Students return to classes and to research

The 2016-17 school year has begun with thousands of undergraduate and graduate students arriving at Oklahoma State where many will begin or continue research projects. An important part of the education philosophy at OSU is introducing undergraduates to genuine research, mentored by faculty, as early as their freshmen year. Students from every major on campus – engineering, physical and social sciences, arts and humanities, business and others – can seek to join research projects. A recent study showed that
Research participation increases the chances of college freshmen graduating and earning degrees in STEM fields (science, technology, engineering and math). OSU is training our nation's future scientists, engineers and scholars. (Pictured is former Niblack Research Scholar Katherine Janike.) Tell us what you think about our e-newsletter OSU Research In Focus: email vpr@okstate.edu.

Research compliance director will miss dedicated staff, sense of community at OSU

Research conducted at Oklahoma State University is governed by myriad regulations and policies designed to protect not only human and animal subjects, but also faculty, students and staff who engage in various research activities. These regulations and policies also cover certain teaching endeavors, as well as some veterinary medicine procedures. It's a responsibility that is much easier with "buy in" from the regulated community, according to Dr. Steven O'Geary, assistant vice president for Research Compliance, who manages the Office of University Research Compliance (URC). After more than a decade directing URC, O'Geary is leaving Oklahoma State, but he is leaving proud of what his department has done, with the help of the university community, to create a culture of compliance at OSU that encourages that buy in. Read More

OSU research reputation on the rise

The increasing publication success of OSU scientists has been noted by Nature Index, a publication of the journal publisher Nature. OSU was 19th in a ranking of the 25 most improved research institutions in North America by Nature Index 2016 Rising Stars. Rankings are based on journal articles published from 2012 to 2015. Making the list, which includes the likes of Stanford and Carnegie Mellon universities, means OSU is "making an impact on the scientific and scholarly communities," said Vice President for Research Dr. Kenneth Sewell. He added that the ranking "speaks highly of the quality faculty we’ve hired ... as well as our growth in the number and quality of our students." Read More

OSU has developed an international reputation for bermudagrass varieties. With names like Latitude 36, Patriot, Riviera, Guymon, and others, OSU bermudagrass has been used on professional and college sports fields, on baseball fields at the 2008 Olympics in Beijing, on golf courses, and on lawns. Read about the history of bermudagrass development at OSU in the 2016 issue of Vanguard and watch an
Faculty trio to join Education Hall of Fame

OSU faculty Drs. Ramesh Sharda, Robert Fulton, and Barbara Stoecker will be inducted into the Oklahoma Higher Education Hall of Fame in October. The honor recognizes outstanding men and women who have excelled in higher education and encouraged others to contribute to the economic development and quality of life in Oklahoma. The three are well-known even beyond their fields for research accomplishments that have made lasting differences in agriculture, business and human nutrition.

“We are especially proud to call these accomplished individuals our own and offer sincere thanks and congratulations for their profound contributions in research, and their dedication to educating and mentoring others,” said OSU President Burns Hargis. “Their achievements provide lasting benefits for Oklahoma that often extend to the rest of the world as well.” Learn about their research and education achievements: Read More

OSU launches Center for Predictive Medicine

OSU’s Center for Health Systems Innovation (CHSI) in Tulsa has announced the launch of the Center for Predictive Medicine, which will use a massive clinical database to improve healthcare by discovering and implementing new and innovative information technology tools. The field of predictive medicine seeks to provide healthcare providers and patients with information technology to predict the probability of disease, adverse events, drug and clinical outcomes, and disease progression to provide evidence-based diagnostic and treatment options. CHSI is a partnership of the Spears School of Business and the OSU Center for Health Sciences.

“What creation of the region’s first predictive medicine center reaffirms Oklahoma State University’s commitment to the foundations of advancing scientific discovery and medical care for the populations we serve,” said Oklahoma State University President Burns Hargis. Read More

RESEARCH NEWS

Dr. Wouter Hoff, professor of microbiology and molecular genetics, and a colleague in the Netherlands have published research describing their reconstruction of the four-billion-year-old genetic code of a single-cell organism. The ancient sea-dwelling organism, being called the last universal common ancestor (LUCA), is believed by some scientists to be the origin of life on Earth. Their research appeared in the journal PLoS ONE.

What makes it possible for an animal to exert 4,000 pounds of biting force? Studies of alligators and crocodiles by Dr. Paul Gignac, assistant professor of anatomy and vertebrate paleontology at the OSU Center for Health Sciences in Tulsa, and colleagues including Dr. Haley O’Brien, assistant professor of neuroscience at OSU-CHS, have shown in two recent papers that the evolution of what became enormous jaw bones and muscles have pushed the animals to the top of the food chain. Read More

Research Profile:
The many hats of Kevin McCroskey
Kevin McCroskey is one of those essential “go to” employees who provide a myriad of services that keep an office functioning. McCroskey, a systems administrator, has worked for 22 years part and full time for the Division of the Vice President for Research.

McCroskey enrolled in the OSU business school before transferring to the engineering college where he graduated in 2000 with a bachelor’s in mechanical engineering technology. As a student, McCroskey worked part time for University Research Services and was hired full time after graduating.

Along with his main role providing IT system support for VPR staff, McCroskey assists research communications as a photographer, videographer and graphic designer. His job includes working with the logistics of research events, including the annual OSU Research Week celebration. His supervisor, Darla Duncan, also credits him for help making this summer’s remodeling of the VPR offices go smoothly.

“As the VPR office supports and promotes research at OSU, I have been able to help out on projects and activities that are not IT support related,” McCroskey said. “This diversity of work keeps things interesting. I like to be more than just the computer guy.”

**Faculty Conversations video series**

Faculty Conversations is a collection of videos of OSU faculty talking about their research. The videos represent a wide cross section of disciplines and novel research projects. [Visit](#) the OSU Research website to see the Faculty Conversations collection, including a video featuring Dr. Yanqi Wu, professor of grass breeding and genetics, who works with colleagues to breed varieties of bermudagrass turf with international reputations.

OSU entomologists are monitoring mosquito populations in the state as fear of the Zika virus, spread by certain mosquito species, continues to grow. Dr. Bruce Noden, an OSU assistant professor of medical and veterinary entomology, is working with the Oklahoma State Department of Health to survey the types of mosquitoes showing up in the state, especially during an unusually wet summer. As of Aug. 10, the state health department reports no cases of Zika acquired in Oklahoma, though some in the state contracted the virus while traveling. [Read More](#)

**See more news on the OSU Research website.**

**FEATURED EVENT**

**September 1**

**NSF Graduate Research Fellowship Program (GRFP) Application Workshop for Graduate and Advanced Undergraduate Students in STEM Fields**

Join Dr. Sheryl Tucker, associate provost and dean of the Graduate College, and a former National Science Foundation GRFP program director and fellow, in a workshop on how to submit a competitive NSF GRFP application. Undergraduates nearing graduation, and first-year and first-semester and
second-year graduate students who are U.S. citizens, nationals, or permanent residents interested in or currently pursuing a graduate degree in one of the NSF-supported fields are invited to attend from 2 to 3:30 p.m. in 126 ITLE. Register here.

Each month OSU Research In Focus features an event. To nominate an event for possible inclusion, email details to vpr@okstate.edu.