

DIMENSIONS *of* DISCOVERY

Sponsored Program Awards

March 2018

Abe to Bolton

Abel, Steven R; Ainslie, Paul J and Hicks, Jennifer L; Office of Engagement, from Indiana Department of Education, \$76,296, "Mathematics Indiana Science, Technology and Engineering."

Adeola, Olayiwola; animal sciences, from DSM Nutritional Products, Inc., \$52,000, "Protease Enzymes in Corn/Soy-Based Diets for Broile Chickens."

Agrawal, Rakesh; chemical engineering, from ExxonMobil Research Engineering Company, \$32,268, "Optimization of Oil/Gas Processes and Process Flowsheets."

Aguilar, Ruben C; biological sciences, from PHS-NIH National Institute of Diabetes and Digestive and Kidney Diseases, \$197,198, "Lowe Syndrome: Therapeutic Strategy by Drug Repositioning."

Alexeenko, Alina; Heister, Stephen D and Spencer, David A; aeronautical and astronautical engineering, from National Aeronautics and Space Administration, \$200,000, "Distributed Attitude Control and Maneuvering for Deep Space Smallsats."

Alexeenko, Alina; aeronautical and astronautical engineering, from Janssen Research and Development, \$10,000, "Lyohub Consortium."

Alexeenko, Alina; aeronautical and astronautical engineering, from Siemens Corporate Research Inc., \$10,000, "Lyohub Consortium."

Aliprantis, Dionysios; electrical and computer engineering, from Tesla Motors Inc, \$54,583, "Novel Advanced Induction Motor Modeling for High-Performance Electric Vehicle Applications."

Aliprantis, Dionysios; electrical and computer engineering, from Tesla Motors Inc, \$151,973, "Testing of Tesla-Proprietary Induction Motor Modeling Tools for High-Performance Electric Vehicle Applications."

Allebach, Jan P; electrical and computer engineering, from Poshmark Inc, \$60,000, "Automatic Tools for Evaluating and Improving Quality of Fashion Photographs."

Allebach, Jan P; electrical and computer engineering, from Multi-Sponsored Industrials, \$30,799, "Inkjet Printing Research."

Anderson, Gina M; field extension educators, from Community Foundation of Southern Indiana, \$4,000, "My Little Farm."

Arling, Gregory W; nursing, from University of Minnesota, \$70,000, "Evaluation of Minnesota CC Initiative – Amendment to Subcontract."

Armstrong, Shalamar D and Camberato, James J; agronomy, from Indiana Corn Marketing Council, \$30,000, "Investigation of Corn Yield Improvement Following Cereal Rye Using Starter Nitrogen Fertilizer – Year 2."

Armstrong, Shalamar D and Casteel, Shaun N; agronomy, from Indiana Corn Marketing Council, \$33,939, "Tracking Cereal Rye Nitrogen Release through Soil Pools and Cash Crop Uptake – Year 2."

Bareinboim, Elias; computer science, from National Science Foundation, \$97,784, "Faculty Early Career Development (CAREER): Approximate Causal Inference."

Barnard, Freddie L; agricultural economics, from Julie Gable, \$1,150, "Indiana Society of Farm Managers and Rural Apprais."

Basaran, Osman A; chemical engineering, from Honeywell Inc., \$25,000, "Purdue Process Safety and Assurance Center(P2sac)."

Basaran, Osman A; chemical engineering, from Phillips 66, \$15,000, "Purdue Process Safety and Assurance Center(P2SAC)."

Beaulieu, Lionel J; Kumar, Indraneel; Wright, Tyler W and Zhalnin, Andriy V; Office of Engagement, from Indiana Economic Development Association, \$30,000, "Assessing and Mapping the Agricultural Assets of Indiana Counties and Regions."

Beaulieu, Lionel J; Hall, Tanya J; Zhalnin, Andriy V and Kumar, Indraneel; Office of Engagement, field extension educators, from DJ Case and Associates, \$17,995, "Indiana Hardwood Strategy."

Bertino, Elisa; computer science, from Smart Information Flow Technologies, \$49,971, "Mission and Information Assurance through Cyber Atomics."

Bhave, Sunil A; electrical and computer engineering, from GE Global Research Center, \$25,000, "High Frequency Resonator Technology."

Bhunia, Arun K; food science, from National Academy of Sciences, \$94,007, "Biofilm Inactivation Using Smart Antimicrobial Nanoparticle."

Blocki, Jeremiah M; computer science, from National Science Foundation, \$175,000, "CRII:SaTC: Towards the Development of Stronger Memory-Hard Functions for Secure Password Hashing."

Bolin, Jeffrey T; Office of the Executive Vice President for Research and Partnerships, from Purdue University, \$360,000, "EVPRP NIH Incentive Grants."

Bolin, Jeffrey T; Office of the Executive Vice President for Research and Partnerships, from Purdue University, \$29,526, "FY17-18 Purdue Research Foundation (PRF) Research Grant (209911)."

Bolton, J Stuart; mechanical engineering, from Ford Motor Company, \$210,886, "Structure Borne Tire Noise Model."

Boudouris to Ejeta

Boudouris, Bryan W; chemical engineering, from National Science Foundation, \$100,813, "Faculty Early Career Development (CAREER): Advanced Molecular Architectures for Electronically-Active Radical Polymers."

Boudouris, Bryan W; chemical engineering, from Ford Motor Company, \$200,000, "Functionalized Polymer Conductors for Lithium Sulfur Batteries."

Bowling, Laura C; Chaubey, Indrajeet; Biehl, Larry L; Cherkauer, Keith A; Engel, Bernard A; Frankenberger, Jane R; Gitau, Margaret W; Ma, Zhao and Prokopy, Linda S; agronomy, International Programs in Agriculture, RCAC, agricultural and biological engineering, forestry and natural resources, from Universidad Nacional De San Agustin, \$618,032, "UNSA NEXUS: a Framework for Sustainable Water Management in the Arequipa Region."

Breur, Gert J; veterinary clinical science, from Design Lab Inc, \$12,150, "Preference Testing of Chew Toys."

Brewster, Amy L and Bartlett, Edward L; psychological science, biological sciences, from PHS-NIH National Institute Neurological Disorders and Stroke, \$381,805, "A Role for the Complement System in Seizure Induced Neuronal and Dendritic Injury."

