

# DIMENSIONS *of* DISCOVERY

## Sponsored Program Awards

September 2016

### Abraham to Behrens

**Abraham, Dulcy M;** civil engineering, from Water Research Foundation, \$125,000, "Practical Condition Assessment and Failure Probability Analysis of Small Diameter Ductile Iron Pipe."

**Aggarwal, Vaneet;** industrial engineering, from National Science Foundation, \$81,642, "NeTS: Small: Collaborative Research: Rethinking Erasure Codes for Cloud Storage: a Quantitative Framework for Latency, Reliability, and Cost Optimization."

**Agrawal, Rakesh; Lundstrom, Mark S; Alam, Muhammad A and Garimella, Suresh V;** chemical engineering, engineering administration engineering experiment, electrical & computer engineering, mechanical engineering, from National Renewable Energy Laboratory, \$229,500, "National Renewable Energy Laboratory (NREL) 402717 Subcontract No. Xej-3-23225-01; Modification 8; Grant No. 106406."

**Ajuwon, Kolapo;** animal sciences, from JBS United Inc, \$10,000, "Swine Research."

**Alexeenko, Alina and Heister, Stephen D;** aeronautical & astronautical engineering, from National Aeronautics and Space Administration, \$100,000, "Microelectromechanical System (MEMS) Reaction Control and Maneuvering for Picosat Beyond Leo."

**Alexeenko, Alina;** aeronautical & astronautical engineering, from Pfizer Inc, \$58,000, "Production Lyophilizer Performance Qualification: Validation of Computational Fluid Dynamics (CFD) Modeling."

**Allebach, Jan P;** electrical & computer engineering, from Hewlett Packard, \$75,000, "Embedding of Data in Hard Copy by Circular Coding."

**Allebach, Jan P; Pekarek, Steven D; Bolton, J S; Chiu, George T and Davies, Patricia;** electrical & computer engineering, mechanical engineering, from Hewlett Packard, \$350,000, "Print Quality Improvement."

**Ambrose, Rose Prabin K;** agricultural & biological engineering, from Abbott Nutrition, \$3,875, "Optimizing Powder Blending for Content Homogeneity."

**Anderson, William E and Lucht, Robert P;** aeronautical & astronautical engineering, mechanical engineering, from University of California-Los Angeles, \$150,000, "High Fidelity Measurements and Modeling of Combustion Instabilities; Amendment 1."

**Arling, Gregory W;** nursing, from University of Minnesota, \$40,000, "Evaluation of Minnesota CC Initiatives."

**Bahr, David F;** materials engineering, from Purdue Doctoral Program, \$31,675, "Brenner, Anneliese."

**Bajaj, Anil K; Chiu, George T; Davies, Patricia; Jones, James D; Key, Nicole L; Dickerson, Darryl A; Gleghorn, Virginia L; Naudman, Eric A and Reid, Tahira;** mechanical engineering, Minority Engineering Program, from Purdue University, \$150,000, "Diversity Transformation: Strengthening the Purdue Pipeline for URM Student Matriculation: Addressing Financial Constraints, Improving Retention, and Assessing Student Experiences."

**Balakrishnan, Venkataramanan;** electrical & computer engineering, from Tellabs Foundation, \$2,000,000, "Purdue - Tellabs Quantum Photonics Preeminent Team."

**Barnard, Freddie L;** agricultural economics, from Julie Gable, \$500, "Indiana Society of Farm Managers and Rural Appraisers."

**Basu, Saugata;** mathematics, from National Science Foundation, \$200,000, "Logic, Topology and Genomics."

**Bates, Scott T;** biological sciences – Calumet campus, from Agricultural Research Service, \$11,231, "Acquisition of Goods and Services."

**Bayley, William G;** chemistry, from Tippecanoe School Corporation, \$1,000, "Instrumentation Van Project."

**Bayley, William G;** chemistry, from Ivy Technology State College, \$450, "Instrumentation Van Project."

**Bayley, William G;** chemistry, from Warren Co. Metropolitan School District, \$300, "Instrumentation Van Project."

**Bayley, William G;** chemistry, from Cathedral Trustees, Inc., \$900, "Instrumentation Van Project."

**Bayley, William G;** chemistry, from Brownsburg Comm. School Corp., \$900, "Instrumentation Van Project."

**Bayley, William G;** chemistry, from Klondike Middle School, \$300, "Instrumentation Van Project."

**Bayley, William G;** chemistry, from Cardinal Ritter High School, \$900, "Instrumentation Van Project."

**Bayley, William G;** chemistry, from Hamilton Southeastern Schools, \$1,000, "Instrumentation Van Project."

**Beaulieu, Lionel J;** Office of Engagement, from Community Access Inc., \$11,043, "Multi-Sponsored Account (PCRD) Purdue Center for Regional Development."

**Beckerman, Janna L;** botany & plant pathology, from BASF Corporation, \$4,000, "Indiana Arborists Association, Inc.."

**Beckerman, Janna L;** botany & plant pathology, from Bayer Crop-science, \$12,000, "Indiana Arborists Association, Inc.."

**Behrens, Sandra R;** nursing – Calumet campus, from Indiana University, \$3,028, "SORH Subcontract."

## Benjamin to Chaubey

**Benjamin, Tamara J; Abbott, Philip C; Burniske, Gary R; Derusha, Carmen E; Kelly, Colleen R; Parker, Kristina J and Wilcox, Michael D;** horticulture & landscape architecture, agricultural economics, agronomy, ces misc, youth development & agricultural education, agriculture – administration, from Foreign Agricultural Service, \$200,273, “Gaining a Better Understanding of the Colombian Cacao Supply Chain.”

**Bertino, Elisa; Brouder, Sylvie M and Matei, Sorin A;** computer science, agronomy, communication, from National Science Foundation, \$99,938, “BD Spokes: Planning: Midwest: Cyberinfrastructure to Enhance Data Quality and Support Reproducible Results in Sensor Originated Big Data.”

**Bhave, Sunil A;** electrical & computer engineering, from Defense Advanced Research Projects Agency, \$40,000, “Misc Clock: Miniaturized Silicon Carbide Clock.”

**Blatchley, Ernest R;** civil engineering, from Purdue University, \$23,073, “1516 Global Food Security (GFS).”

**Bolton, J S;** mechanical engineering, from Beijing Ancsonic Technology Co. Ltd, \$23, “China Voluntary Support.”

**Boor, Brandon E;** civil engineering, from Purdue University, \$42,108, “1516 Global Food Security (GFS).”

**Boudouris, Bryan W and Franses, Elias I;** chemical engineering, from Pioneer Oil Company, \$93,422, “Year 3 - Elucidating the Structure-Property Relationships of Surfactant-Polymer Emulsions for Enhanced Oil Recovery (EOR) in the Illinois Basin.”

**Braun, James E;** mechanical engineering, from Kawneer Company Inc, \$25,000, “Center for High Performance Building Consortium.”

**Braun, James E and Horton, William T;** mechanical engineering, civil engineering, from Northwest Energy Efficiency Alliance, \$65,000, “Load-Based Testing of Variable Refrigerant Flow Heat Pumps.”

**Braun, James E;** mechanical engineering, from Danfoss, \$50,000, “Center for High Performance Buildings Membership Agreement.”

**Bullock, Darcy M;** civil engineering, from American Structurepoint Inc, \$400, “Joint Transportation Research Program (JTRP) Supplementary Research Account.”

**Bullock, Darcy M;** civil engineering, from Institute of Transportation Engineers, \$4,000, “Joint Transportation Research Program (JTRP) Supplementary Research Account.”

**Buzzard, Gregory T;** mathematics, from Purdue University F N Andrews Fellowship, \$18,487, “Araiza, Roy.”

**Caffee, Marc W;** physics, from U.S. Geological Survey, \$7,980, “Investigation of Complex Exposures Along the Continental Divide.”

**Caffee, Marc W;** physics, from U.S. Geological Survey, \$8,460, “Lab Testing AMS Age Dating.”

**Cai, Hubo and Chun, Hyonho;** civil engineering, statistics, from Indiana Department of Transportation, \$218,193, “Testing Intervals Confidence in Pavement.”

**Cai, Zhiqiang;** mathematics, from National Science Foundation, \$57,485, “A Posteriori Error Estimation through Duality and Some Other Topics.”

**Cain, Steven A and Hostetler, Abby R;** agricultural communication, from National Institute of Food & Agriculture, \$370,000, “Extension Disaster Education Network (EDEN) Security Initiative IX: EDENs Role in Homeland Security, Food and Ag Defense and All Hazard Education.”

**Cain, Steven A and Hostetler, Abby R;** agricultural communication, from National Institute of Food & Agriculture, \$800, “Extension Disaster Education Network (EDEN) Security Initiative IX: EDENs Role in Homeland Security, Food and Ag Defense and All Hazard Education.”

**Caldwell, Barrett S;** industrial engineering, from Purdue University, \$1,000, “Indiana Space Grant Consortium (INSGC) Affiliate Dues.”

