

## Abbott to Brightman

**Abbott, Angela R** and **Jaramillo, Chelsie A**; health and human sciences administration, nutrition science, from Indiana Campus Compact, \$1,200, "Strengthening Communities: Food Distribution, Safety, and Student Engagement."

**Abdel-Khalik, Hany S**; nuclear engineering, from Ohio State University, \$67,199, "Big Data for Operation and Maintenance Cost Reduction; Amendment 2, Grant 14000482."

**Ackerson, Jason P**; **Penn, Chad J** and **Williams, Mark R**; agronomy, agricultural & biological engineering, from Agricultural Research Service, \$315,000, "Assessing Legacy Phosphorus Losses from Fields and Watersheds in the Western Lake Erie Basin."

**Adeola, Olayiwola**; animal sciences, from DSM Nutritional Products, Inc., \$122,730, "The Impact of a Second-Generation Protease on Digestible Amino Acid Content of Soybean Meals in Broiler Chickens."

**Aime, Mary Catherine**; botany & plant pathology, from Agricultural Research Service, \$100,000, "Eradication and Bacterial Metagenomics of Globodera."

**Aime, Mary Catherine**; botany & plant pathology, from National Geographic Society, \$2,400, "A Citizen Science-Powered Mycoflora for North America?"

**Al Shamaileh, Khair A** and **Devabhaktuni, Vijaya Kumar**; electrical & computer engineering, from National Science Foundation, \$200,000, "Collaborative Research: SaTC: CORE: Small: UAV-Netsafe.com: UAV Network Security Assessment and Fidelity Enhancement through Cyber-Attack-Ready Optimized Machine-Learning Platforms."

**Allebach, Jan P**; electrical & computer engineering, from HP Inc, \$75,000, "Industrial Inspection."

**Allen-Petersen, Brittany Lee**; biological sciences, from PHS-NIH National Cancer Institute, \$174,844, "The Role of PP2A B56a in Pancreatic Tumorigenesis."

**Anderson, Theresa M**; animal sciences, from North Carolina A&T University, \$15,000, "Impact of Moringa Oleifera Supplementation on Sow and Piglet Performance."

**Armstrong, Shalamar D**; agronomy, from Natural Resources Conservation Service, \$50,000, "CNMP State Template Development."

**Baldos, Uris Lantz C** and **Hertel, Thomas W**; agricultural economics, from University of Minnesota, \$67,197, "Extension of Global Futures Project with World Bank and UMN."

**Bane, Sally P M**; **Macheret, Sergey O**; **Meyer, Terrence R**; **Poggie, Jonathan** and **Satija, Aman**; aeronautics and astronautics, mechanical engineering, from U.S. Department of Energy, \$155,717, "Evolution of Temperature Perturbations Generated by Nanosecond Repetitively Pulsed Plasmas - High-Resolution Measurements and Modeling."

**Bartholomew, Sarah** and **Lane, Sean P**; psychological sciences, from PHS-NIH National Institute of Mental Health, \$732,034, "Biobehavioral Validation of the ADHD Emotion Dysregulation Phenotype."

**Baxmeyer, Adam W**; Airport Operations, from Federal Aviation Administration, \$746,200, "Acquisition of Aircraft Rescue and Fire Fighting (ARFF) Vehicle."

**Bean, Robert S** and **Townsend, Clive H**; nuclear engineering, from U.S. Department of Energy, \$36,000, "PUR-1 Water Processing and Cooling System Upgrade."

**Beaulieu, Lionel J**; **Grismer, Melinda A**; **Rigrish, Julie D** and **Zhalnin, Andrey**; Purdue Center for Regional Development, Indiana Science, Technology, Engineering & Mathematics Resource Network, from Rural Development, \$75,000, "Enhancing the Economic Assets of Low-Income Communities: Expansion of the Indiana Rural Opportunity Zones Initiative (ROZI)."

**Beaulieu, Lionel J**; **Gallardo, Roberto**; **Kumar, Indraneel** and **Cruz-Porter, Annie K**; Purdue Center for Regional Development, Cooperative Extension Service, from Economic Development Administration, \$300,000, "CARES Act Supplemental EDA University Center Funding - Recovery Assistance."

**Beck, Alan M**; **Yatcilla, Jane F** and **Charles, Christopher C**; comparative pathobiology, libraries administration, from Human Animal Bond Research Initiative Foundation (HABRI), \$151,767, "Human Animal Bond Research Initiative Digital Library (HABRI Central) - Bridge Funds."

**Bentley, Robin T**; veterinary clinical sciences, from University of Alabama at Birmingham, \$38,457, "CANINE (Canine Immunoneurotherapeutics Trial)."

**Bhunja, Arun K**; food science, from Biomatrix Inc, \$6,250, "Shuttleworth North America."

**Bigelow, Cale A**; horticulture & landscape architecture, from Syngenta Seeds, Inc., \$11,250, "30000896 Syngenta."

**Bigelow, Cale A**; horticulture & landscape architecture, from Cool Planet Energy Systems, Inc, \$6,000, "30000896 Cool Planet Energy Systems, Inc."

**Biswas, Rudro R**; physics & astronomy, from Sandia National Laboratories, \$3,703, "Reversible Computing Academic Alliance."

**Boerman, Jacquelyn P**; animal sciences, from Agricultural Research Service, \$53,834, "Supplementing Dairy Calves with L-Glutamine to Reduce Antibiotic Use."

