



# *lifelines*

News from the  
College of Veterinary Medicine  
at Kansas State University

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## Researchers discover novel circovirus in swine



*Dr. Benjamin Hause works with grad student Rachel Palinski to identify a unique virus suspected of causing cases of swine disease.*

Researchers at the CVM have identified a new swine circovirus.

Its discovery is auspicious, as a related swine circovirus, porcine circovirus type 2, also known as PCV2, has had a devastating history in swine production. Associated diseases caused millions of dollars in losses globally in the 1990s and early 2000s.

The new circovirus - porcine circovirus type 3 - was found by Dr. Benjamin Hause and grad student Rachel Palinski at the Kansas State Veterinary Diagnostic Laboratory, along with collaborators at Kansas State University, Iowa State University and Smithfield Hog Production.

It is different from other known circoviruses.

“The KSVDL was sent samples from sows with signs of clinical disease typically caused by PCV2 infection; however, the samples were negative for PCV2,” said Dr. Hause, who is now an adjunct professor. “Through further investigation, we identified an extremely novel, divergent new species of circovirus. We also performed polymerase chain reaction testing, or PCR, on random samples submitted to the lab to see how widespread this virus is in the U.S. swine herd. Twelve percent were positive for this new virus. We are hoping this is not the beginning of what could be a whole new epidemic of circovirus infections.”

Palinski is a doctoral student in pathobiology.

Their work was published in, “A novel porcine circovirus distantly related to known circoviruses is associated with porcine dermatitis and nephropathy syndrome and reproductive failure,” which appears in the November issue of the *Journal of Virology*, from the American Society for Microbiology.

See more on this story at Lifelines online: [www.vet.k-state.edu/lifelines/1611.html](http://www.vet.k-state.edu/lifelines/1611.html)

## Five students join VTPRK



*Back row (from left): Shanlyn Hefley, Anna Hickert and Ashley Zelenka. Front row: Meredith Schmidt, Dean Tammy Beckham and Elizabeth Farney.*

Five first-year students have been chosen for the largest veterinary loan forgiveness program offered by the state: The Veterinary Training Program for Rural Kansas.

This year’s recipients are Elizabeth Farney, McPherson; Shanlyn Hefley, Wellington; Anna Hickert, Hays; Meredith Schmidt, Overland Park; and Ashley Zelenka, Wilson.

“We are very pleased the state of Kansas continues to support this program,” Dean Tammy Beckham said. “We had a very talented pool of applicants, and the students who were chosen are very deserving of this award. These students are from Kansas and already appreciate how this program will help them to serve in a rural area where veterinarians are needed.”

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## College presents fall teaching awards

Three faculty members have been recognized for preclinical teaching excellence. Drs. Zsolt Szladovits, Michael Dryden and Kenneth Harkin were each named as the respective top teachers for the first, second and third years of instruction, as voted on by each respective class of students at the end of the 2015-2016 school year.

Dr. Szladovits was named as the recipient of the 2016 Merit Teaching



Dr. Ken Harkin accepts the third-year teaching award from interim department head Dr. Beth Davis.



DM/P Department Head Dr. M.M. Chengappa presents the second-year teaching award to Dr. Michael Dryden.



Dr. Zsolt Szladovits receives the first-year award from A&P Department Head Dr. Hans Coetzee.

Excellence Award, which is presented in recognition of outstanding instruction of first-year veterinary students. This is his third time receiving this award, having previously been honored in 2007 and 2011. He is an instructor in the Department of Anatomy and Physiology.

"Thank you for the hard work of class 2019 during their anatomy course, and I am very glad that I had the opportunity to facilitate this key learning process," Dr. Szladovits said. "I feel very humbled by being recognized for teaching excellence; it is hard to imagine a better way of acknowledgement of the work I have been doing over the last year. I am extremely thankful for receiving this prestigious award and wish continued success for the entire class for the remainder of their course."

Dr. Michel Dryden was presented with the 2016 Teaching Excellence in the Second Year Award in recognition of outstanding instruction of second-year veterinary students. He previous was honored with the second-year teaching award in 2006. He currently is a University Distinguished Professor of Veterinary Parasitology in DM/P.