**Caldwell, Barrett S;** industrial engineering, from Trine University, \$1,000, “Indiana Space Grant Consortium (INSGC) Affiliate Dues.”

**Caldwell, Barrett S;** industrial engineering, from Indiana University Purdue University at Indianapolis, \$27,643, “Eskenazi CBCI MC3 Design Assistant.”

**Caldwell, Barrett S;** industrial engineering, from Valparaiso University, \$1,000, “Indiana Space Grant Consortium (INSGC) Affiliate Dues.”

**Caldwell, Barrett S;** industrial engineering, from Taylor University, \$1,000, “Indiana Space Grant Consortium (INSGC) Affiliate Dues.”

**Campanella, Osvaldo H;** agricultural & biological engineering, from Bin Li, \$2,200, “Multi-Sponsored Gift Account.”

**Capobianco, Brenda M; Erk, Kendra A; Rebello, Nobel S; Adams, Robin S; Eichinger, David C; Guzey, Siddika and Ryu, Minjung;** engineering education, materials engineering, physics, biological sciences, chemistry, from National Science Foundation, \$1,596,118, “Update – Using Principles of Design to Advance Teacher Education.”

**Cardella, Monica E;** engineering education, from National Science Foundation, \$81,228, “Strengthening the Science, Technology, Engineering & Mathematics (STEM) Pipeline for Elementary School African Americans, Hispanics, and Girls by Scaling Up Summer Engineering Experiences.”

**Casteel, Shaun N;** agronomy, from Tessengerlo Kerley Inc, \$10,000, “Soybean Extension Research.”

**Catlin, Ann C;** Rosen Center for Advanced Computing, from International Thymic Malignancy Grp, \$14,000, “The Interactive International Thymic Malignancy Interest Group (ITMIG) International Retrospective and Prospective Databases 2016-2017.”

**Chang Alexander, Stewart C;** consumer science & retail, from Veterans Administration Medical Center/San Francisco, \$91, “Intergovernmental Personnel Assignment (IPA) Veterans Administration Medical Center, San Francisco.”

**Chang, Chun-Ju;** Cancer Research Center, from Purdue University, \$100,000, “The Role of Microrna Directed Science, Technology, Engineering & Mathematics (STEM) Cell Fate in Breast Cancer.”

**Chang, Fen-Lei F;** medical education – Fort Wayne campus, from Indiana University, \$70,000, “Fy16-17 Indiana University School of Medicine (IUSM) – Fort Wayne Expansion Funding State Support.”

**Chaubey, Indrajeet;** agricultural & biological engineering, from Texas A&M University, \$30,000, “Soil and Water Assessment Tool (SWAT) Development.”

## Chen to Ferris

**Chen, Qingyan**; mechanical engineering, from Tianjin University, \$100,000, "Developing Innovative Ventilation Systems for Aircraft Cabins."

**Cheng, Gary J**; industrial engineering, from National Science Foundation, \$50,000, "High Throughput Magnetic Optical Nano-Milling with Nanoparticles."

**Collicott, Steven H**; aeronautical & astronautical engineering, from National Aeronautics and Space Administration, \$161,685, "Zero-G Condensation Droplets and Flow in Phase-Change Loops."

**Comer, Mary L**; electrical & computer engineering, from Air Force Office of Scientific Research, \$66,917, "Rare Event Simulation for Modeling of Low-Probability Events in Materials Systems."

**Connor, Robert J** and **Lloyd, Jason B**; civil engineering, from Indiana Corn Marketing Council, \$20,000, "Technical Assistance to County Highway Departments in Load Testing of Rural Bridges."

**Connor, Robert J** and **Lloyd, Jason B**; civil engineering, from Soy Transportation Coalition, \$10,000, "Technical Assistance to County Highway Departments in Load Testing of Rural Bridges."

**Connor, Robert J**; civil engineering, from University of Missouri, \$5,000, "Guidelines to Improve the Quality of Element-Level Bridge Inspection Data, Amendment 1; Grant 107948)."

**Connor, Robert J** and **Lloyd, Jason B**; civil engineering, from Indiana Soybean Alliance, \$15,000, "Technical Assistance to County Highway Departments in Load Testing of Rural Bridges."

**Cooks, Robert G**; chemistry, from AbbVie Inc, \$65,000, "AbbVie." (a Discovery Park award – Bindley Bioscience Center)

**Cooks, Robert G**; chemistry, from Amgen, Inc, \$98,336, "Amgen 2016." (a Discovery Park award – Bindley Bioscience Center)

**Cooks, Robert G; Thompson, David H; Barker, Eric L; Grama, Ananth Y** and **Nagy, Zoltan**; chemistry, medicinal chemistry & molecular pharmacology, computer science, chemical engineering, from Defense Advanced Research Projects Agency, \$650,000, "Analytic-Directed Multi-Scale Synthesis System."

**Cramer, William A** and **Jiang, Wen**; biological sciences, from National Institutes of Health, \$152,149, "Super Complexes and Trans-Membrane Signaling by the Cytochrome b6f Complex."

**Creswell, Tom C**; botany & plant pathology, from Michigan State University, \$16,000, "National Plant Diagnostic Network – North Central Region."

**Dark, Melissa J**; computer & information technology, from SUNY at Albany, \$47,646, "EAGER: Developing Cybersecurity Judgment Questionnaire for Gencyber Campers."

**Deboer, Jennifer J**; engineering education, from National Science Foundation, \$206,979, "Collaborative: Women's Engineering Participation in the US: What Can the US Learn from Women's Decisions to Pursue Engineering in Diverse Cultural Contexts?"

**DeLaurentis, Daniel A** and **Bagchi, Saurabh**; aeronautical & astronautical engineering, electrical & computer engineering, from Missile Defense Agency, \$514,000, "System of Systems Modeling and Analysis Innovations for Enhanced Bmds Architectures; Modification 4; Grant 108032."

**DeLaurentis, Daniel A**; aeronautical & astronautical engineering, from Aurora Flight Sciences Corporation, \$34,667, "Navy STTR, Topic N16A-T025: Development of Hybrid Unmanned Air/Underwater Vehicle for Explosive Ordinance Disposal and Mine Countermeasures, Phase 1."

**Delp, Edward J**; electrical & computer engineering, from Indiana University, \$67,264, "Center for Advanced Renal Microscopic Analysis; Subaward IN 4685579PU, Amendment 4; Grant 106315."

**Delp, Edward J**; electrical & computer engineering, from University of Wisconsin at Milwaukee, \$5,000, "Measuring Physical Activity in Children with Special Needs."

**Delp, Edward J**; electrical & computer engineering, from University of Hawaii, \$10,000, "Intermittent Energy Restriction Intervention."

**Doudareva, Natalia**; biochemistry, from Binational Science Foundation, \$27,450, "Plant-Mediated Defense Mechanisms in Gall-Forming Aphids-Grant 207120."

**Dragnev, Peter D; Anderson, Jeffrey R** and **Coroian, Iuliu D**; mathematics – Fort Wayne campus, from Vision Menu, \$16,693, "Algorithmic Development of a Lease Calculation System."

**Drineas, Petros S**; computer science, from National Science Foundation, \$246,664, "BIGDATA: F: DKA: Collaborative Research: Randomized Numerical Linear Algebra (RandNLA) for Multi-Linear and Non-Linear Data."

**Drineas, Petros S**; computer science, from National Science Foundation, \$204,360, "III: Small: Fast and Efficient Algorithms for Matrix Decompositions and Applications to Human Genetics."

**Dunning, John B**; forestry & natural resources, from Sycamore Audubon Society, \$750, "Voluntary Support."

**Elicker, James G; Purpura, David J** and **Schmitt, Sara A**; child development & family studies, from Indiana Family and Social Services Administration, \$511,310, "Evaluation of the Indiana Early Learning Pilot Grant Program."

**Esters, Levon T** and **Knobloch, Neil A**; youth development & agricultural education, from National Institute of Food & Agriculture, \$92,538, "Recruiting Underrepresented Minority Graduate Students in the Agricultural Sciences through Partnerships with 1890 Land-Grant Institutions."

**Fanjoy, Richard O**; aviation technology, from Purdue University F N Andrews Fellowship, \$17,902, "Major, Wesley."

**Farkas, Brian E**; food science, from Geswein Farms, \$30, "Multi-Sponsored Gift Fermentation."

**Farkas, Brian E**; food science, from The Pine Farm Hops, LLC, \$30, "Multi-Sponsored Gift Fermentation."

**Farkas, Brian E**; food science, from Brewers of Indiana Guilds, Inc, \$25,000, "Multi-Sponsored Gift Fermentation."

**Fei, Songlin; Hardiman, Brady S** and **Pijanowski, Bryan C**; forestry & natural resources, from National Science Foundation, \$996,171, "Modeling Invasion Dynamics Across Scales (MIDAS)."

