

## Abbott to Braun

**Abbott, Angela R;** health & human sciences administration, from Indiana State Department of Health, \$16,158, "Indiana Nutrition Education Program (NEP): Supplemental Nutrition Assistance Program – Education Division (SNAP-Ed) Plan 2020."

**Adeola, Olayiwola;** animal sciences, from Genencor International, \$20,918, "Determine the Nutritional Matrix of a Phytase in Broilers (Amendment #2 – Grant 40002803)."

**Alavizadeh, Alireza; McLees, David A; Mikhail, Maged B and Rickerson, Rick R;** engineering technology, technology administration, from National Fluid Power Association, \$9,000, "Advanced Fluid Power Course Development."

**Alexeenko, Alina;** aeronautics & astronautics, from Allergan, Inc, \$20,000, "Advanced Lyophilization Technology Hub (LyoHub) Consortium-Allergan, Inc."

**Allebach, Jan P and Chiu, George T;** electrical & computer engineering, mechanical engineering, from Shenzhen Danya Technology, \$165,000, "Commissioning the Development of Nail Printer Products."

**Anderson, Gina M;** field extension, from Duke Energy Foundation, \$3,000, "Pollinator Day."

**Appenzeller, Joerg;** electrical & computer engineering, from Intel Corporation, \$110,000, "Dirac-Source Field-Effect Transistors (FET) with Transition Metal Dichalcogenides (TMD) Channel; Amendment 1, Grant 40002602."

**Armstrong, Shalamar D;** agronomy, from Illinois Nutrient Res Council, \$189,551, "A Long-Term Evaluation of Nitrogen Application Timing, Precision Planted Cover Crops, and Adaptive Nitrogen Fertilizer Management Impacts on Cash Crop Yield, Water Quality on Tile Drained Fields."

**Arrieta Diaz, Andres;** mechanical engineering, from National Science Foundation, \$541,629, "Faculty Early Career Development (CAREER): The Mechanics of Hierarchically Multistable Metastructures."

**Aubeneau, Antoine F;** civil engineering, from U.S. Geological Survey, \$15,000, "Evaluating Old Mill Ponds: Can They Provide Clean Water and Sustainable Energy?"

**Bailey, Regan K;** nutrition science, from Taylor C Wallace, \$27,500, "Think Healthy Voluntary Support – Bailey."

**Baldos, Uris Lantz C;** agricultural economics, from University of Minnesota, \$61,119, "Global Futures (Phases 3 and 4): Modeling the Global Economic Impacts of Environmental Change to Support Policy-Making."

**Barnard, Freddie L;** agricultural economics, from Julie Gable, \$800, "Indiana Society of Farm Managers and Rural Appraisers."

**Basaran, Osman A;** chemical engineering, from SABIC Innovative Plastics US LLC, \$25,000, "Purdue Process Safety and Assurance Center(P2SAC)."

**Basaran, Osman A;** chemical engineering, from the Dow Chemical Company, \$25,000, "Purdue Process Safety and Assurance Center(P2SAC)."

**Beaudoin, Stephen P;** chemical engineering, from Sandia National Laboratories, \$65,000, "Sandia Academic Alliance Fellowship for Cara Coultas-McKenney."

**Beaulieu, Lionel J;** engagement administration, from Indiana Economic Development Corporation, \$79,375, "Southeast Small Business Development Center (SBDC) – State."

**Beaulieu, Lionel J;** engagement administration, from Indiana Economic Development Corporation, \$172,928, "Southeast Small Business Development Center (SBDC) – Federal."

**Bertino, Elisa;** computer science, from IBM, \$121,927, "IBM Distributed Analytics and Information Science (DAIS) Project."

**Bertino, Elisa;** computer science, from IBM, \$121,927, "IBM The Distributed Analytics and Information Science International Technology Alliance (DAIS ITA) – Biennial Program Plan BPP20."

**Bhargava, Bharat and Aggarwal, Vaneet;** computer science, industrial engineering, from University of Southern California, \$82,538, "Generating Novelty in Open-World Multi-Agent Environments (GNOME); Amendment 1, Grant 13000841."

**Bhunja, Arun K;** food science, from Egyptian Cultural and Educational Bureau, \$5,000, "Bench Fee- Amr Abdou."

**Bigelow, Cale A;** horticulture & landscape architecture, from National Turfgrass Evaluation Program, \$7,500, "2019 National Bermudagrass Test."

**Boerman, Jacquelyn P;** animal sciences, from Diamond V Mills, Inc., \$47,675, "Multi Sponsor Voluntary Support."

**Bolin, Jeffrey T;** executive vice president for administration, from Purdue Research Foundation, \$153,285, "19-20 Purdue Research Foundation (PRF) Research Grants (60000025)."

**Boltasseva, Alexandra and Shalae, Vladimir M;** electrical & computer engineering, from Office of Naval Research, \$300,000, "Extreme Nonlinear Optics with Low-Index Materials." (a Discovery Park award – Birk Nanotechnology)

**Bowman, Aaron B;** health sciences, from Albert Einstein College of Medicine, \$51,172, "Mechanisms of Manganese Neurotoxicity."

**Braun, James E;** civil engineering, from Lennox Industries, Inc., \$35,750, "Load-Based Testing of an Advanced Controller for Residential Heat Pumps (Grant 40002734)."

**Braun, James E;** mechanical engineering, from Lennox Industries, Inc., \$50,000, "Center for High Performance Building Consortium (Lennox)."

**Braun, James E;** mechanical engineering, from Gree Electric Appliances, Inc, \$50,000, "Center for High Performance Building Consortium-Gree Electric."

**Braun, James E;** mechanical engineering, from Guangdong Meizhi Compressor Co Ltd, \$50,000, "Center for High Performance Building Consortium-Guangdong Meizhi."

**Braun, James E;** mechanical engineering, from Regal Beloit Manufacturing Corp, \$50,000, "Center for High Performance Building Consortium (Regal Beloit)."

## Brewster to Eicher-Miller

**Brewster, Amy L and Bartlett, Edward L;** psychological sciences, biological sciences, from PHS-NIH National Institute Neurological Disorders and Stroke, \$333,878, "A Role for the Complement System in Seizure Induced Neuronal and Dendritic Injury (Grant 11000693, Amendment 2)."

**Brightman, Andrew O;** biomedical engineering, from Indiana University Purdue University at Indianapolis, \$34,019, "2019-20 Joint PhD Program Graduate Support – Yizhi Jiang."

**Brooke, Jarred M;** forestry & natural resources, from Whitetails Unlimited Inc, \$2,500, "Voluntary Support – Brooke."

**Buckmaster, Dennis;** agricultural & biological engineering program, from CNH Industrial, \$20,050, "Voluntary Support – Multi Sponsor."

**Bullock, Darcy M;** civil engineering, from Indiana Department of Transportation, \$60,000, "Enhanced Traffic Signal Performance Measures (Grant 21000232, Amendment 4)."

**Bullock, Darcy M;** civil engineering, from Indiana Department of Transportation, \$200,000, "Integration of Probe Data Tools into Transportation Management Center (TMC) Operations."

**Buzon, Michele R;** anthropology, from University of Chicago, \$350, "Year 3 Increase: Coping with Changing Climates in Early Antiquity: Comparative Approaches Between Empiricism and Theory (40002193)."

