



OKLAHOMA EPSCoR UPDATE

Promoting Innovative Research



OK NSF Established Program to Stimulate Competitive Research | March 2021

OK NSF EPSCoR Summer 2021 REU Award Recipients

Five Oklahoma undergraduate students have been selected to participate in the Oklahoma NSF EPSCoR Summer 2021 Research Experiences for Undergraduates (REU) program. The Oklahoma NSF EPSCoR REU awards provide funding that allows undergraduates from institutions across the state to conduct unparalleled research at the state's research-intensive campuses during the summer months. This REU program also strengthens and encourages undergraduate students' early participation in the university and scientific communities by providing one-on-one mentorship. Award recipients, under the guidance of faculty mentors, will commence research in June 2021 at the University of Oklahoma in Norman and Oklahoma State University in Stillwater.

Research will be in the OK NSF EPSCoR RII-theme areas of weather, water, carbon, infrastructure, and energy, including social dynamics elements of these topics.

Upcoming Events:

2021 Research Day at the Capitol

March 30, 2021

Tinkerfest 2021

March 27, 2021

Summer 2021 REU RECIPIENTS:

- **Student Researcher**

Melani D. Anguiano

University of Oklahoma

Research Project Title

An Experimental Study and Prediction of Drill String Vibration in Drilling Systems Using Machine Learning Techniques

Faculty Mentor and Lab Site

Dr. Catalin Teodoriu, University of Oklahoma

Award Amount: \$4,968

- **Student Researcher**

Jason Aquino

Oklahoma State University

Research Project Title

Electrical Power Resilience Against Ice-Storms

Faculty Mentor and Lab Site

Dr. Hamidreza Nazaripouya, Oklahoma State University

Award Amount: \$5,000

- **Student Researcher**

George Levi Captain

Oklahoma State University

Research Project Title

Soil Monitoring Through UAV-Assisted LoRa Underground Sensors

Faculty Mentor and Lab Site

Dr. John O'Hara, Oklahoma State University

Award Amount: \$5,000

- **Student Researcher**

Emily Bedea

Southwestern Oklahoma State University

Research Project Title

Elucidating the Structure and Biochemical Properties of Carbonic Anhydrases from *Photobacterium profundum* and *Streptococcus sanguinis*

Faculty Mentor(s) and Lab Site(s)

Dr. Rakhi Rajan, University of Oklahoma (primary research site)
Dr. Vijay Somalinga, Southwestern Oklahoma State University (supplementary research site)

Award Amount: \$5,000

- **Student Researcher**

Megan DeSpain

Oklahoma State University

Research Project Title

Energetically Feasible Carbon Capture: An Application of Contra-thermodynamic Photocatalysis

Faculty Mentor and Lab Site

Dr. Jimmie Weaver, Oklahoma State University

Award Amount: \$5,000

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