"This college has numerous highly competent and excellent educators and it is an honor to be recognized by the students as one those faculty," Dr. Dryden said.

Dr. Harkin received the 2016 Teaching Excellence in the Third Year Award. He previously receiving the third-year teaching award in 2012.

"There are so many excellent teachers at the College of Veterinary Medicine deserving of this award, so I'm honored to receive the teaching award this year," Dr. Harkin said.

Dr. Harkin currently instructs fourth-year veterinary students in their clinical rotations through the internal medicine service and presents didactic lectures to third-year veterinary students in gastroenterology, hepatology, neurology and clinical hematology.

## NIFA grant supports BCI and CEEZAD collaboration



K-State veterinarians Drs. A.J. Tarpo and Robert Larson test mobile technology.

Officials of the National Institute of Food and Agriculture (NIFA) announced the awarding of a \$239,656 grant to a Kansas State University-based team headed by Dr. Brad White, professor of production medicine and interim director of the Beef Cattle Institute. Co-project directors are Dr. Juergen Richt, director of the Center of Excellence for Emerging and Zoonotic Animal Diseases, and Dr. Derek Mosier, a veterinary pathology professor.

The grant application notes that production animal medicine plays a crucial role in rural communities, yet many areas may be underserved due to insufficient financial viability of small veterinary practices. Sustainable rural food animal careers are based on providing value to stakeholders in rural communities. Rural veterinarians provide value through improved ability to manage diseases present in food animals, and represent the first line of defense against high consequence emerging and transboundary animal diseases – such as Foot-and-Mouth Disease, Classical Swine Fever and African Swine Fever -- that could cripple the production animal economy. The purpose of the project is to create online modules that enhance education and career development for rural veterinarians.

Dr. White said the collaborative grant "will allow us to work closely with veterinarians to utilize decision tools and new information to decrease the potential impacts of cattle diseases."

## CVM announces 2016 class of Early Admission Scholars

A group of 34 undergraduate students now have a special opportunity to fulfill their passions for animal health. The CVM accepted these students into its Early Admission Program during an afternoon ceremony Nov. 4 in Frick Auditorium.

Since being established in 1999, the Early Admission Scholars program has recruited the best and brightest undergraduate students who want to study veterinary medicine. After acceptance into the program, satisfactory completion of the 64 hours of pre-professional requirements, and at least three years of undergraduate work at Kansas State University, the scholars are guaranteed admission into the College of Veterinary Medicine.

“Qualifying for this program is very special,” said Dr. Ronnie Elmore, associate dean for admissions and diversity programs. “These students represent the top 5 percent of Kansas State University students according to their college acceptance test scores. Being selected into the Early Admission Programs gives them the advantage of bypassing the regular applications process, which is very competitive. For only 112 positions in each incoming veterinary class, we usually receive more than 1,000 applications.”

Successful candidates in the program must maintain a 3.4 grade point average during completion of the pre-professional requirements. At the beginning of the third year of their undergraduate studies, these scholars may petition for enrollment in the first year of the DVM degree program.



Front row (from left): Taylor Duff, Monica Anderson, Rachael Weinstein, Nina Marchell, Amanda Hoffman, Michaella Wahl, Katherine Clarkson, Lana Herman, Valerie Mombello, Jessie Johannes and Kendra Christman. Middle row: Kyndall Norris, Gerae Haverkamp, Madeline Riede, Katie Condon, Savannah Parker, Abigail Larson, Amy Collins, Emily Carroll, Cecelia Biggs, Morgan Strader and Julia Smith. Back row: Grace Luebcke, Jackson McCoole, Jayden McCall, Zachary Fawver, Isaac Brunkow, Zackery Bieberly, Spencer Boaz, Cassidy Schlessiger, Zachary St. Clair, Adam Houghton, Ashton Harlan and Alyssa McCormick.

