

West Virginia

STaR Division: Science, Technology & Research at the West Virginia Higher Education Policy Commission, provides strategic leadership for the development of competitive research opportunities in STEM disciplines in the state. The office directs the National Science Foundation's Established Program to Stimulate Competitive Research (EPSCoR) in West Virginia, coordinates scientific research grants to academic institutions from federal and state agencies, and assists higher education institutional research programs in obtaining federal agency funding. (Photo, WVU NSF REU)





NSF EPSCoR & NIH IDeA

WV Science & Research Council

Vision 2025: West Virginia Science & Technology Plan

State Organizations:

STaR Division

Juliana Serafin, Director Suzanne Strait, Associate Director

NSF EPSCoR at STaR Division WVU, Marshall, WVSU

NASA EPSCoR Space Grant Consortium

Melanie Page, Director WVU, Fairmont State, Marshall, WVSU, WVUIT, WVWC, Shepherd, Bluefield, Glenville, Wheeling, WLU, Bethany

DEPSCoR & DOE EPSCoR

Sheena Murphy, WVU John Maher, Marshall

Selected Current Funding:

NSF EPSCoR programs

RII Track-1 Gravitational Waves & Appalachian Freshwater Initiative

PI: Juliana Serafin, STaR EPSCoR jurisdictional grant for building research infrastructure and outreach collaboratively at *WVU, Marshall U, WVSU, Shepherd U and WVWC*.

NSF INCLUDES Alliance First2 Success Network

PIs: Juliana Serafin, Gay Stewart, Erica Harvey, Sue Ann Heatherly, Sarah Riley (STaR, WVU, Fairmont State, Greenbank, High Rocks) Increasing the graduation rate of rural, first generation and/or underrepresented STEM undergraduates in WV.

RII Track-2 Award: Partnerships between WVU and

another EPSCoR state institution: *PI: Donald Adjeroh*, WVU, Digital Health with University of Arkansas.

RII Track-4 Awards: 2 Fellowships *PI: Piyush Menta, WVU* WVU and Los Alamos National Laboratory partnership, *PI: Ali Baheri, WVU* and Stanford University partnership.

NIH IDeA programs

West Virginia IDeA Network of Biomedical Research Excellence (INBRE)

PI: Gary Rankin, Marshall State-wide initiative that provides biomedical research opportunities in cellular and molecular biology with an emphasis on chronic disease for outstanding WV undergraduates and graduate students.

West Virginia Clinical and Translational Science Institute (CTR) (3 sequential awards)

PI: Sally Hodder, WVU Improving health outcomes for West Virginians through partnerships and transformative research.

COBRE (3 Awards)

Pls: Paul Lockman and Anne Courtney DeVries-Nelson, WVU Tumor and stroke research. Pl: Sundaram, Marshall, Obesity research.

Other (12 Awards)

PI: Sally Hodder, WVU



The IDeA WV-INBRE summer research program, established by NIH in 2004, has provided 480 undergraduate students from 14 primarilyundergraduate universities (PUI) in WV with the opportunity to work for nine weeks in research laboratories at Marshall University and West Virginia University. Students carry out research in basic sciences that underpin and develop understanding of human disease and its treatment. Most student researchers go on to graduate studies in health sciences, medical schools, nursing schools, or other healthcare related disciplines, enhancing the ability of West Virginia to provide health care to its population.



Adverse drug reactions have been linked with significant morbidity and mortality and have been a significant cause of hospital admissions, accounting for as much as 5% of all admissions. The NSF EPSCoR Track-2 project "Multi-Scale Integrative Approach to Digital Health" has involved researchers at West Virginia University in adverse drug reaction (ADR) reporting by integrating various types of data (active ingredients, chemical structure, genomic data, interaction data, side effects, social media data, etc.) using artificial intelligence and machine learning techniques. These data types often require specialized analytical methods to make sense of the potentially large inherent interconnected network analysis necessary for effective Drug Safety Surveillance.

National Science Foundation	Agency	Years Funded	Type of Award	Amount
Gravitational Waves & Appalachian Freshwater Initiative	NSF EPSCoR	2015-2023	RII Track-1	\$21,066,907
INCLUDES Alliance First2 Network	NSF EPSCoR	2018-2023	Co-Funding	\$7,159,000
Digital Health	NSF EPSCoR	2019-2023	RII Track-2	\$3,999,998
2 awards	NSF EPSCoR	2019-2024	RII Track-4	\$473,556
18 Co-Funded EPSCoR awards	NSF EPSCoR	Currently active	Co-Funding	\$10,580,550
10 awards	NASA EPSCoR	Currently active	Co-Funding	\$7,455,363
4 awards	DoE EPSCoR	Currently active	Co-Funding`	\$6,353,115

			Total Funds	\$57,088,489
NIH	Agency	Years Funded	Type of Award	Amount
INBRE	IDeA	Current	NIGMS	\$13,862,864
Clinical & Translational Science Institute	IDeA	Current	CTR	\$20,251,842
COBRE (3 awards)	IDeA	Current	COBRE	\$44,457,246
12 Award Supplements	IDeA	Current	Other	\$13,713,541
			Total Funds	\$92,285,493