

Board of Trustees Meeting

June 7, 2024



Sponsored Research Awards Highlights

January 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Leifu Chang College of Science – Biological Sciences	National Science Foundation	CAREER: Probing Structural Dynamics and Regulatory Mechanisms of RNA-Guided CRISPR-Cas12 Endonucleases and Their Analogues	\$1,296,592
Luz Sotelo College of Engineering – Mechanical Engineering	University of New Hampshire / National Science Foundation	FMRG: Eco: GOALI: CAS: Understanding the Sustainability Framework for Convergent In-Space Manufacturing	\$1,062,941
Amit Varma IRIS – Infra Research & Innovation Solutions	Triad National Security, LLC / Los Alamos National Laboratory	Steel Composition Qualification Study Phase 2	\$1,242,124

Sponsored Research Awards Highlights

February 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Aaron Bowman College of Health & Human Sciences – Health Sciences	Public Health Service-National Institutes of Health-National Institute of Environmental Health Sciences	Mechanisms of Manganese Neurotoxicity	\$4,017,938
Jason Cannon College of Health & Human Sciences – Health Sciences	Public Health Service-National Institutes of Health-National Institute of Environmental Health Sciences	PFAS Induced Alterations in Reward Processing	\$2,694,050
Andrea Kasinski College of Science – Biological Sciences	Public Health Service-National Institutes of Health-National Cancer Institute	Enhancing miRNA Therapeutics Through Vehicle Free Delivery	\$1,930,000
Tyamo Okosun College of Engineering & Sciences – Center for Innovation through Visualization Simulation	Carnegie Mellon University / Department of Energy Office of Energy Efficiency and Renewable Energy	Scaling Hydrogen-Direct Reduced Iron Pathways to Decarbonize Iron and Steelmaking	\$1,152,104
Laura Pyrak-Nolte College of Science – Physics & Astronomy	Pacific Northwest National Laboratory / U.S. Department of Energy	Center for Understanding Subsurface Signals and Permeability (CUSSP) Experimental Geochemistry/Geomechanics and Sensing Research and Development Support	\$1,296,000
Jonathan Schleich College of Science – Chemistry	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Molecular Mechanisms of Membrane Protein Misfolding and Quality Control in Cellular Proteostasis	\$2,675,438
Alejandro Strachan Centers & Institutes – Birck Nanotechnology Center	Applied Research Institute / Department of the Army	Silicon Crossroads	\$1,000,000
Holly Amber Wood College of Pharmacy – Pharm Practice	North Central Health Services	Academic Community Partnership	\$4,000,000

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Qi Zhou College of Pharmacy – Industrial and Molecular Pharmaceutics	Public Health Service-National Institutes of Health-National Heart, Lung, and Blood Institute	Aerosol Delivery of Combinational Therapeutics Targeting Deadly Lung Infections	\$2,430,837
Davide Ziviani College of Engineering – Mechanical Engineering	U.S. Department of Energy	CoolScrew: Holistic Optimization of a High-Temperature Heat Pump System With Internally Cooled Screw Compressors	\$2,038,100
Patrick Zollner College of Agriculture – Forestry and Natural Resources	Indiana Department of Natural Resources / U.S. Department of the Interior	Relationships Between Disease and Spatially Explicit Densities of Deer, Turkey, and Coyote	\$998,489

Sponsored Research Awards Highlights

March 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Gaurav Chopra College of Science – Chemistry	Axle Informatics / National Institutes of Health-National Center for Advancing Translational Sciences	Artificial Intelligence Based Iterative Experimental Platform to Accelerate Drug Discovery	\$2,650,000
Supriyo Datta College of Engineering – Electrical and Computer Engineering	Naval Information Warfare Center Pacific	Hybrid MEMS-Photonic Integrated Circuit-Based Convolution Accelerator	\$2,680,189
Brenna Ellison College of Agriculture – Agricultural Economics	National Institute of Food & Agriculture	The Center for Food Conservation and Waste Reduction: Designing Co-Created Solutions to Improve Nutrition Security, Health Equity, and Environmental Sustainability	\$1,500,000
Chi Hwan Lee College of Engineering – Biomedical Engineering	Public Health Service-National Institutes of Health-National Eye Institute	Smart Soft Contact Lenses for Continuous 24-Hour Monitoring of Intraocular Pressure in Glaucoma Care	\$2,177,089
Shelley MacDermid Wadsworth College of Health & Human Sciences – Human Development and Family Science	Henry M. Jackson Foundation for the Advancement of Military Medicine / National Guard Bureau	Extending the Reach of SBHP, FY 24, Y5 (NGB)	\$1,895,001
Kevin Carlton Massey PML – Microelectronics Lab	Purdue University / Department of the Army	PARI WestGate Workforce Development	\$2,640,500
Timothee Pourpoint College of Engineering – Aeronautical and Astronautical Engineering	Office of Naval Research	Long Duration Clean Air Tunnel for Research at Hypersonic Flow Conditions	\$993,222
Sydney Trask College of Health & Human Sciences – Psychological Sciences	Public Health Service-National Institutes of Health-National Institute of Mental Health	Behavioral, Circuit, and Molecular Mechanisms Underlying UCS Deflation	\$1,921,919

Sponsored Research Awards Highlights

April 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
James Braun Global Development Innovation – PARI Tech & Innovation-Lab Operating	National Science Foundation	NSF Engines: Type 2: NSF Innovation Engine for Next-Generation Factory-Built Housing (NextHouse)	\$1,000,000
Julia Laskin College of Science – Chemistry	California Institute of Technology /Public Health Service-National Institutes of Health-National Institute of Mental Health	Next-Generation Spatial -omics: High-Throughput, Single-Molecule Proteomic Imaging with Subcellular Resolution	\$1,501,555
Amy Marconnet College of Engineering – Mechanical Engineering	Naval Information Warfare Center Pacific	CMOS Compatible Aerogels for Heterogeneous Packaging	\$999,999
Scott McLuckey College of Science – Chemistry	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Novel Ion Chemistry and Instrument Development for the Characterization of Proteins, Nucleic Acids, and Heterogeneous Bio-complexes via Tandem Mass Spectrometry	\$1,827,864
Timothy Ratliff Centers & Institutes – Purdue Institute for Cancer Research	Paula and Rodger Riney Foundation	Therapeutic Targeting of Bone Hydroxyapatite in Multiple Myeloma	\$2,112,173
Steven Son College of Engineering – Mechanical Engineering	Air Force Office of Scientific Research	High Energy Density Battery Composed of Energetic Materials	\$1,129,112

Sponsored Research Awards Highlights

May 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Muhammad Alam College of Engineering – Electrical and Computer Engineering	University of Washington / National Science Foundation	Strengthen and Expand Collaboration Between Universities on Research and Education in Semiconductors (SECURES)-Research	\$1,666,665
Sumeet Gupta College of Engineering – Electrical and Computer Engineering	National Science Foundation	FET: Medium: Scalable and Ultra-Low-Power Neural Accelerators Based on 2d Ferroelectric Semiconductors (SAFES)	\$1,200,000
James Krogmeier College of Engineering – CoE Administration	Indiana Department of Transportation	SPR-4863: High Speed Deflectometer Study	\$1,302,494
Kelly Schultz College of Engineering – Chemical Engineering	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Characterizing the Feedback Loop Between Cells and the Pericellular Region During Cell-Material Interactions	\$1,663,258