



CVM at International Symposium in China



Dr. Bob Rowland gives welcome remarks at IPRRS symposium.

This summer, an international meeting in China featured a visible group of researchers from the K-State College of Veterinary Medicine.

The 2018 International Porcine Reproductive and Respiratory Syndrome Symposium (IPRRSS) was held June 11-13 at the Yuelai International Convention Center, in Chongqing, China. Dr. Raymond (Bob) Rowland, from the Department of Diagnostic Medicine and Pathobiology (DMP) joined Dr. Hanchun Yang from the China Agricultural University, Beijing, as the symposium organizers, along with the help from Dr. Ying Fang, also from DMP.

The four-day meeting featured talks from international experts on porcine reproductive and respiratory syndrome virus (PRRSV), which has global impact on pork production. The conference hosted about 2,000 attendees from all over the world. The symposium was held in conjunction with the International Pig Veterinary Society (IPVS) conference. Drs. Rowland and Yang gave the welcome address.

The CVM was well-represented with seven attendees. Drs. Rowland and Fang chaired scientific sessions and delivered keynote presentations. Dr. Fang delivered the opening keynote on “Novel mechanisms of PRRSV infection: intercellular transmission and persistence,” while Dr. Rowland presented a keynote talk on “Models for understanding the genetics of the host response to PRRS.”

Everybody Counts — Pets Too!

Veterinary team provides basic care at community event

The College of Veterinary Medicine participated Aug. 4 in a community outreach event called “Everybody Counts.” This event occurs yearly in Manhattan at the Douglass Community Center on the 900 block of Yuma street.

Everybody Counts is a grassroots effort to better coordinate social services and provide information about those services, and it is designed to assist community members who are in need. The event provides free health care services including sports physical exams for school kids, dental exams and hearing exams, as well as a free brunch, food distributions from Harvesters and the Flint Hills Breadbasket, and clothing for those in need.

“We are excited to join Everybody Counts this year to provide basic preventative veterinary services and make it a One Health community

event, serving the people and pets of Riley County,” said Dr. Kate KuKanich, associate professor in small animal medicine. “It is a privilege to work with county agencies to identify and support residents that would otherwise not have access to veterinary services.”

The CVM team performed physical examinations, vaccines, and preventative care as indicated. Products were donated by generous pharmaceutical and nutrition/pet food corporations.

“We hoped that by joining this event we would also help foster



A team of clinicians/faculty members, technicians and veterinary students volunteer to help community members and their pets.

mental and physical well-being through ownership of healthy pets and minimize transfer of zoonotic disease in our community,” said Dr. Bonnie Rush, interim dean of the College of Veterinary Medicine.

How feces from healthy pigs could ward off disease in other pigs

Research in the CVM is proving the adage “waste not, want not” is not just about saving resources; it also can be applied to treating and preventing some troublesome swine diseases.

The researchers’ work has uncovered a novel benefit from a procedure called fecal microbiota transplantation, which is the process of transplanting fecal microbiota from a healthy individual into a diseased or young individual. Lead principal investigator Dr. Megan Niederwerder, assistant professor in DMP, and her team recently published their findings, “Fecal Microbiota Transplantation is Associated With Reduced Morbidity and Mortality in Porcine Circovirus Associated Disease,” in the journal *Frontiers in Microbiology*.

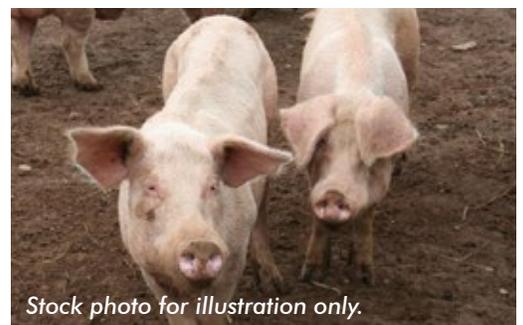
According to Dr. Niederwerder, widespread medical research in recent years has emphasized the impact of the gut microbiome on the general

health of both humans and animals.

“Our research is novel in the use of fecal microbiota transplantation as a preventative medicine tool in pigs,” Dr. Niederwerder said. “Typically, in human medicine, fecal transplants are used to treat gastrointestinal diseases such as recurrent *Clostridium difficile* infection, but is never used prophylactically prior to diagnosis or before the onset of clinical signs.”

CVM researchers see a link between prophylactic fecal transplantation and the prevention of clinical signs associated with viral respiratory disease in pigs.

“This study broadens the potential application of fecal transplantation with regards to timing as well as disease



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type,” Dr. Niederwerder said. “It emphasizes the important relationship between gut health and overall health throughout the body.”

