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Office of Governmental Relations

#### Kansas State University's College of Architecture, Planning & Design continues to receive national acclaim

Kansas State University was recently named among the best universities to study Architecture and Interior Design in America by <u>CEOWORLD magazine</u>.

K-State's <u>College of Architecture</u>, <u>Planning & Design</u> rank No. 17 on the list based on quality of education, university reputation and recruiter feedback gained from surveys of over 65,000 people.

"Our consistent showing year after year in many different ranking publications are testament to the efforts, dedication and drive of our faculty, staff and students, as well as the perceived quality of our alumni in their practices," said Tim de Noble, dean of the college. "Our recognition comes from both practice and academia, clearly indicating that we are not only preparing great practitioners, but pushing the envelope in our educational model."

K-State is the only university in Kansas, and one of two Big 12 institutions to be ranked in the top 25. The rankings are the result of four major metrics of quality and reputation: reputation and influence (30%), recruiter feedback (30%), admission eligibility (20%) and specialization (20%).

# K-State researchers help discover unique antibody effect with Zika and dengue viruses

Antibodies are supposed to help the body fight infection and reinfection by viruses, but new research suggests that the antibodies we produce to fight two mosquito-borne viruses may worsen - rather than guard against - reinfection.

Yan-Jan S. Huang, Dana Vanlandingham and Stephen Higgs from the diagnostic medicine and pathobiology department in the Kansas State University <u>College of Veterinary Medicine</u> and the <u>Biosecurity Research Institute</u> co-authored the paper with scientists from Uniformed Services University and others from the Department of Defense and industry partner Bioqual. The paper was <u>published on July 13 in Emerging Microbes & Infections</u>, a Nature publication.

Dengue viruses infect millions of people a year in tropical areas such as Latin America, Southeast Asia and the Pacific Islands. The mosquito-borne virus causes dengue fever, which can develop into a fatal hemorrhagic diseases. The virus comes in four closely related varieties, and when people are infected the first time, they develop antibodies that guard against reinfection with the same variety. Infection with a different variety, however, could be worsened because the antibodies that helped the first time bind poorly to the slightly different virus and help deliver it to other areas of the body.

Zika and dengue are closely related, so scientists are interested in finding out whether Zika antibodies will also be "cross-reactive" and help enhance dengue virus infections, and vice versa.

According to Stephen Higgs, director of the Biosecurity Research Institute and university distinguished professor of diagnostic medicine and pathobiology, this research is crucial to improve knowledge related to the use of vaccines against these viruses.

Results from the study provide more information on the types of antibodies involved in enhancement, the effect of the time after initial Zika infection, and whether Zika antibodies could project against dengue virus infection enhancement.

Huang, Higgs, and Vanlandingham have been collaborating with Uniformed Services University scientists for the past three years and published a <u>seminal manuscript in Nature Scientific Reports in 2017</u> that for the first time demonstrated enhancement of dengue infection after infection with the Zika virus.

# New \$3.7 million NIH grant supports collaborative research against MERS coronavirus

A relatively new virus has commanded the attention of the team of multi-institutional researchers and prompted a \$3.7 million five-year research project.

Kansas State University's Kyeong-Ok "KC" Chang, a virologist at the College of Veterinary Medicine, is collaborating with multiple scientists from various disciplines on Middle East Respiratory Syndrome coronavirus, which is known as MERS-CoV.

Chang is collaborating with Yunjeong Kim, a virologist from K-State; William Groutas, a medicinal chemist at Wichita State University; Scott Lovell, a structural biologist at the University of Kansas; and a virologist at the University of Iowa.

Their grant, "Small Molecule Protease Inhibitors Against Middle East Respiratory Syndrome Coronavirus," is funded by the National Institutes of Health's (NIH) National Institute of Allergy and Infectious Diseases.

