

Sponsored Research Awards Highlights

September 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Jing Gao College of Engineering - Electrical and Computer Engineering	National Science Foundation	Proto-OKN Theme 1: A Knowledge Graph Warehouse for Neighborhood Information	\$1,500,000.00
Libai Huang College of Science - Chemistry	National Science Foundation	Collaborative Research: DMREF: Designing Coherence and Entanglement in Perovskite Quantum Dot Assemblies	\$1,200,000.00
Andrea Kasinski College of Science - Biological Sciences	Public Health Service-National Institutes of Health-National Cancer Institute	Ligand-mediated, vehicle-free delivery of small RNAs	\$1,930,108.00
Matthew Tews College of Veterinary Medicine - Medical Education	Indiana University	FY 23-24 IUSM - Lafayette General Fund	\$2,131,079.00
Davide Ziviani College of Engineering - Mechanical Engineering	Strategic Environmental Research and Development Program	Holistic Optimization of Air-Conditioning Systems for Military Use with Low-GWP Refrigerants	\$1,425,160.00

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Jason Cannon College of Health and Human Sciences - Health Sciences	Public Health Service-National Institutes of Health-National Institute of Environmental Health Sciences	Mechanisms of PhIP-induced dopaminergic neurotoxicity	\$1,563,395.00
Chad Carroll College of Health and Human Sciences - Health and Kinesiology	Public Health Service-National Institutes of Health-National Institute of Arthritis and Musculoskeletal and Skin Diseases	Role of serum advanced glycation end-products in altering tendon properties with diabetes	\$3,066,018.00
Zhihong Chen Centers and Institutes - Birck Nanotechnology Center	National Science Foundation	DMREF: GOALI: Designing Materials for Next-generation Spintronic Devices	\$2,000,000.00
Alex Chortos College of Engineering - Mechanical Engineering	National Science Foundation	FMRG: Eco: Circular manufacturing of sustainable bioplastics from hemp-derived building blocks	\$2,985,348.00
Roberto Gallardo Partnerships - Purdue Center for Regional Development	Indiana Economic Development Corporation	READI Evaluation	\$1,699,759.00
John Haddock College of Engineering - Civil Engineering	Indiana Department of Transportation	Indiana Local Technical Assistance Program 2023-2024	\$1,687,335.00
Hana Hall College of Agriculture - Biochemistry	Public Health Service-National Institutes of Health-National Institute of Neurological Disorders and Strokes	Role of R-loops in transcriptional stress, genome instability, and chronic immune response in Alzheimer's disease	\$2,423,039.00
Lori Hoagland College of Agriculture - Horticulture and Landscape Architecture	Universidad Nacional de San Agustin (UNSA Nexus -PH III)	UNSA NEXUS-PH III	\$3,973,663.00
Wen Jiang College of Science - Biological Sciences	Indiana University School of Medicine / Public Health Service-National Institutes of Health-National Institute of Neurological Disorders and Strokes	Structure of amyloid fibrils in human and neurodegenerative diseases and aging	\$1,102,994.00

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Tae Yoon Kim College of Engineering - Biomedical Engineering	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Mitosis in Confining Microenvironments	\$1,005,534.00
Samuel Labi College of Engineering - Civil Engineering	University Of Michigan / U.S. Department of Transportation	New Center for Connected and Automated Transportation, for Safety, Cybersecurity, and Equity (CCAT-SCE)	\$1,750,000.00
Georgia Malandraki College of Health and Human Sciences - Speech, Language, and Hearing Sciences	University of Illinois At Champaign-Urbana / Public Health Service-National Institutes of Health-National Institute on Aging	SimulScan: Simultaneous functional and dynamic MRI for evaluating swallowing across age and in neurogenic dysphagia	\$1,477,753.00
Sanjeev Ramkrishna Malushte IRIS - Infra Research & Innovative Solutions	Federal Energy Regulatory Commission	Geotechnical and Structural Document for LNG Facilities	\$1,622,700.00
Partha Mukherjee College of Engineering - Mechanical Engineering	UL Research Institutes	Center for Advances in Resilient Energy Storage (CARES)	\$4,500,000.00
Shreyas Sundaram College of Engineering - Electrical and Computer Engineering	Texas Engineering Experiment Station / Office of the Secretary of Defense	Wolfpack: Enabling Teaming and Cooperative Engagement for Hypersonic Systems	\$3,756,753.00
Michael Titus College of Engineering - Materials Engineering	Strategic Environmental Research and Development Program / Department of Defense	Recycling of refractory alloy powders via surface etching in metal additive processes	\$1,291,895.00
Manghui Tu College of Technology - Computer Information Technology and Graphics	National Security Agency	Continue, Sustain, and Expand the NCAE-C AI-Cybersecurity Workforce Certification Based Training Program CWCT	\$2,500,000.00

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Andrea Vacca College of Agriculture - Agricultural and Biological Engineering Program	U.S. Department of Energy	High Energy-Efficient Hybrid Excavator Powered by Hydrogen Combustion Engine	\$2,492,978.00
Haiyan Wang College of Engineering - Materials Engineering	National Science Foundation	DMREF: Magneto-electro-optically coupled hybrid metamaterial thin film platform for photonic integrated circuits	\$1,999,884.00
Mark Daniel Ward Vice Provost for Teaching and Learning - The Data Mine	Beck's Superior Hybrids, Inc.	Machine Learning for Predictive Breeding Technology	\$1,921,632.00
Dongyan Xu College of Science - Computer Science	University of California-Santa Barbara / National Science Foundation	Theme 1: Institute for Artificial Cyber Threat Intelligence and OperatioN (ACTION)	\$2,939,602.00
Yuehwern Yih Global Development Innovation - Global Development and Innovation	U.S. Agency for International Development	LASER Buy-In: Randomized Impact Evaluation of Citizen Security in Guatemala (Mod #26 7200AA18CA00009)	\$2,335,000.00
Zhong-Yin Zhang College of Pharmacy - Medicinal Chemistry and Molecular Pharmacology	Indiana University / Public Health Service- National Institutes of Health-National Institute on Aging	IUSM Alzheimer's Disease Drug Discovery Center	\$2,140,014.00

