary students.

Mizzou Hosts Exotics Symposium



Copper Aitken-Palmer, DVM, chief veterinarian from the Smithsonian's Conservation Biology Institute, offered an advanced topics lecture in simian retroviruses and herpesvirus, but also addressed a group of interested students in how to break into the fields of zoo, exotic and wildlife veterinary medicine.



Brendan Tindall, BVSc, a visiting veterinarian from South Africa, offered several lectures during the Show-Me Exotics Symposium, including a talk on advances in elephant immunocontraception, retroviruses and herpesvirus, but also addressed a group of interested students in how to break into the fields of zoo, exotic and wildlife veterinary medicine.



Peter Caldwell, BVSc, who performs wildlife work in South Africa, lectured at the Show-Me Exotics Symposium on several topics including a discussion of diseases and disease management in captive carnivores.

Veterinary students had the opportunity to learn about securing habitats on South African farmland for large carnivores like cheetah, the non-surgical dehorning of rhinos, and what life is like for a circus veterinarian during the recent Show-Me Exotics Symposium. The symposium has been held annually for 13 years, alternating locations between the University of Missouri College of Veterinary Medicine and the University of Tennessee. The 2015 symposium was held at Mizzou in January.

Members of the college's ZEW Club organized the event. They determined topics to be covered and invited experts to present lectures in their areas of specialization.

During the 2015 symposium, there were more than 10 presenters, including wildlife veterinarians from South Africa, Brendan Tindall, BVSc, and Peter Caldwell, BVSc; the chief veterinarian from the Smithsonian's Conservation Biology Institute, Copper Aitken-Palmer, DVM; a member of the National Marine Mammal Foundation team, James Bailey, DVM; the chairman of veterinary services and director of research at Ringling Bros. and Barnum and Bailey Circus, Dennis Schmitt, DVM; and the director of animal health at the Kansas City Zoo, Kirk Suedmeyer, DVM. Also presenting lectures were Megan Baebler, DVM, and Michael Jones, DVM, who specialize in avian medicine and surgery, and Kelly Straka, DVM, a wildlife veterinarian. MU College of Veterinary Medicine veterinarians Cathleen Kovarik, DVM, Dusty Nagy, DVM, and Jacqueline Pearce, DVM, spoke during the symposium on their areas of expertise, respectively, aquatic animal anatomy, diseases in miniature swine and avian ophthalmology.

Among the lecture topics were "Rhino Darting and Immobilization Techniques," "Preventive Health Care in Captive Carnivores," "Elephant Artificial Insemination and Reproduction," "Diseases of Birds of Prey," and "Zoo, Exotic and Wildlife Medicine: Breaking into the Field."

A total of 113 individuals registered for the symposium, including veterinary students, pre-veterinary students, technicians and community members. Participants came from veterinary colleges in California, Colorado, Georgia, Illinois, Indiana, Kansas, Minnesota, Ohio, Oklahoma and Tennessee. For the first time a distance learning option was made available for individuals who could not travel to Columbia, with nine people choosing that option.

MU Veterinarian Wraps up Year Leading Mastitis Council

John Middleton, DVM, PhD, has earned many accolades in his career as a food animal veterinarian. Witnesses to one of his most recent honors saw the renowned mastitis and milk quality expert escort a sord of mallard ducks through the Peabody Hotel in Memphis, Tennessee. While Middleton, who is a professor at the University of Missouri College of Veterinary Medicine, is more accustomed to working with cows than ducks, he took his Honorary Duckmaster duties in stride on Feb. 1, as the ducks were paraded at 5 p.m. from the marble fountain in the hotel's lobby back to their Royal Duck Palace on the rooftop.

The hotel selected him as Honorary Duckmaster to recognize his service as the president of the National Mastitis Council, which was holding its annual meeting at the Peabody Feb. 1-3, 2015. The meeting was the culmination of Middleton's year-long term as the organization's leader. Middleton's Duckmaster honor was not the only recognition he received during the meeting. Members of the NMC presented him with the NMC Distinguished Service Award for Presidential performance.

The NMC formed in 1961 in the United States and has evolved into a global organization whose members work to control mastitis, and improve dairy cattle health and milk quality. Middleton said among his goals during his year at the organization's helm were to increase global awareness of the NMC and to move it toward financial stability.

"We had a positive year financially, and we are working on initiatives to increase sponsorship of meetings and increase the value of the organization to members and sponsors," he said. "That said, as an information-based organization, financial stability in an era when people have ready access to information from other sources will continue to be a challenge."

Middleton is also happy with efforts to raise the organization's international profile. The NMC has traditionally held one regional meeting and one annual meeting per year. The regional meeting has typically been held in a dairy region of the United States or Canada and has catered to approximately 250-350 dairy producers and veterinarians. The 2014 regional meeting was held in Ghent, Belgium, in partnership with the University of Ghent and attracted 650 participants from around the world. Middleton gave an interview reviewing the Ghent meeting for *M2 Magazine*, a journal aimed at dairy professionals. That article can be found [here](#).



In addition to his role as a professor of food animal medicine and surgery, Middleton is the assistant director of the Agricultural Experiment Station for the MU College of Veterinary Medicine. His duties involve teaching and providing clinical services to clients in the large animal clinic. His own research focuses on coagulase negative staphylococcal mastitis in dairy cattle, molecular characterization of bacterial mastitis pathogens, heifer mastitis, and mastitis interventions. He will spend the next year as the NMC's past president and plans to continue to work toward financial stability and greater visibility for the organization. Efforts under way toward those goals include a collaboration with the University of Minnesota to hold a regional meeting in October in China.

John Middleton, DVM, PhD, (left) served as the president of the National Mastitis Council for 2014. He was recognized for his leadership during the organization's annual meeting held at the Peabody Hotel in Memphis, Tennessee, where he was also named Honorary Duckmaster during one day of the conference and helped the resident duckmaster guide the hotel's group of mallards from the lobby fountain to their rooftop home.



Mucus is Retained in Cystic Fibrosis Patients' Cells, Leads to Potentially Deadly Infections

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<http://munews.missouri.edu/news-releases/2015/0218-mucus-is-retained-in-cystic-fibrosis-patients%E2%80%99-cells-leads-to-potentially-deadly-infections/>

College Encourages Veterinary Students to Eat their Veggies

Three recipes. Ninety students. A really long shopping list.

When the MU College of Veterinary Medicine Office of Academic Affairs team, including Associate Dean Linda Berent, DVM, PhD, Student Services Coordinator Angela Tennison, DVM, and Executive Assistant Jennifer Hamilton organized a health and wellness event for veterinary students, the first stop was Google to find healthful slow cooker recipes. The second stop was the produce section.

Invitations went out to all students to attend the Friday afternoon event that was planned to help busy students eat more healthful meals. Participants were invited to fill grocery sacks with vegetables and freezer bags with herbs, spices and sauces to create meals that they could take home, add their choice of protein, and then freeze for use on those days when they are too busy to cook a balanced dinner. Approximately 90 students signed up for the event.

What does it take to provide 90 students with the ingredients for three slow cooker meals each? The Academic Affairs team purchased and shared 200 pounds of carrots, 30 bunches of celery, 100 pounds of noodles, 198 bell peppers, 70 pounds of yellow onions, 130 pounds of potatoes, 100 yellow squash, 200 zucchini squash, 102 pounds of pasta sauce, four liters of olive oil, red wine vinegar, garlic and seasonings, including gluten-free and dairy-free options.

Tennison said the inspiration for the event came when she, Berent and a third member of the MU CVM faculty attended the Health and Wellness Summit 2.0 on Oct. 8 and 9, 2014, hosted by The Ohio State University College of Veterinary Medicine in Columbus. The Association of American Veterinary Medical Colleges convened the meeting, which Zoetis sponsored. Tennison said information from the book "The New Science of Learning," by Terry Doyle and Todd Zakrajsek, was presented, which discussed the effects of hydration, sleep, nutrition and exercise on people's ability to learn.