**Ferris, Virginia R**; entomology, from Cargill, Inc., \$5,000, "Cyst Nematode Program."



## Field to Handa

**Field, William E; Baldwin, Charles F; Chastain, Cindra M; Jones, Paul J and Swain, Stephen J;** agricultural & biological engineering, from National Institute of Food & Agriculture, \$180,000, "Indiana Agrability Project."

**Field, William E;** agricultural & biological engineering, from Bug-a Bug-a 4-H Club, \$75, "Breaking New Ground."

**Fineran, Kerrie R;** professional studies – Fort Wayne campus, from The Lutheran Foundation, \$59,625, "Indiana University-Purdue University Fort Wayne (IPFW) Community Counseling Center Family Project."

**Fisher, Timothy;** mechanical engineering, from Northrop Grumman Corporation, \$100,000, "Integrated Thermal Management of Aerospace Vehicles Consortium Membership."

**Frosch, Robert J and Williams, Christopher S;** engineering administration engineering experiment, civil engineering, from Simpson Gumpertz & Heger, \$36,000, "Relaxation Testing of Steel Rods."

**Fulton, Joan R and Widmar, Nicole J;** agricultural economics, from International Institute of Tropical Ag, \$79,839, "Choice Experiments to Assess Willingness to Pay for Aflasafe in Nigeria (Choiceaflasafe)."

**Gabauer, Colleen L;** graduate school administration, from Lynn Interdisciplinary Graduate Fellowship, \$28,963, "Chandrasekaran, Chandnee."

**Garimella, Suresh V;** mechanical engineering, from Laird Technologies, \$7,500, "Cooling Technologies Research Center (CTRC) Membership - Memo Match for 106029."

**Garimella, Suresh V;** mechanical engineering, from Sandia Corporation, \$30,000, "Cooling Technologies Research Center (Cooling Technologies Research Center (CTRC) Membership - Memo Match for 106029."

**Garimella, Suresh V;** mechanical engineering, from Raytheon, \$30,000, "Cooling Technologies Research Center (CTRC) Membership."

**Garimella, Suresh V; Lowenberg-Deboer, James M; Day, Gordon J; Preckel, Paul V and Sanders, John H;** Executive Vice President for Research, agricultural economics, hospitality & tourism, from ESAP, \$999,757, "Opportunities for Agriculture and Tourism in the Orinoquia Region of Colombia."

**Garimella, Suresh V;** mechanical engineering, from IBM, \$30,000, "Cooling Technologies Research Center (CTRC) Membership – Memo Match for 106029."

**Garrison, James L;** aeronautical & astronautical engineering, from National Aeronautics and Space Administration, \$216,487, "Signals of Opportunity Airborne Demonstrator (SoOp-AD)."

**Gentry, Marcia L;** educational studies, from U.S. Department of Education, \$494,835, "Developing Talents and Improving Student Achievement Among Traditionally Underrepresented Populations."

**Ghafoor, Arif and Aref, Walid G;** electrical & computer engineering, computer science, from National Science Foundation, \$46,820, "TC:Medium:Security and Privacy Preserving Data Mining and Management for Distributed Domains."

**Ginzel, Matthew D;** entomology, from U.S. Forest Service, \$43,339, "Assessment of Thousand Cankers Disease within the Native Range of Black Walnut (*Juglans Nigra*)."

**Grama, Ananth Y and Szpankowski, Wojciech;** computer science, from Case Western Reserve University, \$216,397, "Theoretical Foundations and Software Infrastructure for Biological Network Databases."

**Gray, Nicholas W;** diversity and multicultural affairs – Fort Wayne campus, from U.S. Department of Education, \$257,500, "Indiana University-Purdue University Fort Wayne (IPFW) Upward Bound I."

**Gray, Nicholas W;** diversity and multicultural affairs – Fort Wayne campus, from U.S. Department of Education, \$257,500, "Indiana University-Purdue University Fort Wayne (IPFW) Upward Bound II."

**Greeley, Jeffrey P;** chemical engineering, from Argonne National Laboratory, \$139,613, "Center for Electrochemical Energy Storage."

**Groll, Eckhard A;** mechanical engineering, from Regal Beloit Corp, \$20,000, "Multi-Sponsor Groll."

**Groll, Eckhard A and Braun, James E;** mechanical engineering, from Nanjing Aotecar Refrigerating Co Ltd, \$106,000, "Modeling and Testing of an Automotive Scroll Compressor Using Carbon Dioxide as the Refrigerant."

**Groll, Eckhard A;** mechanical engineering, from Air Squared Inc, \$2,500, "Multi-Sponsor Groll."

**Groll, Eckhard A;** mechanical engineering, from Den Black, \$9,000, "Testing of an Automotive Ac Compressor Using a Tescor Compressor Calorimeter."

**Groll, Eckhard A;** mechanical engineering, from Bristol Compressors, Inc., \$4,778, "Herrick Labs Donation."

**Guan, Wenjing;** horticulture & landscape architecture, from Sakata Seed America Inc., \$300, "Chris Gunter General Research Activities."

**Guan, Wenjing;** horticulture & landscape architecture, from Highmark Seed Company, LLC, \$600, "Chris Gunter General Research Activities."

**Guan, Wenjing;** horticulture & landscape architecture, from Robert Arriaga, \$1,250, "Potassium Management."

**Guan, Wenjing;** horticulture & landscape architecture, from Bayer Cropsience, \$1,250, "Chris Gunter General Research Activities."

**Habib, Ayman F;** civil engineering, from Butler Fairman and Seugert, Inc., \$1,399, "Calibration of Gopro Cameras."

**Hall, Tanya J;** field extension educators, from Indiana State Poultry Association, \$6,000, "Economic Impact of Indianas Commercial Poultry Industry."

**Hamaker, Bruce R;** food science, from Pepsico Inc./ World Trading Co., \$57,590, "Corn Kernel Hydration During Corn Nixtamalization."

**Handa, Avtar K;** horticulture & landscape architecture, from Agricultural Research Service, \$36,000, "Discerning Metabolome and Transcriptome of Elite Germplasm Grown in the Field Under Different Cultivation Practices."

## Heeg to Ivantysynova

**Heeg, Marlene O;** pharmacy – administration, from Genzyme Corporation, \$150,000, “MS Forum III: Charging Ahead: Latest Updates in Diagnosis, Management and Therapies on the Horizon.”

**Heeg, Marlene O;** pharmacy – administration, from Intercept Pharmaceuticals Inc, \$1,878,797, “2016-2017 PBC Centers of Educational Expertise.”

**Heeg, Marlene O;** pharmacy – administration, from Abbvie Inc, \$250,000, “2016 – 2017 GALA HCV Resistance Meeting Series.”

**Heeg, Marlene O;** pharmacy – administration, from Astellas Pharma US Inc, \$95,000, “Peervue Inclinic Curriculum, Applying the Latest Evidence and Recommendations to Deliver Interdisciplinary, Patient-Centered Care to Patients with Castrate-Resistant Prostate Cancer in the Veterans.”

**Heeg, Marlene O;** pharmacy – administration, from AbbVie Inc, \$60,000, “Sub-Optimal Outcomes Create Substantial Challenges: Moving the Mark in IBD Management.”

**Heister, Stephen D;** aeronautical & astronautical engineering, from Hammond Group, Inc, \$66,520, “Design and Fabrication of Novel Lead Oxide Combustion Injector.”

**Hertel, Thomas W;** agricultural economics, from RIETI (Research Institute of Economy, Trade and Industry), \$20,435, “Global Trade Analysis Project (GTAP) Consortium.”

**Hertel, Thomas W;** agricultural economics, from U.S. International Trade Commission, \$4,565, “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 U.S. International Trade Commission, \$20,435, “Global Trade Analysis Project (GTAP) Consortium.”

**Hester, Patricia Y;** animal sciences, from Agricultural Research Service, \$15,250, “Decision Support for Environmental Management of Cage and Cage- Alternative Layer Housing Systems for Thermal Comfort and Air Quality.”

**Hibiki, Takashi;** nuclear engineering, from Institute of Nuclear Safety Systems, Inc, \$22,500, “Improvement of Void Fraction Correlation for Rod Bundle and Downcomer.”

**Hill, John E;** educational studies, from National Rural Education Association, \$31,536, “Cooperative Agreement with National Rural Education Association (NREA) for 2016-2017.”

**Hogenesch, Harm;** comparative pathobiology, from Zoetis, \$17,448, “Antibodies to Bovine Serum Components in Vaccinated Dogs.”

**Holland, Jeffrey D;** entomology, from Purdue Doctoral Program, \$28,963, “McCroskey, Eoghan.”

**Horton, William T and Braun, James E;** civil engineering, mechanical engineering, from Electric Power Research Institute (EPRI), \$180,875, “Development of a Level-2 Next-Generation Heat Pump.”

