

Board of Trustees Meeting

February 7, 2025



Sponsored Research Awards Highlights

September 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Thomas Beechem College of Engineering – Mechanical Engineering	National Science Foundation	FuSe2 Topic 3: Strain and Temperature Ex-Situ Processing of Ferroelectric Oxides for BEOL Performance	\$1,900,000
Nikhilesh Chawla College of Engineering – Materials Engineering	National Science Foundation	FuSe2 Topic 2: High Resolution Imaging of Defects in Semiconductors: Detection, Reliability, and Mitigation	\$1,600,000
Marisa Exter College of Education – Curriculum and Instruction	Wake Forest University / Lilly Endowment Inc.	Integrating Character Development in Engineering and Computing	\$998,802
Kevin Otto College of Engineering – Biomedical Engineering	Public Health Service-National Institutes of Health-National Institute of Neurological Disorders and Stroke	Engineering the Neuronal Response to Electrical Microstimulation	\$1,949,463
David Purpura College of Health and Human Sciences – Human Development and Family Science	Family and Social Services Administration	On My Way Prekindergarten 2024 Cohort	\$1,000,000

Sponsored Research Awards Highlights

October 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Andres Arrieta Diaz College of Engineering – Mechanical Engineering	Air Force Office of Scientific Research	Embodied Sentient Mechanomorphing for Agile Control in High-speed (e-SMACHs) Vehicles	\$1,099,507
Younghyun Kim College of Engineering – Electrical and Computer Engineering	Seoul National University / National Research Foundation Korea	High-fidelity and Trustworthy Teleinteraction Platform	\$1,029,510
Tyamo Okosun College of Engineering and Sciences – Center for Innovation through Visualization and Simulation (CIVS)	U.S. Department of Energy-Office of Energy Efficiency and Renewable Energy	Technical Development and Industrial Demonstration of Net-Zero Carbon EAF Steelmaking with Alternative Injection and Stirring Technologies	\$7,158,034

Sponsored Research Awards Highlights

November 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Soowon Chang* Polytechnic Institute – Construction Management Technology	Indiana Department of Transportation / U.S. Department of Transportation	Synthesis Study on Applying Solar Power Systems in Indiana's right of way (ROW) and INDOT-owned facilities	\$1,808,721
Marxa Figueiredo College of Veterinary Medicine – Basic Medical Sciences	Food and Drug Administration	Advancing bispecific engagers for NK immunotherapy in pediatric gliomas	\$1,531,286
Richard Kuhn College of Science – Biological Sciences	Vanderbilt University Medical Center / Public Health Service-National Institutes of Health-National Institute of Allergy and Infectious Disease	Bunyavirus and Picornavirus Pandemic Pathogen Preparedness (BP4) Center	\$1,376,781
Haitong Li College of Engineering – Electrical and Computer Engineering	National Science Foundation	FuSe2 Topic 1: Bridging Atomic Layers and Foundation Models: An Indium-Oxide-Based Versatile Neural Computing Platform	\$1,754,245
Xiaonan Lu Polytechnic Institute – Engineering Technology	U.S. Department of Energy	Dynamic Modular Microgrids (DyM-MGs): Real-Time and Packetized Microgrid Implementation	\$1,441,992
Monique McClain College of Engineering – Mechanical Engineering	Texas Engineering Experiment Station / Office of the Secretary of Defense	Controllable Stimuli-responsive Multiphase Polymeric Propellants Submission	\$1,500,000
Timothee Pourpoint College of Engineering – Aeronautical and Astronautical Engineering	Texas Engineering Experiment Station / U.S. Department of Defense	Long Duration Clean Air Tunnel for Research at Hypersonic Flow Conditions	\$1,499,893
Luis Solorio College of Engineering – Biomedical Engineering	Public Health Service-National Institutes of Health-National Cancer Institute	Stromal targeting to improve the efficacy of systemically administered drugs for pancreatic ductal adenocarcinomas	\$2,431,252
Yoon Yeo College of Pharmacy – Industrial and Molecular Pharmaceutics	Indiana University / Public Health Service-National Institutes of Health-National Institute of Allergy and Infectious Disease	Modulating immunodominance to support the development of universal influenza vaccines	\$1,075,563

Sponsored Research Awards Highlights

December 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Thomas Keon Office of Academic Affairs – Office of Commercialization and Research	City of Hammond / Indiana Economic Development Corporation	Roberts Impact Lab at Purdue University Northwest	\$4,500,000
Chi Hwan Lee College of Engineering – Biomedical Engineering	Korea Institute for Advancement of Technology	Development of Electroceuticals for Functional Recovery after Spinal Cord Injury Using Biodegradable Semiconductor	\$1,803,433

Sponsored Research Awards Highlights

January 2025

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Alina Alexeenko College of Engineering – Chemical Engineering	Applied Research Institute / Economic Development Administration	BioTrain Purdue program	\$3,812,733
Shengwang Du College of Engineering – Electrical and Computer Engineering	National Science Foundation	QuSec-TAQS: Nanodiamond Quantum Sensing for Four-Dimensional Live-Cell Imaging	\$1,634,839
Martin Byung-Guk Jun College of Engineering – Mechanical Engineering	Kencoa / Korea Institute for Advancement of Technology	Battery Management System for Flight Range Optimization and Stability Enhancement of AAM Aircraft with Non-intrusive Sensor Fusion and Battery Diagnosis	\$1,811,624
Richard Kuhn College of Science – Biological Sciences	Washington University in St. Louis / Public Health Service-National Institutes of Health-National Institute of Allergy and Infectious Disease	Flavivirus and Alphavirus ReVAMPP (FLARE) – Core C	\$1,953,522
Stephen Lindemann College of Agriculture – Food Science	University of California - Davis / National Institutes of Health	Identification of human gut microbe-derived xenolipids: impact of fibers and host metabolic health	\$1,178,465
Jessica Robertson Administrative Operations – Auxiliary Services	Indiana Economic Development Corporation	Purdue Airport Project 426880	\$1,000,000
Satish Ukkusuri College of Engineering – Civil and Construction Engineering	University of Alabama / U.S. Department of Energy	Co-E3T: Energy-Efficient and Equitable Transit through usercentric hardware and software Co-development and community Co-design	\$1,099,999

Thank You