**Byrn, Stephen Robert and Smith, Daniel T;** industrial & physical pharmacy, from National Institute for Pharmaceutical Technology and Education, \$109,960, "Assessment of Smoking and Vaping Risk of Opioids and Commercial Products, and Standardization of Methods to Assess These Properties."

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

**Campbell, Noll L;** pharmaceutical practice, from PHS-NIH National Institute on Aging, \$655,365, "Reducing Risk of Dementia through De-Prescribing (R2D2) (Grant 11000858 – Amendment #1)."

**Campbell, Wayne W;** nutrition science, from University of Colorado Denver, \$39,193, "Predicting Health Outcomes of Mediterranean Diet via Metabolomics of Foods and Biospecimens (Grant 11000779 – Amendment 2)."

**Casteel, Shaun N;** agronomy, from Helena Agri-Enterprises, LLC, \$10,000, "Soybean Extension Research."

**Chavas, Daniel R;** earth & atmospheric sciences, from National Science Foundation, \$711,235, "Faculty Early Career Development (CAREER): Climate Controls on Hurricane Landfall via the Subtropical High."

**Chen, Jingqiu and Engel, Bernard A;** agricultural & biological engineering program, agricultural research and graduate education, from U.S. Geological Survey, \$1,000, "Impacts of Urbanization on Urban Runoff and Water Quality in the Contiguous U.S."

**Chen, Jingqiu; Engel, Bernard A and Gitau, Margaret W;** agricultural & biological engineering program, agricultural research and graduate education, from U.S. Geological Survey, \$10,000, "A Framework for Optimization of Green Infrastructure Practices Selection and Placement to Attain Runoff and Water Quality Goals in Urban Watershed."

**Chen, Weinong W and Meyer, Terrence R;** aeronautics & astronautics, mechanical engineering, from Army Research Office, \$60,000, "Damage and Temperature Around a Propagating Dynamic Crack, Modification 5; Grant 13000558."

**Chen, Yunfeng;** construction management technology, from Georgia Southern University, \$73,500, "Cognitive Attention and Traffic Crashes: a Study of Countermeasures in Two Intersections and One Section."

**Childress, Michael O; Dhawan, Deepika and Ruple, Audrey;** veterinary clinical sciences, public health, from Veterinary Cancer Society, \$12,185, "Serum Thymidine Kinase 1 Activity as a Prognostic Biomarker in Dogs with Chop-Treated Diffuse Large B-Cell Lymphoma."

**Christian, John A;** comparative pathobiology, from Western University of Health Sciences, \$7,540, "Cytology Resource Center (40001198)."

**Connor, Robert J;** civil engineering, from Indiana Department of Transportation, \$80,000, "Development of Criteria to Assess the Effects of Pack-Out Corrosion in Built-Up Steel Members (Grant 21000270, Amendment 2)."

**Das, Chittaranjan and Luo, Zhao-Qing;** chemistry, biological sciences, from PHS-NIH National Institute of General Medical Science, \$41,330, "Mechanism of Atypical Ubiquitination and Deubiquitination by Bacterial Effectors (Grant 11000675, Amendment #3)."

**Davisson, Vincent Jo and Knipp, Gregory Thomas;** medicinal chemistry & molecular pharmacology, pharmaceutical practice, from Brigham and Women's Hospital, \$415,654, "Pharmaceutical Sciences Core for Advancing Novel Cyanide Countermeasures."

**DeLaurentis, Daniel A; Ezra, Kristopher L; Raz, Ali Khalid and Mockus, Linas;** aeronautics & astronautics, chemical engineering, from Torch Technologies, \$2,453, "Advanced System of Systems Modeling and Analysis for Integrated Air and Missile Defense Battle Command System (IBCS) Evolution (Amendment 3; Grant 13000772)."

**Denos, Benjamin R; Favaloro, Anthony J; Sommer, Drew E and Bogdanor, Michael J;** Composites Manufacturing & Simulation Center, from University of Tennessee, \$100,000, "Next Generation Co-Molding of Automotive Parts."

**Dooley, Frank J;** vice president for teaching & learning administration, from Arizona State University, \$109,240, "Increase: University Innovation Alliance (UIA): Bridging the Gap from Education to Employment (BGEE)."

**Duerstock, Bradley S;** biomedical engineering, from the Craig H Neilsen Foundation, \$50,000, "Open Source Multifunctional Wrist Orthosis for Tetraplegics."

**Dykhuisen, Emily C;** medicinal chemistry & molecular pharmacology, from PHS-NIH National Cancer Institute, \$349,196, "The Tumor Suppressive Role of Polybromo-1 (PBRM1), the Bromodomain-Containing Subunit of the Polybromo BRG1-Associated Factor (PBAF) Chromatin Remodeling Complex (Grant 11000598, Amendment #3)."

**Edwards, Anne B;** humanities, education & social sciences, from Challenger Learning Center of Northwest IN, \$1,247, "Data Audit for Challenger Center."

**Egel, Daniel S;** botany & plant pathology, from Makhteshim-Agan of North America, Inc., \$3,900, "Potassium Management."

**Egel, Daniel S;** botany & plant pathology, from BioSafe Systems, LLC, \$2,400, "Potassium Management."

**Eicher-Miller, Heather A; Bhadra, Anindya; Delp, Edward J and Richards, Elizabeth A;** nutrition science, statistics, electrical & computer engineering, nursing, from Kinley Trust, \$20,000, "Temporal Dietary Guidelines Related to Obesity."

## Ekenstedt to Held

**Ekenstedt, Kari J;** basic medicine science, from PHS-NIH Office of the Director, \$12,536, "Novel Genetic Models for Vertebral Abnormalities (Grant 11000827, Amendment #2)."

**El-Azab, Anter A;** materials engineering, from Fluor Marine Propulsion, LLC, \$49,775, "Models for Damage Microstructure Prediction for Crack Evolution in Stainless Steel – Phase III (Grant 14000329, Modification 4)."

**Elliott, Stephen John and Oconnor, Kevin J;** technology, leadership, from Tascent, Inc, \$9,993, "Initial Camera Testing – 100 Subjects."

**Erasmus, Marisa A;** animal sciences, from Agricultural Research Service, \$15,000, "Effects of Probiotics and Synbiotics on Skeletal Health in Broiler Chickens."

**Fei, Songlin;** forestry & natural resources, from National Science Foundation, \$12,000, "Research Experience for Undergraduates (REU) – Modeling Invasion Dynamics Across Scales (MIDAS) (Grant 10001085)."

**Feikes, David J; De Groot, Jerry and Kafle, Bir B;** mathematics, statistics & comp science, from Indiana Department of Education, \$65,429, "Developing Teacher Leaders for Care."

**Fernandez-Juricic, Esteban;** biological sciences, from Animal Plant Health Inspection Service, \$125,000, "A Novel Method to Minimize Bird Strikes through Onboard Lighting Systems."

**Field, William E;** agricultural & biological engineering program, from Country Journal Publishing Co., Inc, \$1,000, "Farm Safety."

**Field, William E;** agricultural & biological engineering program, from Peoples Foundation, \$168,750, "Legacy Innovation Farming Economic (LIFE) Project."

