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# *lifelines*

News from the  
College of Veterinary Medicine  
at Kansas State University

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## Top Parasitologist Award for Dr. Mike Dryden

American Association of Veterinary Parasitologists presents its top award in Boston



The American Association of Veterinary Parasitologists presented the 2015 AAVP-Merial Distinguished Veterinary Parasitologist Award to Kansas State University's Dr. Michael W. Dryden on July 11 in Boston, Massachusetts, at the society's 60th annual meeting. This is the society's highest award and honors the outstanding contributions of an AAVP member to the advancement of veterinary parasitology. Dr. Dryden is a University Distinguished Professor of veterinary parasitology in the Department of Diagnostic Medicine/ Pathobiology in the College of Veterinary Medicine.

stature in the college at Kansas State University. He's an asset not only to the college, but also to the profession in general."

"Mike is the consummate teacher," said Dr. Doug Carithers, secretary-treasurer of the AAVP. "He is able to clearly explain complex relationships and concepts in a logical, passionate and entertaining manner that is relevant for the particular audience, no matter what their background. Most importantly, even though he's considered the flea expert worldwide, he remains open-minded enough to keep learning and explore the possibilities, making him not only a great teacher, but an excellent student of science."

"Receiving the 2015 AAVP Distinguished Parasitologist of the year award was a most humbling experience," Dr. Dryden said. "It is the highest honor bestowed by the association and I never considered that the association would honor me with this career achievement award."

"Mike is a quintessential faculty member," said Dr. M.M. Chengappa, University Distinguished Professor and head of the Department of Diagnostic Medicine/Pathobiology. "We're fortunate to have a professor of his caliber and

Born in Osborne, Kansas, Dr. Dryden grew up on a farm northwest of Cawker City, Kansas. He earned a bachelor's degree in 1982 and a DVM degree in 1984, both at Kansas State University. He later earned a master's degree in 1988 and a Ph.D. in 1990, both from Purdue University, West Lafayette, Indiana. It was while he was a graduate student at Purdue that the veterinary students started calling him "Dr. Flea."



Dr. Doug Carithers (left), secretary-treasurer of the AAVP, presents the 2015 AAVP-Merial Distinguished Veterinary Parasitologist Award to Dr. Mike Dryden, pictured above with wife, Joan. Below, he reflects on his career at the meeting.

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## Collaborative research leads to discovery of syndrome in cattle



*Dr. Steve Ensley, DVM class of 1981, discusses cattle health issues with the CVM's Dr. Dan Thomson on DocTalk. The two have worked together with other researchers on a project that discovered a new syndrome in cattle.*

Researchers at the CVM in collaboration with faculty from Iowa State University and Texas Tech University recently published a landmark research paper on feedlot cattle.

The study, "Description of a novel fatigue syndrome of finished feedlot cattle following transportation" was co-authored by Dr. Dan Thomson, Jones Professor of Production Medicine in the College of Veterinary Medicine and director of the Beef Cattle Institute at Kansas State University; Dr. Jamie Henningson, a diagnostic pathologist, and Dr. Bhupinder Bawa, a former pathology resident, both with the Kansas State Veterinary Diagnostic Laboratory; Dr. Guy Loneragan, professor of food safety and public health at Texas Tech University; and Dr. Steve Ensley, a veterinary clinician and toxicologist at Iowa State University. The Journal of American Veterinary Medical Association published the study as a "special report" in the July 15 issue.

"Our job at K-State is to support the beef industry. We at the BCI assume a huge responsibility of service to producers and consumers of beef. Our research team is the first to discover this syndrome in a scientific journal," Dr. Dan Thomson said. "This syndrome has been identified in the swine industry and had not been

identified in cattle until our work that started in 2013. This is a landmark paper that will place an emphasis on cattle stress at the end of the feeding period with items such as heat load, animal size, cattle handling at shipping, time of day of shipping, animal transportation, and other issues that could be causing stress of large cattle during the summer time. It is awesome to work with diagnostic laboratory

and to collaborate with our colleagues at Texas Tech and Iowa State University to serve the industry."

The study was inspired by observations made during the summer of 2013. Abattoirs throughout the United States reported concerns about slow and difficult-to-move cattle and other mobility problems that developed soon after arrival at the facility. Affected cattle had various clinical signs including rapid breathing with an abdominal component to respiration, lameness and reluctance to move. Many of the cattle affected with mobility problems had clinical signs similar to those of pigs with fatigued pig syndrome, a multifactorial condition in which affected pigs become nonambulatory without obvious injury, trauma or disease and refuse to walk.