From that meeting, she and Berent were prompted to offer the vegetable-heavy healthful meal planning and preparation event. With some hands-on assistance from Hamilton and volunteers Emi Meyer and Heather Hurst from the offices of Student and Alumni Affairs and Special Events, hundreds of pounds of vegetables were sorted and bagged and students given recipes to put together the accompanying seasoning kits.

Students also had the opportunity to enter a drawing for one of two slow cookers that were given away.

First-year veterinary student (right) Donna Clayton measures out seasoning mix for one of three recipes students were provided during the MU CVM's health and wellness event. The event focused on advanced preparation of healthful slow cooker meals that students can make on days when they are too busy to cook a nutritious dinner.



Emily Shearhart, a third-year veterinary student, and her friend put together an herb mix.



Caitlin Williams, a fourth-year CVM student, measures wine vinegar for her freezer bag slow cooker recipes.



The shopping list for the health and wellness event included 200 zucchini squash.



The Office of Academic Affairs provided samples of the three slow cooker meals for which they provided students with the necessary vegetables, sauces, herbs and spices.



Commitment Keeper: Mizzou Veterinarian Helps Golden Owner Rebuild Pet's Quality of Life

Jan Knoche loves golden retrievers. Since she co-founded [Love a Golden Rescue](#) in 2001, the St. Louis-based organization has rescued more than 1,000 surrendered, abandoned or abused golden retrievers.

So when Knoche heard Sydney's story, she took action. At three months old, the puppy was run over by a lawnmower, and his left hind leg was amputated. The owner decided euthanasia was the best option.

Luckily for the young golden retriever, Knoche got involved. The owner was persuaded to surrender the dog, who then traveled from his former home in Kentucky to St. Louis, where Knoche lives.

When she adopted him July 13, 2013, Knoche decided he deserved a new name to go with his new life: Keeper.

She quickly came to love him.

"He's just a gentle giant," she said. "He's never met an enemy."

Unfortunately, as Keeper grew, he began having difficulty using his remaining back leg. He didn't appear to be in pain, but he walked abnormally on the leg, often choosing to scoot around instead. Knoche's local veterinarian suggested Keeper try physical therapy using an underwater treadmill, but still the dog struggled to use his leg and tired easily.

Because another of her dogs had previously received treatment at the University of Missouri Veterinary Medical Teaching Hospital, Knoche decided to see if veterinarians there could do anything to help.

"We wanted to give him a chance," she said.

At the VMTH, radiographs and computed tomography (CT) scans were performed to assess Keeper's tibia and identify how best to help him. Keeper had an uncompensated biapical deformity, in which two deformities of the bone occur in the same direction. This type of deformity results in the knee being positioned to the outside of the body when the foot is placed directly under the pelvis, making it hard for him to balance and support his weight.

James Tomlinson, DVM, MVSc, MU professor of small animal orthopedic surgery, said most dogs do well with only three legs. But Keeper's accident likely damaged the growth plate at the top of his tibia, causing one side of the growth plate to grow but not the other side, Tomlinson said. This led to his right hind leg being crooked.

Dogs generally distribute about 60 percent of their weight to the front legs and 40 percent to the back, Tomlinson said. Following a hind leg amputation, most shift their weight so about 70 percent is distributed to the front legs. Keeper was unable to do this.

"His back leg was so crooked that he couldn't shift his weight," Tomlinson said. "He couldn't get himself up or support himself."

Tomlinson worried that Keeper's mobility problems, if not addressed, would worsen as the young dog grew older and gained weight. His quality of life could decline further. To prevent this, Tomlinson devised a plan to straighten Keeper's leg so it could bear weight.

"Even when dogs have these types of deformities, there are things that can be done to help them have a better quality of life," Tomlinson said. "Obviously, he's not going to be 100 percent normal, but hopefully being a three-legged dog he will be acceptably functional."

Keeper's surgery involved two cuts to the tibia to straighten the bone. The first, called a proximal osteotomy, was made across the width of the top portion and packed with a bone graft from Keeper's left front leg. In the second, called a distal wedge ostectomy, a wedge-shaped portion of bone was removed near the bottom of the tibia.

Because Keeper only had the one back leg, it was imperative that the bone be as strong as possible to keep it straight while it healed. To ensure this, Keeper's surgeons implanted an interlocking nail secured with three bolts as well as a bone plate secured with 10 screws.

The surgery was uneventful, but it was only the beginning of Keeper's recovery. Because Keeper enjoyed playing with Knoche's other dogs, which would not have been conducive to his recuperation, Knoche decided to keep him at the VMTH for the first month.

About two weeks after surgery he began physical therapy on the VMTH underwater treadmill to help him regain his strength and learn how to use his new and improved leg. Adrienne Siddens, a registered veterinary technician and certified canine rehabilitation practitioner, worked with Keeper on the treadmill.

{Watch video here: <https://vimeo.com/122458397>}

Siddens described Keeper as a "goofball" who initially was more interested in playing than walking while on the treadmill.

"He thinks everybody should play with him, everybody should pet him, everybody should love him," she said, adding that he was easy to love.

Although Keeper was reluctant to stand on his leg at first, eventually he grew more comfortable on the treadmill, Siddens said. The buoyancy of the water relieved him from having to bear all his weight, and the resistance helped build muscle strength. The more he walked, the more the range of motion in his hip improved.

In addition to the physical benefits, the treadmill also increased Keeper's confidence in his ability to walk.

"His mind got retrained," Tomlinson said. "He was so used to scooting, but he got to the point where he realized, 'I can do this. I can bear weight.'"

After Keeper went home to St. Louis, Knoche continued his water therapy at a local facility. Over the next couple of months, his walking became noticeably better, while other, less visible changes occurred. Radiographs show that the two cuts to his tibia have healed and filled in with bone.

Today Keeper, who will be 2 in April, is active and happy, Knoche said. She walks him twice a day and still takes him to water therapy once a week to give him additional exercise.

Tomlinson said Knoche's commitment to caring for Keeper and giving him a good quality of life was instrumental in his recovery.

Knoche, who has rescued many dogs with health problems, said it is heartwarming to watch them blossom as they receive the loving treatment and homes they deserve. She said she is grateful for the attention and care Keeper received at the VMTH.



When three-legged Keeper began developing problems walking, owner Jan Knoche brought him to the University of Missouri Veterinary Medical Teaching Hospital to see if veterinarians there could do anything to help.

"We felt if any place could give us a miracle for Keeper it would be (the VMTH)," she said. "We have got our miracle, I believe, and we are so thankful."



Keeper's surgery involved two cuts to the tibia to straighten the bone. His surgery team included, from left, Jessica Knapp, DVM, small animal surgery resident; James Tomlinson, DVM, MVSc, professor of small animal orthopedic surgery; and Tori St. Cin, fourth-year veterinary student.



Keeper's bone needed to be as strong as possible to keep it straight while it healed. As seen in this radiograph, his surgeons implanted an interlocking nail secured with three bolts as well as a bone plate secured with 10 screws.



Physical therapy on the VMTH underwater treadmill helped Keeper regain his strength and learn how to use his improved leg.

New Faculty Join CVM

The MU College of Veterinary Medicine is pleased to welcome one new faculty member to the Department of Biomedical Sciences and two new members to the Department of Veterinary Medicine and Surgery.

Nicole Nichols, PhD

Joining the Department of Biomedical Sciences this semester as an assistant professor is Nicole Nichols, PhD.

Nichols earned a PhD in biomedical sciences, concentrating on neuroscience and physiology, at Wright State University's Boonshoft School of Medicine in Dayton, Ohio. She then joined the University of Wisconsin in Madison as a postdoctoral fellow in respiratory neurobiology.

In her new position at the MU CVM, Nichols' primary focus will be conducting research, in addition to teaching veterinary endocrinology and providing other services to the department, university and community.

"I decided to pursue academia because I want to teach and mentor students to help them reach their full potential and love physiology and science as much as I do," Nichols said. "In addition, I want to conduct research in a university setting in order to better understand therapeutic targets to help people suffering from respiratory diseases and dysphagia as a result of motor neuron death."