**Hountz, Randall A;** Technical Assistance Program, from Meridian Surgical Group, \$1,520, “Multi-Sponsor Account I-HITEC.” (a Discovery Park award – Regenstrief Center for Healthcare Engineering)

**Hountz, Randall A;** Technical Assistance Program, from Clinton H. Scott, DPM, \$760, “Multi-Sponsor Account I-HITEC.” (a Discovery Park award – Technical Assistance Program)

**Hountz, Randall A;** Technical Assistance Program, from JSI Research and Training Institute, \$566, “Multi-Sponsor Account I-HITEC.” (a Discovery Park award – Technical Assistance Program)

**Hountz, Randall A;** Technical Assistance Program, from JSI Research and Training Institute, \$3,600, “Multi-Sponsor Account I-HITEC.” (a Discovery Park award – Technical Assistance Program)

**Hoverman, Jason T;** forestry & natural resources, from University of California, \$99,667, “Eid: Disease in Complex Communities: How Multi-Host, Multi-Pathogen Interactions Drive Infection Dynamics, Amendment 2 (Grant 107452).”

**Howarter, John A;** materials engineering, from National Institute of Standards & Technology, \$54,237, “Nanoscale Structure-Property Measurements in Next Generation Ballistic Fibers and Related Polymer Materials; Amendment 2; Grant 107253.”

**Howell, Kathleen;** aeronautical & astronautical engineering, from National Aeronautics and Space Administration, \$20,000, “Targeting, Guidance and Proximity Operations Near Small Bodies and Complex Multi-Body Regimes: Parameter Assessment and Evaluation in Support of the Targeting Strategy.”

**Howell, Kathleen;** aeronautical & astronautical engineering, from National Aeronautics and Space Administration, \$20,000, “Targeting, Guidance and Proximity Operations Near Small Bodies and Complex Multi-Body Regimes: Supplement.”

**Howell, Kathleen;** aeronautical & astronautical engineering, from Goddard Space Flight Center, \$100,003, “Expanded Mission Design and Analysis Capabilities for Access and Transport in Multi-Body Regimes.”

**Hu, Changdeng;** medicinal chemistry & molecular pharmacology, from Showalter Trust, \$5,000, “FY 16-17 Showalter Scholars.”

**Huang, Fang;** biomedical engineering, from U.S. Department of Interior, \$323,045, “3-D Super-Resolution Imaging of Intact Animals.”

**Huber, Matthew;** earth & atmospheric sciences, from National Science Foundation, \$243,674, “Collaborative Research: P2C2: Re-Assessing Pliocene and Miocene Warm Climates and Identifying the ‘missing Physics to Explain Them.’”

**Ileleji, Klein;** agricultural & biological engineering, from Purdue University, \$42,108, “1516 Global Food Security (GFS).”

**Ince, Ayhan;** engineering technology, from Air Force Office of Scientific Research, \$103,210, “3-D Stereo Microscope Digital Image Correlation System for High Cycle Fatigue Characterization of Lightweight Materials.”

**Ivantysynova, Monika;** agricultural & biological engineering, from Kalamazoo Community Foundation, \$2,000, “Kalamazoo Community Foundation.”

**Ivantysynova, Monika;** agricultural & biological engineering, from University of Minnesota, \$80,000, “ERC for Compact, Clean, and Efficient Fluid Power Systems.”

## Jenkins to Li

**Jenkins, Michael A;** forestry & natural resources, from National Park Service, \$6,345, "Fourteen Years of Change Following Eastern Hemlock Loss in Southern Appalachian Forests."

**Jenkins, Michael A;** forestry & natural resources, from Eco Logic LLC, \$3,534, "Voluntary Support."

**Jiang, Wen;** biological sciences, from Showalter Trust, \$5,000, "FY 16-17 Showalter Scholars."

**Jin, Jian; Agee, April A; Tuinstra, Mitchell R; Mickelbart, Michael V and Turco, Ronald F;** agricultural & biological engineering, agriculture – administration, agronomy, botany & plant pathology, from Sumitomo Chemical Company, \$540,026, "Greenhouse Plant Phenotyping for Detecting Physiological and Morphological Changes."

**Johnson, Carla J;** education – administration, from U.S. Department of Education, \$3,500,000, "Indianas Gear Up Program."

**Johnson, William G;** botany & plant pathology, from Monsanto Company, \$5,000, "Weed Science Research Voluntary Support."

**Johnson, William G;** botany & plant pathology, from BASF Corp, Chemicals Division., \$35,600, "Weed Science Research Voluntary Support."

**Jones, Owen G;** food science, from Kellogg Company, \$1,300, "Multi-Sponsored Industrial."

**Kaplan, Ian; Krupke, Christian H and Zaspel, Jennifer M;** entomology, from U.S. Forest Service, \$70,000, "Evaluating the Toxicity of Agricultural Pesticides on Monarch Butterflies."

**Karcher, Darrin M;** animal sciences, from Agricultural Research Service, \$25,000, "Laying Hen Performance, Food Safety, and Well-Being in Cage-Free Housing as Impacted by an Early Molt."

**Kenttamaa, Hilkka I;** chemistry, from Pioneer Oil Company, \$75,000, "Molecular Level Characterization of Crude Oil, Brine, Surfactants, and Other Complex."

**Kever, Shubitha S;** diversity and multicultural affairs – Fort Wayne campus, from U.S. Department of Education, \$226,600, "Trio Student Support Services at Indiana University-Purdue University Fort Wayne (IPFW) 2016-2017."

**Key, Nicole L;** mechanical engineering, from Rolls-Royce, Inc., \$10,900, "CSTAR Performance Research."

**Key, Nicole L;** mechanical engineering, from National Aeronautics and Space Administration, \$47,000, "Experimental Investigation of Impeller-Diffuser Interactions."

**Kim, Jiyeon;** economics – Fort Wayne campus, from Economic Research Service, \$30,000, "Changes in Low-Income Households Spending Patterns in Response to the 2013 Snap Benefit Cut."

**Kim, Young L;** biomedical engineering, from Air Force Office of Scientific Research, \$110,000, "Wearable Biosensing Platforms Using 2D Native Protein Fibers."

**Kim, Yuan H;** animal sciences, from Gyeongsang National University, \$10,000, "New Insight into Frozen/Thawed Meat."

**Kirkpatrick, Jane M;** nursing, from Health Resources & Services Administration, \$78,989, "Health Center Cluster."

**Kirkpatrick, Jane M and Coddington, Jennifer A;** nursing, from Indiana State Department of Health, \$12,000, "Indiana Primary Care Learning Collaborative Mini-Grant 2016."

**Kladviko, Eileen J;** agronomy, from Natural Resources Conservation Service, \$86,810, "Practical Summary, Analysis, and Interpretation of Soil Health Assessments."

**Kladviko, Eileen J;** agronomy, from Natural Resources Conservation Service, \$3,190, "Practical Summary, Analysis, and Interpretation of Soil Health Assessments."

**Klimeck, Gerhard; Fonseca, James E; Kubis, Tillmann C and Povolotskyi, Mykhailo;** electrical & computer engineering, from National Science Foundation, \$12,710, "Advanced Nanoelectronic Device Design with Atomistic Simulations." (a Discovery Park award – Network for Computational Nanotechnology)

**Koslowski, Marisol and Handwerker, Carol A;** mechanical engineering, materials engineering, from National Science Foundation, \$487,569, "Controlling Heterogeneous Stress Relaxation in Tin Films: Whiskers, Grain Boundary Sliding, and Beyond."

**Kramer, Robert A;** energy efficiency & reliability center, from Indiana Municipal Utility Group, \$40,000, "Support for Street Light Testing and Evaluation for 8 Indiana Municipalities (IMUG)."

**Kreisle, Regina A;** medical education, from Indiana University, \$15,000, "FY16-17 Indiana University School of Medicine (IUSM)-Lafayette General Fund."

**Kreisle, Regina A;** medical education, from Indiana University, \$2,389,863, "FY16-17 Indiana University School of Medicine (IUSM)-Lafayette General Fund."

**Kuang, Shihuan;** animal sciences, from Boehringer Ingelheim Pharmaceutical Inc, \$55,800, "Effect of  $\beta$ -Klotho on Myoblast Differentiation and Skeletal Muscle Regeneration."

**Latin, Richard X;** botany & plant pathology, from Syngenta Crop Protection Inc., \$29,700, "Turfgrass Disease Research."

**Latin, Richard X;** botany & plant pathology, from Syngenta Crop Protection Inc., \$16,800, "Turfgrass Disease Research."

**Latin, Richard X;** botany & plant pathology, from Bayer Crop-science, \$20,600, "Turfgrass Disease Research."

**Latin, Richard X;** botany & plant pathology, from BASF Corporation, \$8,000, "Turfgrass Disease Research."

**Lechtenberg, Victor L;** president, from Indiana University, \$10,000, "Support of Southeastern Small Business Development Center (SBDC)."

**Lee, Hyowon and Bentley, Robin T;** biomedical engineering, veterinary clinical science, from PHS-NIH National Institute Neurological Disorders and Stroke, \$221,214, "Indiana Vivo Evaluation of Implantable Self-Clearing Catheter for Hydrocephalus."