**Borovsky, Arielle**; speech, language & hearing sciences, from Boston University, Trustees of, \$13,924, "Development of Gaze Control for Integration of Language and Visual Information in Deaf Children."

**Brightman, Andrew O**; biomedical engineering, from Indiana University Purdue University at Indianapolis, \$38,395, "2020-21 Joint PhD Program Graduate Support - Rachel Kohler."

**Brightman, Andrew O**; biomedical engineering, from Indiana University Purdue University at Indianapolis, \$45,725, "NRSA Training Core." (a Discovery Park award - Bindley Bioscience Center)

**Brightman, Andrew O**; biomedical engineering, from Indiana University Purdue University at Indianapolis, \$34,619, "2020-21 Joint PhD Program Graduate Support - Yizhi Jiang."

## Brightman to Eisenbaumer

**Brightman, Andrew O;** biomedical engineering, from Indiana University Purdue University at Indianapolis, \$69,115, "NRSA Training Core." (a Discovery Park award – Bindley Bioscience Center)

**Buckmaster, Dennis;** agricultural & biological engineering, from Microsoft Corporation, \$20,000, "404335 Microsoft Corp."

**Buczkowski, Grzegorz A;** entomology, from BASF Corporation, \$6,000, "Vedira Ant Gel Bait (20MEJ001)."

**Buczkowski, Grzegorz A;** entomology, from BASF Corporation, \$6,000, "Vedira Ant Gel Bait (20MEJ002)."

**Buczkowski, Grzegorz A;** entomology, from BASF Corporation, \$4,000, "Vedira Ant Gel Bait (20MEJ017)."

**Bullock, Darcy M;** civil engineering, from Indiana Department of Transportation, \$500,000, "SPR 4251 – Probe Data to Support Research and Implementation."

**Bullock, Darcy M;** civil engineering, from Indiana Department of Transportation, \$90,000, "Enhanced Traffic Signal Performance Measures, Increase 21000232."

**Cannon, Jason R; Lee, Linda S and Sepulveda, Maria Soledad;** health sciences, agronomy, forestry & natural resources, from PHS-NIH National Institute on Aging, \$223,986, "PFOS-Induced Dopaminergic Neurodegeneration Across Nematode, Amphibian, and Rodent Models."

**Catlin, Ann Christine and Hewa Nadungodage, Chandima P;** IT Research Computing, from International Thymic Malignancy Group, \$8,400, "ITMIG Platform Migration to Curie Hospital System."

**Channon, Robert;** language & culture, from Indiana University, \$3,000, "Post-Soviet Russian Cinema."

**Chavas, Daniel R;** earth, atmospheric, and planetary sciences, from National Aeronautics and Space Administration, \$45,000, "Using Multi-Source Satellite Observations to Investigate the Asymmetric Seasonal Cycle of Severe Local Storm Environments Over North America."

**Chawla, Nikhilesh;** materials engineering, from Office of Naval Research, \$204,444, "Four Dimensional (4D) X-Ray Microtomography of Stress-Corrosion Cracking in High Performance Metallic Materials."

**Chawla, Nikhilesh;** materials engineering, from Arizona State University, \$155,793, "4D Characterization of Electromigration-Induced Damage of Environmentally-Benign Interconnects: X-Ray Tomography Experiments and Phase-Field Simulations."

**Chen, Yingjie; Jiang, Wen; Sors, Thomas G and Watson, William R;** computer graphics technology, biological sciences, curriculum & instruction, from National Institutes of Health, \$25,784, "Virtual Reality Augmented Hands-on Cryo-EM Training."

**Chen, Yong P;** electrical & computer engineering, from National Science Foundation, \$117,157, "Quantum Many-Body Physics in Spin-Orbit Coupled Bose Gases." (a Discovery Park award – Birk Nanotechnology Center)

**Choi, Jong Hyun and Mao, Chengde;** mechanical engineering, chemistry, from National Science Foundation, \$492,251, "Experimental and Computational Mechanics of 3-D DNA Crystals."

**Christian, John A;** comparative pathobiology, from Western University of Health Sciences, \$13,195, "Cytology Resource Center (40001198)."

**Chynoweth, Brandon C and Schneider, Steven P;** aeronautics and astronautics, from Air Force Research Laboratory, \$4,844,000, "Completion of Quiet Ludwig Tube Wind Tunnels at Mach 8."

**Collicott, Steven H;** aeronautics and astronautics, from National Aeronautics and Space Administration, \$241,095, "Small-Sat Propellant Management Technology."

**Connor, Robert J and Dick, Stephen M;** civil engineering, from U.S. Department of Transportation, \$173,665, "Proposal for Conceptual and Preliminary Design of a Facility for Testing New Technologies in Determination of Longitudinal Stresses in Rail Created from Temperature Variation and Other Factors."

**Courtney, Andrea L;** public health, from Johns Hopkins University, \$6,900, "Multi Sponsor."

**Creswell, Tom C;** botany & plant pathology, from Michigan State University, \$42,500, "National Plant Diagnostic Network – North Central Region 2020-21."

**Deering, Amanda J;** food science, from Antibact Film LLC, \$618, "Multi Sponsored Gift Account."

**DeLaurentis, Daniel A; Sun, Dengfeng; Goppert, James Michael; Hwang, Inseok and Mou, Shaoshuai;** aeronautics and astronautics, from North Carolina A & T University, \$513,498, "Secure and Safe Assured Autonomy (Thrust 6 – Assured Autonomy of Aviation Transformation)."