Her research focuses on understanding how respiratory plasticity occurs and can be harnessed in models of respiratory motor neuron death and dysphagia including neurodegenerative diseases such as ALS.

In her short career, Nichols has already accumulated numerous accolades. She holds a Pathway to Independence grant from the National Institutes of Health's National Heart, Lung, and Blood Institute, and she just completed a prestigious Parker B. Francis Fellowship in pulmonary research.

Nichols also is the recipient of the 2015 Giles F. Filley Memorial Award for Excellence in Respiratory Physiology and Medicine. The award, presented annually to an individual demonstrating outstanding promise based on his or her research program in respiratory physiology and medicine, is one of the highest honors for an investigator in the field.

In her free time, Nichols enjoys reading, working out and running.

Joann Kunz, DVM, CVA

For Joann Kunz, DVM, CVA, joining the Department of Veterinary Medicine and Surgery in late 2014 represented a homecoming. She first came to the CVM as a Ross University School of Veterinary Medicine student completing her clinical year of study at MU. She said that was when she realized how valuable the college and its faculty would be to her career.

Once she completed her DVM, she joined the Community Practice Section at the MU Veterinary Medical Teaching Hospital. Although she left two years later to work in private practice, she said she knew she would return to the CVM and teaching someday.

After more than seven years in private practice, Kunz is back as a clinical instructor of shelter medicine.

"I enjoy the unique challenges of this profession and value the relationships I have developed with my clients," Kunz said. "It is very special to care for their pets from puppy through the senior years. Now



that I am back into teaching, I can pass all of these enjoyments along to my students as they grow from students into compassionate veterinarians.”

During the shelter medicine rotation, a two-week required course for third- and fourth-year veterinary students, students receive hands-on spay and neuter training with animals from the Central Missouri Humane Society. They also learn about disease recognition in shelter medicine.

Kunz said she is excited to be part of the growing program.

“I really enjoy shelter medicine and getting involved with the community to work together to care for all the homeless animals in need,” she said. “I think it’s so important that students realize all the different ways veterinarians can help in this setting.”

Kunz is certified in mixed animal acupuncture.

In her free time, she enjoys horseback riding with her husband and relaxing at home.

Pedro Melendez, DVM, MS, PhD

Pedro Melendez, DVM, MS, PhD, didn’t plan on becoming a veterinarian. As a child growing up in Santiago, Chile, he dreamed of being a marine biologist.

However, his mother was injured in a car accident around the time when he would have left home to go to college. Choosing to help care for her, he stayed in his hometown and attended the University of Chile, which lacked a marine biology program. Melendez decided to study veterinary science instead.

The decision not to pursue his childhood passion could have left Melendez unhappy, but during an internship in his third year of university he discovered his fascination with cows. After completing his degree, he worked with dairy and beef cattle in private practice before joining the University of Chile food animal medicine faculty.

Melendez later moved to the United States to pursue a residency in food animal medicine at the University of Florida, where he received his MS and PhD. After serving as an assistant professor there and a professor at the University of Santo Tomas in Chile, Melendez recently joined the faculty of the Department of Veterinary Medicine and Surgery as an associate professor of food animal medicine and surgery.

Melendez, whose interests include dairy production medicine, lactation management and metabolic diseases, plans to promote relationships between the CVM and his contacts in Chile and Argentina by helping students find externships there.

He admits he was terrified to speak in public when he was a student, but he has overcome those fears and loves the opportunity to teach students the lessons he has learned in his career, he said. He especially enjoys teaching students the importance of using scientific methods as clinicians, not just when doing research.

In his free time, Melendez enjoys playing tennis and volleyball and spending time with his wife, his 19-year-old twin sons, his 13-year-old daughter and their miniature schnauzer.



Old Cancer Drug Could Have New Use in Fighting Cancer

April 01, 2015

Story Contact(s):

Nathan Hurst, hurstn@missouri.edu, 573-882-6217

<http://munews.missouri.edu/news-releases/2015/0401-old-cancer-drug-could-have-new-use-in-fighting-cancer/>

Second-Year Students Win SAVMA Symposium Radiology Bee

Amber Graham, Amelia Kaeding and Damian Peyton, second-year veterinary students at the University of Missouri College of Veterinary Medicine, claimed first prize in the 2015 Student American Veterinary Medical Association Symposium Radiology Bee. The March 21 academic competition was one of several events during the annual student symposium, which was hosted this year by the University of Minnesota.

The team entered the competition on a whim, said Peyton, who also finished second place in the individual competition.

"We went up against several teams consisting of both second- and third-year students in a bracket-style, head-to-head elimination competition," Graham said. "It was intimidating at first, but it became obvious that our radiology training from lecture and lab was serving us well."

The MU trio beat two teams from Virginia Tech and one from the University of Wisconsin.



"It helped that we just finished our radiology course at school, so the material was still fresh in our minds," Kaeding said.

The students credited their radiology instructors, Jimmy Lattimer, DVM, MS, Lisa Britt, DVM, MS, John Haller, DVM, and Everett Aronson, DVM, MS, with preparing them to excel among their peers.

"I was excited and proud to represent the University of Missouri, and the experience reaffirmed that I am receiving a top-notch education," Graham said.

The students each received \$200 for winning the team competition, and Peyton earned an additional \$100 for placing second individually.

ReCHAI to Host Memorial for Pets That Have Passed

Francesca Tocco understands the pain of losing a pet.

"I have lost my fair share of four-legged, winged and scaled family members," said Tocco, a doctoral candidate in the University of Missouri Sinclair School of Nursing and the Research Center for Human-Animal Interaction (ReCHAI) at the MU College of Veterinary Medicine. "The losses have knocked me down, shaken me at my core and altered the bedrock of my day-to-day life. However, I've learned that those losses feel so monumental because I've truly connected with my furry family members."

In an effort to help people work through their unique emotions after losing their pets, Tocco designed the Together In Grief, Easing Recovery program. The program assists with many aspects of companion animal loss, including family counseling, resources to help people cope with the loss of an animal and training for veterinary clinicians and students.

To honor the lives of animals who have passed, the TIGER program will offer the third annual Companion Animal Memorial Event at 11 a.m. May 2 at the Adams Conference Center at the College of Veterinary Medicine, 1600 E. Rollins.



"Memorialization is a very special part of the grief process," Tocco said. "It can be comforting to be in a room with like-minded individuals who recognize that a pet can be a family member and a best friend."

The loss of pets due to death is inevitable given their shorter lifespans when compared to their human families. Many people experience this loss with an expression of grief similar to that as when a human family member dies. The memorial event is designed to help owners celebrate the lives of their deceased companion animals while moving through the grieving process, gaining closure and connecting with the memories associated with their departed companion animals.

Speakers at the event will include Carolyn Henry, DVM, MS, associate dean for the CVM Office of Research and Graduate Studies and a professor of veterinary oncology, and Chad Johannes, DVM, medical director for Kansas City, Kansas-based Aratana Therapeutics Inc., a pet therapeutics company.

Participants are encouraged to bring a memento of their pet to share during the event.

"All who have ever loved a companion animal know the pain of losing them," said ReCHAI Director Rebecca Johnson, RN, PhD, FAAN. "Our memorial event gives people a chance to remember, to share and to heal."

Johnson is also a professor at the MU College of Veterinary Medicine and the Millsap Professor of Gerontological Nursing in the Sinclair School of Nursing.

In addition to the memorial, the TIGER program has recently formed a pet loss support and grief group. Upcoming meetings are scheduled for 2 to 3 p.m. on April 11, April 25, May 9 and May 23 at the Adams Conference Center.

For more information about the memorial event or other TIGER program activities, contact Tocco at 823-9405 or CVMGriefSupport@missouri.edu.

