

Board of Trustees Meeting

June 9, 2023



Sponsored Research Awards Highlights

January 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Graham Cooks College of Science - Chemistry	FLIR Systems Inc. / Defense Threat Reduction Agency	FLIR Portable Mass Spectrometer for Environmental Monitoring	\$1,952,497.00
Kyle Cottrell College of Agriculture - Biochemistry	PHS-NIH National Center on Minority Health & Health Disparities	Identifying Determinants of ADAR-Dependency in Triple-Negative Breast Cancer	\$946,200.00
Stanton Gelvin College of Science - Biological Sciences	Oklahoma State University / National Science Foundation	TRTech-PGR: Engineering Agrobacterium to Express a Type III Secretion System to Improve Plant Transformation and Genome Editing	\$979,981.00
Tian Li College of Engineering - Mechanical Engineering	U.S. Department of Energy	Strong and CO2 Consuming Living Wood for Buildings	\$958,245.00
Shelley MacDermid Wadsworth College of Health & Human Sciences - Human Development and Family Science	IN Family & Social Services Admin / U.S. Department of Health And Human Services	Star Behavioral Health Providers - Indiana Department of Mental Health and Addiction	\$999,979.00
Carlos Martinez College of Engineering - Materials Engineering	Strategic Environmental Research & Development Program / U.S. Department of Defense	Development of PFAS-Free Fire Extinguishing Foam Based on New Siloxane-based Surfactant Formulations and Time-Released Foam Additives	\$956,511.00
Kinam Park College of Engineering - Biomedical Engineering	NIH-National Institute on Drug Abuse	Injectable Naltrexone 2-Month Depot Formulations	\$2,191,760.00

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Anand Raghunathan College of Engineering - Electrical & Computer Engineering	Georgia Institute of Technology / Semiconductor Research Corporation / Darpa / Dso	COCOSYS: Center for the Co-Design of Cognitive Systems	\$5,500,161.00
Vijay Raghunathan College of Engineering - Electrical & Computer Engineering	Georgia Institute of Technology / Semiconductor Research Corporation / Darpa / Dso	CogniSense: Center on Cognitive Multispectral Sensors	\$2,250,000.00
Dorothy Teegarden College of Health & Human Sciences - Nutrition Science	PHS-NIH National Cancer Institute	Impact of Hypoxia on Lipid Metabolism in Obesity-Driven Breast Cancer Progression	\$3,221,920.00

Sponsored Research Awards Highlights

February 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Angela Abbott College of Health & Human Sciences - HHS Admin	IN State Department of Health / U.S. Department of Agriculture	Indiana NEP: SNAP-Ed Plan 2023	\$4,963,773.00
Nancy Edwards North Central Nursing Clinic - NCNC Admin	Health Resources & Services Administration	SAC 2023 Health Center Cluster	\$2,416,959.00
Behzad Esmaeili College of Engineering - Industrial Engineering	National Science Foundation	FW-HTF-R: Collaborative Research: Worker-AI Teaming to Enable ADHD Workforce Participation in the Construction Industry of the Future	\$1,200,000.00
Tomas Hook College of Agriculture - IN-IL Sea Grant	National Oceanographic & Atmospheric Administration	IISGCP-GLNPO Partnership Continuation	\$9,092,696.00
Eric Matson Polytechnic Institute - Computer Information Technology	Info & Communication Tech Promotion	Korean Software Square Program 2023	\$1,047,834.00
Vikki Weake College of Agriculture - Biochemistry	PHS-NIH National Eye Institute	Chromatin Connects Metabolism to Circadian Gene Regulation in the Aging Eye	\$1,493,990.00
Roger Wiens College of Science - Earth, Atmospheric, and Planetary Sciences	Triad National Security, LLC / U.S. Department of Energy	SuperCam Mars Rover Laser Instrument Projects	\$1,559,424.00