**DeLaurentis, Daniel A and Ezra, Kristopher L;** aeronautics and astronautics, from Torch Technologies, \$49,030, "Advanced System of Systems Modeling and Analysis for IBCS Evolution." (a Discovery Park award – Institute for Global Security and Defense Innovation)

**DeLaurentis, Poching C;** industrial engineering, from AAMI Foundation, \$50,000, "An Informatics-Driven, Intelligence Powered Dashboard for Infusion Safety Advancement."

**Delp, Edward J and Comer, Mary L;** electrical & computer engineering, from Lockheed Martin Corp., \$99,000, "Multi-Entity Activity Characterization."

**Deng, Qing;** biological sciences, from PHS-NIH National Institute of General Medical Science, \$240,000, "Role of MicroRNAs in Neutrophil Migration."

**Dey, Tamal Krishna;** computer science, from National Science Foundation, \$350,000, "AF: Small: Expanding the Reach of Topological Data Analysis."

**Dietz, James Eric;** computer information technology, from General Dynamics Information Technology Inc, \$242, "Technical Instruction and Evaluation for Automating Navy STIG/Cybersecurity (Grant 13000932)."

**Dyke, Shirley J and Ramirez, Julio Alfonso;** mechanical engineering, civil engineering, from Indiana Department of Transportation, \$197,291, "SPR-4526: Predictive Analytics for Quantifying the Long-Term Cost of Defects During Bridge Construction."

**Edwards, Nancy E;** North Central Nursing Clinic Administration, from Indiana State Department of Health, \$160,571, "Family Health Clinic of Carroll County: Increasing Access for Rural Populations Supplement (2020 – 2021)."

**Eise, Jessica A;** communications, from National Science Foundation, \$71,146, "EAGER: Clima y Cafe: a Climate Change Adaptation Website for Policy and Production Decision-Making Support in Colombian Agriculture."

**Eisenbaumer, Ronald L;** Fort Wayne Chancellor Administration, from U.S. Department of Education, \$2,794,652, "HEERF – CARES Act Institutional Portion – PFW."

## Engel to Hook

**Engel, Bernard A**; agricultural administration, from Agricultural Research Service, \$35,500, "Acquisition of Goods and Services."

**Erasmus, Marisa A**; animal sciences, from Agricultural Research Service, \$5,126, "Effects of Probiotics and Synbiotics on Skeletal Health in Broiler Chickens."

**Feikes, David J; Kafle, Bir B and Walker, William S**; mathematics, statistics & computer science, education administration, from National Science Foundation, \$299,993, "Thinking with Algebra (TWA)."

**Ferraro, Kenneth F and Thomas, Patricia A**; sociology, from PHS-NIH National Institute on Aging, \$531,573, "Childhood Misfortune and Adult Health Among Black, White, and Hispanic Americans (Grant 11000970)."

**Ferraro, Kenneth F; Friedman, Elliot M and Thomas, Patricia A**; sociology, Human Development and Family Studies, from PHS-NIH National Institute on Aging, \$675,256, "Disparities in the Life Course Origins of Cognitive Decline."

**Finley, John P**; physics & astronomy, from Rolf or Mary Jane Scharenberg, \$132,000, "Voluntary Support."

**French, Doran C and Schmitt, Sara A**; human development and family studies, from Air Force, U.S. Department of the, \$615,780, "Early Learning Matters – NAF Blanket Purchase Agreement."

**Gallon, Kim T and Mousas, Christos**; history, computer graphics technology, from National Endowment for the Humanities, \$99,755, "The Stayed and Stolen: Building an Immersive Virtual Environment of Cape Coast Castle."

**Ghosh, Arun K**; medicinal chemistry & molecular pharmacology, from Kumamoto University, \$75,963, "Design and Synthesis of Novel Compounds Such as Nucleoside Analogs that Exert Potent Activity Against HBV and Other Human Pathogenic Viruses."

**Gleich, David F**; computer science, from National Science Foundation, \$499,998, "III: Small: Nonlinear Processes for Detailed and Principled Insight into Graph Data."

**Goergen, Craig J and Damen, Frederick W**; biomedical engineering, from PHS-NIH National Heart, Lung & Blood Institute, \$50,466, "Spatial Analysis of Cardiac Disease Using Murine Four-Dimensional Ultrasound (Grant 11000910)."

**Golub, Alla A**; agricultural economics, from Virginia Technology, \$2,405, "Macroeconomic Model of Federal and Commercial Spectrum Usage."

**Gomez, Luis Javier**; electrical & computer engineering, from PHS-NIH National Institute of Mental Health, \$222,983, "Accurate and Reliable Computational Dosimetry and Targeting for Transcranial Magnetic Stimulation."

**Govindaraju, Rao S**; civil engineering, from American Society of Civil Engineers, \$6,125, "Support for the ASCE Journal of Hydrologic Engineering."

**Guan, Wenjing**; horticulture & landscape architecture, from United AgriSeeds, \$350, "General Research Activities."

**Guan, Wenjing**; horticulture & landscape architecture, from HM Clause Inc, \$1,500, "30001156 HM Clause Inc."

**Haddock, John E**; civil engineering, from Indiana Department of Transportation, \$342,976, "Review of Indiana Asphalt Binders: In-Situ PG Grade Asphalt Determination."