**Leung, Yuk Fai;** biological sciences, from Schlumberger Foundation, \$49,595, "Fellowship for Prahatha Venkatraman."

**Li, Peijun;** mathematics, from University of Minnesota, \$17,962, "Course Buyout for Peijun Li."

**Li, Tonglei;** pharmacy – administration, from Vince and Associates, \$99,495, "Bioequivalence Study of Lamotrigine Extended Release Tablets in Healthy Subjects."



## Liceaga to Meyer

**Liceaga, Andrea M;** food science, from Maple Leaf Farms Inc., \$2,500, “Multi-Sponsored Gift- Sensory.”

**Linnes, Jacqueline C;** biomedical engineering, from Indiana University, \$45,000, “Collection and Correlation of the Ratio and Time-Lag of Glucose Concentration Changes in Blood and Exhaled Breath Condensates.”

**Lister, Matthew L;** physics, from National Aeronautics and Space Administration, \$179,902, “The Parsec and Kiloparsec Jet Properties of Mojave Agn.”

**Liu, Xiaoqi and Ratliff, Timothy L;** Cancer Research Center, from PHS-NIH National Cancer Institute, \$354,563, “Improving Chemotherapy of Castration-Resistant Prostate Cancer.”

**Liu, Xiaoqi;** biochemistry, from Showalter Trust, \$5,000, “FY 16-17 Showalter Scholars.”

**Love, David J;** electrical & computer engineering, from University of Notre Dame, \$75,000, “CIF:Medium:Modeling, Analysis, and Code Design for Portable Wireless Device Transmitters Subject to an Electromagnetic Exposure Constraint; Amendment 2; Grant 107161.”

**Lu, Jin;** foreign languages & literatures – Calumet campus, from Chiang Ching-Kuo Foundation International Scholarly Exc, \$30,000, “Christianity and Chinese Spiritual Traditions: Chinese Catholic Intellectuals Before Vatican II (1912-1965).”

**Lucht, Robert P; Gore, Jay P; Meyer, Scott E and Sojka, Paul E;** mechanical engineering, from Federal Aviation Administration, \$250,000, “Federal Aviation Administration (FAA) Coe Ascent: National Jet Fuels Combustion Program: Area 5 Atomization Tests and Models.”

**Luke, Eileen M and Hill, Michael A;** CERIS, from National Institute of Food & Agriculture, \$207,135, “National Plant Diagnostic Network (NPDN) National Database/National Network of Diagnostic Centers.”

**Lumkes, John H;** agricultural & biological engineering, from University of Minnesota, \$80,000, “ERC for Compact, Clean, and Efficient Fluid Power Systems.”

**Lynall, Matthew D; Deason, Gregory W; Duval-Couetil, Nathalie A; Panitch, Alyssa and Seipel, Justin E;** management, HR Default CCTR, industrial technology, biomedical engineering, mechanical engineering, from National Science Foundation, \$99,980, “I-Corps Sites: Purdues Innovation Pipeline.”

**Lynall, Matthew D; Deason, Gregory W; Duval-Couetil, Nathalie A; Panitch, Alyssa and Seipel, Justin E;** management, HR Default CCTR, industrial technology, biomedical engineering, mechanical engineering, from National Science Foundation, \$99,078, “I-Corps Sites: Purdues Innovation Pipeline.”

**Maji, Hemanta K;** computer science, from National Science Foundation, \$499,999, “TWC: Small: General and Modular Secure Computation in the Offline-Online Paradigm.”

**Manfra, Michael J;** physics, from Microsoft Corporation, \$365,000, “Microsoft Voluntary Support.”

**Manfra, Michael J;** physics, from Alcatel-Lucent, \$60,000, “Gallium Arsenide (GaAs) Heterostructures: Design and Optimization.”

**Marais, Karen;** aeronautical & astronautical engineering, from Air-eon LLC, \$16,000, “Environmental Benefits of Space-Based Ads-B.”

**Marsh, Dawn G;** history, from Purdue University, \$122,190, “Four Directions: Building a Foundation for Native Scholars.”

**Mattes, Richard D;** foods & nutrition, from Ajinomoto Company, Inc., \$15,500, “The Effects of Aspartame on Appetite, Body Composition and Oral Glucose Tolerance.”

**Mattoo, Seema;** biological sciences, from National Institutes of Health, \$151,461, “Role of Fic Proteins in Cellular Signaling.”

**Mauer, Lisa J; Allebach, Jan P; Applegate, Bruce M; Bae, Euiwon; Bhunia, Arun K; Chiu, George T; Deering, Amanda J; Irudayaraj, Joseph M; Mousoulis, Charilaos; Oliver, Haley F; Peroulis, Dimitrios; Rajwa, Bartlomiej P; Robinson, Joseph P and Stanciu, Lia A;** food science, electrical & computer engineering, mechanical engineering, agricultural & biological engineering, basic medical science, materials engineering, from Agricultural Research Service, \$73,735, “Advanced Development of Innovative Technologies and Systematic Approaches to Foodborne Hazard Detection and Characterization for Improving Food Safety.”

**McCann, Maureen C; Dietz, James E and Sharma, Pankaj;** biological sciences, computer & information technology, industrial technology, from Office of Naval Research, \$1,000,000, “Neptune Center for Power and Energy Research.” (a Discovery Park award – The Energy Center)

**McDaniel, Rebecca S and Olek, Jan;** civil engineering, from Indiana Department of Transportation, \$160,258, “Investigation of Delta TC for Implementation in Indiana.”

**McDaniel, Rebecca S;** civil engineering, from Indiana Department of Transportation, \$80,404, “Development of a Friction Performance Test for Compacted Asphalt Mixtures.”

**McNamara, Kevin T;** International Programs in Agriculture, from Family Health International, \$1, “Afghanistan University Support & Workforce Development Program.”

**McNamara, Kevin T;** International Programs in Agriculture, from University of California - Davis, \$1, “Afghanistan Agricultural Extension Project II.”

**Melosh, Henry J and Freed, Andrew M;** physics, earth & atmospheric sciences, from National Aeronautics and Space Administration, \$158,737, “An Incremental Ice-Wedging Model for Europas Ridges.”

**Merwade, Venkatesh M and Song, Xiaohui C;** civil engineering, Rosen Center for Advanced Computing, from University of North Carolina at Chapel Hill, \$46,980, “An Interactive Software Infrastructure for Sustaining Collaborative Community Innovation in the Hydrologic Sciences (a Subcontract to UNC Chapel Hill), Amendment 4; (Grant 106127).”

**Mesecar, Andrew D;** biochemistry, from Loyola University Chicago, \$298,030, “Mechanisms of Viral Proteases in Coronavirus Replication and Pathogenesis.”

**Meyer, Terrence R;** mechanical engineering, from Spectral Energies, LLC, \$45,572, “Experimentally Derived Scaling Laws from Spatiotemporally Resolved Measurements in High-Pressure Combustors.”

**Meyer, Terrence R and Chen, Weinong W;** mechanical engineering, aeronautical & astronautical engineering, from Air Force Office of Scientific Research, \$335,775, “In Situ Spectroscopy and Damage Assessment in Dynamically Deforming Materials.”

## Michalski to Pushkar

**Michalski, Greg M;** earth & atmospheric sciences, from National Academy of Sciences, \$44,275, “Assessing the Cause of Groundwater Nitrate Pollution in Pakistan and the Development of Environmental Chemistry Research and Curriculum at Abdul Wali Khan University.”

**Miller, Jeffrey T;** chemical engineering, from Argonne National Laboratory, \$30,000, “X-Ray Absorption Studies of NREL Catalysts, Modification 3.”

**Mitchell, Cary A;** horticulture & landscape architecture, from Kennedy Space Center, \$15,000, “Pick-and-Eat Salad-Crop Productivity, Nutritional Value, and Acceptability to Supplement the ISS Food System.”

**Mohammadi, Mohsen;** agronomy, from Agricultural Research Service, \$25,000, “Genetics of Resistance to Septoria Diseases in Wheat.”

**Mohammadi, Mohsen;** agronomy, from Agricultural Research Service, \$5,000, “New Modes of Wheat Resistance Against Hessian Fly.”

**Mohammed, Sulma I and Mittal, Suresh K;** comparative pathobiology, from National Institutes of Health, \$42,793, “Breast Cancer Metastasis to Lymph Node.”

**Moreland, John R and Block, Michelle E;** Center for Innovation through Visualization & Simulation, nursing – Calumet campus, from Association for Iron and Steel, \$10,000, “Interactive Training for Heavy Mobile Equipment Safety: Targeting Safety Attitudes and Beliefs.”

**Mosier, Nathan S;** agricultural & biological engineering, from Indiana Soybean Alliance, \$156,971, “Student Soybean Innovation Contest.”