**Figueiredo, Marxa L;** basic medicine science, from PHS-NIH National Cancer Institute, \$409,870, "Disrupting Tumor/Bone Malignant Interactions with Multifunctional Cytokine Sonodelivery (Grant 11000501 – Inc)."

**Foli, Karen J and Zhang, Lingsong;** nursing, statistics, from National Council of State Boards of Nursing, \$162,706, "Nurse Anesthetists and Substance Use: Gathering Critical Information for Targeted Interventions."

**Forney, James D;** biochemistry, from National Science Foundation, \$84,248, "Research Experience for Undergraduates (REU) Site: Molecular and Biochemical Analysis of Proteins (Grant 10001298; Amendment # 2)."

**Garcia, Esteban and Huston, Davin H;** computer graphics technology, engineering technology, from Partners of the Americas Foundation, \$35,000, "Open Estudio 2020."

**Garner, Allen L and Zhang, Cankui;** nuclear engineering, agronomy, from Syngenta Crop Protection Inc., \$311,466, "Electromagnetic Fields to Replace Colchicine for Double Haploid Induction."

**Garner, Allen L;** nuclear engineering, from Air Force Office of Scientific Research, \$84,660, "A Unified, Universal Model for Electron Emission and Breakdown; Modification 2; Grant 13000626."

**Garner, Allen L;** nuclear engineering, from Office of Naval Research, \$10,000, "Conference Grant Proposal for 2020 Institute of Electrical and Electronics Engineers (IEEE) IPMHVC."

**Garner, Allen L and Wu, Wenzhuo;** nuclear engineering, industrial engineering, from Office of Naval Research, \$131,361, "Novel High Power Microwave System Designs Using Non-Linear Transmission Lines; Modification 2, Grant 13000648."

**Ghiselli, Richard F;** hospitality & tourism management, from Lafayette – West Lafayette Convention and Visitor Bureau, \$1,667, "Hospitality & Tourism Management (HTM) Advisory Council."

**Ghiselli, Richard F;** hospitality & tourism management, from Multi-Sponsored Industrials, \$500, "Hospitality & Tourism Management (HTM) Advisory Council."

**Goergen, Craig J;** biomedical engineering, from Indiana University Purdue University at Indianapolis, \$41,371, "2019-20 Joint MDPH Program Graduate Support – Nathaniel Smith."

**Goni Cortes, Joaquin;** industrial engineering, from Indiana University Purdue University at Indianapolis, \$18,126, "Statistical Models for Multi-Modal Brain Imaging Studies of HIV-Associated Cognitive Decline."

**Gore, Jay P and Hasti, Veeraraghava Raju;** mechanical engineering, from National Rural Electric Cooperative Association, \$200,000, "Boiler Cost Operations and Cycling Optimization Model (Coco2)."

**Gounder, Rajamani P;** chem engineering, from Greater Houston Community Foundation, \$1,500, "Multi Sponsor – Voluntary Support."

**Grant, Richard H;** agronomy, from Lake Michigan Air Directors Consort, \$2,500, "Mercury Deposition Monitoring at Vincennes, IN."

**Groll, Eckhard A;** mechanical engineering, from Whirlpool Corp, \$12,000, "Multi Sponsor Groll."

**Guan, Wenjing;** horticulture & landscape architecture, from Syngenta Crop Protection Inc., \$1,200, "General Research Activities."

**Gupta, Sumeet Kumar and Raghunathan, Anand;** electrical & computer engineering, from Army Research Office, \$333,767, "Low Power Compact Non-Volatile Memory and In-Memory Compute Architectures Enabled by 2D Piezoelectric Transistors; [Grant 13000802; Modification #1]."

**Guzey, Siddika and Bryan, Lynn A;** biological sciences, physics & astronomy, from Indiana Department of Education, \$82,713, "BESTI: Building Excellence in Science Teaching through Inquiry."

**Haddock, John E;** civil engineering, from Indiana Department of Transportation, \$29,998, "SPR-4443: Remaining Service Life Prediction of Indiana Pavements Using Mechanistic Methods."

**Hall, Mark C;** biochemistry, from Summer Science Program, \$5,000, "Summer Science Program."

**Hall, Tanya J;** field extension, from Parke County Community Foundation, \$320, "SE Regional CD Voluntary Support."

**Hamilton, Roy L;** educational opportunities program, from Indiana Commission for Higher Education, \$5,000, "Utilization of Academic Coaching to Affect Academic Progress (PNW & IUN)."

**Hartman, Nathan W; Greenan, James P and Strimel, Greg J;** computer graphics technology, curriculum & instruction, technology leadership & innovation, from Ford Motor Company, \$234,687, "Workforce of the Future: Competencies & Data Visualization."

**Held, Dena M;** field extension, from Martin County Community Foundation, \$3,000, "Community Foundation & Purdue Extension Positive Strategies: Engaging & Building Resources, Knowledge and Skill in Martin County."



## Hertel to Liang

**Hertel, Thomas W; Baldos, Uris Lantz C and Liu, Jing;** agricultural economics, Global Trade Analysis Project (GTAP) data, from Michigan State University, \$270,000, "CNH2-L: Uncovering Metacoupled Socio-Environmental Systems."

**Hertel, Thomas W;** agricultural economics, from International Trade Centre, \$20,435, "Global Trade Analysis Project (GTAP) Consortium (ITC-Geneva)."

**Hill, Michael A;** CERIS, from Animal Plant Health Inspection Service, \$407,503, "Cooperative Agricultural Pest Survey Information Services (CAPSIS) FY 20."

**Hoagland, Lori A;** horticulture & landscape architecture, from Higher Education Commission Pakistan, \$3,500, "Bench Fees – Muhammad Marghoob."

**Hogenesch, Harm and Asem, Elikplimi K;** comparative pathobiology, basic medicine science, from Boehringer Ingelheim Animal Health Inc., \$15,000, "Boehringer Ingelheim Veterinary Scholars Program."

**Hook, Tomas O and Archer, Angela S;** forestry & natural resources, from National Oceanographic & Atmospheric Administration, \$59,000, "2020 Knauss Fellowship – Emma Young."

**Huang, Rong;** medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute of General Medical Science, \$32,187, "Protein N-Terminal Methylation Mechanisms and Inhibition (Grant 11000620)."

**Ivantysynova, Monika;** agricultural & biological engineering program, from KYB Corporation, \$108,490, "Multi-Sponsored Gift Account."

**Jacobs, Douglass F;** forestry & natural resources, from Kealakekua Mountain Reserve LLC, \$8,000, "Tropical CAFS."

**Jacovides, Michael L;** philosophy, from National Endowment for the Humanities, \$60,000, "Springs and Principles of the Universe."

**Jagannathan, Suresh;** computer science, from Galois, Inc, \$46,866, "SPARTA – the Secure Parser Toolkit for Assurance; Amendment #3; Grant 13000753."

**Johnson, Timothy and Karcher, Darrin M;** animal sciences, from University of Maryland, \$32,011, "Identifying the Contribution of Broiler Genetics on Gut Health and Immune Response When Challenged with Salmonella Typhimurium."

**Johnson, William G;** botany & plant pathology, from Agricultural Innovations, \$18,000, "Weed Science Research Voluntary Support."