**Haddock, John E**; civil engineering, from Indiana Department of Transportation, \$250,000, "2020/2021 Increase: Asset Management for Indiana Local Agencies (20000192)."

**Hamilton, Roy L**; Educational Opportunities Program, from U.S. Department of Education, \$40,000, "PNW Educational Talent Search- Westville Campus (Supplemental Funding)."

**Handa, Avtar Krishan**; horticulture & landscape architecture, from Agricultural Research Service, \$104,078, "Discerning the Polyamine Roles in the Biotic and Abiotic Stress Biology of Plants."

**Harbin, Sherry L**; basic medical science, from National Institutes of Health, \$184,675, "Interdisciplinary Bioengineeringtraining for Diabetes Research."

**Hardiman, Brady S**; environmental & ecological engineering, from Purdue University Frederick N. Andrews Fellowship, \$34,697, "Hardaway,Kanaan,C."

**Hartman, Nathan W**; computer graphics technology, from Cummins, Inc., \$50,000, "Product Lifecycle Management Center of Excellence (PLM)."

**Heinz, Michael G and Viswanathan, Vibha**; speech, language & hearing sciences, from PHS-NIH National Institute on Deafness and Other Communication Disorders, \$45,520, "Neurophysiological Mechanisms of Speech Intelligibility in Noise – a Quantitative Framework (Grant 11000756)."

**Heister, Stephen D and Slabaugh, Carson D**; aeronautics and astronautics, from Air Force Office of Scientific Research, \$275,241, "High-Speed Imaging System for Rotating Detonation Combustion and Nozzle Expansion Processes."

**Henderson, Jason R**; agricultural administration, from National Institute of Food & Agriculture, \$382,400, "Advancing Agrosecurity and Community Resilience through Collaboration, Capacity-Building and Extension Program Innovation."

**Hertel, Thomas W; Asencio, Raquel and Song, Xiaohui Carol**; agricultural economics, organizational behavior and human resources management, Purdue Climate Change Research Center, from National Science Foundation, \$1,999,991, "AccelNet: GLASSNET: Networking Global to Local Analyses to Inform Sustainable Investments in Land and Water Resources."

**Hill, Michael A**; Center for Environmental and Regulatory Information Systems, from Animal Plant Health Inspection Service, \$21,252, "Notify- a Clearinghouse for Nursery Shipment Notifications to State Plant Regulators."

**Hill, Michael A**; Center for Environmental and Regulatory Information Systems, from Animal Plant Health Inspection Service, \$34,000, "NPDN Analysis -Making Diagnostic Lab Data Available to a Wider Audience."

**Hoffmann, Stephen R**; chemistry, from Ross Graduate Fellowship-Assistantship, \$31,668, "Sahoo,Sumeet Ranjan."

**Holford, Kenneth C**; Vice Chancellor for Academic Affairs Administration, from U.S. Forest Service, \$70,000, "Support for the Northwest Indiana Urban Waters Ambassador Position."

**Hook, Tomas O and Carlton, Joshua S**; forestry & natural resources, Illinois-Indiana Sea Grant, from National Oceanographic & Atmospheric Administration, \$99,500, "Strategy to Prevent Invasive Crayfish Impacts to the Great Lakes Basin: the Invasive Crayfish Collaborative."



## Howell to Klimeck

**Howell, Kathleen;** aeronautics and astronautics, from National Aeronautics and Space Administration, \$11,800, "A Numerical Method to Generate Reference Trajectories for Optimization Methods to Support Low-Thrust Mission Design – Sup 6 for Grant #12000176."

**Howell, Kathleen;** aeronautics and astronautics, from National Aeronautics and Space Administration, \$60,000, "Design, Targeting and Guidance Strategies in Complex Multi-Body Regimes Incorporating Low-Thrust Capabilities (12000260)."

**Hrycyna, Christine A;** chemistry, from National Science Foundation, \$36,651, "Collaborative Research: Mechanism of Ste24, a Novel Integral Membrane Zinc Metalloprotease that Promotes Catalysis within an Intramembrane Chamber (Grant 10001534)."

**Hrycyna, Christine A;** chemistry, from National Science Foundation, \$274,656, "Collaborative Research: Chemistry in the Arctic: Clouds, Halogens, and Aerosols (CHACHA)."

**Huang, Fang and Chubykin, Alexander A;** biomedical engineering, biological sciences, from National Institute of Mental Health, \$2,424,695, "Ultra-High Resolution, Multiplexed Single Molecule Nanoscopy and Functional Characterization of Neural Circuits."

**Huang, Rong;** medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute of General Medical Science, \$372,888, "Protein N-Terminal Methylation Mechanisms and Inhibition (Grant 11000620)."

**Huber, Jessica E; Kiefer, Brianna R; Ostanek, Kristine M and Gutmann, Michelle L;** health & human sciences administration, speech, language & hearing sciences, human development and family studies, speech, language & hearing sciences Speech Clinic Recharge, from PHS-NIH National Institute on Deafness and Other Communication Disorders, \$45,520, "Effectiveness of Expiratory Muscle Strength Training for Improving Communication in ALS."

**Hudmon, Karen S;** pharmacy practice, from PHS-NIH National Cancer Institute, \$320,806, "Advancing the Role of Pharmacy in Tobacco Cessation; Modification 1; Grant 11000929."