**Nagy, Zoltan;** chemical engineering, from Alconbury Weston Ltd, \$17,000, “Continuous Crystallization.”

**Nauman, Eric A; Talavage, Thomas M and Redick, Thomas S;** mechanical engineering, electrical & computer engineering, psychological science, from Allied Milk Producers, \$100,000, “Nutritional Intervention for Repeated Subconcussive Exposure.”

**Niser, John C;** consumer & family sciences – Fort Wayne campus, from University of Stavanger, \$2,260, “HSD Consortium.”

**Okuniewski, Maria A and Tomar, Vikas;** materials engineering, aeronautical & astronautical engineering, from U.S. Department of Energy, \$746,667, “Microstructure, Thermal, and Mechanical Properties Relationships in U and UZr Alloys.”

**Ouyang, Zheng;** biomedical engineering, from Houston Methodist Research Institute, \$106,757, “Quantification of Circulating Antigens for Pediatric TB Diagnosis and Treatment Monitoring.”

**Padfield, Jon R;** Purdue Polytechnic Columbus, from Indiana Department of Transportation, \$51,581, “Implementation of Lean Business Processes for Indiana Department of Transportation (INDOT) Maintenance (Training and Tracking Process Improvements).”

**Paniagua Perez, Guillermo;** mechanical engineering, from MBDA France, \$38,458, “Compact Expansion Machine for Supersonic Flows.”

**Panitch, Alyssa; Rickus, Jenna L; Cheng, Ji-Xin; Harbin, Sherry L and Park, Kinam;** biomedical engineering, agricultural & biological engineering, from PHS-NIH National Institute of Allergy and Infectious Diseases, \$178,918, “Bioengineering Interdisciplinary Training for Diabetes Research.”

**Patton, Aaron E;** recreation & wellness, from PBI Gordon Corp., \$16,400, “Multi-Sponsored.”

**Patton, Aaron E;** recreation & wellness, from Bayer CropScience, \$9,700, “Multi-Sponsored.”

**Patton, Aaron E;** recreation & wellness, from U.S. Golf Association, \$3,000, “Multi-Sponsored.”

**Patton, Aaron J;** horticulture & landscape architecture, from Midwest Regional Turf Foundation, \$15,500, “Turfgrass Research.”

**Payer, Mathias J;** computer science, from National Science Foundation, \$46,820, “TWC:TTP Option:Medium:Collaborative:ENC ORE - Enhanced Program Protection through Compiler-Rewriter Cooperation.”

**Payer, Mathias J;** computer science, from Intel Corporation, \$75,000, “Enforcing Memory Safe.”

**Perusich, Karl A;** Purdue Polytechnic South Bend, from Florence V Carroll Charitable Trust, \$2,000, “Support of EV Go-Kart Science, Technology, Engineering & Mathematics (STEM) Camp.”

**Phillips, Margaret L; Fosmire, Michael J and McPherson, Paul B;** library administration, engineering technology, from National Institute of Standards & Technology, \$64,682, “Standards Are Everywhere: an Information Literacy Approach to Standards Education.”

**Pinal, Rodolfo;** industrial & physical pharmacy, from AbbVie Inc, \$35,000, “Center for Pharmaceutical Processing Research Consortium.”

**Pothen, Alex;** computer science, from National Science Foundation, \$399,401, “AITF:Collaborative Research: Bridging the Gap Between Theory and Practice for Matching and Edge Cover Problems.”

**Pourpoint, Timothee L;** aeronautical & astronautical engineering, from SEDS UC San Diego, \$2,000, “Multi-Sponsored Propulsion Systems Research.”

**Pourpoint, Timothee L;** aeronautical & astronautical engineering, from Jet Propulsion Laboratory, \$99,999, “Testing of Wax-Based Fuel with Hypergolic Additives for Hybrid Rocket Applications.”

**Povolotskyi, Mykhailo;** electrical & computer engineering, from Semiconductor Research Corporation, \$35,031, “E2CDA:Type I: Collaborative Research: a Fast 70mV Transistor Technology for Ultra-Low-Energy Computing.” (a Discovery Park award – Network for Computational Nanotechnology)

**Prabhakar, Sunil K;** computer science, from Air Force Research Laboratory, \$124,996, “Verified Compilation of Concurrent Managed Languages.”

**Purpura, David J;** child development & family studies, from University of Denver, \$19,094, “Evaluating the Efficacy of Learning Trajectories in Early Mathematics, Amendment 1; Grant 108117.”

**Pushkar, Yulia N;** physics, from CRDF Global, \$50,000, “In Situ Spectroscopy of Non-Precious Metal Catalysts for Fuel Cells with Improved Activity and Stability.”



## Quagrainie to Sepulveda

**Quagrainie, Kwamena K;** agricultural economics, from Oregon State University, \$750,000, "Aquaculture Development and the Impact on Food Supply, Nutrition and Health in Ghana and Tanzania – Phase II."

**Rainey, Katherine M;** agronomy, from Agricultural Research Service, \$12,901, "Characterization of the High Stearic Acid Soybean Oil Trait."

**Rainey, Katherine M and Thapa, Rima;** agronomy, from United Soybean Board, \$834,982, "Modifying Soluble Carbohydrates in Soybean Seed for Enhanced Nutritional Energy Meal."

**Ramani, Karthik;** mechanical engineering, from The National GEM Consortium, \$20,000, "2016 GEM Terrell Glenn."

**Ramani, Karthik; Iyer, Ananth V and Rao, Sanjay G;** mechanical engineering, department of management, electrical & computer engineering, from National Science Foundation, \$1,000,000, "PFI:BIC MAKERPAD: Making Everyone a Maker through Intuitive Shape-Modeling and 3-D Printing Service Platform."

**Rathert, Angela S;** field extension educators, from Jefferson County, \$100, "Strengthening Families for Parents & Youth 10-14."

**Ratliff, Timothy L; Knapp, Deborah W; Dhawan, Deepika and Ramos-Vara, Jose A;** Cancer Research Center, veterinary clinical science, comparative pathobiology, from National Institutes of Health, \$500,000, "Advancing Immunology in Dogs with Naturally-Occurring Invasive Bladder Cancer, a Relevant Model to Improve Immunotherapy Across Molecular Cancer Subtypes in Humans."

**Rayburn, Rachel L;** Public Environmental Affairs – Fort Wayne campus, from Indiana Campus Compact, \$1,000, "Indiana University - Purdue University Fort Wayne Campus Election Engagement Project."

**Reed, Willie M;** veterinary medicine – administration, from Indiana Dog Tax, \$12,077, "Indiana State Dog Tax."

**Ren, Tong; Zeller, Matthias and Doucette, Suzanne C;** chemistry, from National Science Foundation, \$218,473, "Magnetic Resonance Imaging (MRI): Acquisition of a Mo Microsource Diffractometer at Purdue University."

**Rhoads, Jeffrey F; Davies, Patricia; Gonzalez, Marcial; Koslowski, Marisol and Son, Steven F;** mechanical engineering, from Air Force Research Laboratory, \$80,000, "Near-Resonant Thermomechanics of Energetic and Mock Energetic Composite Materials, Part II."

**Rhodes, David;** horticulture & landscape architecture, from ENP Investments, \$1,500, "ENP Investments."

**Ribeiro, Fabio H;** chemical engineering, from Cummins, Inc., \$140,000, "Ammonia Selective Catalytic Reduction (SCR) on Cu Catalysts."

**Richmond, Douglas S;** entomology, from Syngenta Crop Protection Inc., \$8,500, "Turfgrass Entomology Research."

**Rickus, Jenna L;** agricultural & biological engineering, from George Washington Carver Fellowship, \$33,312, "Colbert, Ashlee."

**Rickus, Jenna L and Linnes, Jacqueline C;** agricultural & biological engineering, biomedical engineering, from PHS-NIH National

Institute on Drug Abuse, \$100,000, "Two Novel Biomedical Micro and Nanosystems (bioMEMS) Relevant to Clinical and Animal Drug Abuse Research."

**Ridgway, Kenneth D;** earth & atmospheric sciences, from National Science Foundation, \$93,153, "TC: Collaborative Research: Investigating Controls on Temporal-Spatial Heterogeneous Deformation Along a Transpressive Strike-Slip Fault System: the Eastern Denali Fault Corner."

**Roy, Kaushik;** electrical & computer engineering, from Office of Naval Research, \$348,072, "Efficient Neuro-Computing Using Spin-Torque Devices."

**Sadeghi, Farshid;** mechanical engineering, from Honeywell International Foundation Incor, \$160,000, "Tribology Lab Research."

**Salazar, Kara A;** forestry & natural resources, from University of Wisconsin-Madison, \$2,500, "Indiana Master Watershed Stewards - Curriculum Development, Coastal Storms Program."

**Sangid, Michael D and Da Silva Mello Junior, Alberto W;** aeronautical & astronautical engineering, from The University of Birmingham, \$38,000, "Role of Precipitates in Heterogeneous Slip of Ni-Based Superalloys."