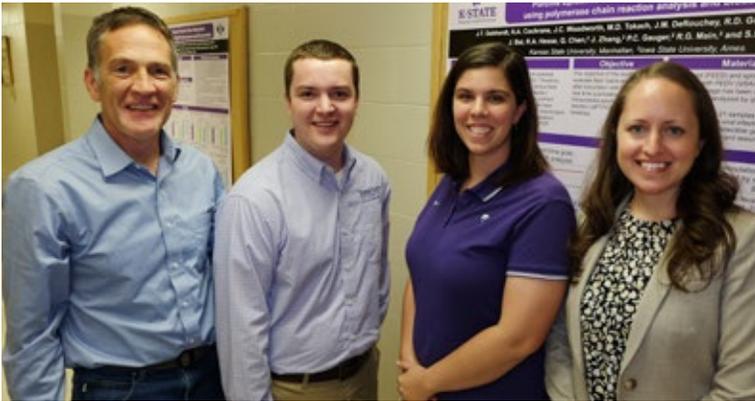
The College of Veterinary Medicine assigns a veterinary student mentor to each Early Admit Scholar to stimulate career and academic development and to provide orientation and access to college activities. The pre-veterinary students attend regular meetings during the academic year to develop a sense of community and share their progress.

## MPH students present field experiences for One Health Day

To help raise public awareness on how animal, human and environmental health are all connected, three students in the Master of Public Health program gave a public presentation on their One Health field experiences as part of One Health Day Nov. 3. Callie Paquette (pictured here) addressed “Tularemia in Kansas, 2012-2015.” Dr. Diane Larson spoke on “Handwashing at the State Fair, 2016.” Third-year veterinary student Sohaila Jafarian discussed “Clean Water Interventions in Nicaragua, 2016.”



## AASV chooses two CVM students for poster contest



A pair of second-year veterinary students have been selected to participate in the American Association of Swine Veterinarians' (AASV) seventh annual Veterinary Student Poster Competition, sponsored by Newport Laboratories: Jordan Gebhardt, Cedar Springs, Michigan (middle left) and Laura Constance, Clyde, North Carolina (middle right). The competition will be held Sunday, Feb. 26, during the 2017 Annual Meeting in Denver.

Based upon scores awarded in the judging of abstracts submitted for the AASV Student Seminar, the top 15 poster abstracts have been chosen for judging, out of the 33 that were selected for poster presentation at the meeting. Laura and Jordan are both concurrent DVM/Ph.D. students. Their primary mentors (shown above) are Drs. Steve Dritz and Megan Niederwerder, respectively, both swine medicine researchers in the Department of Diagnostic Medicine/ Pathobiology.

## An engaging examination in Ecuador



Dr. James W. Carpenter was an invited speaker at an International Conference on Zoo and Wildlife Medicine in Quito (lectures) and Cuenca (wet labs), Ecuador, in September. He presented nine hours of lectures and assisted in teaching two days of wet labs, the latter where he helped demonstrate how to perform a health exam on a condor, as shown above.

## CVM News Ticker



Dean **Tammy Beckham** spoke in Washington, D.C., Oct. 13, along with Gen. Richard Myers (recently appointed president of Kansas State University) at the Bipartisan Policy Center, where the Kansas State University leaders were guests in panel discussions on the threat of bio/agroterrorism, highlighting the importance of agriculture in biosecurity, as well as potential strategies, tactics, and policy solutions for the next administration. The 2015 bipartisan report of the Blue Ribbon Panel on Biodefense reported that, despite progress on many fronts, the nation remains highly vulnerable to biological threats.

**Drs. Mary Lynn Higginbotham and Raelene Wouda** attended the Veterinary Cancer Society Annual Meeting held Oct. 20-21. Dr. Wouda presented an abstract entitled, "Safety evaluation of combination carboplatin and toceranib phosphate in tumor bearing dogs: a phase 1 study."

**Dr. Jessica Meekins** attended the American College of Veterinary Ophthalmologists Annual Meeting in Monterey, California and presented an abstract (poster) entitled, "Intraocular Cytauxzoon Felis in a Domestic Shorthair Cat."

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