Sponsored Research Awards Highlights

March 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Zhixiang Chen College of Agriculture - Botany & Plant Pathology	National Science Foundation	Functional Diversity of NAIP Vesicles, a Novel Family of ER-Derived Structures in Plants	\$950,000.00
Gary Cheng College of Engineering - Industrial Engineering	University of Wyoming / National Science Foundation	ExpandQISE: Track 2: Developing Research and Education Programs in Quantum Information Science and Engineering with Research on Locally Tunable 2D Topological Superconductors	\$1,500,000.00
Alexander Chubykin College of Science - Biological Sciences	PHS-NIH National Institute of Mental Health	Neural Mechanisms of Predictive Impairments in Autism	\$2,448,305.00
Mark Hall College of Agriculture - Biochemistry	PHS-NIH National Institute of Allergy and Infectious Disease	Cdc14 Phosphatase - Novel Roles in Drug Resistance, Virulence, and the Response to Cell Wall Stress in Fungal Pathogens	\$2,400,438.00
Jen-Yi Huang College of Agriculture - Food Science	National Institute of Food & Agriculture	When Blue is Green: Sustainable Blue Food Systems Driven by Integrated Aquaponics	\$10,000,000.00
Matthew Krane College of Engineering - Materials Engineering	GE Aviation	Predicting Segregation Defects in Vacuum ARC Remelting	\$1,389,814.00
Jianing Li College of Pharmacy - Medicinal Chemistry and Molecular Pharmacology	PHS-NIH National Institute of General Medical Sciences	Precision Design of Antimicrobial Peptides Against Bacterial Infections	\$1,211,712.00

Sponsored Research Awards Highlights

March 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Carson Slabaugh College of Engineering - Aeronautics and Astronautics	Office of Naval Research	Combustion in Solid Fuel Ramjets	\$1,100,000.00
Aaron Specht College of Health & Human Sciences - Health Sciences	University of Michigan / PHS-NIH National Institute on Aging	HRS Yrs 29-34: Heavy Metal Exposures Supplement	\$1,286,734.00
Michelle Thompson College of Science - Earth, Atmospheric, and Planetary Sciences	National Aeronautics and Space Administration	An Experimental Investigation of Space Weathering Processes on the Surface of Mercury	\$1,278,282.00
Yang Yang College of Pharmacy - Medicinal Chemistry and Molecular Pharmacology	FamiliesSCN2A Foundation	Preclinical Disease Modeling and Gene Correction Therapy for SCN2A Splice-Site Genetic Variants	\$2,500,000.00

Sponsored Research Awards Highlights

April 2023

Principal Investigator and Department	Sponsor	Grant Title	Total Project Award Amount
Songlin Fei College of Agriculture - Forestry & Natural Resources	National Institute of Food & Agriculture	Promoting Economic Resilience and Sustainability of the Eastern US Forests (PERSEUS)	\$10,000,000.00
Dan Jiao College of Engineering - Electrical & Computer Engineering	Defense Advanced Research Projects Agency	Readying TCAD for Transient, DFT-Based Quantum Transport in the THz Regime	\$1,000,000.00
Young Kim College of Engineering - Biomedical Engineering	PHS-NIH National Institute of Biomedical Imaging & Bioengineering	Maternal Health Blood Hemoglobin Analysis with Informed Deep Learning	\$1,960,944.00
Zhao-qing Luo College of Science - Biological Sciences	PHS-NIH National Institute of Allergy and Infectious Disease	Effector-Mediated Ubiquitin Manipulation in Legionella Pneumophila Pathogenesis	\$2,321,584.00
Tamara Moore College of Engineering - Engineering Education	IN Economic Development Corporation	SCALE K-12 IEDC	\$3,000,000.00
Linda Prokopy College of Agriculture - Horticulture/Landscape Architecture	National Institute of Food & Agriculture	Integrated Midwest Partnerships for Actionable Climate Tools and Training (IMPACT2): Supporting System Transformation on Working Lands	\$1,500,000.00
Matthew Scarpelli College of Health & Human Sciences - Health Sciences	PHS-NIH National Institute of Neurological Disorders and Stroke	Improving Glioma Radiotherapy by Theragnostic Targeting of Tumor-Supporting Macrophages	\$1,906,450.00

Purdue Applied Research Institute CEO

Dr. Mark Lewis



- Renowned researcher and professor with leadership in academia and government
- One of the world's foremost experts on hypersonics
- Acting deputy undersecretary of defense for research and engineering
- Director of defense research and engineering for modernization in the Defense Department
- Chief scientist of the U.S. Air Force
- Served as the chair of the Department of Aerospace Engineering at the University of Maryland
- First executive director for the Emerging Technologies Institute of the National Defense Industrial Association