**Jung, Changhee;** computer science, from National Science Foundation, \$111,286, "Faculty Early Career Development (CAREER): Rethinking High-Performance Computing (HPC) Resilience in the Exascale Era (Grant 10001614, Amendment #1)."

**Kaganovich, Natalya B; Leonard, Laurence B; Christ, Sharon L and Greenwell, Charna T;** psychological sciences; speech, language & hearing sciences; human development & family studies; speech, language & hearing sciences speech clinic recharge, from PHS-NIH National Institute on Deafness and Other Communication Disorders, \$325,125, "Audiovisual Processing in Children with Developmental Language Disorder (Grant 11000846; Amendment #1)."

**Karcher, Elizabeth L;** animal sciences, from Indiana State Department of Agriculture, \$5,000, "Exploring the Turkey Industry to Increase a Poultry-Ready Workforce."

**Kasinski, Andrea L and Low, Philip S;** biological sciences, chemistry, from PHS-NIH National Cancer Institute, \$406,567, "Ligand-Mediated, Vehicle-Free Delivery of Small RNAs; Modification 2; Grant 11000699."

**Kenttamaa, Hilkka I and Kilaz, Gozdem;** chemistry, engineering technology, from Neste Oil Oyj, \$60,000, "Investigating the Validity of the Saturated and Unsaturated Hydrocarbon Class Concentrations Obtained Using the ASTM D2425 (2019) Method."

**Kenttamaa, Hilkka I;** chemistry, from Neste Oil Oyj, \$10,000, "Development of the Methods for the Analysis of Chlorine-Containing Compounds in Waste Cooking Fats and Residues."

**Kihara, Daisuke and Aryal, Uma K;** biological sciences, comparative pathobiology, from National Science Foundation, \$427,507, "Infrastructure Innovation for Biological Research (IIBR) Informatics: Development of Multimodal Approaches for Protein Function Prediction."

**Kihara, Daisuke;** biological sciences, from PHS-NIH National Institute of General Medical Science, \$294,786, "Structural Modeling of Multifarious Protein Complexes (Grant 11000603, Amendment #4)."

**Kilaz, Gozdem; Kenttamaa, Hilkka I and Chopra, Gaurav;** engineering technology, chemistry, from Office of Naval Research, \$249,995, "Robust Fuel Composition Analysis for Resilient Logistics."

**Kim, Hye-Ji;** horticulture & landscape architecture, from U.S. Geological Survey, \$15,000, "Nutrient Removal from Greenhouse Wastewater Using a Phosphorus Removal Structure."

**Kim, Young L;** biomedical engineering, from Vanderbilt University Medical Center, \$31,616, "Higher Education Partnership for Innovation and Sustainable Biomedical Informatics Capacity in Kenya."

**Kladivko, Eileen J and Morrow, Anna L;** agronomy, from McKnight Foundation, \$160,000, "Midwest Cover Crops Council (MCCC) Mississippi River Proposal."

**Kulkarni, Milind; Blocki, Jeremiah M; Delaware, Benjamin J; Garmann, Christina L; Kate, Aniket Pundlik; Maji, Hemanta K; Rompf, Tiark and Samanta, Roopsha;** electrical & computer engineering, computer science, from Intelligence Advancement Research Projects Activity, \$104,263, "HACCLE: High-Assurance Compositional Cryptography: Languages and Environments (Grant 13000767, Modification #3)."

**Langemeier, Michael R;** agricultural economics, from Farm Foundation, \$125,424, "Soil Health Economics: Measuring and Validating the Economic Benefits and Costs of Soil Health Practices."

**Lee, Linda S; Sepulveda, Maria Soledad and Ma, Zhao;** agronomy, forestry & natural resources, from National Academy of Sciences, \$80,771, "Endocrine Disrupting Chemicals (EDCs) in Kabul and Swat Rivers and Their Impact on Fish Populations and Rural Community Livelihoods."

**Lee, Sunghwan;** engineering technology, from Korea Res Institute Standards & Science, \$8,446, "Mechanically & Chemically Activated Zerodur/Metal Heterogeneous Bonding."

**Liang, Faming;** statistics, from PHS-NIH National Institute of General Medical Science, \$28,718, "An Imputation-Consistency Algorithm for Biomedical Complex Data Analysis; Modification 4 (Revised), Grant #11000701."

## Liceaga to Munson

**Liceaga, Andrea M;** food science, from Heartland Food Products Group, \$2,500, "Multi Sponsored Gift- Sensory."

**Liceaga, Andrea M;** food science, from Mars Wrigley Confectionery US, LLC, \$4,500, "Multi Sponsored Gift- Sensory."

**Liceaga, Andrea M;** food science, from Iovate Health Sciences Inc, \$3,000, "Multi Sponsored Gift- Sensory."

**Liceaga, Andrea M;** food science, from Weaver Popcorn Company, \$1,000, "Multi Sponsored Gift- Sensory."

**Lifton, Nathaniel A;** physics & astronomy, from National Science Foundation, \$109,874, "Mapping, Measuring, and Modeling Antarctic Geomorphology and Ice Change in Dronning Maud Land, Antarctica."

**Lin, Xiaojun;** electrical & computer engineering, from Duke University, \$110,613, "Bigdata: F: Collaborative Research: Mining for Patterns in Graphs and High-Dimensional Data: Achieving the Limits."

**Lister, Matthew L;** physics & astronomy, from Smithsonian Astrophysical Observatory, \$20,059, "Chandra Observations of the Young Gamma-Ray Active Galactic Nuclei (AGN) TXS 0128+554 (Grant 12000299; Amendment #1)."

**Love, David J;** electrical & computer engineering, from Naval Research Laboratory, \$52,489, "Distributed Wireless Networks for Machine Learning."

**Low, Philip S;** chemistry, from Morphimmune, Inc, \$43,570, "Multi Sponsor - Voluntary Support."

**Low, Philip S;** chemistry, from Morphimmune, Inc, \$50,000, "Multi Sponsor - Voluntary Support."

**Lucht, Robert P;** aeronautics & astronautics, from National Aerospace Solutions, LLC, \$62,500, "Digital Holography Measurements of Transonic and Supersonic Flowfields."

**Lucht, Robert P;** aeronautics & astronautics, from Blue Origin, LLC, \$100,000, "Femtosecond Coherent Anti-Stokes Raman Scattering Measurements for Rocket Propulsion."

**Lyle, Ladawn T;** comparative pathobiology, from The Geneva Foundation, \$26,666, "Leptomeningeal Metastases of Breast Cancer; Toward New Therapies."

**Ma, Jianxin and Cai, Guohong;** agronomy, botany & plant pathology, from Indiana Soybean Alliance, \$112,834, "Characterization and Utilization of Novel Sources of Resistance to Soybean Soil-Borne Diseases (Year 2)."

**Mahmoudian, Nina and Rastgaar, Mo;** mechanical engineering, engineering technology, from Office of Naval Research, \$100,000, "A Modular Undersea Infrastructure for Unmanned Underwater Vehicles (UUV) Delivery and Replenishment (Grant 13000862; Modification 1)."