BPA Can Disrupt Sexual Function in Turtles, Could be a Warning for Environmental Health

April 15, 2015

Story Contact(s):

Jeff Sossamon, sossamonj@missouri.edu, 573-882-3346

<http://munews.missouri.edu/news-releases/2015/0415-bpa-can-disrupt-sexual-function-in-turtles-could-be-a-warning-for-environmental-health/>

Biosafety Expert to Address CVM Graduates

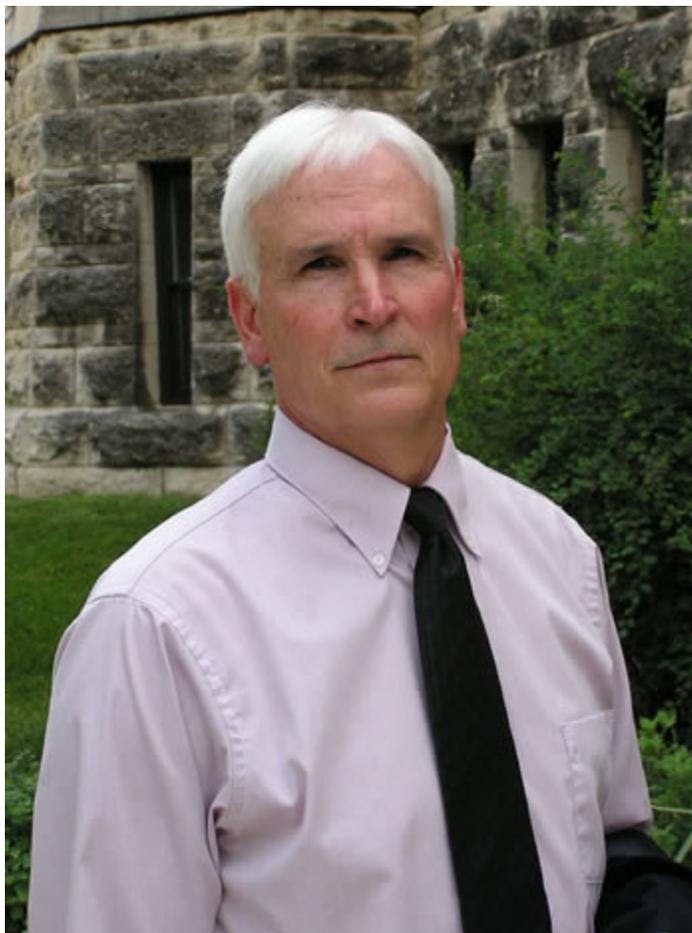
The University of Missouri College of Veterinary Medicine will welcome Jerry Jaax, DVM, as the keynote speaker during its 66th commencement on May 15. Jaax is the associate vice president for research compliance and university veterinarian at Kansas State University. He is responsible for university-wide compliance with regulatory laws and guidelines for animal care and use programs, research involving humans, and recombinant DNA activities and biosafety.

Jaax received his DVM from KSU in 1972 and entered the U.S. Army Veterinary Corps. After various initial assignments, he was assigned to the U.S. Army Medical Research Institute of Chemical Defense at Aberdeen Proving Ground, Maryland, and then as the chief of the Veterinary Medicine Division at the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, Maryland. He served as the consultant to the surgeon general of the Army for laboratory animal medicine. In 1996, he was named the director of the Biological Arms Control Treaty Office at Fort Detrick, and was responsible for the U.S. Army implementation and compliance with international biowarfare treaties and agreements. While at Fort Detrick, he was a key participant in the Ebola virus outbreak in Reston, Virginia, described in the No. 1 *New York Times* best-seller "The Hot Zone" by Richard Preston.

In 1998, he retired as a colonel from active duty and returned to K-State. He has been the principal investigator on several high-profile federal projects dealing with bioterrorism, and collaborates with scientists on other university biodefense and biosecurity projects and initiatives. He has been involved in the effort to bring the National Bio and Agro-Defense Facility to Manhattan, Kansas. He has published and lectured internationally on bioterrorism, agroterrorism, emerging infectious disease issues and emergency response.

He has been the recipient of many military awards, including the Legion of Merit, and was inducted into the Order of Military Medical Merit. He has been recognized with several distinguished alumni awards from the K-State College of Veterinary Medicine.

Commencement will begin at 1 p.m. in the Jesse Hall Auditorium. The college will graduate 114 new doctors of veterinary medicine.



Dr. Jerry Jaax, DVM

CVM Student Receives \$5,000 Research Grant

Alexa Personett, a second-year student at the MU College of Veterinary Medicine, has been named a 2015 [Morris Animal Foundation Veterinary Student Scholar](#). The highly competitive program provides veterinary students an opportunity to become involved in mentored research that enhances the health and welfare of companion animals and wildlife. Personett will receive a \$5,000 grant from the foundation.

Through the program, Personett will spend her summer researching canine airway microbiota in chronic bronchitis. Until recently, she said, the lungs were considered a sterile organ without the presence of bacteria. However, it has now been shown in humans that the lungs harbor their own community of beneficial bacteria, similar to the gut. These beneficial bacteria, called the airway microbiota, are believed to have necessary functions that maintain the health of the lungs, such as supporting the immune system and fighting off harmful bacteria. If these beneficial bacteria are reduced, harmful bacteria may invade and cause disease.

"In humans, the bacterial populations are different in healthy lungs compared to those with respiratory diseases like asthma or COPD," Personett said. "The project I will be working on involves determining the airway microbiota in dogs diagnosed with chronic bronchitis and comparing it to the microbiota that is present in healthy dogs."



Personett's research project will be conducted under the guidance of two faculty mentors, [Aaron Ericsson](#), DVM, PhD, and [Carol Reinero](#), DVM, PhD. Ericsson, an assistant research professor in the Department of Veterinary Pathobiology, is the director of the MU Metagenomics Center and the lead scientist for microbiota research for the Mutant Mouse Resource and Research Center and Rat Resource and Research Center. Reinero is an associate professor of small animal internal medicine and the director of the MU Comparative Internal Medicine Laboratory.

"To our knowledge, it will be the first study to determine the microbiota that is present in the canine airways using advanced sequencing technologies," Personett said. "It will be the first step in determining if respiratory disease in dogs is linked to an imbalance of bacterial populations, which will provide novel information relevant to the disease process of chronic bronchitis. I am also very excited by the clinical applications the results of the study could supply, as we may be able to provide alternative treatments for this disease."

Chronic bronchitis is a common and irreversible respiratory disorder that affects all breeds of dogs. Unfortunately, steroids must be given lifelong to reduce clinical signs and airway inflammation.

"The results of this study could potentially lead to the development of new, alternative treatments for pet dogs with chronic bronchitis by shifting the airway bacteria toward the growth of beneficial bacteria," Personett said. "It is well known that the gut microbiota plays an important role in intestinal health, so it is very likely that the airway microbiota is also involved in maintaining the health of the respiratory system. This research study will serve as the basis for future studies to beneficially modulate the airway microbiota with probiotics, antibiotics or other immunomodulators."

In conjunction with her project, Personett will be participating in the MU [Veterinary Research Scholars Program](#) for her second consecutive summer. As part of the VRSP, Personett will present her project at the Merial-NIH Veterinary Scholars Symposium this summer at the University of California, Davis.

Last summer Personett worked in the [Lyons Feline and Comparative Genetics Laboratory](#), led by [Leslie Lyons](#), PhD, the Gilbreath-McLorn Endowed Professor of Comparative Medicine. Personett assisted with an ongoing project to determine the genetic mutation that causes an inherited blindness in the Bengal cat breed.

Although Personett came to the CVM with the intention of becoming a small animal veterinarian in private practice, her research experience has made her aware of other career opportunities, she said.

“Now I am not sure exactly what I’d like to do with my career, but I know I would like to incorporate research in some way,” she said. “What I really enjoy about research is the thrill of problem solving and making new discoveries. With research, you are constantly learning and being exposed to things that aren’t typically taught in the classroom. What also excites me is that as veterinarians, we have a special skill set and knowledge base that allows us to not only improve animal health, but human health as well.”