**Iyer-Pascuzzi, Anjali;** botany & plant pathology, from Binational Agricultural Research & Development, \$50,000, "Elucidating the Cross-Talk Between Root Microstructure and Soil Borne Pathogens."

**Jacob, Zubin; Jiao, Dan and Aggarwal, Vaneet;** electrical & computer engineering, industrial engineering, from Defense Advanced Research Projects Agency, \$197,306, "Adaptive Quantum Perceptrons."

**Jagannathan, Suresh and Grama, Ananth Y;** computer science, from Galois, Inc, \$194,991, "Leveraging Symbolic Representations for Safe and Assured Learning; Modification 2, Grant 13000799."

**Jesiek, Brent K and Zoltowski, Carla B;** engineering education, electrical & computer engineering, from National Science Foundation, \$174,983, "Collaborative Research: Early Career Engineers' Views of Ethics and Social Responsibility: Trends, Influences, and Contexts."

**Jewell, Joseph S and Chynoweth, Brandon C;** aeronautics and astronautics, from Sandia National Laboratories, \$45,845, "Measurements in a Forward Facing Cavity Under Quiet and Noisy Flow."

**Jin, Jian;** agricultural & biological engineering, from University of Nebraska-Lincoln, \$51,329, "TGCM: (T)Rait, (G)Ene, and (C)Rop Growth (M)Odel Directed Targeted Gene Characterization in Sorghum; Amendment 1; Grant 14000479."

**Johnson, William G;** botany & plant pathology, from Monsanto Company, \$19,500, "Weed Science Research Voluntary Support."

**Johnson, William G;** botany & plant pathology, from Itapollina USA, \$9,600, "Weed Science Research Voluntary Support."

**Johnson, William G and Young, Bryan G;** botany & plant pathology, from United Soybean Board, \$340,828, "Take Action – Multi State Herbicide Resistant Crops and Weeds Educational Program."

**Johnson, William G;** botany & plant pathology, from Nufarm Americas Inc., \$4,000, "Weed Science Research Voluntary Support."

**Jung, Changhee;** computer science, from National Science Foundation, \$109,058, "CAREER: Rethinking Hpc Resilience in the Exascale Era (Grant 10001614 Amend #2)."

**Karcher, Darrin M;** animal sciences, from Agricultural Research Service, \$15,000, "Cage-Free Pullet Density: Challenges in the Field."

**Kazemian, Abdolmajid;** biochemistry, from PHS-NIH National Institute of General Medical Science, \$381,824, "Dissecting Host-Pathogen Interactions through the Lens of Genomics."

**Keegan, Patrick Joseph and Vaughan, Kelly P;** education & counseling, from Indiana Campus Compact, \$2,500, "Preparing Civic Educators in Politically Polarizing Times."

**Kentamaa, Hilkka I;** chemistry, from Merck & Company Inc., \$50,000, "Development of an IMR MS Approach for Nitrosoamines."

**Kentamaa, Hilkka I and Pourpoint, Timothee L;** chemistry, aeronautics and astronautics, from C3 Propulsion, \$9,999, "Determine the Composition of NSHEHN-B by Using Proton and Carbon NMR and Mass Spectrometry."

**Keon, Thomas L;** Chancellor Administration, from U.S. Department of Education, \$2,912,499, "HEERF – CARES Act Institutional Portion\_ PNW."

**Kever, Shubitha S;** Trio Programs, from U.S. Department of Education, \$8,856, "Purdue Fort Wayne Trio SSS – Regular."

**Key, Nicole L;** mechanical engineering, from Duke University, \$124,000, "Enhanced Physical Understanding of Forced Response, Inlet Distortion, and Blade Row Interactions in the Purdue 3-Stage Compressor."

**Kihara, Daisuke and Terashi, Genki;** biological sciences, from PHS-NIH National Institute of General Medical Science, \$305,459, "Building Protein Structure Models for Intermediate Resolution Cryo-Electron Microscopy Maps."

**Kim, Tae Yoon;** biomedical engineering, from PHS-NIH National Institute of General Medical Science, \$426,648, "Universal Roles of Force Generation and Transmission in Biological Systems (Grant 11000645)."

**Kimbrough, Adam J;** basic medical science, from PHS-NIH National Institute on Alcohol Abuse, \$249,000, "Network Wide Analysis of Brain Activity Involved in Alcohol Withdrawal."

**Kinzer-Ursem, Tamara L;** biomedical engineering, from Summer Science Program, \$57,403, "Voluntary Support – T. Kinzer-Ursem."

**Klimeck, Gerhard; Strachan, Alejandro H and Zentner, Lynn K;** electrical & computer engineering, materials engineering, from National Science Foundation, \$2,400,000, "Network for Computational Nanotechnology – Cyber Platform (Grant 10000719)."

## Krause to Martinez

**Krause, Jane E**; pharmacy practice, from Coalition for a Drug Free Tippecanoe County, \$2,900, "Addressing Alcohol and Prescription Drug Abuse/Misuse on Campus: a Continuing Project."

**Krogmeier, James V** and **Haddock, John E**; electrical & computer engineering, civil engineering, from Indiana Department of Transportation, \$253,570, "SPR-4521: Comprehensive Pavement Patching Tools and Web-Based Software for Pavement Condition Assessment and Visualization."

**Kumar, Indraneel** and **St. Germain, Benjamin D**; Purdue Center for Regional Development, from Browning Investments, \$1,500, "Comparative Analysis of Three Metropolitan Areas in IL and IN."