"I think this paper is the first publication of the interaction between beta agonists and lameness issues in cattle," Dr. Ensley said. "The beta agonists are widely used in cattle and pig feeding and there is very little information about adverse effects. More work needs to be done but this is a great start."

"Part of the pathophysiology points to metabolic overload of sorts that result in or from respiratory insufficiency and muscle damage," Dr. Loneragan said. "While we don't know the cause, it appears to be multifactorial in nature but warrants further investigation. It is important to be able to share case reports like the ones described. While it is not always as thorough as a case report of hospitalized animals, these field-based observations are nevertheless of value and under Dr. Thomson's leadership, we were able to dig relatively deeply into these events and provide a report to share with our profession."

"Also described in the manuscript is a profoundly problematic condition – possibly an extreme endpoint of the fatigued cattle syndrome – where animals sloughed one or more hooves," Dr. Loneragan added. "Based on microscopic examination, this appears to be a distinct condition and is likely not laminitis resulting from dietary disturbances. It is clear this results in intense pain for the animals. The abattoir companies have decided that events like these are unacceptable and I applaud their dedication and commitment to protecting the welfare of the animals they depend on for their business and we depend on for food."

This study concluded it would be imperative for the beef industry and affiliated veterinarians to learn quickly as much as possible about fatigue cattle syndrome so measures can be implemented to prevent the condition or at least minimize its impact on cattle welfare.

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## CVM awards dual-degree scholarships to duo

Earning a DVM takes a big commitment, but some students at the CVM take it to the next level and work on a concurrent graduate degree. Making the task easier is a scholarship program offered by the college that benefits those who qualify.

Recipients this year are Jacob Hagenmaier and Jordan Gebhardt.

Hagenmaier is a fourth-year veterinary student who is pursuing a doctorate in pathobiology. His focus is beef cattle research. Originally, his aspirations of becoming a food animal veterinarian were centered exclusively on private, rural practice.

“It wasn’t until I enrolled at Kansas State University and began working part time assisting with research projects for the Beef Cattle Institute that I fully knew the different career routes that the veterinary medicine profession had to offer,” Hagenmaier said. “I soon realized research was an obvious fit for me as I have always seen myself as one to ask new questions, try new things and challenge current standards.”

Dr. Dan Thomson, Jones Professor of Production Medicine, serves as Hagenmaier’s adviser.

“Jacob is a special student who is focused on serving the Kansas beef industry,” Dr. Thomson said. “He is able to see real issues that need solved within the beef industry and bring forward practical, relevant answers to be implemented in the field. He will make significant research and veterinary practice contributions.”

Gebhardt is a first-year veterinary student who is pursuing a doctorate in animal science. His research focus is in swine nutrition. According to his adviser, Dr. Steve Dritz, professor of swine production, the dual-degree program is what brought Gebhardt to Kansas State University.



*First-year student Jordan Gebhardt, left, and fourth-year student Jacob Hagenmaier, will each receive a dual-degree scholarship from the CVM.*

“Jordan has a background running a family feed mill and livestock production business and wanted to pursue advance training in swine nutrition,” Dr. Dritz said. “K-State was the only veterinary school that had the option of doing a dual doctoral degree in swine nutrition and a DVM degree.”

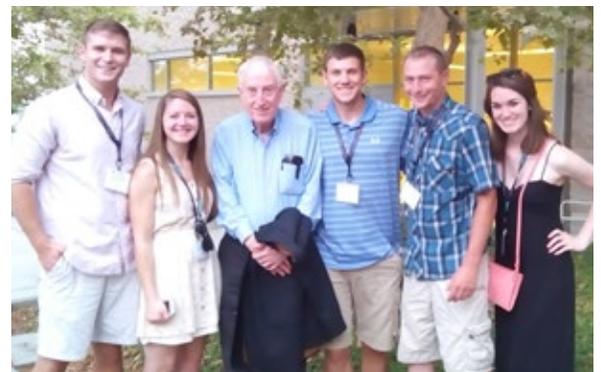
## Veterinary Research Scholars Program wraps up summer at Merial-NIH Symposium in California

The Veterinary Research Scholars Program just wrapped up another successful summer with 16 students participating, including a couple of international students from France and Italy, representing K-State at the Merial-NIH National Veterinary Scholar Symposium held at the University of California, Davis, July 30 to Aug. 12. The theme was “Solving Complex Challenges at the Interface of Humans, Animals, and their Environment.”