**Saunders, Michael R;** forestry & natural resources, from Department of the Navy, \$101,398, "Application of Ecological Forestry Principles to Regenerate Oak-Dominated Hardwood Ecosystems; Modification 4; (Grant 107186)."

**Savage, Michael L;** WBAA, from Robert & Toni Bader Charitable Foundation, \$5,745, "Bader Grant 2016."

**Scachitti, Susan M;** engineering technology – Calumet campus, from Department of Veterans Affairs, \$124,151, "MyVA Access Lean Management Systems Executive Level Sensei Facilitation."

**Schoenlein, William E and Durkes, Abigail C;** biomedical engineering, comparative pathobiology, from Cook Research Incorporated, \$68,243, "Pre-Clinical Device Testing Agreement; Studies: CI-AMDV, REG-MMT1, CI-HNA, CI-SPH4, POC, and Sentinels."

**Scott, David E;** Indiana State Chemist, from Environmental Protection Agency, \$200,650, "FY 2017 EPA Pesticide Cooperative Agreement."

**Seigfried-Spellar, Kathryn C; Hansen, Raymond A; Rogers, Marcus K; Springer, John A and Yang, Baijian;** computer & information technology, from National Institute of Justice, \$487,440, "File Toolkit for Selective Analysis & Reconstruction (File TSAR) for Large Scale Computer Networks."

**Seleem, Mohamed;** comparative pathobiology, from National Academy of Sciences, \$3,660, "Development of Next Generation Arythiazoles for Combating Methicillin & Vancomycin-Resistant Staphylococcus Aureus."

**Seleem, Mohamed;** comparative pathobiology, from National Academy of Sciences, \$58,427, "Development of Next Generation Arythiazoles for Combating Methicillin & Vancomycin-Resistant Staphylococcus Aureus."

**Sepulveda, Maria S; Hoverman, Jason T and Lee, Linda S;** forestry & natural resources, agronomy, from Department of the Army, \$443,592, "Development of Amphibian Poly- and Perfluoroalkyl Substances Toxicity Reference Values for Use in Ecological Risk Assessment at Aqueous Film Forming Foam Sites."

## Shakouri to Szpankowski

**Shakouri, Ali**; electrical & computer engineering, from Applied Materials, \$8,750, "Consortium on Printing and Scalable Manufacturing of Aware and Responsive Thin Films."

**Shepson, Paul B**; chemistry, from National Institute of Standards & Technology, \$50,000, "Application of the Aircraft Mass Balance Method for Measurement of Greenhouse Gas Emission Rates for Eastern U.S. Cities."

**Shepson, Paul B**; chemistry, from Environmental Defense Fund, \$96,906, "Power-Plant Methane Emissions Study."

**Shih, Tom I**; aeronautical & astronautical engineering, from National Aeronautics and Space Administration, \$9,000, "National Aeronautics and Space Administration (NASA) Aeronautics Undergraduate Scholarship."

**Shin, Yung C**; mechanical engineering, from General Electric Company, \$200,000, "Priam 16.01: Closed Loop Machining Environment."

**Simpson, Garth J**; chemistry, from National Science Foundation, \$8,000, "Grant Opportunities for Academic Liaison with Industry (GOALI): Informing Amorphous Formulations Design through Quantitative Nonlinear Optical Analysis."

**Singh, Manpreet**; food science, from Kathy Kaspar, \$100, "Multi-Sponsored Gift."

**Sivasankar, Preeti M; Durkes, Abigail C; Calve, Sarah and Liu, Zhongming**; speech, language and hearing sciences, comparative pathobiology, biomedical engineering, from PHS-NIH National Institute on Deafness and Other Communication Disorders, \$314,985, "Pathobiology and Biomechanics of Vocal Fold Dehydration."

**Slabaugh, Carson D and Heister, Stephen D**; aeronautical & astronautical engineering, from Air Force Office of Scientific Research, \$128,990, "Acquisition of a High-Speed Imaging System for Measurements in Detonation Processes."

**Slipchenko, Lyudmila V**; chemistry, from National Science Foundation, \$199,988, "Automated Software for Advanced Molecular Modeling of Biomolecules and Materials."

**Smith, Daniel W**; philosophy, from National Endowment for the Humanities, \$175,000, "Translation of the Seminars of Gilles Deleuze."

**Smith, Mjt**; graduate school administration, from Purdue University Special Initiative Program, \$34,486, "Ahanger, Mohsen."

**Smith, Richard S and Kurdelak, Erik S**; food science, from E & J Gallo Winery, \$9,500, "Microwave Grapes."

**Solomon, Kevin V**; agricultural & biological engineering, from Pioneer Oil Company, \$101,111, "Characterizing and Controlling the Microbial Activities in the Illinois Oil Basin for Improved Productivity."

**Son, Steven F**; mechanical engineering, from Northeastern University, \$75,000, "Small-Scale Characterization of Homemade Explosives (HMEs)."

**Son, Steven F**; mechanical engineering, from University of Michigan, \$170,000, "Theory and Experiment of Cocrystals: Principles, Synthesis and Properties; Amendment 4; Grant 106820."

**Song, Xiaohui C**; Rosen Center for Advanced Computing, from University of Illinois at Champaign-Urbana, \$74,624, "XSEDE: Extreme Science and Engineering Discovery Environment."

**Steinbach, Sarah M and Adams, Larry G**; veterinary clinical science, from America College of Veterinary Internal Medicine, \$25,000, "Fellowship in Advanced Clinical Training in Small Animal Nephrology and Urology."

**Strachan, Alejandro H**; materials engineering, from University of Illinois at Champaign-Urbana, \$232,592, "Shock Wave Energy Dissipation (SWED) by Mechanochemically-Active Nanoporous Materials; Amendment 9 (Grant 106049)."

**Straw, Mark L**; animal sciences, from Agricultural Marketing Service, \$6,000, "Country of Origin Labeling for Retail Surveillance Activities."

**Sullivan, John P**; aeronautical & astronautical engineering, from Brigham Young University, \$4,500, "Development of UAV for First Responder- AeroSPACE Multi University, Multi User Capstone Project."

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$150,000, "Supplement for STC Graduate Student / Post Doc Career Development Workshops: Coaching and Skills-Building II." (a Discovery Park award – Discovery Park administration)

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$16,000, "Research Experience for Undergraduates (REU) Supplement: Emerging Frontiers of Science of Information." (a Discovery Park award – Discovery Park administration)

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$16,000, "Research Experience for Undergraduates (REU) Supplement: Emerging Frontiers of Science of Information." (a Discovery Park award – Discovery Park administration)

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$16,000, "Research Experience for Undergraduates (REU) Supplement: Emerging Frontiers of Science of Information." (a Discovery Park award – Discovery Park administration)

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$16,000, "Research Experience for Undergraduates (REU) Supplement: Emerging Frontiers of Science of Information." (a Discovery Park award – Discovery Park administration)

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$16,000, "Research Experience for Undergraduates (REU) Supplement: Emerging Frontiers of Science of Information." (a Discovery Park award – Discovery Park administration)

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$93,500, "Emerging Frontiers of Science of Information Supplement III." (a Discovery Park award – Discovery Park administration)

**Szpankowski, Wojciech**; computer science, from National Science Foundation, \$16,000, "Research Experience for Undergraduates (REU) Supplement: Emerging Frontiers of Science of Information." (a Discovery Park award – Discovery Park administration)

## Tantama to Wise

**Tantama, Mathew C;** chemistry, from PHS-NIH National Eye Institute, \$226,784, "Optical Tools to Study Neuropeptide Signaling."

**Tarko, Andrew P and Romero, Mario A;** civil engineering, from Indiana Department of Transportation, \$148,785, "Predicting Impact to Traffic Safety and Mobility of Change in Speed Limits for Indiana Freeways."

**Taylor, Lynne S;** industrial & physical pharmacy, from Anasys Instruments, \$117,612, "AFM Based Nanoscale IR Spectroscopy (AFM-IR) as a Characterization Platform for Solubility Enhancing Drug Delivery Systems; Year 2."

**Taylor, Lynne S; Galinsky, Raymond E and Simpson, Garth J;** industrial & physical pharmacy, chemistry, from PHS-FDA Food and Drug Administration, \$500,000, "Formulation, Processing and Performance Interrelationships for Amorphous Solid Dispersions."

**Thomas, Joseph; Rajpura, Jigar R and Zhang, Suyuan;** pharmacy practice, from Pfizer Inc, \$50,067, "Sickle Cell Disease Cost of Treatment; Change Order 2."

**Thottethodi, Mithuna S and Vijaykumar, T N;** electrical & computer engineering, from National Science Foundation, \$570,000, "BIGDATA: Collaborative Research: F: Rdma-Based Datacenter Networks for Online Big Data Applications."

**Toms, Andrew S;** mathematics, from National Science Foundation, \$180,000, "Operator Algebras Before and after Jiang-Su Stability."

**Towns, Marcy H;** chemistry, from National Science Foundation, \$8,548, "Investigating Student Understanding of Chemical Kinetics."