**Lane, Sean P**; **Hennes, Erin P**; **Proctor, Robert W**; **Song, Xiaohui Carol** and **Zhao, Lan**; psychological sciences, IT Research Computing, from PHS-NIH National Institute on Alcohol Abuse, \$671,748, "Toward a Generalized Framework and Flexible Software Environment for Power Analysis of Alcohol Treatment Randomized Controlled Trials (Grant 11000771)."

**Lang, Rafael F**; physics & astronomy, from U.S. Department of Energy, \$72,000, "Infrared Light for Liquid Xenon TPCs."

**Laskin, Julia**; chemistry, from CRDF Global, \$15,000, "Nanocatalyst-Assisted Pyrolysis for Conversion of Lignocellulose Waste Residues into Sustainable Biofuels Using Microwave Treatmentnanocatalyst-Assisted Pyrolysis for Conversion of Lignocellulose Wast."

**Lee, Sunghwan**; engineering technology, from National Science Foundation, \$84,842, "P-Type Oxides for CMOS Devices: Thermodynamics-Based In-Situ Synthesis and In-Situ Integration (Grant 10001491)."

**Lescun, Timothy B**; veterinary clinical sciences, from Nanovis Incorporated, \$25,947, "Durable Spinal Fusion Using Nanotechnology – Screw Integration and Removal."

**Lin, Dennis Kj**; statistics, from Purdue University Frederick N. Andrews Fellowship, \$31,668, "Kang, Taegyu."

**Lin, Dennis Kj**; statistics, from Purdue University Frederick N. Andrews Fellowship, \$19,916, "Shih, Frank."

**Lin, Guang**; mechanical engineering, from U.S. Department of Energy, \$150,000, "Trustworthy Physics-Informed Deep Learning for Predictive Scientific Computing."

**Lin, Guang**; mechanical engineering, from Brown University, \$125,000, "Fractional PDEs (FPDEs) for Conservation Laws and Beyond – MURI One-Year Extension Proposal 2020."

**Lindemann, Stephen R**; food science, from Olipop Microbiome R & D, \$7,000, "Testing Agreement for Olipop, Inc."

**Lindshield, Stacy M**; **Flaherty, Elizabeth A** and **Reibman, Amy R**; anthropology, forestry & natural resources, electrical & computer engineering, from National Science Foundation, \$374,714, "Collaborative Research: the Ecological Basis of Hunting and Meat Sharing in Female Savanna Chimpanzees."

**Linnes, Jacqueline C**; biomedical engineering, from Gordon and Betty Moore Foundation, \$675,000, "Paperfluidic Platform for Rapid and Sensitive Point-of-Care Disease Detection."

**Liu, Baiying**; mathematics, from National Science Foundation, \$114,653, "CAREER: Automorphic Forms and the Langlands Program (Grant 10001474)."

**Liu, Xing**; biochemistry, from PHS-NIH National Institute of General Medical Science, \$376,148, "Regulatory Mechanism of Cullin-Ring Ubiquitin Ligases."

**Lohman, Jeremy R** and **Post, Carol B**; biochemistry, medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute of General Medical Science, \$303,787, "Malonyl-Thioester Isosteres to Determine Enzyme Structure-Function Relationships."

**Low, Philip S**; chemistry, from PHS-NIH National Institute of General Medical Science, \$448,996, "Regulation of Erythrocyte Function (Grant 11000641)."

**Lyutikov, Maxim Y**; physics & astronomy, from National Aeronautics and Space Administration, \$69,997, "3-D Hybrid Rmhd Modeling of Stellar and Pulsar Wind Interaction in Gamma Ray Binaries."

**Lyutikov, Maxim Y**; physics & astronomy, from National Aeronautics and Space Administration, \$50,000, "Pulsars and Wind Nebulae: from Coherent Radio, to X-Rays, to Gamma-Rays (Grant 12000243)."

**Ma, Jianxin**; agronomy, from United Soybean Board, \$81,951, "A New Strategy for Elevating Soybean Yield: Manipulating Nodulation and Nitrogen Fixation Efficiencies through Gene Editing."

**Ma, Jianxin**; agronomy, from United Soybean Board, \$53,272, "Characterization and Utilization of New Sources of Drought Tolerance for Soybean Improvement."

**Macheret, Sergey O** and **Khomenko, Andrei**; aeronautics and astronautics, from U.S. Department of Energy, \$101,287, "Kinetic Modeling and Experimental Studies of Capacitively Coupled Macro- and Microplasmas at Microwave Frequencies."

**Macheret, Sergey O**; aeronautics and astronautics, from National Aeronautics and Space Administration, \$17,085, "Advanced Aerocapture System for Enabling Faster-Larger Planetary Science & Human Exploration Missions."

**Main, Joyce B**; engineering education, from University of San Diego, \$29,717, "A Mixed Methods Study on How Military Experiences Contribute to Educational Pathways Toward Engineering Bachelor's Degrees in the U.S."

**Main, Joyce B**; engineering education, from University of San Diego, \$2,750, "Collaborative Research: Military Veteran Students' Pathways in Engineering Education."

**Makin, Maria Cristina**; biomedical engineering, from Lynn Interdisciplinary Graduate Fellowship, \$31,667, "Vaughn, Brenna Renee."

**Mao, Chengde**; chemistry, from Merck Sharp & Dohme Corp, \$50,000, "AFM Imaging of Pneumococcal Polysaccharides and Polysaccharide-Protein Conjugates."