**Mahmoudian, Nina and Rastgaar, Mo;** mechanical engineering, engineering technology, from Office of Naval Research, \$20,001, "A Modular Undersea Infrastructure for Unmanned Underwater Vehicles (UUV) Delivery and Replenishment."

**McDaniel, Rebecca S;** civil engineering, from Indiana Department of Transportation, \$25,000, "North Central Superpave Center (NCSC) Base Funding Expansion."

**McLuckey, Scott A;** chemistry, from PHS-NIH National Institute of General Medical Science, \$32,791, "Gas-Phase Bio-Conjugation in the

Tandem Mass Spectrometry of Peptides, Proteins, and Protein Complexes (Grant 11000826 - Inc #2 )."

**Mengiste, Tesfaye D;** botany & plant pathology, from Rural Development Administration, \$19,521, "Understanding Epigenetic Control of Plant Immunity for New Biomaterials."

**Mesecar, Andrew D;** biochemistry, from Loyola University Chicago, \$141,742, "Mechanisms of Viral Proteases in Coronavirus Replication and Pathogenesis; Amendment 6; (Grant 11000459)."

**Mesecar, Andrew D;** biochemistry, from Pfizer Inc, \$25,000, "Compound Profiling in Protease Assays and Determination of Binding Mode of Compounds through Biophysical and Structural Approaches."

**Michalski, Greg M and Chopra, Gaurav;** chemistry, from National Science Foundation, \$300,000, "Research Experience for Undergraduates (REU) Site: Analyze This: Analytical Chemistry Applied to Interdisciplinary Research."

**Michalski, Greg M;** earth & atmospheric sciences, from U.S. Geological Survey, \$15,000, "Assessing Nutrient Sources and Usage During Harmful Algae Blooms (HAB) and Eutrophication Events Using Stable Isotopes: Implications for Water Quality in the Wabash River."

**Miles, Richard D;** WBAA administration, from Corporation for Public Broadcasting, \$126,310, "2020 CPB Community Service Grant (CSG)."

**Miller, Jeffrey T;** chemical engineering, from Argonne National Laboratory, \$20,000, "Catalyst Characterization to Support Catalyst Development for Converting Biomass (Modification 6; Grant 14000364)."

**Miller, Jeffrey T;** chemical engineering, from Argonne National Laboratory, \$5,000, "Catalyst Characterization to Support Catalyst Development for Converting Biomass (Grant 14000242)."

**Min, Byung-Cheol;** computer information technology, from National Science Foundation, \$90,717, "Faculty Early Career Development (CAREER): Adaptive Human Multi-Robot Systems (Amendment # 1, Grant 10001461)."

**Minton, David A;** earth & atmospheric sciences, from SETI Institute, \$105,258, "Early Dynamics of the Inner Solar System."

**Minton, David A;** earth & atmospheric sciences, from Planetary Science Institute, \$91,072, "Constraining Lunar Bombardment History by Modeling Impact Age Distributions, Amendment 3; Grant 12000271."

**Mishra, Dharmendra K;** food science, from Indiana City Brewing LLC, \$150, "Multi Sponsored Gift."

**Mishra, Dharmendra K;** food science, from Robert Schmicker, \$50, "Multi Sponsored Gift."

**Mishra, Dharmendra K;** food science, from Phillip Guy, \$75, "Multi Sponsored Gift."

**Mugler, Andrew J;** physics & astronomy, from University of California - San Diego, \$38,715, "Electrical Signaling in Bacterial Biofilms."

**Mukherjee, Partha P;** mechanical engineering, from Office of Naval Research, \$76,750, "Mesoscale Interactions in Lithium Plating/Dendrite Formation; Modification 4, Grant 13000581."

**Munson, Eric J;** industrial & physical pharmacy, from AbbVie Inc, \$50,000, "Center for Pharmaceutical Development (CPD) Consortium, Abbvie Inc 40002911."

## Ni to Rogers

**Ni, Jiqin**; agricultural & biological engineering program, from Bio Town Ag, Inc, \$4,237, "Multi-Sponsored Gift Account."

**Niazi, Fawad S** and **Pinan-Llamas, Aranzazu**; civil & mechanical engineering, polytechnic, from Syracuse University, \$6,000, "Investigating the Dissolution and Weathering Characteristics of Ste. Genevieve Karstic Limestone in Southern Indiana."

**Oakes, William C**; engineering education, from University of Massachusetts-Lowell, \$30,000, "Engineering Projects in Community Service (EPICS) IUCEE India Faculty Development."

**Ogas, Joseph P** and **Pascuzzi, Pete E**; biochemistry, libraries administration, from National Science Foundation, \$917,686, "Functional Analysis of a Novel Epigenetic Pathway Incorporating a Chromodomain Helicase DNA-Binding (CHD) Chromatin Remodeler, the Histone Variant H2A.Z, and the Repressive Modification H3K27me3."

**Olek, Jan**; civil engineering, from Indiana Department of Transportation, \$92,423, "Mechanistic-Empirical Pavement Design Guide (MEPDG) Implementation (Validation/Model Calibration/Acceptable Distress Target/Iri Failure Trigger/Thermal Selection/Binder Selection)."

**Paniagua Perez, Guillermo**; mechanical engineering, from MBDA France, \$217,033, "Compact Expansion Machine for Supersonic Flows."

**Park, Kinam** and **Otte, Andrew D**; biomedical engineering, from National Institute on Drug Abuse, \$2,148,235, "Injectable Naltrexone 2-Month Depot Formulations (Grant 11000841, Amendment 1)."

**Pastakia, Sonak D** and **Tran, Dan Nguyen Khanh**; pharmaceutical practice, from Indiana University, \$73,308, "Advancing the Clinical Pharmacy Center of Excellence in Western Kenya."

**Patton, Aaron J**; horticulture & landscape architecture, from Nufarm Americas Inc., \$4,500, "Patton Multi Sponsored #2 (Orig 301226)."

**Patton, Aaron J**; horticulture & landscape architecture, from FMC Corporation, \$3,500, "Patton Multi Sponsored #2 (Orig 301226)."

**Patton, Aaron J** and **Daniel, Kyle M**; horticulture & landscape architecture, from Michigan State University, \$17,316, "North Central Integrated Pest Management Center Working Group."

**Patton, Aaron J**; horticulture & landscape architecture, from Midwest Regional Turf Foundation, \$28,075, "Midwest Regional Turf Foundation."

**Piercey, Davin G**; materials engineering, from Army Research Office, \$53,800, "Molecular Structure and Dynamics: Disruptive Energetic Materials: the Synthesis and Stabilization of High-Nitrogen Compounds and Next-Generation Energetic Materials; Modification 2, Grant 13000687."

**Pinal, Rodolfo**; industrial & physical pharmacy, from Biokorf LLC, \$35,000, "Center for Pharmaceutical Processing Research Consortium-Biokorf LLC."

**Pol, Vilas G**; chemical engineering, from BrightVolt, \$91,245, "Characterization of PME (Polymer Matrix Electrolyte) for Salient Properties, and PME Based Cell Components for Failure Analysis and Performance Optimization."

**Pourpoint, Timothee L** and **Kenttamaa, Hilkka I**; aeronautics & astronautics, chemistry, from Analytical Mechanics Association, Inc, \$80,324, "Transient Combustion Modeling for Hypergolic Engines; Revision 6; Grant 12000301."