Brightman, Andrew O; biomedical engineering, from Indiana University Purdue University at Indianapolis, \$19,925, "2016-17 Joint MDPHD Program for Graduate Support Alarbi Elhashmi."

Brightman, Andrew O; biomedical engineering, from Indiana University Purdue University at Indianapolis, \$8,025, "2017 - 2018 Joint PhD Program Graduate Support - Ayeeshik Kole."

Brite, Elizabeth B; Honors College, from National Geographic Society, \$29,630, "Archaeological Investigations of Agriculture at Sim-Ata, Uzbekistan."

Brooke, Jarred M; forestry and natural resources, from National Wild Turkey Federation, \$1,000, "Voluntary Support - Brooke."

Brosseau-Lapre, Francoise; speech, language and hearing sciences, from PHS-NIH National Institute on Deafness and Other Communication Disorders, \$134,344, "Speech Perception in Children with and without Speech Sound Disorder."

Buckmaster, Dennis; agricultural and biological engineering, from Winfield Solutions LLC, \$50,000, "Oats Consortium."

Byrn, Stephen Robert and Clase, Kari L; industrial and physical pharmacy, industrial technology, from National Institute for Pharmaceutical Technology and Education, \$94,000, "Methods for Evaluation of Abuse Deterrence via Smoking."

Campbell, Noll L; pharmacy practice, from PHS-NIH National Institute on Aging, \$140,665, "Evaluating the Adverse Cognitive Effects of Medications."

Casteel, Shaun N; agronomy, from Indiana Soybean Alliance, \$65,816, "Sulfur Synergies in Soybean Management."

Chandramouli, Chandramouli Viswanathan; mechanical and civil engineering, from Little Calumet River Basin Development Comm, \$3,000, "Hart Ditch - Little Calumet River System Hydrology and Hydraulic Modeling."

Chen, Weinong W; aeronautical and astronautical engineering, from Office of Naval Research, \$50,000, "Visualization of Composite Damage by Direct Energy."

Chipman, Shannon M; field extension educators, from National Rifle Association of America, \$1,058, "Ohio County 4-H Shooting Sports."

Choi, Jong Hyun and Mao, Chengde; mechanical engineering, chemistry, from Office of Naval Research, \$45,000, "Toward Versatile Synthetic DNA Walkers."

Christian, John A; comparative pathobiology, from Western University of Health Sciences, \$3,770, "Cytology Resource Center (205379)."

Christian, John A; comparative pathobiology, from Western University of Health Sciences, \$5,655, "Cytology Resource Center."

Coddington, Jennifer A and Overholser, Suzan J; nursing, from Indiana State Department of Health, \$10,000, "ISDH 2017 Chronic Care B."

Cooks, Robert Graham; Cancer Research Center, from Purdue University, \$50,000, "Surgical Margin."

Davies, Patricia; mechanical engineering, from Ford Motor Company, \$209,525, "Modeling of Perception on Non-Stationary Wind Noise Conditions."

Deering, Amanda J and Maynard, Elizabeth T; food science, horticulture and landscape architecture, from Iowa State University, \$8,000, "Strategy for Successful Implementation of Fsma in the North Central Region through Adoption of a Systems Approach and Stakeholder Engagement Framework, AM 2; (Grant 109039)."

Delp, Edward J; electrical and computer engineering, from George Mason University, \$210,000, "Joint Exploitation of Personal and Premises Surveillance Video."

Dilkes, Brian and Johal, Gurmukh S; biochemistry, botany and plant pathology, from North Carolina State University, \$542,277, "The Genetic and Genomic Exploration of the Maize HR Response."

Duvall, John N; English, from Johns Hopkins University, \$14,998, "Journal of Modern Fiction Studies."

Duvall, John N; English, from Johns Hopkins University, \$48,145, "Journal of Modern Fiction Studies."

Dyke, Shirley J; mechanical engineering, from University of Massachusetts Dartmouth, \$4,308, "Sessions on Fostering Engineering Mechanics Research Community Diversity and Inclusion."

Ebert, David S; Butzke, Christian E; Filley, Timothy R; Schulze, Darrell G and Surakitbanharn, Chittayong; electrical and computer engineering, food science, earth and atmospheric sciences, agronomy, from Universidad Nacional De San Agustin, \$160,798, "UNSA NEXUS: Arequipa Sustainable Viticulture and Enology Center (ASVEC)."

Egel, Daniel S; botany and plant pathology, from Cox Farms Inc, \$500, "Potassium Management."

Egel, Daniel S; botany and plant pathology, from Kietzer Farm, Inc, \$300, "Potassium Management."

Ejeta, Gebisa; Brouder, Sylvie M; Burniske, Gary R; Ricker-Gilbert, Jacob E; Weaver, Connie M and Weldon, Sirje Laurel; agronomy, agricultural economics, foods and nutrition, political science, from Universidad Nacional De San Agustin, \$94,230, "UNSA NEXUS: A Purdue-UNSA Initiative to Establish a Center on Food Security in Peru."

Farkas to Hertel

Farkas, Brian E; food science, from Murphy, John R or TJ, \$100, “Multi Sponsored Gift Fermentation.”

Farkas, Brian E; food science, from Richard Kawalski, \$20, “Multi Sponsored Gift Fermentation.”

Farkas, Brian E; food science, from Flat12 Bierwerks, \$550, “Multi Sponsored Gift Fermentation.”

Felisberto Martins Ribeiro, Bruno; computer science, from Raytheon, \$393, “Discovering Network Processes in Time-Evolving Networks.”

Feng, Zhilan Julie; mathematics, from National Science Foundation, \$15,000, “CSMB International Conference on Mathematical Biology.”

Field, William E; agricultural and biological engineering, from Country Journal Publishing Co., Inc, \$1,000, “Farm Safety.”

Field, William E; agricultural and biological engineering, from Jiffy Hitch Systems Inc, \$900, “Breaking New Ground.”

Field, William E; agricultural and biological engineering, from State of Maine, \$1,100, “Breaking New Ground.”

Field, William E; agricultural and biological engineering, from Disability Rights Maine, \$900, “Breaking New Ground.”

