

# *Board of Trustees Meeting*

October 4, 2024



# *Sponsored Research Awards Highlights*

May 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Richard Kuhn College of Science – Biological Sciences	DNU - Washington University St. Louis / Public Health Service-National Institutes of Health-National Institute on Allergy Infectious Disease	Antibody-based Protection Against Flaviviruses	\$1,299,725.00

# *Sponsored Research Awards Highlights*

June 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Kari Clase</b> College of Agriculture – Agriculture and Biological Engineering Program	Bill & Melinda Gates Foundation	Enhance SSA Reg Framework & Local Manufacturing via Pharma Workforce Development	\$1,100,000.00
<b>Jennifer Freeman</b> College of Health and Human Sciences – Health Sciences	Public Health Service-National Institutes of Health-National Institute of Environmental Health Sciences	Comparative Neurotoxicity of PFAS	\$3,281,440.00
<b>Panagiota Karava</b> College of Engineering – Lyles School of Civil and Construction Engineering	National Science Foundation	SCC-IRG Track1: Smart Energy Assistants for Affordable Housing Communities	\$1,599,996.00
<b>Dharmendra Mishra</b> College of Agriculture – Food Science	Rural Business-Cooperative Service	Food and Beverage Product Innovation and Commercialization for Farm Business Income Enhancement and Sustainability	\$999,997.00
<b>Taimoor Qazi</b> College of Engineering – Weldon School of Biomedical Engineering	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Leveraging Cell-instructive Hydrogels to Understand Microenvironmental Impact on Wound Healing Processes	\$1,898,775.00
<b>Shiliang Tian</b> College of Science – James Tarpo Jr. and Margaret Tarpo Department of Chemistry	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Deciphering the Structures and Mechanisms of Metalloproteins Involved in Human Iron Homeostasis	\$1,897,223.00
<b>Lei Zhang</b> College of Agriculture – Botany and Plant Pathology	National Institute of Food and Agriculture	Harnessing the Power of Suppressive Soils to Manage Root-Knot Nematodes in Organic Vegetable Production	\$998,987.00
<b>Chenn Qian Zhou</b> College of Engineering and Sciences – Center for Innovation through Visualization and Simulation	Department of Energy-Office of Energy Efficiency & Renewable Energy	Development and Demonstration of an Industrial Hydrogen-Fired Steel Reheating Furnace	\$8,861,243.00

# *Sponsored Research Awards Highlights*

July 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Saurabh Bagchi</b> College of Engineering – Elmore Family School of Electrical and Computer Engineering	National Science Foundation	Collaborative Research: CPS: Frontier: CHORUS: Resilient Distributed CPS through Rational and Dynamic Decision-Making Among Multiple Stakeholders	\$4,224,762.00
<b>Vijay Gupta</b> College of Engineering – Elmore Family School of Electrical and Computer Engineering	George Washington University / National Aeronautics and Space Administration	Securing High-Density Urban Airspaces	\$1,079,923.00
<b>John Haddock</b> College of Engineering – Lyles School of Civil and Construction Engineering	Indiana Department of Transportation	Indiana Local Technical Assistance Program 2024-2025	\$1,935,083.00
<b>Tomas Hook</b> College of Agriculture – Indiana-Illinois Sea Grant	National Oceanographic and Atmospheric Administration	Illinois-Indiana Sea Grant 2024-2027 Omnibus (Parent Record)	\$6,704,292.00
<b>Chien-Chi Lin</b> College of Engineering – Weldon School of Biomedical Engineering	Public Health Service-National Institutes of Health-National Institute of Diabetes and Digestive and Kidney Diseases	Dynamic Double Network Hydrogel for Generating Pancreatic Organoids from Induced Pluripotent Stem Cells	\$1,146,976.00
<b>Jing Liu</b> College of Science – Physics and Astronomy	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Monitoring the Three-dimensional Motion of Chromatin at Single Molecule Resolution	\$1,427,522.00
<b>Brian Metzger</b> College of Science – Biological Sciences	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	The Genetic and Evolutionary Mechanisms Underlying the Origins of New Molecular Functions	\$1,930,635.00

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July 2024

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<b>Kara Salazar</b> College of Agriculture – Community Development	DEFENSEWERX / U.S. Department of Energy	Indiana Renewable Energy Planning Technical Engagement Collaboration	\$1,929,255.00
<b>Vikki Weake</b> College of Agriculture – Biochemistry	National Science Foundation	NSF-BSF: Redox Regulation of Drosophila Phototransduction	\$1,155,315.00
<b>Amanda Zelechowski</b> College of Humanities, Education and Social Sciences – Psychology	Indiana Department of Education	VR-FUTURES: Virtual Reality for Understanding Trauma and Utilizing Regulation When Experiencing Stress	\$1,500,000.00