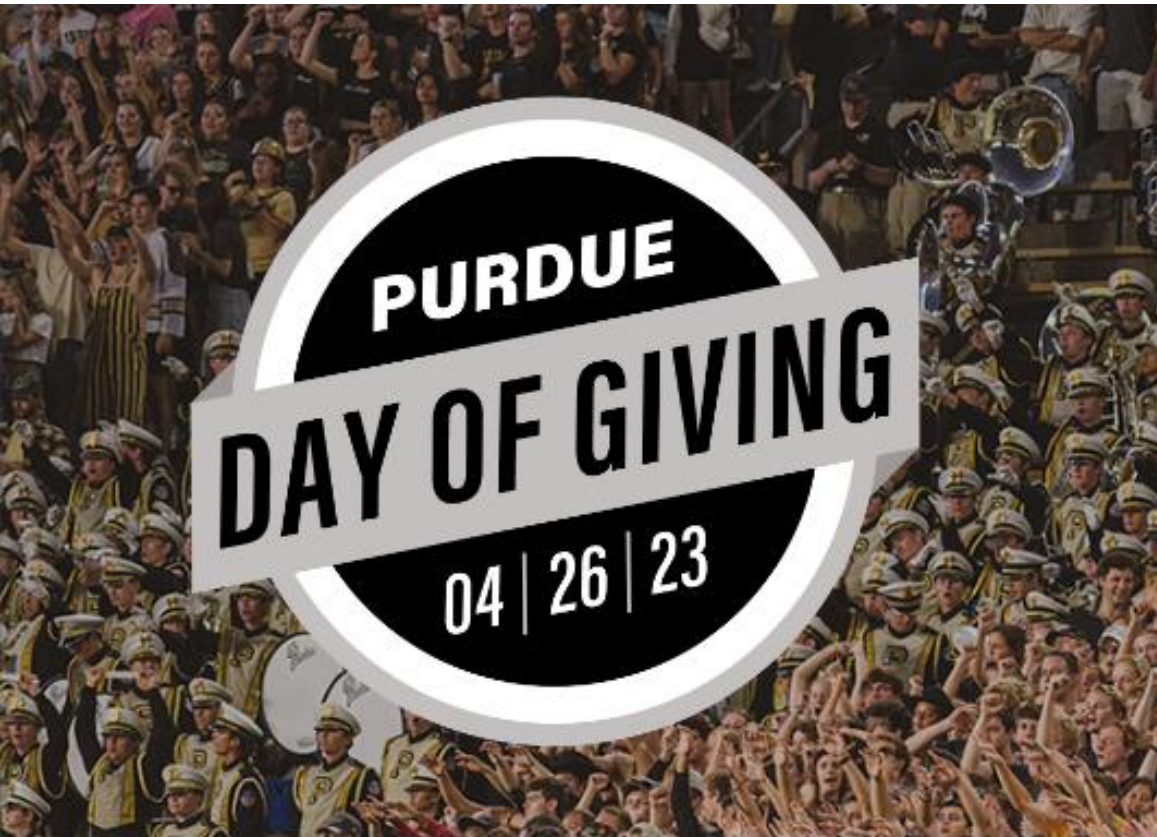
Resolutions of Appreciation

Jeannie and James Chaney College of Pharmacy	\$17M
William and Barbara Rakosnik School of Mechanical Engineering / College of Health and Human Sciences / University Residences	\$10.125M
Emmett Kilgariff Elmore Family School of Electrical and Computer Engineering	\$3M
Anonymous Purdue Northwest	\$1.765M
Glen and Patty Daigger Lyles School of Civil Engineering	\$1.5M
Walter and Erika (d. 2023) Gautschi College of Science	\$1.2M
Leslie J. Raffel Foundation College of Engineering	\$1M
Kurt and Lily Sendek Intercollegiate Athletics	\$1M