**Marais, Karen**; **Cutter, Jason E** and **Dillman, Brian G**; aeronautics and astronautics, aviation & transportation technology, from Federal Aviation Administration, \$185,000, "Project #5: Safety Analysis for General Aviation – Loss of Control."

**Marshall, Maria I** and **Wilcox, Michael D**; agricultural economics, Cooperative Extension Service, from National Institute of Food & Agriculture, \$474,880, "Purdue University's Proposal to Host NCRCD."

**Martinez, Carlos J** and **Betancourt Jimenez, Daniela**; materials engineering, from Old Dominion University Research Foundation, \$12,000, "Use of Enhanced PCM Microcapsules to Melt Ice and Snow on Airport Pavements."

## Matei to Ramani

**Matei, Sorin Adam**; liberal arts administration, from University of Illinois at Champaign-Urbana, \$20,000, "Humanities without Walls Seed Funding."

**Mei, Jianguo**; chemistry, from Ambilight, Inc, \$439,798, "Scalable Synthesis of Electroactive Polymers and Fabrication of Their Thin Films."

**Mengiste, Tesfaye D**; botany & plant pathology, from Rural Development Administration, \$20,991, "Erstanding Epigenetic Control of Plant Immunity for New Biomaterials."

**Mengiste, Tesfaye D**; botany & plant pathology, from Binational Agricultural Research & Development, \$159,000, "The Dual Role of Botrytis Necrosis-Inducing Proteins as Virulence Factors and Immunogens, and Their Potential Use in Plant Protection."

**Meyer, Scott E**; mechanical engineering, from Blue Origin, LLC, \$90,143, "Blue Origin H202 Thruster Testing."

**Meyer, Scott E**; mechanical engineering, from Rocket Propulsion Systems LLC, \$297,200, "Rocket Propulsion Systems Testing Budget for Testing in Z12."

**Meyer, Terrence R; Jewell, Joseph S; Chynoweth, Brandon C and Slipchenko, Mikhail N**; mechanical engineering, aeronautics and astronautics, from Sandia National Laboratories, \$90,000, "Academic Alliance Partnership with Purdue University."

**Meyers, Stephen Lawrence**; horticulture & landscape architecture, from Ross Graduate Fellowship-Assistantship, \$31,668, "Caputo, Tatielen De Fatima Maraf."

**Mishra, Dharmendra K and Kurdelak, Erik S**; food science, from Food and Drug Administration, \$9,660, "Training and Pilot Processing Laboratory Services for Food Processing Technology Courses."

**Mohammadi, Mohsen**; agronomy, from Agricultural Research Service, \$102,798, "Genetic Improvement of Grain Yield and Disease Resistance in Wheat."

**Moreland, John R; Toth, Kyle A and Zhou, Chenn Qian**; Center for Innovation through Visualization and Simulation, from AIST Foundation, \$20,000, "ARMSS: Augmented Reality Maintenance and Safety System."

**Morita-Mullaney, Patricia M**; curriculum & instruction, from U.S. Department of Education, \$395,003, "Leveraging the Lectura y Lenguaje: a Collaborative Scale Up of Literacy and Language in Indiana Schools; Amendment 4; Grant 19100058."

**Morita-Mullaney, Patricia M; Chiu, Ming Ming and Wright, Wayne E**; curriculum & instruction, educational studies, from U.S. Department of Education, \$446,038, "Project PUEDE: Parent and Professional Understanding for Equity in Dual Language Education; Amendment 4, Grant 19100059."

**Nagy, Zoltan; Reklaitis, Gintaras V and Thompson, David H**; chemical engineering, chemistry, from Food and Drug Administration, \$975,988, "Risk-Based Process Synthesis and Industry 4.0 Framework for Pharmaceutical Manufacturing Processes."

**Noinaj, Nicholas**; biological sciences, from Georgia State University, \$116,250, "Neisseria Gonorrhoeae Metal Transporters that Subvert Nutritional Immunity (Grant 11000865)."

**O'Haire, Marguerite E and Rodriguez, Kerri E**; comparative pathobiology, from Society for Companion Animal Studies, \$112, "The Effects of Assistance Dogs on Psychosocial Health and Wellbeing: a Systematic Literature Review."

**Olson, Stephanie Leigh**; earth, atmospheric & planetary sciences, from National Aeronautics and Space Administration, \$160,024, "Olson – Assessing Atmospheric Seasonality as an Exoplanet Biosignature."

**Olson, Stephanie Leigh**; earth, atmospheric & planetary sciences, from National Aeronautics and Space Administration, \$174,290, "TBA: Stephanie Olson: Oceanographic Considerations for the Oxygenation of Habitable Worlds: Lessons from Early Earth."

**Peroulis, Dimitrios**; electrical & computer engineering, from National Science Foundation, \$279,888, "Collaborative Research: SWIFT: LARGE: Broker-Controlled Coexistence of 5G Wireless Artificially Intelligent Power Amplifier Array (AIPAA) with Passive Weather Radiometers."

**Pijanowski, Bryan C and Zanotti, Laura C**; forestry & natural resources, anthropology, from National Science Foundation, \$749,953, "CNH2-L: Using Sound to Advance Conceptual Frameworks of Resilience of Integrated Grassland-Pastoralist Systems."