College Welcomes New Advancement Director

Growing up on a farm near Kirksville, Missouri, Robyn Kollar developed an appreciation for the importance of veterinary medicine. From her experiences as a youngster involved in 4-H and FFA showing and judging cattle, she said she feels a connection to veterinarians and others who share her affinity for animals.

"There is an integrity there, that is really important to me," she said.

When the opportunity to become a part of the team at the University of Missouri College of Veterinary Medicine opened up, she jumped at the chance.

"MU has been a place I admired from afar for some time. This is a really great opportunity," she said.

Kollar recently joined the CVM as the new senior director of Advancement. She will work with Ron Cott, DVM, executive director of Advancement, and Kylee Richardson, advancement officer, in raising financial support for the college.



Kollar comes to the college from her alma mater, Truman State University, in Kirksville, where she served as the manager of the annual giving program for nearly eight years. In addition to leading a program that achieved record annual giving levels for the university's Foundation, she worked to expand donor support for Truman's athletics programs, managed the Parents Fund, and built partnerships to support the Kohlenberg Lyceum Series, a program of cultural events for northeast Missouri.

Prior to joining Truman State University, she spent five years as the associate director of Development at A.T. Still University of Health Sciences in Kirksville, focusing on local, regional and national fundraising campaigns to increase support from physician alumni, faculty, staff and business leaders.

Kollar has also used her fundraising talents in a volunteer capacity, helping the United Way of Adair County/Northeast Missouri since 2003. Among the roles she filled for that organization were campaign chair, division chair, fundraising committee co-chair and board member.

Kollar said she is beginning her new position by learning more about the college's research programs and facility needs from the faculty and administration, as well as speaking with current students and alumni about their experiences at the CVM.

"I think it's important to build on what is already working," she said.

Kollar has a bachelor of arts degree in communication and a minor in business management. She is the mother of three grown children. In her spare time she enjoys kayaking, hiking and reading.

Technical Large Animal Emergency Rescue Awareness Course Registration



The Boone County Fire Protection District and the College of Veterinary Medicine are honored to present a one-day course taught by:

Dr. Rebecca Gimenez
TLAER®
Friday, June 12, 2015

**At the Adams Conference Center, College of Veterinary Medicine
University of Missouri, Columbia, MO**

This Awareness level course is structured to educate veterinarians, veterinary students, technicians, fire departments, law enforcement agencies, emergency management, animal control, animal rescue operations, animal transporters, livestock producers and horse owners about safety and effective techniques and procedures for rescue of large animals (cattle, horses & small ruminants). Attendees will earn Awareness Level certification. Veterinarians will earn 4 hours of MVMA-approved CE credits and EMT/EMT-P will receive BEMS CEUs.

Registration is \$150 per person.

Directions (Adobe pdf)

Register below or [download](#) and mail in a completed registration form.

Veterinary students who would like to attend the course should contact Dr. Vogelweid (Vogelweidc@missouri.edu) before registering.

For additional information about the course, contact: Chuck Leake (cleake@bcfdmo.com) or Cathy Vogelweid (Vogelweidc@missouri.edu)

For more information about technical large animal rescue & Dr. Gimenez, visit www.tlaer.org

Genetic Sequencing of Cats Could Lead to Better Treatments for Cats and Their Humans

May 12, 2015

Story Contact(s):

Nathan Hurst, hurstn@missouri.edu, 573-882-6217

<http://munews.missouri.edu/news-releases/2015/0512-genetic-sequencing-of-cats-could-lead-to-better-treatments-for-cats-and-their-humans/>

Dog Walk to Raise Funds for Ill, Injured Dogs

After she discovered burglars had brutally beaten her dog Armani, owner Jessica Robertson rushed him to the MU Veterinary Medical Teaching Hospital. The 9-year-old cockapoo was diagnosed with multiple skull fractures, brain swelling, and bleeding in and around his brain.

Battling to save his life, veterinarians in the Small Animal Emergency and Critical Care Service stayed by Armani's side day and night for nearly a week. That constant care and attention, plus Armani's willingness to fight, paid off. After only 10 days he was able to go home to his family.

To honor her beloved dog and those who cared for him, Robertson formed Armani's Angels, an organization dedicated to raising money to help people with severely injured or ill dogs being treated by the SAECC Service at MU.

"Experiencing all the expenses that Armani incurred and without any insurance, it made me realize that many people are not in a position to pay for the vet care necessary for their animals," Robertson said. "I never lost hope that as long as I gave Armani the means to survive, he would. I want others to be able to allow their animals that same chance."

On May 17, Armani's Angels will host the inaugural Wag 'N' Walk, a fundraiser to support the SAECC Service, at Cosmo-Bethel Park, 4500 Bethel St.

Human participants will receive lunch before the walk and a T-shirt, and their canine companions will receive a swag bag.

Registration and lunch will begin at noon at the park's Ficklin Shelter, and the dog walk will start at 1 p.m. All dogs must be on a leash.

The entry fee is \$25. Participants may register at the event, but Robertson encouraged people to RSVP in advance by emailing info@ArmanisAngels.org to ensure enough supplies are available.

Robertson hopes to make the walk an annual event and plans to continue raising funds to support the SAECC Service's patients.

"Every pet saved means someone is able to spend more time with their best friend," she said. "Pets are like family in most households, and losing them is devastating. If we can assist in allowing doctors to heal them, then we are doing our part."

Donations to support the Armani's Angels Gift Fund can be made [online](#).



Jessica Robertson hugs her beloved cockapoo, Armani, who was treated by veterinarians in the Small Animal Emergency and Critical Care Service in 2013 after a brutal attack by burglars. Robertson formed Armani's Angels to raise money to help people with severely injured or ill dogs being treated by the SAECC Service at MU.

CVM Students Travel to Washington for AVMA Event

Two MU College of Veterinary Medicine students traveled to Washington, D.C., recently to participate in the American Veterinary Medical Association's 2015 Legislative Fly-In.

MU's Elizabeth Francis, a third-year student, and Gabrielle Pagano, a second-year student, joined 64 students from 25 other veterinary schools across the country for the annual two-day event. Its goals were to give students the opportunity to learn about the federal legislative process and advocate for bills that affect the future of the veterinary profession and U.S. animal agriculture.

After spending the first day learning about two high-priority pieces of legislation, the students spent the second day discussing them in meetings with elected officials and their staff members. The students focused on the Veterinary Medicine Loan Repayment Program Enhancement Act (S. 440) and the reauthorization of the Higher Education Act.

Francis said meeting with legislators and their staffs was intimidating.

"The first time we did it, it was definitely nerve-racking," she admitted, but she said the meetings became easier as the students gained experience.

"You can tell that (legislators and staffers) appreciate hearing from their constituents," Francis said.

Pagano said she would strongly recommend participating in the Fly-In to other students.

"This shows you how influential you can be in the field of veterinary medicine," she said. "And our field needs us, especially as the public becomes more and more passionate about where their food comes from and as the love for their companion animals grows."



MU College of Veterinary Medicine students Gabrielle Pagano and Elizabeth Francis traveled to Washington, D.C., recently for the American Veterinary Medical Association's 2015 Legislative Fly-In. (Photo courtesy of Scott Nolen/AVMA.)

Phi Zeta Research Day Continues to Grow at Mizzou

The 38th annual Phi Zeta Research Day held May 8, 2015, at the MU College of Veterinary Medicine saw a record number of participants. Phi Zeta is the honor society of veterinary medicine.

"Phi Zeta Research Day provides an ideal venue to display the varied research being performed at the college by our professional students, interns, residents, graduate students and post-doctoral fellows," said Charles Wiedmeyer, associate professor of veterinary clinical pathology at the CVM and coordinator for Phi Zeta Research Day. "This year, we had a record 88 abstracts presented and gave out over \$9,000 in awards. Through a concerted effort, this event satisfies Phi Zeta's goal of promoting scholarly activities within our profession and we hope to continue to grow."

Participants presented studies and research findings in either a poster or a lecture format. This year there were 68 posters on display in the Adams Conference Center, and 20 oral presentations were given.