Resolutions of Appreciation

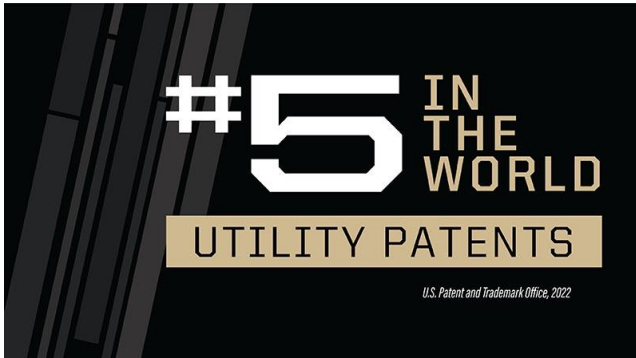
Kyle and Jake Allen College of Pharmacy	Undisclosed
Katherine and Graham Draughon College of Veterinary Medicine	Undisclosed
Nancy Fey College of Pharmacy	Undisclosed
Tom Howatt Mitchell E. Daniels, Jr. School of Business	Undisclosed
Peter and Kathryn Matuszak Lyles School of Civil Engineering	Undisclosed
Carolyn and Gary Planck College of Liberal Arts / Purdue Musical Organizations	Undisclosed
Charles Wallrodt Elmore Family School of Electrical and Computer Engineering	Undisclosed

Financial



- Purdue Day of Giving: April 26, 2023
 - Raised **\$110.8M** from **27,855 gifts** (both numbers are new records)
- State appropriations: Met essentially every one of our requests
 - Operating budget: 4% increase in FY24 and 6% increase in FY25
 - Indianapolis: Recurrent \$17M/year and one-time \$10M transition
 - Ag research extension and county extension: \$1.1M/year increase
 - Animal Disease and Diagnostic Lab: \$1.3M/year increase
 - Capital projects: **All 4 approved with \$169M total, in cash**
 - Nursing/Pharmacy Building: \$89M
 - Indianapolis Building: \$60M
 - PFW Music Building: \$15M
 - Animal Disease and Diagnostic Lab: \$5M
 - Regional maintenance: \$4.2M, R&R: \$15.1M fully funded

Reputation



- **U.S. News 2023 Graduate Ranking**
 - Multiple top-ranked departments, including ABE at No. 1 again
 - Promising potential in certain computing and business disciplines
 - Among top 20 with over 200 universities ranked
 - College of Engineering ranked #4 (without tie) out of 200 universities. “Final Four” are: [MIT, Stanford, UC Berkeley, **Purdue**]
- **U.S. patents received by universities**
 - Purdue in top 5 in the world for the first time
 - Competition is against: University of California system, University of Texas system, and international universities also receiving U.S. patents. Most patents go to medical schools.
 - Among single American campuses, “Final Four”: [MIT, **Purdue**, Stanford, Harvard]

Admissions and Commencements

West Lafayette 2023

- Undergrad admissions:
 - **72,600** applicants (highest ever)
 - **50%** acceptance rate (most selective and highest profile)
 - 27.5% yield rate (pre-melt)
 - Expected enrollment at census: 9,300
- Spring commencement:
 - Largest in history, expanded to **9 sessions over 3 days**
 - **9,776** students graduated with their bachelor's, master's or doctoral and professional degrees
 - First class of DSB graduates



Technology Leadership and Global Visibility

April 18, 2023
Washington, D.C.

CHIPS for America: Execute for Success 2023 Policy and Strategy Summit: Sec. Gina Raimondo, Sen. Todd Young, 175 companies/agencies from 23 states



May 3, 2023
Washington, D.C.

Purdue-imec: Partnership together with IEDC and Gov. Eric Holcomb as a US-EU collaboration milestone



May 10, 2023
Bay Area

Purdue-India: Partnership with India Semiconductor Mission CEO and cabinet minister Ashwini Vaishnaw



May 23, 2023
Hiroshima, Japan

Purdue-Japan: Partnership at G7 Summit with Sec. Antony Blinken, Ambassador Rahm Emanuel, and Micron CEO Sanjay Mehrotra



Alumni and Student Activities



Purdue Day of Giving



Houston, Texas Alumni Reception



2023 Spring Commencement



Indianapolis 500



Greece student pipeline and alumni



EU Partnerships

Serving Indiana and U.S.: ABCD

- **A**irport:

- Greater Lafayette

- **B**roadband:

- Nearby counties

- **C**orridor (Hard Tech Corridor):

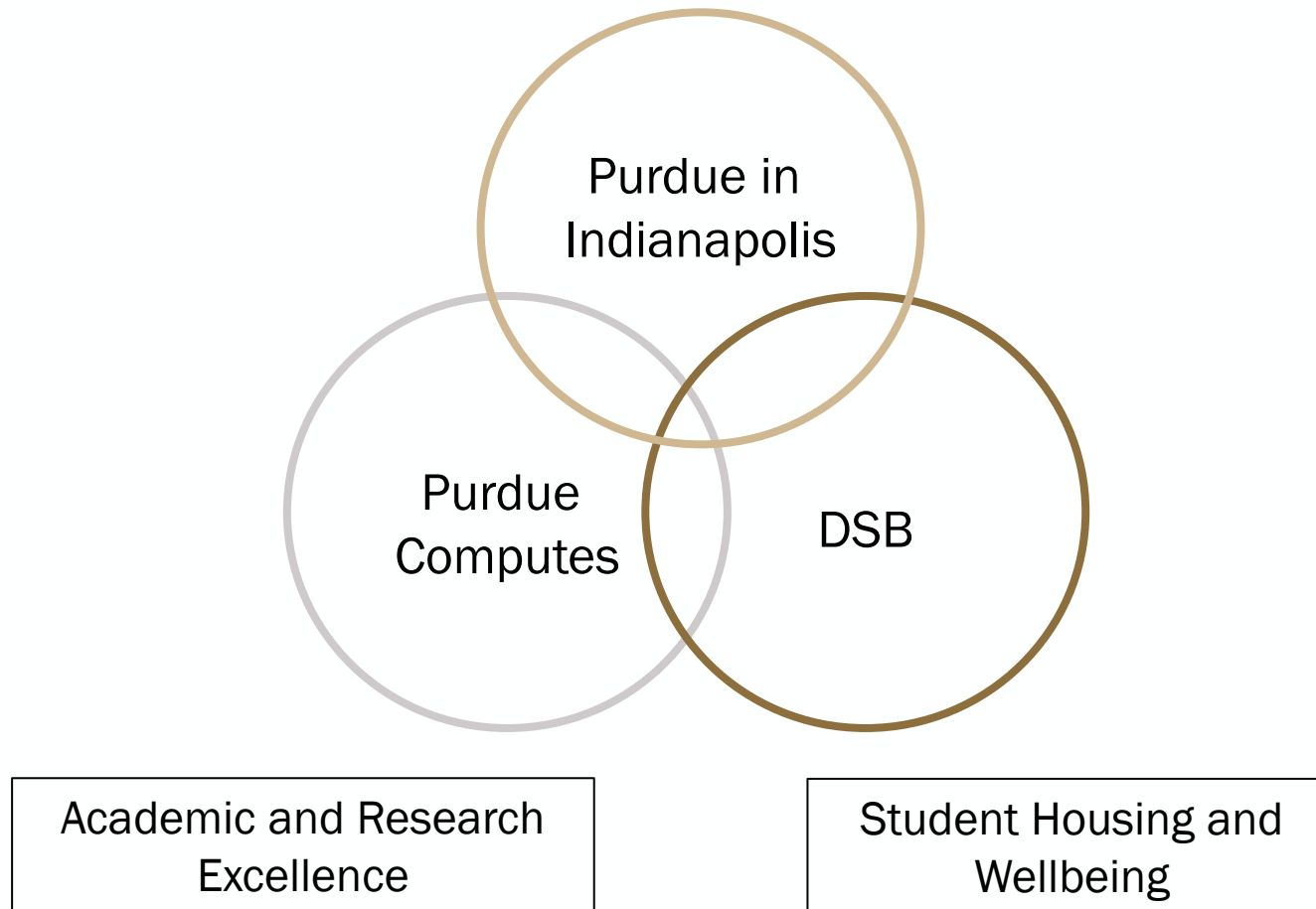
- Central Indiana

- **D**C:

- Tech diplomacy
- National security and defense
- C-SPAN archive and civic discourse
- Small modular reactor and sustainable energy
- CHIPS for America execution success



Initiatives Announced 2022-2023



Thank You