Field, William E; agricultural and biological engineering, from Pietree Orchard, \$1,100, “Breaking New Ground.”

Field, William E; agricultural and biological engineering, from Thomas and Cari Barfield, \$200, “Breaking New Ground.”

Figueiredo, Marxa L; basic medical science, from PHS-NIH National Cancer Institute, \$314,970, “Disrupting Tumor/Bone Malignant Interactions with Multifunctional Cytokine Sonodelivery.”

Filley, Timothy R and Chaubey, Indrajeet; agronomy, International Programs in Agriculture, from Universidad Nacional De San Agustin, \$764,452, “UNSA NEXUS: Travel.”

Filley, Timothy R and Chaubey, Indrajeet; agronomy, International Programs in Agriculture, from Universidad Nacional De San Agustin, \$148,150, “UNSA NEXUS: Workshop Budget.”

Filley, Timothy R and Chaubey, Indrajeet; agronomy, International Programs in Agriculture, from Universidad Nacional De San Agustin, \$717,748, “UNSA NEXUS: Additional Funding.”

Filley, Timothy R; Jafvert, Chad T; Johnston, Cliff T; Kong, Ningning Nicole; Leon-Salas, Walter Daniel; Schulze, Darrell G and Voyles, Richard M; agronomy, civil engineering, library administration, engineering technology, from Universidad Nacional De San Agustin, \$4,157,713, “UNSA NEXUS: Arequipa Region Soil Vulnerability, Impairment, and Health Assessment.”

Foli, Karen J; Edwards, Nancy E and Zhang, Lingsong; nursing, statistics, from National Council of State Boards of Nursing, \$263,717, “Substance Use Disorder in Nurses: Exploring Psychological Trauma as a Risk Factor.”

Forney, James D; biochemistry, from National Science Foundation, \$81,554, “Research Experience for Undergraduates (REU) Site: Molecular and Biochemical Analysis of Proteins.”

Fuchs, Philip L; chemistry, from John Wiley and Sons Limited England, \$4,000, “E-Encyclopedia of Reagents for Organic Synthesis.”

Garimella, Suresh V; mechanical engineering, from Apple Inc, \$30,000, “Cooling Technologies Research Center (CTRC) 2018 Membership.”

Garimella, Suresh V; mechanical engineering, from Purdue University, \$7,407, “REED: Building a Research Environment for Encumbered Data (EVPRP) (208529).”

Garner, Allen L; nuclear engineering, from Office of Naval Research, \$10,000, “Conference Grant Proposal for 2018 Institute of Electrical and Electronics Engineers (IEEE) IPMHVC.”

Garner, Allen L; nuclear engineering, from Booz, Allen and Hamilton, Inc, \$19,344, “Solid State Switch Analysis for High Voltage Testbeds.”

Garrison, James L; aeronautical and astronautical engineering, from National Aeronautics and Space Administration, \$219,949, “P/I Band Multi-Frequency Reflectometry Antenna for a U-Class Constellation.”

Garrison, James L; aeronautical and astronautical engineering, from National Aeronautics and Space Administration, \$200,000, “P/I Band Multi-Frequency Reflectometry Antenna for a U-Class Constellation.”

Gaskill, Brianna N; animal sciences, from Animal Welfare Institute, \$3,997, “Investigating the Effects of Compassion Fatigue and Personnel Attitudes on the Provision of Laboratory Animal Enrichment: A Focus on Rat Tickling.”

Gibb, Timothy J and Oseto, Christian Y; entomology, from Foundation for Food and Agric Res, \$297,499, “Developing Public School Curricula and Training High School Students and Teachers as Ambassadors for Pollinator Protection.”

Grillos, Tara; political science, from Purdue University, \$40,000, “Does Participation in Group Decision-Making Increase Investment in Public Goods?”

Guan, Wenjing; horticulture and landscape architecture, from United Agriseeds, \$1,200, “General Research Activities.”

Guan, Wenjing; horticulture and landscape architecture, from Nunhems Seed Corporation, \$1,200, “General Research Activities.”

Hamaker, Bruce R; food science, from Pepsico Inc./ World Trading Co., \$47,546, “Assessing the Gut Fermentative Potential of Dietary Fibers of Novel Native and Processed Snack Ingredients-Phase I.”

Hayes, Alesha T; computer science, from National Science Foundation, \$29,506, “Student Support for the Institute of Electrical and Electronics Engineers (IEEE) VR 2018 Doctoral Consortium.”

Heister, Stephen D; Gore, Jay P; Pourpoint, Timothee L and Scalo, Carlo; aeronautical and astronautical engineering, mechanical engineering, from Rolls-Royce, Inc., \$456,000, “University Technology Center in Advanced Thermal Management Systems at Purdue University.”

Hertel, Thomas W; agricultural economics, from Asian Development Bank, the, \$20,435, “Global Trade Analysis Project (GTAP) Consortium.”

Hertel, Thomas W; agricultural economics, from Environmental Protection Agency, \$20,435, “Global Trade Analysis Project (GTAP) Consortium.”

Hertel, Thomas W; agricultural economics, from University of Hohenheim, \$20,435, “Global Trade Analysis Project (GTAP) Consortium.”

Hook to Krogmeier

Hook, Tomas O and **Archer, Angela S**; forestry and natural resources, Illinois-Indiana Sea Grant Program, from National Oceanographic and Atmospheric Administration, \$61,500, “2018 Knauss Fellowships.”

Hook, Tomas O; **Beugly, Jayson S**; **Foley, Carolyn J**; **Quagrainie, Kwamena K**; **Salazar, Kara A**; **Thompson, Leslie E** and **Zischke, Mitchell T**; forestry and natural resources, Illinois-Indiana Sea Grant Program, agricultural economics, engineering and sciences, from National Oceanographic and Atmospheric Administration, \$249,900, “2018-2022 IISG Omnibus Proposal.”

Horgan, Briony H; earth and atmospheric sciences, from Jet Propulsion Laboratory, \$38,000, “Using Composition to Constrain Paleoenvironments and Sites of Organic Preservation in Gale Crater; Modification 5; Grant 108399.”