**Pourpoint, Timothee L**; aeronautics & astronautics, from Blue Origin, LLC, \$149,786, "Investigation of Hypergolic Propellants for Blue Origin."

**Powley, Terry L** and **Phillips, Robert J**; psychological sciences, from PHS-NIH National Institute of Diabetes and Digestive and Kidney Diseases, \$69,662, "Autonomic Control of Body Weight and Feeding (Grant 11000571, Amendment #4)."

**Proctor, Robert W** and **Li, Ninghui**; psychological sciences, computer science, from North Carolina State University, \$88,728, "Science of Security Label: Impact through Research, Scientific Methods, and Community Development; Amendment 4; Grant 13000685."

**Prokopy, Linda S**; forestry & natural resources, from U.S. Geological Survey, \$17,425, "National Institutes for Water Resources FY 2018 104(B) Administration."

**Prokopy, Linda S**; forestry & natural resources, from U.S. Geological Survey, \$29,910, "National Institutes for Water Resources FY 2018 104(B)."

**Prokopy, Linda S**; forestry & natural resources, from U.S. Geological Survey, \$45,000, "National Institutes for Water Resources FY 2017 104(B)."

**Prokopy, Linda S**; forestry & natural resources, from National Wildlife Federation, \$17,000, "Impacts of Cover Crop Champions Program on Non-Conservation Adopting Farmers."

**Prokopy, Linda S** and **Esman, Laura A**; forestry & natural resources, from U.S. Geological Survey, \$39,034, "National Institutes for Water Resources FY 2020 104(B)."

**Prokopy, Linda S**; forestry & natural resources, from U.S. Geological Survey, \$59,966, "National Institutes for Water Resources FY 2020 104(B)."

**Qiao, Li**; aeronautics & astronautics, from Ford Motor Company, \$212,219, "Ford Prechamber Jet Ignition for Gasoline Engines."

**Ramanathan, Shriram**; materials engineering, from Air Force Office of Scientific Research, \$137,450, "Defect Equilibration Studies in Binary Metal-Oxides (Grant 13000652; Modification 2)."

**Ribeiro, Fabio H**; chemical engineering, from Phillips 66, \$60,000, "Center for Innovative and Strategic Transformation of Alkane Resources (CISTAR) Industrial Consortium, 40001938."

**Ribeiro, Fabio H**; **Driscoll, Denise M**; **Drummond Oakes, Margaret M** and **Harris, Michael T**; chemical engineering, CISTAR, from National Science Foundation, \$100,000, "CISTAR's Research Experience and Mentoring (REM) Program: Broadening Summer Participation of African American Undergraduates by Coupling an Engineering Research Experience with a National Society of Black Engineers' Summer Engineering Experiences for Kids (NSBE SEEK) Mentoring Experience."

**Richert, Brian T**; animal sciences, from Diamond V Mills, Inc., \$20,000, "Swine Research."

**Richmond, Douglas Scott**; entomology, from Midwest Regional Turf Foundation, \$3,202, "Turfgrass Entomology Research."

**Rispoli, Joseph V**; biomedical engineering, from University of Pittsburgh, \$44,911, "Fast Targeted Spectroscopic Imaging for Brain Tumor Imaging at 3T and 7T; Amendment 1; Grant 11000852."

**Rogers, Timothy G**; electrical & computer engineering, from University of Michigan, \$210,000, "Applications Driving Architectures (ADA) Center - Leveraging Software Engineering Design Principals to Generate Efficient Hardware."



## Roy to Szpankowski

**Roy, Kaushik**; electrical & computer engineering, from IBM, \$78,244, "Self-Aware Cognitive Services for Distributed Coalition Environments – Biennial Program Plan BPP20."

**Russ, Alissa**; pharmaceutical practice, from R.L. Roudebush Veterans Administration Medical Center, \$38,200, "Intergovernmental Personnel Assignment (IPA) Agreement for Alissa Russ Extension."

**Russell, Mark A**; agricultural sciences education & communication, from National Association of Ag Education, \$7,500, "Curriculum for Agricultural Science Education (CASE) Program."

**Sadeghi, Farshid**; mechanical engineering, from Cummins Business Services, \$135,000, "Tribology Lab Research."

**Sadeghi, Farshid**; mechanical engineering, from SKF Group, \$90,000, "Tribology Lab Research."

**Sadof, Clifford S**; entomology, from Indiana Department of Natural Resources, \$58,577, "Forest Pest Outreach and Survey Project (FPOSP) Fy2020."

**Sadof, Clifford S**; entomology, from Animal Plant Health Inspection Service, \$3,907, "Forest Insect Taxonomic Support (FITS) Initiative for the United States Department of Agriculture Animal and Plant Health Inspection Service Plant Protection and Quarantine (USDA-APHIS-PPQ)/Cooperative Agricultural Pest Survey (CAPS) Exotic Pest Detection Survey Program and the National Emerald Ash Borer (EAB) Survey."

**Samanta, Roopsha**; computer science, from National Science Foundation, \$84,397, "Faculty Early Career Development (CAREER): Robustness of Inductive Reasoning Engines (Grant 10001453; Amendment #1)."

**San Martin-Gonzalez, Maria Fernanda**; food science, from Crasian Brewing Company LLC, \$35, "Multi-Sponsor Gift Funds."

**Savran, Cagri A**; mechanical engineering, from Savran Technologies Inc, \$30,000, "Voluntary Support."

**Scalo, Carlo**; mechanical engineering, from Army Research Office, \$45,000, "ARO-YIP: Coherent-Vorticity-Preserving (CVP) Large-Eddy Simulations (LES) of Very-High-Reynolds-Number Vortex Dynamics; Modification 4, Grant 13000616."

**Scalo, Carlo**; mechanical engineering, from Air Force Office of Scientific Research, \$145,160, "Direct Numerical Simulation of Hypersonic Boundary Layer Transition Over Distributed Surface Porosity (Grant 13000641, Modification 2)."

**Schmitt, Sara A; Duncan, Robert J and Purpura, David J**; human development & family studies, from Indiana Family & Social Services Administration, \$309,889, "On My Way Prekindergarten Expansion Project."

**Scott, David E**; Indiana State Chemist, from Environmental Protection Agency, \$211,903, "FY 2020 EPA Pesticide Cooperative Agreement."

**Scott-Moncrieff, Joanna C R**; veterinary clinical sciences, from Compassion First Pet Hospitals, \$20,601, "SAS Resident."

**Scott-Moncrieff, Joanna C R**; veterinary clinical sciences, from Compassion First Pet Hospitals, \$22,500, "SAS Resident."

**Searle, Catherine L**; biological sciences, from National Science Foundation, \$8,555, "Bridging Ecology and Evolution (BEE): Evolutionary Rescue in Response to Infectious Disease: When Will Populations Be Rescued from Pathogens?."

**Shah, Kavita**; chemistry, from Harvard Medical School, \$87,835, "Investigating 53BP1 Dephosphorylation as a Critical Determinant of Poly ADP Ribose Polymerase (PARP) Inhibitor Sensitivity."