In addition to the research presentation, Dr. Jerry Taylor offered a keynote address, "Adventures in Second Generation Sequencing." Taylor is the Curators Professor of Genetics and Animal Sciences and the Wurdack Chair of Animal Genomics at the MU College of Agriculture, Food and Natural Resources. He is known internationally as one of the top scholars and influencers in the field of animal genomics. His research using genetic mapping of cattle to identify economically important traits, then applying that information to cattle breeding selection and management, paved the way to using DNA-based genomic improvement in nearly all livestock and crop species.

The keynote speech was presented in cooperation with the Niemeyer Lecture Series. Other Phi Zeta Research Day sponsors were the CVM Dean's Office and Office of Research, Nestle Purina, Inc., Avacta, and the Hartley Endowment.

The following students captured awards for their presentations:

Poster Categories:

Veterinary Professional Students

Brian Jochems, first place
Sarah Shippy, second place
Katherine LaVallee, third place
Liz Farnan, fourth place
Noelany Cruz Rivera, fourth place

Interns, First-year Residents and Graduate Students

Lindsay Ledbetter, first place
Jessica Lovstad, second place
Nicholas Olivarez, third place

Second- and Third-year Residents and Graduate Students

Marcia Hart, first place
Ming Yang, second place
Susheel Busi, third place
Daniel Davis, third place

Presentation Categories:

Veterinary Professional Students

Damian Peyton, first place
Jeremiah Nichols, second place



Veterinary students, interns, residents, graduate students and post-doctoral fellows displayed 68 research posters during Phi Zeta Research Day May 8 at the MU College of Veterinary Medicine.



Comparative Medicine Resident Sarah Hansen reviews her research examining sarcoma development in rats with CVM Professors Joan Coates and Craig Franklin.

Interns, First-year Residents and Graduate Students

Kim Menard, first place
Dan Montonye, second place
Megan Haney, third place

Second- and Third-year Residents and Graduate Students

Mike Fink, first place
Christine Sibigtroth, second place
Carolyn Lacey, third place

Combined Poster and Presentation Categories

Advanced Graduate Students and Post Docs

T. Dylan Oliver, first place
Miqdad Dhariwala, second place
Erkan Osman, third place
Linda Alex, fourth place

Best Overall: Veterinary Professional Student

Kari Deininger

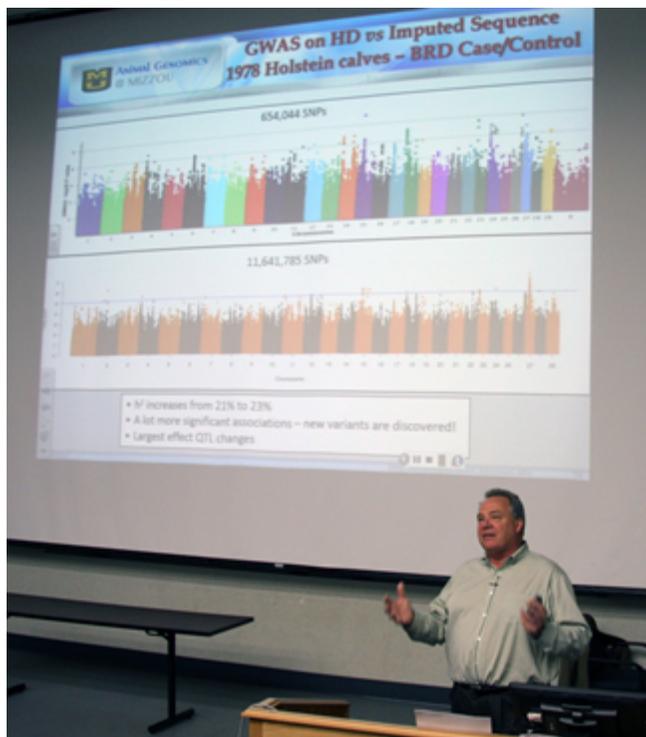
Best Overall: Interns, Residents, Graduate Students and Post Docs

Jessica Hiemstra
Marina McCoy

During an evening banquet, new members were inducted into Phi Zeta. They included:

From the Class of 2015:

Lynn Richard Barton
Amanda Jane Brehm
Sarah Church
Ashley Clarke
Nicole Freeman
Gina Marie Holen
Evelyn MacKay
Nancy Lynn Mueller
Mindy Neiuwboer
Jillian L. Paegelow
Karen Elizabeth Trott
Jacqueline Roberts
Ainsley Storm Todd



Jerry Taylor, Curators Professor of Genetics and Animal Sciences and the Wurdack Chair of Animal Genomics at the MU College of Agriculture, Food and Natural Resources, gave the keynote address, "Adventures in Second Generation Sequencing."

From the Class of 2016

Lisa Anderson
Ellen Marie Cole
Celia Friedman Cowan
Chris Kennedy
Anna Kathleen McManamey
Justin Michael Nash
Shanna R. Nelson
Christina Scudder
Rowena Woode
Jaclyn Zangre

Residents

Erin Burton
Michael Fink
Marina McCoy Hanson
Maria Hart
Sarah Hooper

Faculty

Michael Calcutt
Charles Maitz
Jerry Taylor



Jerry Taylor

CVM Graduates 114 New Veterinarians

Jerry Jaax, DVM, attended veterinary school at Kansas State University fully expecting to emulate famed veterinarian and author James Herriot and work in a veterinary clinic. However, when he graduated in 1972, "The Vietnam War was raging, and hiring," he said. Jaax joined the U.S. Army Veterinary Corps, as did his wife, Nancy Jaax, DVM, one year later. The couple, who met while in veterinary school, went on to pursue their careers together, their combined active duty service totaling 54 years.

Jaax addressed the MU College of Veterinary Medicine Class of 2015 during commencement exercises May 15. He recounted his and his wife's intertwined careers in the field of one medicine – the convergence of animal and human health -- even before the term "one medicine" became commonly used. The duo's military career included several years in Germany, where they cared for Army sentry dogs and isolated a coronavirus that infected some of the animals; working with deadly pathogens at the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, Maryland; immunizing horses with botulinum toxin during Operation Desert Storm; and responding to an Ebola outbreak in monkeys in Reston, Virginia.

Jaax encouraged the graduates to consider the possibility that they may come to a similar fork in the road of their own career paths.

"It happened to us and it might happen to you," he said. "When it comes to your personal goals, aspirations and dreams, why couldn't it be you, indeed?"

Dean Neil C. Olson served as the master of ceremonies for the 66th annual commencement during which 114 students received their DVM. Charles Barry, DVM, president of the Missouri Veterinary Medical Association, led the graduates in reciting the Veterinarian's Oath. Ron Cott, DVM, associate dean for Student and Alumni Affairs and director of Advancement, presented the graduating class for investiture, which was conducted by Linda Berent, associate dean for Academic Affairs, Carrie Duran, DVM, adjunct teaching professor, and Joan Coates, DVM, professor. Cathleen Kovarik, DVM, and Brian Frappier, DVM, both associate teaching professors, also assisted in the investiture. MU Chancellor R. Bowen Loftin conferred the doctor of veterinary medicine degree to the class members.

Veterinarians completing internships, residencies and graduate programs at the CVM also received recognition during the ceremony.

Members of the Class of 2015 selected Katherine Nadolny, DVM, to give the response on their behalf. Nadolny spoke about first meeting her classmates as strangers at the Veterinary Enrichment and Teambuilding orientation, where



Keynote speaker Jerry Jaax, DVM, spoke about his and his wife's long careers as veterinarians for the U.S. Army.



The CVM Class of 2015 recites The Veterinarian's Oath



Nathaniel Socrates Kollias receives his hood from Associate Dean Linda Berent, DVM, and Adjunct Teaching Professor Carrie Duran, DVM.

they shared bunk beds and awkward hugs, climbed on inflatable floats in a lake, and talked about their feelings for hours.

“Our lives have been intertwined for the last four years,” she said.