Horgan, Briony H; earth and atmospheric sciences, from National Aeronautics and Space Administration, \$120,455, “Icy Environments on Mars: Investigating Glacial Weathering in Volcanic Terrains.”

Hountz, Randall A; Regenstrief Center for Healthcare Engineering, from Altarum Institute, \$264,469, “Compact Muon Solenoid (CMS) Macra Support for Small Practices.” (a Discovery Park award – Regenstrief Center for Healthcare Engineering)

Howarter, John A and **Youngblood, Jeffrey P**; materials engineering, from U.S. Forest Service, \$15,000, “Fundamental Measurements of Nanoscale Free Volume and Associated Molecular Transport in Cellulosic Nanomaterials and its Composites.”

Howell, Kathleen; aeronautical and astronautical engineering, from Analytical Mechanics Association, Inc, \$4,000, “National Aeronautics and Space Administration (NASA) Guidance, Navigation, and Control Technical Discipline Team (TDT).”

Huang, Jen-Yi; **Campanella, Osvaldo H**; **Carroll, Natalie J**; **Corvalan, Carlos M** and **Mishra, Dharmendra K**; food science, agricultural and biological engineering, from National Institute of Food and Agriculture, \$892,000, “Innovative Green Clean-In-Place Technology with Micro-Bubbles.”

Huang, Rong; medicinal chemistry and molecular pharmacology, from PHS-NIH National Institute of General Medical Science, \$143,220, “Protein N-Terminal Methylation Mechanisms and Inhibition.”

Hutzel, William J and **Zimpfer, Mark D**; mechanical engineering technology, building construction and management technology, from Universidad Nacional De San Agustin, \$67,727, “Unsa Nexus – Net Zero Energy Building – Pilot Project – Conceptual Design.”

Hystad, Grethe; mathematics, computer science and statistics, from Hazen Foundation, \$1,500, “Analysis of Mineral Ecology Data.”

Ileleji, Klein and **Ambrose, Rose Prabin Kingsly**; agricultural and biological engineering, from National Institute of Food and Agriculture, \$30,000, “Training the Next Generation of Leaders for a Transforming Grain Industry.”

Jacob, Zubin; electrical and computer engineering, from Defense Advanced Research Projects Agency, \$142,486, “Reasonance Energy Transfer Model of Non-Harmonic Light Generation.”

Jenkins, Michael A; forestry and natural resources, from Eco Logic LLC, \$3,534, “Voluntary Support.”

Johnson, William G; botany and plant pathology, from Albaugh Inc, \$5,000, “Weed Science Research Voluntary Support.”

Johnson, William G; botany and plant pathology, from Helm Agro US, Inc, \$18,800, “Weed Science Research Voluntary Support.”

Johnson, William G; botany and plant pathology, from Amvac Chemical Corporation, \$24,600, “Weed Science Research Voluntary Support.”

Johnston, Cliff T; agronomy, from Clay Minerals Society, the, \$9,479, “Memorandum of Understanding Between Department of Agronomy Purdue University and Clay Mineral Society.”

Johnston, Cliff T; agronomy, from University of Alberta, \$54,350, “Development of Rapid Response Research (RAPID) Screening Methods to Screen and Classify Mature Fine Tailings.”

Johnston, Cliff T; agronomy, from Michigan State University, \$19,093, “Geochemical Controls on the Adsorption, Bioavailability, and Long-Term Environmental Fate of Polychlorinated Dibenzo-P-Dioxins (Pcdds); Amendment 7, Grant 106793.”

Jung, Byunghoo and **Ziaie, Babak**; electrical and computer engineering, from Murata Manufacturing Co. Ltd, \$23,000, “ UTI Sensing System Test.”

Karcher, Darrin M and **Regmi, Prafulla**; animal sciences, from Foundation for Food and Agriculture Research, \$490,093, “Addressing Keel Bone Fractures in Laying Hens Housed in Cage-Free Aviary Systems.”

Karcher, Elizabeth L; animal sciences, from US Poultry and Egg Harold E Ford Foundation, \$15,000, “US Poultry – In Kind Grant to 109401.”

Kazemian, Abdolmajid; biochemistry, from PHS-NIH National Heart,Lung and Blood Institute, \$249,000, “Expression, Regulation and Role of Enhancer RNAs in T Cells.”

Kinzer-Ursem, Tamara L; biomedical engineering, from National Science Foundation, \$50,000, “I-Corps Team – Omnivis.”

Kinzer-Ursem, Tamara L; Institute for Integrated Neuroscience, from National Science Foundation, \$324,779, “Faculty Early Career Development (CAREER): Quantitative Tools to Measure the Spatio-temporal Dynamics of Protein Signaling Complexes.”

Kirkpatrick, Jane M; nursing, from Health Resources and Services Administration, \$524,340, “Health Center Cluster.”

Kladivko, Eileen J and **Morrow, Anna L**; agronomy, from National Wildlife Federation, \$2,544, “Cover Crop Champions- NWF.”

Knopik, Valerie S; child development and family studies, from Emory University, \$38,874, “The Kinship Risk Score: An Integrative Tool to Prioritize Alcohol and Drug-Addiction.”

Koltick, David S; physics, from Techsource, \$7,000, “Koltick Voluntary Support.”

Krogmeier, James V; electrical and computer engineering, from Centricity LLC, \$25,000, “Oats Center Memo Match.”

Krogmeier, James V and **Bell, Mark R**; electrical and computer engineering, from Indiana Department of Transportation, \$250,000, “Determining Concrete Patch Locations Other Than Visual.”

Krupke to Mugler

Krupke, Christian H; entomology, from Marrone Bio Innovations Inc, \$12,000, “Entomology – Research.”

Kuang, Shihuan and Liu, Xiaoqi; animal sciences, Cancer Research Center, from PHS-NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases, \$306,900, “PTEN Function in Satellite Cells.”

Laskin, Julia; chemistry, from Pacific Northwest National Laboratory, \$60,000, “Single Cell Resolution Omics Analysis of Type 1 Diabetes (T1D) Islets.”

Laskin, Julia; chemistry, from Pacific Northwest National Laboratory, \$105,093, “Joint Effort Appointment at PNNL.”

Laskin, Julia; chemistry, from Pacific Northwest National Laboratory, \$10,000, “Center for Lung Development Imaging and Omics.”