**Shalaev, Vladimir M**; electrical & computer engineering, from University of Michigan, \$48,530, "Near-Field Radiative Heat Transfer and Energy Conversion in Nanogaps of Nano- and Meta-Structured Materials; Amendment 1, Grant 13000775." (a Discovery Park award – Birk Nanotechnology)

**Sheehan, Amy Heck**; pharmaceutical practice, from Takeda Pharmaceutical International Inc US Region, \$162,714, "Purdue/Takeda Pharmaceuticals Global Regulatory Affairs Fellowship -1."

**Sheehan, Amy Heck**; pharmaceutical practice, from Takeda Pharmaceutical International Inc US Region, \$162,714, "Purdue/Takeda Pharmaceuticals Early Clinical Trial Operations."

**Sheehan, Amy Heck**; pharmaceutical practice, from Eli Lilly and Company, \$125,497, "Purdue/ELI Lilly and Company Drug Information Pharmaceutical Fellowship."

**Sivasankar, Preeti Mahalakshmi; Cox, Abigail C and Hawkins, Jan F**; speech, language & hearing sciences, comparative pathobiology, veterinary clinical sciences, from PHS-NIH National Institute on Deafness and Other Communication Disorders, \$504, "Investigating the Role of Systemic Dehydration in Vocal Fold Wound Healing (Grant 11000963, Amendment #1)."

**Sizyuk, Tatyana S**; nuclear engineering, from KLA Corporation, \$50,000, "Multi Sponsor Voluntary Support."

**Sjogren, Jenny B**; medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute on Aging, \$185,961, "Assay Development and Screening for Small Molecule RGS10 Regulators to Target Neuroinflammation; Amendment 1, Grant 11000893."

**Slabaugh, Carson D**; aeronautics & astronautics, from United Technologies Pratt & Whitney, \$222,000, "Augmentor Testing."

**Solorio, Luis and Yeo, Yoon**; biomedical engineering, industrial & physical pharmacy, from National Institute on Drug Abuse, \$193,750, "Prescription Opioid Formulation to Deter Extraction, Injection, Insufflation, and Smoking (Grant 11000844, Amendment 1)."

**Strachan, Alejandro H; Chen, Weinong W; Koslowski, Marisol and Son, Steven F**; materials engineering, aeronautics & astronautics, mechanical engineering, from Office of Naval Research, \$1,502,262, "PC@Xtreme – Predictive Chemistry & Physics at Extreme Temperature and Pressure: Molecules, Crystals and Microstructures (Grant 13000469, Modification 6)." (a Discovery Park award – Birk Nanotechnology)

**Straw, Mark L**; animal sciences, from Agricultural Marketing Service, \$22,600, "USDA Shell Egg Surveillance."

**Strickland, Elizabeth A and Heinz, Michael G**; speech, language & hearing sciences, from National Institutes of Health, \$298,129, "Temporal Effects in Forward Masking, Suppression, and Simultaneous Masking (Grant 11000495, Amendment #10)."

**Suter, Daniel M and Terzi, Aslihan**; biological sciences, from Sigma XI, \$1,000, "Reactive Oxygen Species in Axon Development: NADPH Oxidase Regulates Growth Cone Guidance."

**Szpankowski, Wojciech**; computer science, from Google Inc, \$60,000, "Google Gift Letter."

## Telenko to Wilker

**Telenko, Darcy E P** and **Cruz, Christian D**; botany & plant pathology, from Indiana Corn Marketing Council, \$79,000, "Characterizing the Distribution, Biology and Management of Corn Tar Spot to Reduce its Impact in Indiana."

**Telenko, Darcy E P**; botany & plant pathology, from Sipcam Agro USA, Inc, \$6,400, "Extension Voluntary Support."

**Tesmer, John**; biological sciences, from PHS-NIH National Cancer Institute, \$355,725, "G Protein-Coupled Receptors (GPCR) – Linked Rho Guanine Nucleotide Exchange Factors (RhoGEFs) in Tumor Growth and Metastasis (Grant 11000689, Amendment #2)."

**Tesmer, John** and **Ghosh, Arun K**; biological sciences, medicinal chemistry & molecular pharmacology, from National Institutes of Health, \$634,421, "Structure, Function, and Inhibition of G Protein-Coupled Receptor Kinases."

**Tindel, Samy**; mathematics, from National Science Foundation, \$106,010, "Applications of Rough Differential Systems: Theoretical Physics, Data Analysis, Numerics."

**Titus, Michael S**; materials engineering, from National Science Foundation, \$96,295, "Faculty Early Career Development (CAREER): High Temperature Strengthening via Solute-Enhanced Stacking Faults in Structural Alloys (Grant 10001452, Amendment #1)."

**Trader, Darci J**; medicinal chemistry & molecular pharmacology, from Apollo Ventures, \$327,522, "Proteasome Stimulators for Treating Auto-somal Dominant Retinitis Pigmentosa."

**Tsoukalas, Lefteri** and **Alamaniotis, Miltiadis**; nuclear engineering, from Office of Naval Research, \$67,617, "Critical System Simulation Tool for Investigating the Resilience of a Cyberphysical Security Ecosystem; Modification 4 for Grant #13000642."

**Tuinstra, Mitchell R**; agronomy, from Agricultural Alumni Seed Improvement Association, \$40,000, "Corn Research."

**Vacca, Andrea** and **Sudhoff, Scott D**; agricultural & biological engineering program, electrical & computer engineering, from Bosch Rexroth Corporation, \$38,097, "An Integrated Design for an Electro-Hydraulic Supply Unit for Fluid Power Applications."

**Vacca, Andrea**; agricultural & biological engineering program, from Bosch Rexroth Corporation, \$43,245, "Control-Cylinder-Less Swashplate Control System Prototyping."

**Vacca, Andrea**; agricultural & biological engineering program, from Collins Aerospace, \$120,700, "Analysis of a Hydrostatic Transmission Unit for an Integrated Drive Generator."

**Varma, Amit H**; **Williams, Christopher S** and **Olek, Jan**; civil engineering, from Indiana Department of Transportation, \$49,000, "Post-Fire Assessment of Prestressed Concrete Bridges in Indiana."

**Wagner, Robert G**; forestry & natural resources, from Indiana Arborists Association, Inc., \$15,000, "Indiana Arborists Association, Inc."

**Wang, Haiyan**; **Garcia, R Edwin** and **Zhang, Xinghang**; materials engineering, from Office of Naval Research, \$950,000, "Wang – Explore the Fundamentals for Field-Enhanced Mass Transport Phenomena in Ceramics; Modification 6, Grant 13000525."

**Warsing, David E M**; mechanical engineering, from Porous Materials, Inc, \$70,000, "Positive Material Identification (PMI): Membrane Distillation Analysis for Chevron."

**Wassgren, Carl R**; mechanical engineering, from Genentech Corporation, Inc., \$45,000, "Hopper Flow Modeling."

**Way, Deborah Afton**; vc finance & administration administration, from Crown Point Community Foundation, \$750, "Teen Indiana Master Naturalist Workshop through Gabis Arboretum and Crown Point Library."

**Webb, Kevin J**; **Rochet, Jean-Christophe** and **Cannon, Jason R**; electrical & computer engineering, medicinal chemistry & molecular pharmacology, health sciences, from National Science Foundation, \$263,929, "Super-Resolution in Vivo Optical Imaging as a Window to Parkinsons Disease Pathogenesis."