She recalled eating stale three-day old Chinese food at 2 a.m. while working in the Small Animal Emergency and Critical Care Section, and congratulated her classmates for their hard work that was rewarded with a 100 percent pass rate on the national licensing exam. She also thanked the clinicians and house officers for going above and beyond in teaching. “Your passion and work ethic has been an example to us,” she said.

Nadolny noted that the students had experienced many sleepless nights while undertaking the veterinary curriculum, and that they were aware there will be many more future sleepless nights in their future.

“This is the life that we have chosen, the life that we love.”

For a look at more graduation images, please visit our [Facebook page](#).

Keynote speaker Jerry Jaax, DVM, spoke about his and his wife’s long careers as veterinarians for the U.S. Army.



Dean Neil C. Olson congratulates new veterinarian Jenifer Sniezek.



Katherine Nadolny, DVM, offers a response on behalf of her class

Honors Banquet Sets New Record

A record \$325,000 was awarded May 12 during the MU College of Veterinary Medicine 2015 Honors Banquet. The annual event recognized the accomplishments of veterinary students, faculty, technicians, interns and residents. The event featured awards and scholarships to acknowledge student scholastic achievement, clinical proficiency, community service and leadership. The students in turn gave several awards to peers and mentors for teaching excellence and leadership.

Students in each academic class selected an outstanding teacher to receive 2015 Golden Aesculapius Teaching Awards. Winners were Associate Teaching Professor Brian Frappier, DVM, PhD, honored by the Class of 2018; Associate Clinical Professor Catherine Vogelweid, DVM, PhD, honored by the Class of 2017; Associate Teaching Professor Dusty Nagy, DVM, PhD, recognized by the Class of 2016; and Assistant Clinical Professor Fred Williams, DVM, who was the honoree chosen by the graduating Class of 2015.

CVM Dean Neil C. Olson presented two awards sponsored by Zoetis to faculty. The Zoetis Award for Veterinary Research Excellence honors a faculty member or graduate student whose research is related to veterinary medicine and has a promise of national recognition. Peers nominate the recipient for the honor, which includes a plaque and \$1,000 cash award. John Middleton, DVM, PhD, a professor of large animal internal medicine, was this year's recipient.

Middleton was recognized for his mastitis research. He received the American Dairy Science Association West Agro Award for Outstanding Contributions to Milk Quality Research in 2009 and the 2015 National Mastitis Council Distinguished Service Award. His MU trainees have received seven Phi Zeta research awards and three American College of Veterinary Internal Medicine Resident Research Awards. He also has 74 peer-reviewed publications, has authored five book chapters and is credited with 157 abstract proceedings.

The second award supported by Zoetis Animal Health was the Distinguished Veterinary Teaching Award. The 2015 graduating class, which selects the recipient of the plaque and \$1,000, awarded Frappier his second honor of the night. Frappier joined the CVM in 1988. He teaches veterinary microanatomy, large animal gross anatomy and veterinary neuroscience. Olson noted that the honoree is no stranger to teaching accolades, having previously won a number of Outstanding Teaching Awards from the Student Chapter of the American Veterinary Medicine Association while at MU and at The Ohio State University, numerous Golden Aesculapius Teaching Awards, a Gold Chalk Award from the MU Graduate Professional Council, the CVM Dean's Impact Award in 1998, and the William T. Kemper Fellowship for Teaching Excellence in 2001.

The 2015 Honors Banquet took place at the Courtyard by Marriott in Columbia.

[See the complete list of 2015 award winners:](#)

[2015_AwardRecipients.pdf](#)



Brian Frappier (right) accepted the Zoetis Distinguished Veterinary Teaching Award from CVM Dean Neil C. Olson and Marnie Mellancamp, DVM, academic liaison for Zoetis.



Tony Mann, DVM, professor and director of Small Animal Emergency and Critical Care Services at the MU Veterinary Medical Teaching Hospital, presented the Technician Award to Kathleen Backus, DVM.



Ron Cott, DVM, associate dean of Student and Alumni Affairs and director of Advancement, served as the master of ceremonies for the 2015 Honors Banquet.

Dean Presents Honors for Positive Impact on College

MU College of Veterinary Medicine Dean Neil C. Olson selected two individuals from within the college and two veterinarians and their clinic as recipients of the 2015 Dean's Impact Awards. The awards, established in 1993, recognize individuals who have had an outstanding and sustained positive impact on the College of Veterinary Medicine.

The honorees received an engraved crystal plaque presented during a reception that also recognized staff members who achieved milestones in their years of service to the University of Missouri. This year's Impact Award winners were Kate Anderson, James Tomlinson, DVM, MVSc, and Richard F. Taylor, DVM, and Kenneth M. Vroman, DVM, and their Howard County Veterinary Services Clinic located in Fayette, Missouri.

Anderson is the head librarian in the Zalk Veterinary Medical Library. In announcing the recipient, Olson noted the assistance Anderson provides to faculty and students performing searches for teaching and research purposes in which she provides comprehensive and timely results. She continually teaches faculty, students and residents how to navigate information resources and to optimize reference software. Her assistance is also crucial in supporting the promotion and tenure process and in assembling bibliographies for faculty.

Tomlinson is a professor of veterinary orthopedic surgery whose career at MU spans 34 years. He has mentored 42 residents, 10 interns and 30 graduate students. Olson noted that Tomlinson's clinical acumen, national reputation and expertise as an orthopedic and neurologic surgeon are among the most exemplary in the country, if not the world. He pioneered minimally invasive surgical techniques and spine surgery in small animals, as well as total hip replacement surgery and the use of arthroscopy in dogs. "It is not an exaggeration to say that he has served as a pillar on which the University of Missouri's Veterinary Medical Teaching Hospital has rested for nearly 35 years," Olson said.

CVM alumni Taylor, CVM '62, and Vroman, CVM '69, were honored for championing the college for the past 50 years. In the early 1980s, when the college was faced with accreditation problems and a lack of funding, the honorees pressed organized veterinary medical groups to offer their support. At their own expense, they generated hundreds of letters to the Missouri Legislature, the MU administration and agriculture commodity groups, such as the Farm Bureau, urging support of the college. They also testified at Missouri Senate and House agriculture appropriations committees hearings. They have helped through the years by serving on CVM committees and by helping the Gentle Doctor Benefit. They have mentored more than 300 DVM students while teaching them the value of organized veterinary medicine and to advocate for their alma mater.



CVM Dean Neil C. Olson presents the Dean's Impact Award for faculty to Professor James Tomlinson.



Kate Anderson was the recipient of the Dean's Impact Award presented to a staff member.



Dean Olson also honored the Howard County Veterinary Services Clinic and its veterinarians Kenneth Vroman and Richard Taylor.

The following staff members were also recognized for their years of service to the college:

Dean's Office:

Raymond Vaught, 5 years
Karla Driskill, 10 years
Janice Seagraves, 10 years
Kim Bussard, 15 years
Stephanie Bossaller, 20 years
Teresa Seidel, 25 years
Chris Shaw, 25 years
Greg Kelly, 30 years

Biomedical Sciences:

Bobby Colley 30 years

Veterinary Diagnostic Laboratory:

Abel Vega, 10 years
Irene Ganjam, 25 years
Geri Hegsted, 25 years
Jeffrey Peters, 25 years
Rankin Martin, 30 years

Veterinary Medicine and Surgery:

Justin Atkisson, 5 years
Teresa Egbert, 5 years
Krista Huscher, 5 years
Sara Kohl, 5 years
Bryan McGinty, 5 years
Jodelle Rhodes, 5 years
Adrienne Siddens, 5 years
Jennifer Terrock, 5 years
Margaret Ashbaugh, 10 years
Lori Freie, 10 years
Kacey Lundy, 10 years
Jay McCallie, 10 years
Donna Tindal, 10 years
Robert Rankin, 15 years
Karen Siegler, 20 years
Jennifer Polkow-Haight, 25 years
Deborah Tate, 25 years
Priscilla Foster, 30 years

Veterinary Pathobiology:

Eli Marchbanks, 5 years
Michelle McDowell, 5 years
Jan Nicholson, 35 years

Poor parenting or BPA?