# Sponsored Research Awards Highlights

August 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Bedrich Benes</b> College of Science – Computer Science	National Science Foundation	Collaborative: IIBRP: VR-Bio-Talk: VR Voice-Controlled Visual Analytics Platform for Plant Digital Twins	\$1,200,000.00
<b>Robert Graham Cooks</b> College of Science – James Tarpo Jr. and Margaret Tarpo Department of Chemistry	National Institutes of Health-National Advancing Translational	High Throughput Infrastructure for Reaction Screening and Bioassays	\$1,407,199.00
<b>Meng Cui</b> College of Engineering – Elmore Family School of Electrical and Computer Engineering	Public Health Service-National Institutes of Health-National Institute of Neurological Disorders and Stroke	Light Pipe Microscope for Ultra-large-scale Cellular-resolution Whole-neocortex Two-photon Calcium Imaging of Mammalian Brains	\$1,886,913.00
<b>Vincent Davisson</b> College of Pharmacy – Borch Department of Medicinal Chemistry and Molecular Pharmacology	Public Health Service-National Institutes of Health-National Institute of Neurological Disorders and Stroke	Platinum Based Countermeasures and Combinations with Protective Agents	\$1,150,119.00
<b>Lori Hoagland</b> College of Agriculture – Horticulture and Landscape Architecture	National Institute of Food and Agriculture	TOMI3: Bringing our Insights to the Farm to Co-create more Effective Methods of Disease Control in Organic Tomato Crops	\$3,500,000.00
<b>Angeline Lyon</b> College of Science – James Tarpo Jr. and Margaret Tarpo Department of Chemistry	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Mechanisms Underlying Regulation of PLCbeta by Heterotrimeric G Proteins	\$1,404,861.00
<b>Georgia Malandraki</b> College of Health and Human Sciences – Speech, Language, and Hearing Sciences	Public Health Service-National Institutes of Health-National Institute on Aging	Impact of Wearable Biofeedback for the Rehabilitation and Tele-rehabilitation of Neurogenic Dysphagia	\$2,767,371.00
<b>Maria Marshall</b> College of Agriculture – Agricultural Economics	National Institute of Food and Agriculture	New Beginnings for Tribal Students Program Assessment	\$1,000,000.00

# *Sponsored Research Awards Highlights*

August 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Carlos Martinez</b> College of Engineering – Materials Engineering	Strategic Environmental Research and Development Program / U.S. Department of Defense	Self-assembly of PFAS Mixtures in the Presence of Inorganic Ions and Hydrocarbon Surfactants During Wetting and Drying	\$1,708,968.00
<b>Linda Nie</b> College of Health and Human Sciences – Health Sciences	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Highly Sensitive Novel Neutron Activation Analysis (NAA) Technology to Quantify Multiple Metals in Human Bone In Vivo	\$1,450,556.00
<b>Haley Oliver</b> College of Agriculture – Food Science	Agency For International Development	Feed the Future Innovation Lab for Food Safety	\$19,987,640.00
<b>Haley Oliver</b> Office of the Vice Provost for Graduate Students and Postdoctoral Scholars – Office of Graduate Students and Postdoctoral Scholars	National Science Foundation	NSF Graduate Research Fellowship Program (GRFP) - Program Year 2024-25	\$1,368,166.00
<b>Dimitrios Peroulis</b> Purdue Online – Purdue Online Administration	Department of the Navy	USNTPS Academic Curriculum Support Services	\$9,171,952.14
<b>Anand Raghunathan</b> College of Engineering – Elmore Family School of Electrical and Computer Engineering	Indiana Economic Development Corporation	COCOSYS: Center for the Co-Design of Cognitive Systems	\$1,515,000.00
<b>Luis Solorio</b> College of Engineering – Weldon School of Biomedical Engineering	Public Health Service-National Institutes of Health-National Cancer Institute	Engineering the Premetastatic Niche	\$2,606,200.00
<b>Justin Weibel</b> College of Engineering – Mechanical Engineering	Office of Naval Research	Machine Learning Enabled Two-phase Flow Metrologies, Models, and Optimized Designs (METHODS)	\$4,435,247.00
<b>Yoon Yeo</b> College of Pharmacy – Industrial and Molecular Pharmaceutics	National Institutes of Health	Long-acting Formulations of Griseofulvin for Ocular Neovascularization Therapy	\$1,813,271.00

# Sponsored Research Awards Highlights

September 2024

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
<b>Daniel Aliaga</b> College of Science – Computer Science	National Science Foundation	Frameworks: Cyberinfrastructure for Urban Tree Resilience and Environmental Equity (uTREE)	\$4,998,044.00
<b>Virginia Bolshakova</b> College of Education – Curriculum and Instruction	U.S. Department of Education	Purdue University - GEAR UP State Grant - Indiana	\$34,965,000.00
<b>John Haddock</b> College of Engineering – Lyles School of Civil and Construction Engineering	Indiana Department of Transportation	HELPERS 2024-2028	\$1,334,749.00
<b>Martin Jun</b> College of Engineering – Mechanical Engineering	Korea Institute for Advancement of Technology	Center of Operation and Research for Industry Advancement (CORIA) at Purdue as one of the Global Industrial Technology Cooperation Centers (GITCC) of KIAT	\$2,249,070.00
<b>Seungjin Kim</b> College of Engineering – Nuclear Engineering	U.S. Department of Energy	A Consortium for Strategic Revitalization of Cyber-Physical Nuclear Infrastructure for Advanced Small Modular Reactors	\$6,000,000.00
<b>Feng Li</b> Polytechnic Institute – Computer and Information Technology	National Science Foundation	CyberCorps SFS: Building the Next Generation of Cybersecurity Engineering Workforces	\$2,972,400.00
<b>Ajay Malshe</b> College of Engineering – Mechanical Engineering	Texas A&M University / Air Force Research Laboratory	Space Strategic Technical Institute for In Space Operations	\$5,850,000.00
<b>Chongli Yuan</b> College of Engineering – Davidson School of Chemical Engineering	Public Health Service-National Institutes of Health-National Institute on Aging	Elucidate Gene-environmental Interactions Employed by Pb in Promoting ADRD in Aging Brains	\$3,924,990.00