Co-authors from K-State include Laura Constance, a concurrent DVM/Ph.D. student in pathobiology; Dr. Bob Rowland, professor of diagnostic medicine and pathobiology; Dr. Maureen Sheahan, microbiologist; Dr. Richard Hesse, professor of diagnostic medicine and pathobiology and director of diagnostic virology; and Dr. Giselle Cino, assistant professor of anatomic pathology.

Grad students chosen for training program



Five graduate students from the CVM have been awarded National Bio and Agro-defense Facility Scientist Training Program fellowships. The awardees will receive tuition, stipends and funds for supplies and travel from a five-year, \$1.6-million grant from the U.S. Department of Agriculture's Animal and Plant Health Inspection Service.

The recipients are (from left above): Kaitlynn Bradshaw, Laura Constance, Chester McDowell, Victoria Ayers and Christian Cook

Dr. Frank Blecha, associate dean for research at the College of Veterinary Medicine, said the college supports efforts to provide qualified staff for NBAF and other facilities that require agro- and biodefense expertise.

Art collection imitates life for Dr. James Roush

By Gabriella Doebele

Growing up, people often collect baseball or Pokémon cards, but Dr. James Roush sparked an unusual collection tradition for his family.

The longtime professor of clinical sciences had just started his veterinary career when he stumbled upon a few veterinary statues and decided to purchase them. His acquisition inadvertently prompted a new quest for his parents who began seeking out veterinary statues for their son.

"I found one or two, and then they started looking everywhere they went on vacations or any kind of a trip," said Dr. Roush, "They were two empty-nesters with nothing better to do, searching in every tourist trap in America and England."

Dr. Roush has collected 104 over the years. He believes he only purchased 10 or so, meaning the rest were gifts from his parents.

"It was an easy way for my parents to buy something for me for Christmas instead of a tie," said

Dr. Roush "At times they had purchased so many that they didn't give them all to me at once, but spread them out over several gifts. Other times they forget they had stashed one in a closet and didn't remember till weeks after the occasion."

Dr. Roush's collection even has a few ties to K-State veterinary alumni.

"There is a limited-edition, AVMA commemorative pewter from the 1960s that I had



someone bid on and won at an auction in Topeka – I think it was owned originally by a former faculty member here," said Dr. Roush. "There is a hand-carved wood statue that Dr. Steve Swaim, a

K-State alum, carved and donated to the exotics auction one year that I purchased, too."

The statues are made of china, porcelain, steel, pewter, rock, papier-mâché and wood. Dr. Roush keeps the statues in a few display cabinets at his home, but his collection hasn't grown much lately as he no longer actively seeks new statues.

"I occasionally will buy one if it is unusual or has other intangible value to me," Dr. Roush explained.

There are several statues that were custom made to resemble him, including one that was crafted by his daughter in high school art class. Dr. Roush mentioned that only a few of his statues are female – he didn't see a female statue until the late 1990s.

VHC welcomes new residents/interns



Meet (back row, from left) Drs. Gail Huckins, exotics intern; Nathaniel Kapaldo, anesthesiology resident; and Katie Hetrick, small animal medicine resident. Front row: Drs. Haileigh Avellar, equine surgery resident; Evan Ross, cardiology intern; and Lauren Aldrich, small animal surgery resident. Inset, left: Dr. Jordan Roberts, ophthalmology resident and on the right, Dr. Hannah Turner, radiology resident.

CVM News Ticker



Congrats to this year's Veterinary Research Scholars (from left): Keith Lewy, Kaitlyn Hastings, Jacob Herford, Meghan Lancaster, Ally Fitzgerald and Sarah Stuebing. Not pictured is Kaiwan Chen. The students gave poster presentations of their research at the conclusion of the summer program.

Lesa Reves passed her Certified Registered Central Service Technician (CRCST) test offered through the International Association of Healthcare Central Sterile Material Management (IAHSCMM) on Aug. 3.

Michaela Musselman's, CPhT (Pharmacy Student Technician Worker) National FFA Proficiency Award has been accepted as a national finalist (four finalists total). She will travel to Indianapolis for an interview in October before the National Award is determined.

Dr. David Eshar was named the new Exotic Companion Mammal Regent for the American Board of Veterinary Practitioners effective July 1.

Dr. Raghavendra Amachawadi was an invited speaker at the International Association for Food Protection Annual Meeting on July 8-11 in Salt Lake City, UT. His presentation was titled, "Heavy metals as growth promotants in cattle and swine: Could they contribute to antimicrobial resistance?"

lifelines is published monthly by Marketing and Communications in the College of Veterinary Medicine, edited by Joe Montgomery, jmontgom@vet.k-state.edu. More stories at: www.vet.k-state.edu/lifelines/1808.html

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