Latin, Richard X; botany and plant pathology, from Dow Chemical Company, the, \$4,500, “Turfgrass Disease Research.”

Lee, Hyowon; biomedical engineering, from Samsung Electronics Co., Ltd, \$100,000, “Implantable Neuromonitoring Interface for Personalized Medicine.”

Lee, Kyoungsoo; physics, from Jet Propulsion Laboratory, \$12,750, “Measuring the True Extent of a Coma Cluster Analog at $Z=3.78$.”

Lenz, Stephen D; comparative pathobiology, from Indiana Department of Natural Resources, \$8,000, “IDNR Wildlife Diagnostic Testing.”

Liceaga, Andrea M; food science, from Multi-Sponsored Industrials, \$6,000, “Multi Sponsored Gift- Sensory.”

Liceaga, Andrea M; food science, from Heartland Food Products Group, \$3,000, “Multi Sponsored Gift- Sensory.”

Liceaga, Andrea M; food science, from Sola Company, \$7,500, “Multi Sponsored Gift- Sensory.”

Lindemann, Stephen R; food science, from Samyang, \$9,999, “Dextrin Structure Effects on Gut Microbiome Structure and Function.”

Lindemann, Stephen R; food science, from Tate and Lyle Ingredients Americas, Inc., \$21,000, “Multi-Sponsored Gift.”

Lindemann, Stephen R; food science, from Tate and Lyle Ingredients Americas, Inc., \$19,320, “Dextrin Structure Effects on Gut Microbiome Structure and Function.”

Lindshield, Stacy M; anthropology, from Primate Conservation Inc., \$1,305, “Disease Transmission Prevention Between Critically Endangered Western Chimpanzees (*Pan Troglodytes Verus*) and Research Agents at Mont Assirik in Parc National Du Niokolo-Koba, Sene.”

Liu, Julie C; chemical engineering, from Indiana Clinical and Translational Science Institute, \$1,000, “Claire Kilmer – Indiana Clinical and Translational Sciences Institute (CTSI) Poster Presentation Award.”

Livengood, Deborah M; food science, from, Paul F and Sara A Williams III, \$75, “Multi Sponsored Gift Fermentation.”

Lucietto, Anne M; engineering technology, from American Society for Engineering Education, \$1,056, “Engineering Technology Students: Graduation Rates and Diversity Issues (Increase to Grant 210435).”

Lynall, Matthew D; management, from University of Michigan, \$306,911, “I-Corps TM Mentor Pilot Supplement.”

Ma, Jianxin; agronomy, from Indiana Soybean Alliance, \$81,522, “Genetic Dissection of Yield-Related Traits for Soybean Breeding (Year 2).”

Ma, Zhao; Bauchet, Jonathan J and Zanotti, Laura C; forestry and natural resources, consumer science and retail, anthropology, from Universidad Nacional De San Agustin, \$217,119, “UNSA NEXUS: Equitable Co-Existence of Agriculture, Mining, and Regional Development in Arequipa: Realities, Barriers, and Opportunities.”

Machaty, Zoltan; Nolte, David D and Turek, John J; animal sciences, physics, basic medical science, from PHS-NIH National Institute of Child Health and Human Development, \$168,917, “Assessment of the Developmental Potential of Oocytes and Embryos Using Biodynamic Imaging.”

Melosh, Henry J and Freed, Andrew M; physics, earth and atmospheric sciences, from National Aeronautics and Space Administration, \$157,558, “An Incremental Ice-Wedging Model for Europas Ridges.”

Merwade, Venkatesh Mohan; civil engineering, from University of Minnesota, \$270,382, “S&CC-IRG Track 1: Connecting the Smart-City Paradigm with a Sustainable Urban Infrastructure Systems Framework to Advance Equity in Communities.”

Meyer, Scott E; mechanical engineering, from Sierra Nevada Corporation, \$24,675, “GOX/Methane Testing.”

Min, Byung-Cheol; Garcia Bravo, Jose M; Newell, Brittany A; Voyles, Richard M and McMillan, Sara K; computer and information technology, engineering technology, agricultural and biological engineering, from Universidad Nacional De San Agustin, \$163,732, “UNSA NEXUS: Robotic Water Quality Monitoring and Distribution Systems: a Pilot Study.”

Mintert, James R; Langemeier, Michael R and Gunderson, Michael A; agricultural economics, from Chicago Mercantile Exchange, \$729,079, “Purdue/CME Group Farm Economy Barometer Project.”

Mishra, Dharmendra K; food science, from PHS-FDA Food and Drug Administration, \$104,170, “Training and Pilot Processing Laboratory Services for Food Processing Technology Courses.”

Mitchell, Cary A; horticulture and landscape architecture, from National Institute of Food and Agriculture, \$474,683, “Engineering Innovations to Improve Efficiency and Reduce Cost of LED Lighting for Leafy-Greens Production.”

Mudawar, Issam; mechanical engineering, from National Aeronautics and Space Administration, \$50,000, “Flow Boiling and Condensation Experiment (FBCE).”

Mudawar, Issam; mechanical engineering, from Ford Motor Company, \$209,999, “Novel Ultra-Fast Charging Thermal Management System for Electric Vehicle.”

Mugler, Andrew J; physics, from University of California – San Diego, \$38,605, “Electrical Signaling in Bacterial Biofilms.”

Nagy to Rhoads

Nagy, Zoltan; chemical engineering, from Eli Lilly and Company, \$8,090, "Continuous In-Situ Seed Generation and Crystal Growth Using a Novel Integrated MSM-PR-OBC Combination Approach (210052)."

Narimanov, Evgeniy; electrical and computer engineering, from Norfolk State University, \$40,000, "Control of Light-Matter Interactions with Metamaterials." (a Discovery Park award – Birck Nanotechnology Center)

Newton, Kathryn A; industrial technology, from University of Industrial Distribution, \$10,000, "Coordination of University of Innovative Distribution Program."

Ngambeki, Busiime Ida; computer and information technology, from National Security Agency, \$299,931, "Developing a Secure Programming Concept Inventory."

Nielsen, Robert L and **Camberato, James J**; agronomy, from Mary S. Rice Farm Estate, \$10,000, "Expanded Capacity for Aerial Imagery Acquisition Using sUAS."