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November 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
G. Kenitra Hendrix College of Veterinary Medicine - Animal Disease Diagnostics Laboratory	Colorado State University / Animal and Plant Health Inspection Service / U.S. Department of Agriculture	National Animal Health Laboratory Network Support Funding	\$1,000,000.00
Elizabeth Hillery Centers and Institutes – Regenstrief	National Science Foundation	Collaborative Research: SCiPE: Cyberinfrastructure Professionals InnoVating and BrOadening the Adoption of Advanced Technologies (CI PIVOT)	\$3,749,415.00
Nina Mahmoudian College of Engineering - Mechanical Engineering	Office of Naval Research	A Cross-domain Dynamic Gateway	\$1,304,994.00
Richard Mattes College of Health and Human Sciences - Nutrition Science	Grain Foods Foundation	Health Effects of Consuming Categories of Grain Food in Adults	\$1,500,000.00
Xinghang Zhang College of Engineering - Materials Engineering	U.S. Department of Energy	Accelerating discovery and diagnostics of plasma-wall interactions using machine learning	\$2,482,020.00

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December 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Zhihong Chen Centers and Institutes - Birck Nanotechnology Center	Applied Research Institute / U.S. Department of Defense	University Network to Accelerate Lab-to-Fab	\$4,569,800.00
Kerrie Douglas College of Engineering - Engineering Education	Applied Research Institute / U.S. Department of Defense	Silicon Crossroads Workforce Development	\$7,500,000.00
Kevin Gibson College of Agriculture - Botany and Plant Pathology	Alfred P. Sloan Foundation	The Sloan Indigenous Graduate Partnership	\$1,533,358.00
Andy Hudmon College of Pharmacy - Medicinal Chemistry and Molecular Pharmacology	Medical College of Wisconsin / Public Health Service-National Institutes of Health-National Institute of Neurological Disorders and Strokes	Role of Primary Sensory Neuron CaMKII Signaling in Regulation of Pain	\$1,211,337.00
Tamara Moore College of Engineering - Engineering Education	Applied Research Institute / U.S. Department of Defense	SCALE K-12 Silicon Crossroads ME Commons	\$2,500,000.00
Ming-Yu Ngai College of Science - Chemistry	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	EXCITED-STATE CATALYSIS IN ORGANIC SYNTHESIS - Change of Recipient Organization/Transfer	\$1,295,883.00
Michael Sangid College of Engineering - Aeronautical and Astronautical Engineering	Dynetics, Inc. / U.S. Department of Defense	GAMMA-H proposal with Dynetics	\$2,026,690.00
Tiwei Wei College of Engineering - Mechanical Engineering	Advanced Research Projects Agency-Energy	Direct Two-phase Jet Impingement Cooling with Topology Optimized Surface Engineering and Phase Separation using Additive Manufacturing	\$1,881,315.00
Dongyan Xu Centers and Institutes - Center for Education and Research Information Assurance and Security	Air Force Research Laboratory	FIREFLY: A Cyber-Physical Framework for Scalable CPS Modeling and Simulation	\$6,500,090.00

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January 2024

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Angela Abbott College of Health and Human Sciences – Health and Human Sciences Administration	Indiana State Department of Health / U.S. Department of Agriculture	Indiana NEP: SNAP-Ed Plan 2024-NEPA Direct Ed	\$4,963,773.00
Sabine Brunswicker Polytechnic Institute - Polytechnic Administration	Windracers USA LLC	AIDA: Artificial Intelligence for Digital Aviation	\$1,200,000.00
Weinong Chen College of Engineering - Aeronautical and Astronautical Engineering	Office of Naval Research	Rig for Quantifying High Impact Speed Erosion	\$1,651,252.00
James Gibert College of Engineering - Mechanical Engineering	Wabash National Corporation	Advance Concept Development: Energy Harvesting Technologies for Semi-Trailer Transportation Systems	\$1,747,435.00
Anne Gregory College of Humanities, Education and Social Sciences	University of Indianapolis / Indiana Commission for Higher Education	Teach Dual Credit Indiana at PNW Grant Extension	\$1,104,181.46
Niranjan Shivaram College of Science - Physics and Astronomy	W.M. Keck Foundation	ATTOSECOND ENTANGLED PHOTON GENERATION FOR ATTOSECOND QUANTUM SPECTROSCOPY	\$1,200,000.00
Casey Krusemark College of Pharmacy – Medicinal Chemistry and Molecular Pharmacology	Public Health Service-National Institutes of Health-National Institute of General Medical Sciences	Harnessing the In Vitro Selection for Activity-based Proteomics and Chemical Probe Development	\$2,113,567.00
Mark Lundstrom College of Engineering - Electrical and Computer Engineering	Indiana Economic Development Corporation	IMEC-Purdue Collaboration	\$1,750,000.00
Kinam Park College of Engineering - Biomedical Engineering	National Institutes of Health-National Institute on Drug Abuse	Injectable naltrexone 2-month depot formulations	\$2,491,412.00