**Wei, Alexander**; chemistry, from David & Anna Wei Charitable Foundation, \$38,948, "Wei Gift Funds."

**Wei, Alexander**; chemistry, from Robert Larson & Barbara Sapperstein, \$1,000, "Wei Gift Funds."

**Weibel, Justin A**; mechanical engineering, from Ford Motor Company, \$198,590, "Two-Phase Thermal Management of High-Heat-Flux Traction Inverter Power Electronics: Inverter-Level Modeling and Heat Sink Design."

**Weibel, Justin A**; mechanical engineering, from Aptiv Services US, LLC, \$30,000, "Cooling Technologies Research Center (CTRC), Aptiv – Grant 40002838."

**Weibel, Justin A**; mechanical engineering, from Eaton, \$30,000, "Cooling Technologies Research Center (CTRC) – 40002838."

**Weibel, Justin A**; mechanical engineering, from Apple Inc, \$30,000, "Cooling Technologies Research Center (CTRC), Apple 40002838."

**Welp-Smith, Lisa R**; earth & atmospheric sciences, from U.S. Department of Interior, \$15,000, "Estimating Watershed Residence Times in Artificially-Drained Landscapes and Relation to Nutrient Concentrations."

**Wharry, Janelle P**; nuclear engineering, from National Science Foundation, \$69,848, "Collaborative Research: Tunable Control of Mixed Ionic and Electronic Conductivity through Ion Irradiation in Electroceramic Materials for Energy Storage System."

**Wharry, Janelle P**; nuclear engineering, from Electric Power Research Institute (EPRI), \$143,744, "Microstructure Characterization of 1 Displacements Per Atom (dpa) Neutron Irradiated Powder Metallurgy with Hot Isostatic Pressing (PM-HIP) and Cast/Forged Alloys."

**Wharry, Janelle P**; materials engineering, from Boise State University, \$39,511, "Effects of High Damage Dose on Laser Welded, Irradiated Austenitic Stainless Steel AISI 304SS."

**Whelton, Andrew J**; **Proctor, Caitlin R** and **Robinson, Joseph Paul**; civil engineering, environmental & ecological engineering, basic medicine science, from National Science Foundation, \$200,000, "Rapid Response Research (RAPID): Shutdown and Consequences – Extreme Plumbing Stagnation and Recommissioning."

**Wilcox, Michael D**; **Hillberry, Russell H** and **Kumar, Indraneel**; Cooperative Extension Service, agricultural economics, Purdue Center for Regional Development, from Conservative Energy Network, \$42,150, "An Examination of the Community Level Dynamics Related to the Introduction of Wind Energy in Indiana."

**Wilker, Jonathan J** and **Schmidt, Gudrun**; chemistry, from Leidos, \$152,254, "Biomimetic Underwater Adhesives, Modification 1; Grant 13000845."



## Williams to Zhou

**Williams, Rod N;** forestry & natural resources, from Sutherland, Jenny, \$80, "Voluntary Support."

**Witkowski, Nicole L;** field extension, from Indiana State Department of Agriculture, \$5,000, "Fruitful Future for Students: Munster Fruit Gardening (Grant 20000339)."

**Wright, Gail G;** field extension, from Area 7 Agency Aging Disabled, \$445, "Matter of Balance Training."

**Xu, Dongyan; Lee, Byoungyoung; Payer, Mathias J and Zhang, Xiangyu;** computer science, from Office of Naval Research, \$1,100,000, "IoT-D: Towards Internets of Dialect-Speaking Things (Grant 13000660, Modification 3)."

**Xu, Dongyan and Payer, Mathias J;** computer science, from Office of Naval Research, \$200,000, "Towards Transformation-Based Legacy Software Fitness: Usage-Driven Binary Debloating and Hardening; Modification 4, Grant 13000552."

**Yang, Danzhou;** medicinal chemistry & molecular pharmacology, from Gibson Oncology, \$50,000, "Multi Sponsor -Voluntary Support."

**Ye, Peide;** electrical & computer engineering, from Army Research Office, \$45,000, "Ballistic Phosphorene Transistor; Modification 8 for Grant #13000410, Modification 9; Grant 13000410."

**Young, Bryan G;** botany & plant pathology, from KALO, Inc., \$2,000, "Multi Sponsored Gift Account."

**Young, Bryan G;** botany & plant pathology, from Precision Laboratories Inc., \$32,250, "Multi Sponsored Gift Account."

**Young, Bryan G;** botany & plant pathology, from BASF Corp, Chemicals Division, \$31,200, "Multi Sponsored Gift Account."

**Young, Bryan G;** botany & plant pathology, from Wilbur-Ellis Company, \$10,600, "Multi Sponsored Gift Account."

**Young, Bryan G;** botany & plant pathology, from Agriselect LLC, \$500, "Multi Sponsored Gift Account."

**Youngblood, Jeffrey P and Trice, Rodney W;** materials engineering, from Johns Hopkins University Applied Physics, \$75,000, "Scalable Manufacturing of Ceramic Armor via Injection Molding (Grant 13000746 – Amendment #2)."

**Yu, Wenbin;** aeronautics & astronautics, from Cytec Industries Inc, \$50,000, "CDM HUB (Consortium)."

**Zaspel, Jennifer M;** entomology, from National Science Foundation, \$31,531, "Collections in Support of Biological Research (CSBR): Natural History: Rehabilitation and Revitalization of the Purdue Entomological Research Collection."

**Zhang, Min;** statistics, from Indiana University, \$32,471, "Development of Algorithms for Integrative Genomics with Applications to Human Diseases."

**Zhang, Xiangyu and Xu, Dongyan;** computer science, from Office of Naval Research, \$400,000, "Learn-to-Reason: a Probabilistic Binary Analysis Infrastructure and its Application in Binary Reduction; Modification 5, Grant 13000580."

**Zhang, Zhong-Yin;** medicinal chemistry & molecular pharmacology, from National Institutes of Health, \$435,963, "Development of Phosphatase 2 (SHP2) Inhibitors for Targeted Anti-Cancer Therapy (Grant 11000580, Amendment #4)."

**Zhou, Chenn Qian;** mechanical & civil engineering, from Charter Steel, \$25,000, "Steel Manufacturing Visualization and Simulation Consortium (SMVSC) Membership."

**Zhou, Chenn Qian;** mechanical & civil engineering, from Tata Steel Europe, \$50,000, "Steel Manufacturing Visualization and Simulation Consortium (SMVSC) Membership."

**Zhou, Chenn Qian;** mechanical & civil engineering, from SSAB Americas Research and Development, \$45,000, "Steel Manufacturing Visualization and Simulation Consortium (SMVSC) Membership."

**Zhou, Chenn Qian and Chen, Chien-Chung;** Center for Innovation through Visualization and Simulation, mechanical & civil engineering, from National Science Foundation, \$12,000, "Research Experiences for Teachers (RET) Site: Simulation and Visualization Technologies for Innovative Industrial Solutions (Amendment #1, Grant 10001584)."

**Zhou, Zhi;** civil engineering, from U.S. Geological Survey, \$15,000, "Effects of Viruses on the Development of Harmful Algal Blooms." ■

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