ALABAMA EPSCOR

Established Program to Stimulate Competitive Research

Alabama A&M University | Alabama State University | Auburn University | Tuskegee University | University of Alabama | University of Alabama at Huntsville | University of Alabama at Birmingham | University of South Alabama

38
Funded Graduate Research Scholars Program students in FY20

4
NASA EPSCoR R3 Awards

19
New NSF CO-Funded awards

2
DOE EPSCoR Lab Partnership Awards

6
New NSF EPSCoR RII Awards as lead, 3 awards as subcontractors

FUNDING

	ALEPSCoR FY 2020	ALEPSCoR FY 2020	ALEPSCoR 10 YR FY 2010-2020	
Agency	Research Expenditures	New Awards	QTY	Awards
NSF	$12.5M	$15.5M	202	$137.4M
DOE	$2.3M	$1.5M	12	$8.8M
NASA	$1.2M	$0.4M	21	$4.3M
USDA	$0.1M		33	$14.6M
Total	**$16.1M**	**$17.4M**	**268**	**$165M**

PROGRAMS

NSF EPSCOR TRACK 1

Alabama EPSCoR received a 20 million dollar Track 1 Grant entitled "CPU2AL: Connecting the Plasma Universe to Plasma Technology in Alabama" led by UAH's Dr. Gary Zank.
As a result of the research conducted on the CPU2AL project, NSF EPSCoR Track 1 Co-PI Dr. Kolobov received a DOE (Dept. of Energy) EPSCoR Laboratory Partnership Award that focuses on applications of low-temperature plasma physics for a wide variety of fundamental research.

DOE EPSCOR

UAB was awarded a $750K DOE Laboratory Partnership Award to use the UAB Cyclotron Facility in collaboration with Los Alamos National Lab Isotope Production Facility (IPF) to develop techniques for the production and radiochemistry of new radioisotopes for cancer PET imaging (for visualization of metabolic processes in the body), MRI contrast agents, radiotracers, and new cancer treatments.

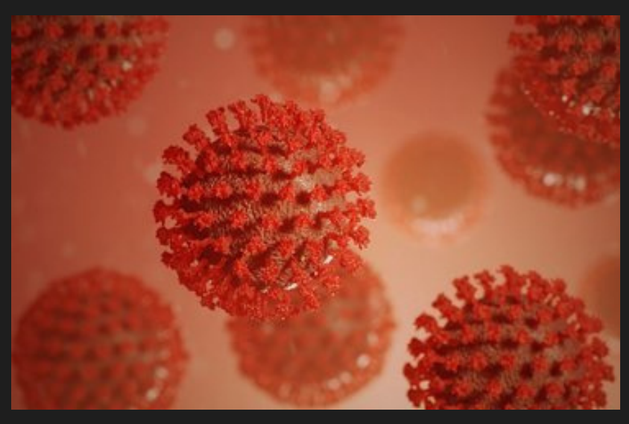
IMPACT & RESEARCH IN ALABAMA

NSF EPSCOR TRACK 2

University of Alabama's Dr. Prabhakar Clement is leading a $6M multi-institutional research team on groundwater management in the southeast. The goal of this project is to harness big data to implement an integrated groundwater management (IGM) framework providing scientific insights for making groundwater predictions, and assisting with engineering and policy decisions.

NSF EPSCOR CO-FUNDING

Dr. Glen Borchert at the University of South Alabama was awarded a NSF Rapid Co-funded award to study the role of RNA (Ribonucleic acid, a relative of DNA) fragments in the immune response against viruses like COVID-19.



NASA EPSCOR

UAH NASA EPSCoR researcher Judy Scheider and team are investigating novel materials and the fabrication process to improve the Space Launch System, the launch vehicle for deep space exploration.

COMMERCIALIZATION

Alabama EPSCoR is closely collaborating with the Alabama Department of Commerce to update the State Science & Technology Roadmap for inclusion into the State Economic Development Plan Accelerate Alabama 3.0. The updates of each university's research capabilities will be added to the Alabama EPSCoR web-interactive map on our website alepscor.org.

OUTREACH

For economic outreach, Alabama EPSCoR presented a program, "University Research as an Economic Driver" at Economic Development Association of Alabama (EDAA). At the Alabama EPSCoR booth, demonstrations were provided on using the research capability map.

For educational outreach, Alabama EPSCoR Outreach Open Houses describe STEM research to over 200 K-12 students through research activities and hands-on demonstrations at locations such as the Gulf Coast Exploreum Science Center in Mobile, AL.

WORKFORCE DEVELOPMENT

The state-funded Alabama EPSCoR Graduate Research Scholars Program (GRSP) supports graduate students pursuing both MS and PhD degrees performing high tech EPSCoR research. As of May 2020, more than 323 students have been recipients of 588 awards. This has led to the achievement of 204 PhDs and 67 MS degrees since its inception in 2006.

AAMU GRSP student Lam Duong's research aims to develop turmeric as a viable medicinal crop in Alabama. The US imports 90% of its turmeric, an organic, eco-friendly, medicinal crop with a ready market for farmers in the southern US. Duong is analyzing the use of plasma treatments to aid in the growth process of turmeric in US farms for commercialization.