Noinaj, Nicholas; biological sciences, from Achaogen, \$104,992, "Large Molecule Targeting of the OM Biogenesis Bama."

Norman, Eric M and **Niser, John C**; dean of students, consumer and family sciences, from AWS Foundation, \$75,000, "The Bridges to Education and Careers for Student with Intellectual Disabilities Program (a.k.a Bridges Program)."

Oakes, William C; engineering education, from Multi-Sponsored Industrials, \$3,000, "Engineering Projects in Community Service (EPICS)."

Oliver, Haley F; food science, from Diversey, Inc, \$8,840, "Surface Coverage and Microbial Risks for Fast Drying Disinfectant Wipes."

Oliver, Haley F; food science, from Diversey, Inc, \$30,350, "Disinfectant Efficacy in Relation to Biofilm Formation."

Oliver, Haley F; food science, from Family Health International, \$645,955, "Afghanistan University Support and Workforce Development Program."

Paniagua Perez, Guillermo and **Meyer, Terrence R**; mechanical engineering, from Indiana Economic Development Corporation, \$6,000,000, "Rolls-Royce Small Turbine Aerothermal Research Rig (STARR) – IEDC Funding."

Paniagua Perez, Guillermo; mechanical engineering, from NATO (N. Atlantic Treaty Organization), \$86,869, "Versatile UAV Engine Development via CVT Coupled Micro Turbofan."

Paniagua Perez, Guillermo; mechanical engineering, from Rolls-Royce Corporation, \$4,164,000, "Rolls-Royce Small Turbine Aerothermal Research Rig (Starr); Modification 1, Grant 210294."

Panigrahi, Suranjan; **Lee, Linda S**; **Engel, Bernard A** and **Freeman, Jennifer L**; electrical and computer engineering technology, agronomy, agricultural and biological engineering, health sciences, from Universidad Nacional De San Agustin, \$139,442, "UNSA Nexus: Integrated Sensing Systems for Detection of Heavy Metal Contamination Across Food-Water-Environment Nexus in Arequipa."

Parsons, Paul; computer graphics technology, from National Science Foundation, \$162,650, "CRII: CHS: Understanding Cognitive Potentials of Interactive Visualizations."

Pastakia, Sonak D and **Karwa, Rakhi**; pharmacy practice, from Indiana Clinical and Translational Science Institute, \$2,700, "Evaluation of Locally-Sourced Compression Therapy for Treatment of Chronic Venous Leg Ulcers and Management of Kaposi Sarcoma Leg Lymphedema in Western Kenya."

Payer, Mathias J and **Xu, Dongyan**; computer science, from Office of Naval Research, \$100,000, "Towards Transformation-Based Legacy Software Fitness: Usage-Driven Binary Debloating and Hardening."

Pekarek, Steven D and **Sudhoff, Scott D**; electrical and computer engineering, from Continuous Solutions, \$867,116, "Medium Voltage Direct Current (MVDC) Grounding System – Phase II."

Peng, Chunyi; computer science, from National Science Foundation, \$93,552, "Faculty Early Career Development (CAREER): Amplifying Intelligence in Mobile Networked Systems."

Pipes, R Byron and **Denos, Benjamin R**; aeronautical and astronautical engineering, Composites Manufacturing and Simulations Center, from MSC Software, \$10,901, "Test Services for MSC Software Corporation."

Poggie, Jonathan and **Macheret, Sergey O**; aeronautical and astronautical engineering, from Air Force Office of Scientific Research, \$176,693, "Unsteady Separation: Mechanism and Mitigation."

Pol, Vilas G; chemical engineering, from Trask Trust Fund, \$50,000, "Dry Solid Lubricant with 90% Friction and Wear Reduction Under High Load Conditions."

Proctor, Robert W; psychological science, from Tsinghua Education Foundation, \$199,985, "Tsinghua University."

Purpura, David J; child development and family studies, from National Science Foundation, \$188,160, "Faculty Early Career Development (CAREER): Mechanisms Underlying the Relation Between Mathematical Language and Mathematical Knowledge."

Qi, Yuan; computer science, from Google Inc, \$76,685, "Google PhD Fellowship in Machine Learning – Shandian Zhe."

Qu, Ming; civil engineering, from Oak Ridge National Laboratory, \$31,050, "Data Analysis and Performance Modeling for Ionic Liquid Dehumanization System."

Raghothama, Kashchandra G; International Programs in Agriculture, from Multi-Sponsored Industrials, \$50, "Tomato Research."

Raman, Arvind; mechanical engineering, from Colciencias, \$940, "Colciencias-Fulbright Fellowship – 2014 Thru 2018."

Rathfon, Ronald A and **Saunders, Michael R**; forestry and natural resources, from Indiana Forestry Education Foundation, \$1,500, "Reprint Extension Publication FNR-IDNR-414 Forest Improvement Handbook."

Rhoads, Jeffrey Frederick and **Bolton, J Stuart**; mechanical engineering, from Office of Naval Research, \$125,000, "Acoustics-Based Ied Detection and Neutralization."

Rhoads, Jeffrey Frederick; **Bolton, J Stuart**; **Davies, Patricia**; **Gonzalez, Marcial** and **Son, Steven F**; mechanical engineering, from Air Force Research Laboratory, \$200,000, "Exploring the Thermomechanics of Energetic and Mock Energetic Composite Materials Under Quasi-Static and Near-Resonant Excitations."

Richart to Swihart

Richert, Brian T and **Radcliffe, John Scott**; animal sciences, from Elanco Animal Health, \$15,644, “Efficacy Study to Assess the Effect of Hemicell Httm 1.5x, Appellustm, and the Combination of, in Corn-Soybean Meal Diets Containing Dry Distillers Grains with Solubles (DDGS) on Growth Performance of Nursery Pigs.”

Rossmann, Michael G and **Kuhn, Richard J**; biological sciences, from Vanderbilt University, \$222,858, “Structural and Functional Basis of Ultra Potent Chkv Neutralization by Human Mabs.”

Sadof, Clifford S; entomology, from Indiana Department of Natural Resources, \$57,598, “Establish Specific Forest Pest Awareness Weeks/Months and Unify Web/Mobile Based Repository of Information to Educate the General Public.”