**Turco, Ronald F and Prokopy, Linda S;** agronomy, forestry & natural resources, from Wabash River Enhancement Corp, \$8,000, "Support Three Gauging Stations in Tippecanoe County."

**Tyner, Wallace E and Taheripour, Farzad;** agricultural economics, from Federal Aviation Administration, \$373,750, "Techno-Economic and Life-Cycle Analysis of Alternative Aviation Biofuels Supply Chains."

**Vacca, Andrea;** agricultural & biological engineering, from University of Minnesota, \$80,000, "ERC for Compact, Clean, and Efficient Fluid Power Systems."

**Vacca, Andrea;** agricultural & biological engineering, from Stackpole International, \$122,244, "Design Optimization of a Dual Stage External Gear Pump."

**Varma, Amit H and Seo, Jungil;** civil engineering, from Dankook University Jukieon Campus, \$144,179, "Collaborative Experimental Investigation of SC Walls Subjected to Missile Impact."

**Villarreal, Rosa M;** Student Success at Purdue, from U.S. Department of Education, \$379,367, "Horizons Student Support Services."

**Volenc, Jeffrey J;** agronomy, from International Plant Nutrition Institute, \$20,000, "Global Maize."

**Voyles, Richard M;** engineering technology, from National Science Foundation, \$234,100, "I/UCRC Phase I: Robots and Sensors for the Human Well-Being."

**Voyles, Richard M;** engineering technology, from National Science Foundation, \$777,212, "Magnetic Resonance Imaging (MRI) Development: Heterogeneous, Autonomic Wireless Control Networks for Scalable Cyber-Physical Systems."

**Vyn, Tony J;** agronomy, from Monsanto Company, \$50,000, "Science, Technology, Engineering & Mathematics (STEM) Scholarship for Heather Pasley."

**Vyn, Tony J;** agronomy, from Environmental Tillage Systems, \$5,000, "Agricultural Cropping Systems."

**Wachs, Juan P and Bouman, Charles A;** industrial engineering, electrical & computer engineering, from Naval Postgraduate School, \$100,000, "A Proposal for Collaborative Research in Multi-Target Sense and Avoid for Small, Lightweight Unmanned Aerial Vehicles (UAVS)."

**Wan, Hong;** industrial engineering, from Naval Postgraduate School, \$27,500, "Lasso-Based Supersaturated Design and Analysis for Simulation Experiments."

**Wang, Haiyan;** materials engineering, from National Science Foundation, \$251,107, "From Atomic Scale Strain Probing to Smart 3-D Interface Design."

**Wang, Nien-Hwa L;** chemical engineering, from American River Nutrition Inc, \$12,000, "Wang Research Armn Voluntary Support."

**Ward, Mark D; Cheng, Guang; Christ, Sharon L; Chun, Hyonho; Craig, Bruce A; Li, Bo; Viens, Frederi G; Wang, Xiao; Xie, Jun; Zhang, Hao and Zhang, Lingsong;** statistics, child development & family studies, mathematics, forestry & natural resources, from National Science Foundation, \$312,288, "MCTP: Sophomore Transitions: Bridges into a Statistics Major and Big Data Research Experience."

**Wassgren, Carl R;** mechanical engineering, from Whirlpool Corp, \$386, "Material Characterization for Whirlpool."

**Weatherman, Kara D;** pharmacy practice, from Cardinal Health, \$10,000, "Nuclear Pharmacy Educational Efforts and Radiopharmaceutical Safety."

**Weaver, Connie M;** foods & nutrition, from The Coca Cola Company, \$6,000, "Corporate Affiliates Fund."

**Weaver, Connie M; Cooper, Bruce R; Ferruzzi, Mario; McCabe, George P and Janle, Elsa M;** foods & nutrition, biological sciences, food science, statistics, from PHS-NIH National Center for Complementary and Alternative Medicine, \$807,623, "Berries and Bones."

**Weaver, Connie M;** foods & nutrition, from Ingredion Inc, \$6,000, "Corporate Affiliates Fund."

**Weinstein, Dana and Peroulis, Dimitrios;** electrical & computer engineering, from Intel Corporation, \$300,000, "Intel Labs: GaN on LiNbO3 Programmable Radio Frequency (RF) Filters."

**Wilson, Christina R and Hammac, Gena K;** comparative pathobiology, from PHS-FDA Food and Drug Administration, \$99,000, "Validation and Harmonization of Testing Methods for Bacterial and Chemical Adulterants in Biological Specimens and Pet Food."

**Wirth, Mary J;** chemistry, from Northwestern University, \$62,500, "National Resource for Translational and Developmental Proteomics, Amendment 1; (Grant 108059)."

**Wise, Kiersten A;** botany & plant pathology, from Iowa State University, \$25,000, "Evaluation and Precision Zone Management in Soybean Fields to Improve Profits and Reduce Product Inputs."



## Wlodarczyk to Zillich

**Wlodarczyk, Jaroslaw**; mathematics, from Binational Science Foundation, \$10,935, “Strong Semistable Reduction, Grant 208683.”

**Wu, Wenzhuo**; industrial engineering, from Oak Ridge Associated Universities, \$5,000, “Piezotronics in Monolayer Heterostructures Grown by Chemical Vapor Deposition for Ultra-Thin Smart Electronics.”

**Xu, Dongyan** and **Zhang, Xiangyu**; computer science, from National Science Foundation, \$46,820, “TWC: Medium: Collaborative: Towards a Binary-Centric Framework for Cyber Forensics in Enterprise Environments.”

**Yang, Danzhou**; medicinal chemistry & molecular pharmacology, from PHS-NIH National Cancer Institute, \$136,829, “Modulating c-MYC Transcription by G-Quadruplex-Interactive Small Molecules.”

**Yang, Won Sik**; nuclear engineering, from Argonne National Laboratory, \$99,437, “Support to the Software Verification and Software Validation of Rebuspc V1.5.”

**Ye, Peide**; electrical & computer engineering, from National Science Foundation, \$500,000, “EFRI 2-DARE: Phosphorene, an Unexplored 2D High-Mobility Semiconductor.” (a Discovery Park award – Birk Nanotechnology Center)

**Yeo, Yoon**; industrial & physical pharmacy, from Egyptian Cultural and Educational Bureau, \$5,000, “Hassan Tamam Voluntary Support – Yeo.”

**Yih, Yuehwern**; industrial engineering, from Catholic Relief Services, \$76,006, “Humanitarian Response and Supply Chain Management.”

**Young, Bryan G** and **Johnson, William G**; botany & plant pathology, from United Soybean Board, \$526,000, “Research to Integrate Best Management Practices for Glyphosate-Resistant Weeds in Soybean Production Systems (Year 2 of 3).”

**Yu, Lingling**; IT Application Services, from Schlumberger Foundation, \$36,022, “Fellowship for Shagufta Mehnaz.”

**Zentner, Michael G**; Rosen Center for Advanced Computing, from PHS-NIH National Cancer Institute, \$94,649, “Establishing a Prototype Hub for the National Cancer Informatics Program.”

**Zentner, Michael G**; Rosen Center for Advanced Computing, from Leidos, \$4,553, “Establishing a Biomedical Citizen Science Hub for the National Cancer Institute.”

**Zhang, Haiyan H**; engineering technology, from American Axle & Manufacturing, Inc, \$50,000, “Center for Technology Development Consortium (CTD).”

**Zhao, Fu**; mechanical engineering, from Russell O. Blosser Memorial Fellowship, \$1,500, “Movassagh, Ehsan Vahidi.”

**Zhou, Chenn Q**; Center for Innovation through Visual & Simulation, from Arcelormittal USA, \$33,773, “AM IH4 Blast Furnace Blowpipe.”

**Zhou, Chenn Q**; Center for Innovation through Visual & Simulation, from U.S. Steel Corporation, \$52,934, “Dustcatcher Performance Study for a Blast Furnace.”

**Zhuang, Qianlai**; earth & atmospheric sciences, from Chapman University, \$153,606, “Understanding Mechanistic Controls of Heterotrophic CO<sub>2</sub> and CH<sub>4</sub> Fluxes in a Peatland with Deep Soil Warming and Atmospheric CO<sub>2</sub> Enrichment; Amendment 1; Grant 108045.”

**Zhuang, Qianlai**; agronomy, from Jet Propulsion Laboratory, \$47,862, “High-Resolution Mapping of Dynamic Inundation in Boreal Wetlands for Carbon and Hydrological Studies on Seasonal to Interannual Scales.”

**Zillich, Alan J**; pharmacy practice, from Ross Graduate Fellowship/ Assistantship, \$28,963, “Beal, Jenny.”

**Zillich, Alan J**; pharmacy practice, from R.L. Roudebush Veterans Administration Medical Center, \$73,743, “R.L. Roudebush Veterans Administration Medical Center for Deanna Kania.” ■

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## **Zhang, Hao to Zoltowski**

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