Coronaviruses are part of a group of RNA viruses that look like a corona or halo when viewed under the electron microscope. Directly acting inhibitors such as polymerase inhibitors and protease inhibitors have been successfully developed and available to the public against viral infections like the human immunodeficiency virus and hepatitis C virus. However, no specific antiviral is yet available for MERS-CoV.

Kim, Chang and Groutas have been working on protease inhibitors for a fatal feline coronavirus infection, called feline infectious peritonitis (FIP) and have recently shown the efficacy of their inhibitor in the treatment of this infection in feline patients. This shows the potential of their approach to the development of an antiviral drug for coronavirus infection.



### Kansas State Polytechnic receives FAA's first waiver to a university to fly UAS beyond line of sight

<u>Kansas State University Polytechnic</u> Campus has received a waiver from the Federal Aviation Administration to fly unmanned aircraft systems beyond the line of sight. It's the first such waiver granted to a university by the FAA.

The FAA certificate to K-State Polytechnic's <u>Applied</u> <u>Aviation Research Center</u> waives the rules regarding visual sight of aircraft operations by the pilot and visual observers. This allows K-State Polytechnic to conduct research and operations where pilots and observers can no longer see their aircraft.

"These operations and research will provide valuable insight into regulation and safety measures for UAS in the national airspace," said Travis Balthazor, K-State Polytechnic's UAS flight operations manager. "At the time of notification to us, the FAA's website showed only 20 waivers to this regulations, and only half are waived to allow small UAS operations where the remote pilot in command and the visual observers may not be able to see the aircraft."

Balthazor called the waiver a significant first step in K-State Polytechnic's efforts to further develop the safety case for longer range small UAS operations.

"We have been working deliberately over the last two years to demonstrate our ability to safely adhere to the standards set forth in our waiver," Balthazor said.

Kurt Carraway, the Applied Aviation Research Center's UAS executive director, emphasized the importance of this waiver to Kansas State Polytechnic's research and partnership with the FAA in integrating UAS into the national airspace system.



### Ernie Minton to serve as interim dean of the College of Agriculture and interim director of K-State Research and Extension

Kansas State University has named Ernie Minton as <u>College of Agriculture</u> interim dean and interim director of K-State Research and Extension.

Minton, associate dean of research and graduate programs for the college and associate director of research for K-State Research and Extension, replaced John Floros on July 1. In the interim role, Minton will be the chief administrative officer for the College of Agriculture and K-State Research and Extension. He will be responsible for overall program leadership, strategic direction, fiscal stewardship, fund development, policy formulation and impact assessment in accordance with the university's visionary plan, K-State 2025.

## K-State apparel and textiles program continues to rank as a top program nationally

Continuing to serve as one of the top programs in the nation, K-State's <u>College of Human Ecology's</u> apparel and textiles program has been ranked one of the best in the U.S. The degree program offers two specializations: apparel marketing and apparel design and production. Both specializations received national rankings from Fashion-schools.org.

The apparel marketing specialization is ranked 17th

"This is a significant step in meeting our strategicv goals of incorporating sound research and a safety centric approach to UAS operations t help the industry and the FAA continue to integrate UAS into the national airspace system," Carraway said.

K-State is a member of the Kansas UAS Joint Task Force and a key partner with the Kansas Department of Transportation, which was recently named one of 10 entities nationwide to be part of the FAA's UAS Integration Pilot Program.

#### **DID YOU KNOW?**

Manhattan, KS was ranked No. 2 on Livability.com's 2018 Top 100 Best Places to Live.

nationally among all fashion merchandising schools and colleges. Among public schools and colleges, the specialization sits in the 12th spot and among the Midwest schools, the specialization ranks fifth.

The apparel design and production specialization continues to improve their graduates' value. Currently, the specialization ranks 21st nationally among all fashion programs. Among public schools and colleges, the program ranks 21st nationally among all fashion programs. Among public schools and colleges, the program ranks 10th. Across Midwest schools, the specialization has moved into the sixth spot. The specialization is nationally accredited by the National Association of Schools of Art and Design.

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