“The program provided an opportunity to learn what goes into a research project, how to incorporate biomedical research into veterinary disciplines, and how to search for opportunities to become a veterinary scientist,” said Dr. Annelise

Nguyen, program director for the VRSP. “Our scholars had an opportunity at the symposium to meet with Dr. Peter Doherty, who is the only veterinarian to win the Nobel Prize (1996). My scholar, Giovanni Finesso, if you pardon a little bias, is a fantastic scholar with great ambition to continue graduate training after his graduation in May 2016.”

See more photos from VRSP activities in this month’s Lifelines online: [www.vet.k-state.edu/development/lifelines/1508.html](http://www.vet.k-state.edu/development/lifelines/1508.html)



*VRSP students meet Nobel prizewinner Dr. Peter Doherty at the Merial-NIH National Veterinary Scholars Symposium at UC Davis. From left: Tanner Sleed, Megan Cabot, Dr. Doherty, John Brandsma, Austin Pauly and Chantal Girard. Dr. Doherty shared the Nobel Prize in 1996 for discovering the nature of the cellular immune defense.*

## Equine service gets into Dodge



An elective rotation for four senior veterinary students attended and worked with Dr. Chris Blevins and Dr. David Ripple as emergency veterinarians at the Dodge City Round-up Rodeo. From left: Dr. David Ripple, Emily Fournier, Lindsey Perkins, Leigh Wacker, Kelsey Amy and Dr. Chris Blevins.

## CVM News Ticker

The Sunset Zoo received a donation in honor of **Dr. James Carpenter**. The donors are the family of 2015 graduate Dr. Caitlin Kozel. Dr. Carpenter and senior veterinary students provide service at the Sunset Zoo two times a week to work in the expanded clinic at the zoo. Their gift was directed towards the sloth bear/tiger exhibit renovation.

**Dr. Bonnie Rush** became the first Kansas State University faculty member to finish the Online Certificate Programs for Diversity and Inclusion in Veterinary Medicine is offered by Purdue University through its Center of Excellence for Diversity and Inclusion in Veterinary Medicine.



# Veterinary Health Center

A T K A N S A S S T A T E U N I V E R S I T Y

## Funded Clinical Study:

Nanoparticle cisplatin chemotherapy for the treatment of metastatic apocrine gland anal sac adenocarcinoma

The Oncology Service of the Kansas State University College of Veterinary Medicine and Veterinary Health Center, in collaboration with the University of Kansas School of Pharmacy is now enrolling participants in a clinical trial investigating the use of a nanoparticle formulation of cisplatin in dogs with apocrine gland anal sac adenocarcinoma. To be eligible for this clinical trial dogs must have metastasis to the caudal abdominal lymph nodes, and the owners must be planning on pursuing surgery as part of the dog's treatment plan. This clinical trial has institutional ethical approval and is funded by the Mark Derrick Canine Research Fund. It provides significant financial incentive for owners, and a potentially fantastic treatment advantage for the enrolled dogs. Spaces are initially limited during the pilot phase of this clinical trial, so if you have a patient you believe may be eligible, please contact the Oncology Service for further details.

### Trial Eligibility Requirements

- Apocrine gland anal sac adenocarcinoma confirmed by cytology or histopathology
- Metastatic to the caudal abdominal lymph nodes, but not visceral organs or lungs
- Owners willing to pursue surgical removal of the primary mass and affected lymph nodes, and permit repeated blood sampling
- Previous treatment, including prior surgery, radiation therapy, chemotherapy, non-steroidal anti-inflammatory therapy (NSAIDs) and/or corticosteroid therapy, is allowable if recurrence or progression is documented
- Washout periods of one month for radiation therapy, three weeks for chemotherapy, and 72 hours for NSAIDs and/or corticosteroid therapy
- Health score of 0 or 1
- Greater than 9 week life expectancy
- Patient must weigh >10kg

For a complete list of current clinical trials at the VHC, visit [www.vet.ksu.edu/vhc/services/clinical-trials](http://www.vet.ksu.edu/vhc/services/clinical-trials) or call 785-532-5690.

