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News from the College of Veterinary Medicine at Kansas State University

ACVM selects Dr. Michael Dryden as 2017 Microbiologist of the Year

Dr. Michael W. Dryden, University Distinguished Professor of veterinary parasitology, has been named the 2017 Microbiologist of the Year by the American College of Veterinary Microbiologists (ACVM). The purpose of the award is to recognize and honor a veterinary microbiologist who has distinguished themselves by a career that has made important contributions to the field of veterinary microbiology in the areas of research, teaching, and/or service.

"Dr. Kevin Kazacos, who has known Dr. Dryden since he began his research with fleas as grad student at Purdue University, remarked that Dr. Dryden's 'research not only revolutionized our entire knowledge on this common urban pest, but laid the groundwork for a wealth of new information on the species, ranging from basic biology to practical aspects of treatment and control,'" said Dr. Becky Wilkes, ACVM secretary and assistant professor in the Department of Infectious Diseases at the University of Georgia.

Dr. Dryden, who works in the Department of Diagnostic Medicine/Pathobiology in the College of Veterinary Medicine, will be formally recognized during the ACVM's annual banquet on Dec. 4. He has also been asked to give a presentation on the "Theory and Application of Modern Flea Control" at the Annual Conference of Research Workers meeting being held in Chicago Dec. 3-5.

Dr. Mike Dryden is the first parasitologist to have been chosen ACVM Microbiologist of the Year.

"I was honored and humbled when I learned I had been selected to receive this award," Dr. Dryden said. "To be recognized by the ACVM for my research and educational achievements in veterinary parasitology is truly special."

Born in Osborne, Dr. Dryden grew up on a farm northwest of Cawker City. He earned a bachelor's degree in 1982 and a DVM degree in 1984, both at Kansas State University. He spent a couple years in private practice in Beloit and Wichita. 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." Upon completion of the graduate program, Dr. Dryden accepted an offer from the CVM at K-State as an assistant professor of veterinary parasitology.

At K-State, Dr. Dryden developed a research program that has been involved in two primary areas: The biology and control of fleas and ticks infesting dogs and cats and the diagnosis and control of gastrointestinal parasites of dogs and cats. While he has published more than 140 manuscripts and 12 book chapters on numerous different internal and external parasites, it has been his research with Ctenocephalides felis (the flea that commonly infests dogs and cats) that has become the most widely known.

Dr. Ryane Englar publishes new textbook on small animal exams

Although Dr. Ryane Englar is a relatively new faculty member in the College of Veterinary Medicine, first-year students can expect her to go by the book – her own new textbook – which just published in August.

"Performing the Small Animal Physical Examination" is the first textbook written by Dr. Englar and was published by Wiley-Blackwell.

Dr. Englar was hired in May to help fulfill a priority in the college's new Strategic Plan of providing clinical experiences and skills in all years of the Doctor of Veterinary Medicine curriculum. Previously, clinical training was only formally provided in the third and fourth years of study.

"We are thrilled to provide clinical skills training starting with the very first week of veterinary school, said Dr. Bonnie Rush, acting dean of the veterinary college. "Dr. Englar's experience and expertise has allowed us to implement clinical skills training more quickly than anticipated. We are also getting help from clinical skills technician, Susan Rose, who is tremendously talented. She has designed models that facilitate proficient hand-skills and procedural familiarity in low stakes environment."

Dr. Ryane Englar holds a copy of her own new textbook, "Performing the Small Animal Physical Examination."

Students place in veterinary history essay contest

Kara Simon and Katya Luckenbach.

Two veterinary students recently earned prizes in 2017 J. Fred Smithcors Student Veterinary History Essay Contest, a national contest sponsored by the American Veterinary Medical History Society. The 2017 prize essays to be published in Veterinary Heritage.

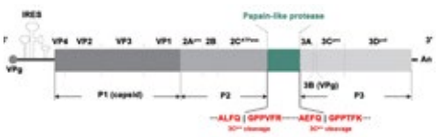
Kara Simon, a third-year veterinary student won fourth prize of $800 with her essay, "A Story of Mice and Men: The Evolution of Animal Experiments." Second-year student Katya Luckenbach was the fifth prize winner, worth $500, for her essay, "Economics of the Veterinary Profession: The Tables Have Turned."

