

Kansas and Oklahoma universities awarded \$6 million for ecological forecasting research

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Contact: Kristin Bowman-James, Kansas NSF EPSCoR, (785) 864-3096, kbjames@ku.edu
Leonard Krishtalka, University of Kansas, (785) 864-4540, krishtalka@ku.edu
Walter Dodds, Kansas State University, (785) 532-6998, wkdodds@ksu.edu

University of Kansas scientists are embarking on an initiative that has the potential to have an enormous impact on the region in terms of human health, agriculture and sustaining natural resources.

The National Science Foundation Office of the Experimental Program to Stimulate Competitive Research has awarded \$6 million to researchers at four universities in Kansas and Oklahoma. The scientists will collaborate on climate change and ecological forecasting, and share their findings with other educators via a new cyber network.

The project, called Oklahoma and Kansas: A cyberCommons for Ecological Forecasting, will link the KU, Kansas State University, the University of Oklahoma and Oklahoma State University.

U.S. Rep. Dennis Moore of Kansas' 3rd District was at KU this morning to be briefed on the award by Kristin Bowman-James, project director of Kansas NSF EPSCoR and University Distinguished Professor of Chemistry at KU, and Leonard Krishtalka, co-investigator for cyberCommons and director of KU's Biodiversity Institute.

Scientists in the two states will focus on how climate change and changes in land use (such as increased urbanization) are affecting biodiversity, plant and animal diseases and invasive species.

For example, scientists will share data and develop better models for predicting the spread of invasive animals that carry deadly diseases, such as avian influenza, or for forecasting the impact of climate change on pollinators of agricultural crops.

The project's data and results will be linked in a new cyber network, providing access to teachers and students at all universities, private colleges, community colleges and K-12 schools in Kansas and Oklahoma, said Krishtalka.

"The ability to forecast complex environmental phenomena and reach students at all levels will serve science, society and our economy," he said. "Especially because many of the people we will be able to reach are often underrepresented in the sciences."

Bowman-James is the principal investigator for Kansas portion of the project. In addition to Krishtalka, the Kansas co-principal investigators are Donald F. (Rick) McMullen, director and senior scientist for research computing at the Office of Research and Graduate Studies at KU; James Beach, assistant director for informatics at KU's Natural History Museum; Walter Dodds, K-State; and Daniel Andresen, K-State. Paul Risser, chair and CEO of the University of Oklahoma's Research Cabinet, is the lead principal investigator for the bi-state project.

The award will be administered through the Kansas NSF EPSCoR office. The NSF established EPSCoR in the 1979 to promote scientific progress in states that previously had been under-funded in the sciences.

Some of the Kansas NSF EPSCoR's accomplishments include:

- Promoting collaborative research across disciplinary and institutional boundaries
- Facilitating large-scale research projects
- Encouraging outreach to public audiences, including K-12 schools
- Providing start-up funds for new research faculty
- Garnering funds for scientific instruments and equipment
- Enabling undergraduate and graduate students to participate in cutting-edge research
- Encouraging university-industry partnerships
- Boosting participation of women and minorities in science, technology, engineering and mathematics