Sadof, Clifford S; entomology, from Rainbow Tree Company, \$3,000, “Ornamental Insect Research.”

Sadof, Clifford S; entomology, from Northwestern Indiana Nurserymen Association, \$100, “Ornamental Insect Research.”

Sadof, Clifford S; entomology, from U.S. Forest Service, \$65,000, “Emerald Ash Borer (EAB) University: Using Web-Based Seminars Cooperatively to Provide Information About Emerald Ash Borer (EAB) and Other Invasive Forest Health Issues to Targeted Audiences.”

Sadof, Clifford S; entomology, from The Morton Arboretum, \$2,200, “Multi Sponsor.”

Sandhage, Kenneth H and **Bahr, David F**; materials engineering, from Advanced Research Projects Agency – Energy, \$500,000, “Bio-Enabled Lightweight Metallic Structures with Ultrahigh Specific Strengths for Reduced Weight, Energy Use, and Emissions.”

Sangid, Michael D; aeronautical and astronautical engineering, from Pratt and Whitney Group, \$39,854, “Validation of Crystal Plasticity Finite Element Method Framework for Prediction of Titanium Alloy Properties.”

Sangid, Michael D; aeronautical and astronautical engineering, from Rolls-Royce Corporation, \$100,000, “Location-Specific Fatigue Modeling.”

Sarzosa, Miguel A; economics, from Upjohn Institute for Employment Research, \$5,000, “Labor Market Discrimination Against Homosexuals.”

Scalo, Carlo; mechanical engineering, from Army Research Office, \$60,000, “Aro-YIP: Coherent-Vorticity-Preserving (CVP) Large-Eddy Simulations (LES) of Very-High-Reynolds-Number.”

Schneider, Steven P and **Poggie, Jonathan**; aeronautical and astronautical engineering, from University of Dayton Research Institute, \$1,423,830, “Reusable Hypersonic Vehicle Structures.”

Schultheiss, Nathan C and **Holloway, Eric A**; chemical engineering, engineering administration engineering experiment, from Pioneer Oil Company, \$106,613, “Funding of Research Associate.”

Schweitzer, James F; health sciences, from Tippecanoe County Board of Commissioners, \$4,800, “Practical Training for Dublin Institute of Technology Students.”

Sepulveda, Maria Soledad; forestry and natural resources, from University of Southern Mississippi, \$123,921, “Integrating Teleost Transcriptomes to Identify Ecologically Meaningful Responses Following Oil Exposure.”

Shah, Kavita; Cancer Research Center, from Harvard Medical School, \$76,586, “Investigating 53bp1 Dephosphorylation as a Critical Determinant of Parp Inhibitor Sensitivity; Amendment 1, Grant 109038.”

Sheehan, Amy Heck; pharmacy practice, from Astellas Pharma US Inc, \$117,602, “FDA/Purdue/ Astellas Pharma Drug Information Pharmaceutical Fellowship.”

Sheehan, Amy Heck; pharmacy practice, from Takeda Pharmaceutical International Inc US Region, \$163,605, “Purdue/Takeda Pharmaceuticals Global Regulatory Fellowship.”

Sheffield, John W; Lafayette Polytechnic, from Universidad Nacional De San Agustin, \$19,075, “UNSA NEXUS: Sustainable Development for the Water, Energy, and Food Nexus.”

Sheffield, John W; Lafayette Polytechnic, from Universidad Nacional De San Agustin, \$19,075, “UNSA NEXUS: Energy Efficiency and Sustainability Course at Unsa.”

Siegmund, Thomas H and **Chen, Weinong W**; mechanical engineering, aeronautical and astronautical engineering, from Ford Motor Company, \$230,000, “Multi-Functional Battery Cell Case Optimization.”

Simpson, Garth J and **Das, Chittaranjan**; chemistry, from PHS-NIH National Institute of General Medical Science, \$259,671, “Non-linear Optical Imaging for Guiding Protein Structure Determination.”

Slabaugh, Carson D and **Anderson, William E**; aeronautical and astronautical engineering, from Space Exploration Technologies Corp, \$527,405, “Oxygen-Methane Combustion Stability Testing at High Pressure.”

Slabaugh, Carson D; aeronautical and astronautical engineering, from Aerojet Rocketdyne Inc, \$77,299, “Advanced Turbine Components for Combined Cycle Power Applications; Amendment 1.”

Slabaugh, Carson D; aeronautical and astronautical engineering, from Aerojet Rocketdyne Inc, \$551,650, “Advanced Turbine Components for Combined Cycle Power Applications; Amendment 2, Grant 108544.”

Song, Xiaohui Carol; RCAC, from University of Illinois at Champaign-Urbana, \$139,039, “XSEDE 2.0: Integrating, Enabling and Enhancing National Cyberinfrastructure with Expanding Community Involvement, Amendment 3 (Grant 108631).”

Strimel, Greg J.; industrial technology, from SDI Innovations, \$9,124, “SDI Innovations Curriculum Development.”

Sudhoff, Scott D; electrical and computer engineering, from Houston Mechatronics Inc, \$22,000, “Houston Mechatronics Voluntary Support.”

Sutherland, John W; environmental and ecological engineering, from Knauf Insulation, \$15,000, “Indiana’s Next Generation Manufacturing Competitiveness Center Focus Area Consortium.”

Sutherland, John W; environmental and ecological engineering, from Truflex LLC, \$15,000, “Indianas Next Generation Manufacturing Competitiveness Center Focus Area Consortium.”

Swihart, Robert K and **Zollner, Patrick A**; forestry and natural resources, from Indiana Department of Natural Resources, \$112,770, “Assessing Aspects of Bobcat Spatial and Population Ecology in Indiana.”

Taleyarkhan, Rusi P; nuclear engineering, from Oak Ridge Associated Universities, \$3,750, “Fellowship Check TBD.”

Taleyarkhan, Rusi P; nuclear engineering, from Oak Ridge Associated Universities, \$3,750, “Fellowship Check TBD.”

Taylor to Zhou

Taylor, Lynne S; industrial and physical pharmacy, from Merck and Company Inc., \$70,000, "Nanoparticle Yield from Amorphous Solid Dispersions."