Endocrine disruptors alter parent behavior in California mice

By Roger Meissen | MU Bond Life Sciences Center

<https://decodingscience.missouri.edu/2015/06/03/poor-parenting-or-bpa/>

CVM Students Take on National Leadership Roles

Jochems Joins SAVMA Board

Two third-year students at the MU College of Veterinary Medicine, Brian Jochems and Jessi Kraemer, have been selected to join the executive boards of national veterinary student organizations.

Jochems was chosen to be the international exchange officer-elect for the Student American Veterinary Medical Association executive board.

Created in 1969, the organization's goals include introducing veterinary students to the concept of organized veterinary medicine; promoting, enhancing and supporting professionalism and veterinary medical education; and encouraging the development and empowerment of students as leaders in the profession of veterinary medicine and the community as a whole.

Jochems will serve one year as the SAVMA board's international exchange officer-elect and the following year as the international exchange officer. In these positions, he will represent SAVMA internationally and serve as a resource for veterinary students interested in international experiences, he said.

Jochems said he is passionate about international travel and has experienced the benefits of international education firsthand. While an undergraduate at MU, Jochems spent a semester studying at the University of Reading in the United Kingdom. In addition to taking classes not available at MU, it was an opportunity to meet new people, try new things and step out of his comfort zone, he said. After his classes ended, he capped off the experience with a whirlwind three-week sightseeing tour of 14 countries.

"That sparked my interest in international experiences and the benefit of getting different perspectives from other cultures and countries," Jochems said.

Since starting his veterinary education, Jochems has met international veterinary students at conferences and through other experiences. Through their "mutual passion for animal welfare and well-being," he learned about some of the ways veterinary medicine can differ depending on location. For example, different regions might use different anesthesia drugs based on their availability and cost, he said. Jochems said learning about these differences "helps strengthen your understanding of the profession and enhances your ability to practice the best veterinary medicine."

Jochems' new position will require a large time commitment and a lot of travel, but it will be worth it, he said. He will be taking four trips during his two years in office, starting with two weeks in Romania this summer followed by trips to Taiwan, Austria and Istanbul later. He will also attend all annual AVMA conventions and SAVMA symposiums.



Kraemer Joins VBMA Board

Following a competitive application process and interview, Jessi Kraemer was selected to join the Veterinary Business Management Association's 2016 national executive board.

The VBMA is a student-driven organization dedicated to advancing the veterinary profession by increasing business knowledge, creating networking opportunities and empowering students to achieve their personal and professional goals. Founded in 2004, it is the largest veterinary student organization without an umbrella or parent organization.

Its board is composed of six officers: president, vice president, treasurer, business certificate director, marketing director and compliance chair. In July, Kraemer will find out which office she will hold and will begin preparing to transition into that role under the guidance of the current officeholder. Kraemer will officially start in January 2016 and serve until the end of the year.

A past president of the MU VBMA chapter, Kraemer enthusiastically endorses the organization's mission.

"VBMA has shown me my niche of passion in veterinary medicine," she said.

Kraemer said VBMA teaches veterinary students valuable skills they might not learn elsewhere, such as how to negotiate their first jobs, pay off debts or successfully run a business. These skills help students become better veterinarians and better people, she said.

Kraemer said she appreciates the opportunities VBMA has given her to grow as a leader.

"Leadership is a skill," she said. "You're not born a leader; it's a skill you can develop."

Like Jochems, Kraemer will face a large time commitment in her new position. In addition to participating in many conference calls, she will attend the annual AVMA and VBMA conferences.

"I will always make time for things I'm passionate about," she said.

Although Kraemer took some business courses during her undergraduate education, she didn't anticipate just how much she would enjoy learning business skills through VBMA activities.

"I never saw myself being involved in a business organization, but here I am," she said.

With two years of her veterinary education remaining, Kraemer is keeping her future career options open. However, she said she is considering opening her own practice someday or pursuing possibilities in industry. She likes the corporate structure and its potential for growth and expansion.



Retired Army Officer to Lead Infectious Disease Research

Jeffery Adamovicz, PhD, has been named the new director of the Laboratory for Infectious Disease Research (LIDR) at the University of Missouri. The MU LIDR is one of 12 regional biocontainment laboratories established by the National Institutes of Health. The laboratory conducts research designed to prevent and treat infections caused by biothreat and emerging infectious diseases agents.

Adamovicz is a retired U.S. Army lieutenant colonel. He previously served as scientific director of the University of Wyoming veterinary BSL-3 laboratory, chief scientist for the Midwest Research Institute, and chief of the bacteriology division at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID). At USAMRIID, Adamovicz directed vaccine and therapeutics development programs against bacterial diseases such as anthrax, plague and glanders.

Adamovicz earned a doctorate in microbiology from the Uniformed Services University of Health Sciences and a bachelor's degree in biotechnology from the University of Northern Iowa. In addition to his duties as the director of the LIDR, Adamovicz is also an associate professor in the Department of Veterinary Pathobiology at the College of Veterinary Medicine.



EXPERT AVAILABLE: Recent Bird Flu Epidemic Calls for Increased Biosecurity,
Expert Says

Poultry disease expert says poultry farms should avoid sharing equipment, workers

June 24, 2015

Story Contact(s):

Nathan Hurst, hurstn@missouri.edu, 573-882-6217

<http://munews.missouri.edu/expert-comment/2015/0624-expert-available-recent-bird-flu-epidemic-calls-for-increased-biosecurity-expert-says/>

CVM Faculty Share Expertise with South American Colleagues



MU College of Veterinary Medicine faculty recently hosted a visit from veterinarians and beef and dairy producers from South America. In addition to touring the CVM, the group visited six corporate, private and university-owned farms around Missouri over the course of two days.

Mizzou veterinarians recently served as hosts of a cultural exchange, welcoming fellow veterinarians and beef and dairy producers from South America. A total of 17 visitors from Chile, Uruguay and Argentina spent three days learning about Missouri livestock and veterinary technology available at the University of Missouri College of Veterinary Medicine.

Pedro Melendez, an associate professor of dairy production medicine at the college, coordinated the visit at the request of animal nutrition company Alltech Chile. Alltech was holding a conference in Lexington, Kentucky, and sought an opportunity for some of the attendees to gain exposure to livestock production in Missouri.

"Missouri has both grazing and confined production operations, which Chile also has," Melendez explained of the organizers' interest in the Show-Me State. "Land is still inexpensive, the price for milk is good and grass grows year-round," he added.

Melendez is from Chile and began teaching at MU last fall. He began the tour for the South American visitors with a presentation about beef and dairy production in Missouri, including herd statistics, disease threats and economic issues. Scott Pooch, an associate extension professor of veterinary medicine, also addressed the group, focusing on milk production and explaining the economics behind a trend toward fewer producers who are raising larger herds.

The second day of the group's visit saw them traveling to Springfield where they met with extension Dairy Specialist Stacey Hamilton with the MU Southwest Research Center and toured three grazing farms, one owned by a New Zealand corporation and two smaller privately owned facilities. For the final day of the visit, the group visited a 5,000-head Angus breed feedlot operation near Columbia, a family-owned dairy near Kansas City, and the MU College of Agriculture Food and Natural Resources' Foremost Dairy Research Center. They also heard from Craig Payne, an associate extension professor of veterinary medicine whose area of expertise is beef cattle.

Melendez said he hopes this will be the first of many cultural exchanges between South American countries and the CVM. He is also calling on his research and teaching contacts in Chile to explore the possibility of CVM students pursuing preceptorships there.

Sharing Strengths

Animal Sciences Division teams up with Veterinary Medicine and Extension Dairy Team for tour of Foremost Dairy Research Center

Written by [Stephen Schmidt](#) · Photography by Stephen Schmidt · June 25, 2015

<http://cafnrnews.com/2015/06/sharing-strengths/>