WVC presents Dr. Coetzee with animal welfare award

Dr. Marc Prikazsky, chairman and CEO of Ceva Santé Animale, with Dr. Hans Coetzee.

Dr. Hans Coetzee, professor and head of A&P, is one of six recipients of the first World Veterinary Association's Global Animal Welfare Awards. Co-founded and supported by Ceva Santé Animale, the awards were presented at a ceremony held Aug. 29 to an outstanding veterinarian in each of the six regions of the World Veterinary Association during the 33rd World Veterinary Congress in Incheon, South Korea.

Journal spotlights article by CVM researchers



This schematic diagram illustrates the genome organization of a recombinant virus called EVG 08/NC_USA/2015.

A new discovery by CVM researchers reveals how certain viruses have developed a unique strategy to make themselves survive better in the host animals.

The Journal of Virology found this research to be worthy of closer inspection, so it has included this publication "A Cross-Order Recombinant of Enterovirus and Torovirus" as one of five "spotlight" articles for its July issue.

The newly discovered virus was initially identified by Benjamin Hause during a diagnostic case investigation at the Kansas State Veterinary Diagnostic Laboratory. Virology researchers were asked to assist in identifying the genetic characteristics of the virus.

"Enteroviruses are viruses found in the intestines and are genetically quite distant in the order from toroviruses," explained Dr. Ying Fang, professor of molecular virology in the College of Veterinary Medicine. "Genetic recombination is one of the mechanisms in which viruses are known to evolve, but you would not expect to see such a unique case of cross-order genetic recombination of viruses. It is very rare because the genetic distance between those two orders are so far apart.

The torovirus gene insertion encodes a protein called papain-like protease (PLP) that functions in a way to suppress the host immune response. This increases the virus's capability to infect the host and to replicate inside the cells of the host animal."

Dr. Hause has described himself as a "bug hunter," utilizing genetic sequencing equipment and techniques to help identify viruses found in samples submitted to the diagnostic laboratory. The sample in this diagnostic case was from neonatal pigs with diarrhea.

Pengcheng Shang, a doctoral student who studies with Dr. Fang, performed functional analysis of the PLP protein.

"Like most enteroviral infections, Enterovirus G infection is generally considered to be asymptomatic, with limited evidence to support its association with clinical disease," Pengcheng explained. "The acquisition of a foreign immune antagonist may explain the pathogenicity of the virus in the natural host animals."

Beef Cattle Institute's Summer Scholars

Do bad headlines really hurt beef sales? The answer may surprise you as much as it did to the guests who attended a recent presentation by students in the Summer Scholars program, which is coordinated by the Beef Cattle Institute (BCI).

A group of five students from different academic colleges each teamed up with different faculty mentors who helped guide special research projects related to sustainability in the beef cattle industry. Dr. Brad White, director of the BCI, said students were encouraged take their projects further by looking for opportunities to make presentations at national conferences and submitting peer-reviewed publications.

"The Beef Cattle Institute Summer Scholars program is an opportunity to bring together students and faculty from multiple disciplines to generate information on a specific beef industry issue," Dr. White said.

Yang Liu explains how she measured the "carbon footprint" for beef production during different periods of the cattle lifecycle.

"This year, student projects focused on sustainability and provided research in economics, marketing, environmental impact and health management."

The summer program begin May 22 and included special guest speakers, as well as a producer panel on sustainability in July. On August 10, the students gave final research presentations about their projects at the conference room at the Kansas Department of Agriculture building in Manhattan.

Mobile Surgery Unit hits 10,000th milestone

Meet Hasbro, from Prairie Paws Animal Shelter, and fourth-year student Hunter Like, who are celebrating a new milestone for the Mobile Surgery Unit. Hunter performed the 10,000th spay/neuter since the program started in May 2015.

CVM News Ticker

The CVM welcomes the class of 2021 during orientation activities with free lunch hosted at the Equine Performance Testing Center.

The CVM's Dr. Bonnie Rush serves as acting dean as of Sept. 1, while search is underway for interim dean.

Congratulations to **Dr. Kate Perkins**, DVM class of 1993, who was presented with an alumni recognition award at the Veterinary Medical Alumni Association reception at the Central Veterinary Conference in Kansas City.

See more in Lifelines online.

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