Taylor, Lynne S; industrial and physical pharmacy, from Pharmaceutical Research and Manufacturers of America Foundation Inc, \$40,000, "Postdoctoral Fellowship – Microstructure of Spray Dried Pharmaceuticals."

Tesmer, John; biological sciences, from National Institutes of Health, \$212,915, "Structure and Function of the LPLA2/LCAT Acyltransferase Family."

Tu, Manghui; computer information technology, from University of California – Davis, \$20,000, "Develop a Secure Programming Clinic Program at Purdue University Northwest."

Vacca, Andrea; agricultural and biological engineering, from CNH – Hydraulic Competency Center, \$140,000, "Performance Improvement of Wheel Loaders through Independent Metering Boom Actuation."

Van Rijn, Richard M; Cushman, Mark S and Lill, Markus A; medicinal chemistry and molecular pharmacology, from PHS-NIH National Institute on Drug Abuse, \$74,662, "Development of G-Protein Biased Delta Opioid Receptor Agonist with Analgesic Potency."

Varma, Amit H; civil engineering, from Dankook University Jukieon Campus, \$55,697, "Collaborative Experimental Investigation of SC Walls Subjected to Missile Impact."

Vyn, Tony J; agronomy, from D Kirt or Elizabeth A Verhagen, \$250, "Agricultural Cropping Systems."

Wang, Nien-Hwa L; chemical engineering, from Defense Logistics Agency, \$150,000, "Ligand-Assisted Chromatography Methods for the Purification of Rare Earth Elements."

Weake, Vikki Marie; biochemistry, from PHS-NIH National Eye Institute, \$343,420, "Epigenetic Regulation of Gene Expression in the Aging Eye."

Weaver, Connie M; foods and nutrition, from Danone Wave, \$6,000, "Corporate Affiliates Fund."

Weaver, Connie M; Sors, Thomas G; Bailey, Regan K; Savaiano, Dennis A; Gabauer, Colleen L; Brightman, Andrew O; Byrn, Stephen Robert; Gavin, Timothy P; Hu, Changdeng; Kuhn, Richard J; McCabe, George P; Story, Jon A; Teegarden, Dorothy; Wodicka, George R; Mesecar, Andrew D and Ratliff, Timothy L; foods and nutrition, medicinal chemistry and molecular pharmacology, bindley bioscience center, graduate school administration, biomedical engineering, industrial and physical pharmacy, health and kinesiology, biological sciences, science – administration, health and human sciences, biochemistry, Cancer Research Center, from Indiana University Purdue University at Indianapolis, \$922,848, "Clinical and Translational Sciences Institute (CTSI) – Continuation Year 5 – Parent." (a Discovery Park award – Bindley Bioscience Center)

Weibel, Justin A and Garimella, Suresh V; mechanical engineering, from Naval Surface Warfare Center Indian HD Div, \$146,800, "Evaluation of the Effects of Dynamic and Nonuniform Operation

of Radar-Frequency Electronics on High-Power-Density Thermal Management Strategies; Modification 5, Grant 108220."

Weil, Clifford F and Doudareva, Natalia; agronomy, biochemistry, from Bill and Melinda Gates Foundation, \$20,000, "Use of Intrinsic Volatile Compounds for Bird Resistance in Sorghum."

Wetzstein, Hazel Y; horticulture and landscape architecture, from Co-Alliance, \$25,000, "Co-Alliance."

Wharry, Janelle P; nuclear engineering, from National Science Foundation, \$109,333, "Faculty Early Career Development (CAREER): Using Irradiation to Understand Intergranular Fracture Mechanisms of Anisotropically-Bonded Solute Segregants."

Wilker, Jonathan J; chemistry, from Office of Naval Research, \$35,776, "Biomimetic Adhesives Delivered Underwater, with Charges, and from Renewable Resources."

Williams, Christopher S; civil engineering, from Indiana Department of Transportation, \$90,000, "Implementing the Strut-and-Tie Method for the Design of Bridge Components."

Xuan, Yi; electrical and computer engineering, from Sea Harvest Group Inc, \$150,000, "Sea Harvest Group Inc Voluntary Support." (a Discovery Park award – Birck Nanotechnology Center)

Yao, Yuan; food science, from Phytoption LLC, \$54,360, "New Solubilizers for Drug and Other Applications (Subcontract)."

Young, Bryan G; botany and plant pathology, from Italtollina USA, \$6,600, "Multi Sponsored Gift Account."

Young, Bryan G; botany and plant pathology, from Chemorse, Ltd, \$5,400, "Multi Sponsored Gift Account."

Young, Bryan G; botany and plant pathology, from Wilbur-Ellis Company, \$11,250, "Multi Sponsored Gift Account."

Yu, Denny; industrial engineering, from Indiana University, \$20,852, "Fostering Skill Building for Surgeons."

Yu, Wenbin; aeronautical and astronautical engineering, from Georgia Technology, \$9,492, "Vabs as a Tool for Real Blade Analysis, Design, and Certification; Amendment 2, Grant 108848; Amendment 3, Grant 108848."

Zhang, Guangjun; comparative pathobiology, from Mayo Clinic College of Medicine, \$9,387, "IRF4 and Immunity to Influenza Infection."

Zhang, Xiangyu; computer science, from Office of Naval Research, \$121,019, "Learn-to-Reason: a Probabilistic Binary Analysis Infrastructure and its Application in Binary Reduction."

Zhang, Zhong-Yin; medicinal chemistry and molecular pharmacology, from National Institutes of Health, \$422,519, "Development of SHP2 Inhibitors for Targeted Anti-Cancer Therapy."

Zhou, Chenn Qian and Silaen, Armin K; Center for Innovation through Visualization and Simulation, from Dwyer Instruments, Inc., \$9,498, "Computational Fluid Dynamics (CFD) Analysis on the Insertion Magmeter."

Zhou, Chenn Qian; mechanical and civil engineering, from Steel Dynamics Inc, \$45,000, "Steel Manufacturing Visualization and Simulation Consortium (SMVSC) Membership." ■

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The Sponsored Program Awards list is generated by Sponsored Program Administration. Questions concerning the information contained in these pages should be directed to Stephanie Willis at swillis@purdue.edu. ■