**Pipes, R Byron**; aeronautics & astronautics, from Yajima Industry Co Ltd, \$80,000, "Yajima Task 1."

**Poderycki, Michael John**; biomedical engineering, from U.S. Department of Health and Human Services, \$100,000, "Indiana Health Security Innovation Accelerator; Modification 1, Grant 11000935." (a Discovery Park award – Bindley Bioscience Center)

**Pomeranz, Irith**; electrical & computer engineering, from National Science Foundation, \$250,000, "EAGER: Storage-Based Logic Built-In Self-Test with Magnified Test Data."

**Pourpoint, Timothee L**; aeronautics and astronautics, from Masten Space Systems, \$92,000, "Plume Impingement Testing in Vacuum Chamber."

**Powley, Terry L; Irazoqui, Pedro; Phillips, Robert J; Rajwa, Bartlomiej P; Robinson, Joseph Paul and Ward, Matthew Peter**; basic medical science, electrical & computer engineering, psychological sciences, biological sciences, biomedical engineering, from National Institutes of Health, \$3,745,989, "Mapping Stomach Autonomic Circuitry and Function for Neuromodulation of Gastric Disorders."

**Pujol, Santiago**; civil engineering, from Applied Technology Associates, Inc., \$9,700, "Multi Voluntary Support Acct."

**Quinn, Vanessa S and Ragan, Christina M**; biological sciences, from Indiana Academy of Science, \$4,000, "Increasing Computer Science Competency in Middle School through Brain Awareness Day Activities."

**Raman, Arvind**; mechanical engineering, from National Science Foundation, \$45,311, "INTERN Supplementary Funding for CMMI1726274, GOALL: Multi-Frequency Dynamics in the Atomic Force Microscope."

**Ramanathan, Shriram**; materials engineering, from National Science Foundation, \$72,884, "Collaborative Research: Nanoscale Quantitative Probing of Phase Transition in Correlated Rare-Earth Nickelates (10001568)."

**Ramani, Karthik; Quinn, Alexander J and Redick, Thomas S**; mechanical engineering, electrical & computer engineering, psychological sciences, from National Science Foundation, \$3,000,000, "B1 (Future Jobs and AI): Skill-XR: an Affordable and Scalable X-Reality (XR) Platform for Skills Training and Analytics in Manufacturing Workforce Education."



## Rayz to Sintim

**Rayz, Vitaliy L; Vlachos, Pavlos and Craig, Bruce A;** biomedical engineering, mechanical engineering, statistics, from PHS-NIH National Heart, Lung & Blood Institute, \$707,635, "Risk Assessment of Cerebral Aneurysm Growth with 4D Flow MRI."

**Raz, Ali Khalid; Ezra, Kristopher L and Mockus, Linas;** aeronautics and astronautics, chemical engineering, from Sandia National Laboratories, \$130,000, "Novel Hypersonic Vehicle Maneuvers via Reinforcement Learning Techniques; Revision 1, Grant 14000486."

**Remis, Melissa J and Hall, Elizabeth Sara;** liberal arts administration, anthropology, from National Science Foundation, \$23,579, "Doctoral Dissertation Research: Zoonotic Risks at the Human-Primate Interface: Behavior, Nutritional Status, and Immune Function in a Central African Forest Reserve."

**Ribeiro, Fabio H;** chemical engineering, from National Science Foundation, \$23,992, "Engineering Research Center for Innovative and Strategic Transformation of Alkane Resources – CISTAR."

**Ribeiro, Fabio H; Agrawal, Rakesh; Godwin, Allison F; Gounder, Rajamani P and Miller, Jeffrey T;** chemical engineering, engineering education, from National Science Foundation, \$4,250,000, "Engineering Research Center for Innovative and Strategic Transformation of Alkane Resources – CISTAR – Year 4."

**Ribeiro, Fabio H;** chemical engineering, from Multi-Sponsored Industrials, \$30,000, "CISTAR Industrial Consortium, Haldor Topsoe A/S 4001938."

**Richmond, Douglas Scott;** entomology, from Syngenta Seeds, Inc., \$6,000, "Turfgrass Entomology Research."

**Richmond, Douglas Scott;** entomology, from Control Solutions Inc., \$8,500, "Turfgrass Entomology Research."

**Richmond, Douglas Scott;** entomology, from Syngenta Seeds, Inc., \$11,000, "Turfgrass Entomology Research."

**Robinson, Joseph Paul; Allebach, Jan P; Applegate, Bruce M; Bae, Euiwon; Brubaker, Douglas Koehler; Chiu, George T; Chopra, Gaurav; Han, Bumsoo; Kuhn, Richard J; Lindemann, Stephen R; Linnes, Jacqueline C; Luo, Zhao-Qing; Mauer, Lisa J; Narayanan, Sanjeev K; Proctor, Caitlin R; Pruitt, Robert E; Rajwa, Bartlomiej P; Stanciu-Gregory, Lia A and Verma, Mohit S;** basic medical science, electrical & computer engineering, food science, mechanical engineering, biomedical engineering, chemistry, biological sciences, comparative pathobiology, environmental & ecological engineering, botany & plant pathology, materials engineering, agricultural & biological engineering, from National Institute of Food & Agriculture, \$500,000, "A Pathogen-Safe Sorter for the Center for Food Safety Engineering at Purdue University."

**Rodriguez, Catalina E;** Educational Opportunities Program, from U.S. Department of Education, \$11,670, "Student Support Services."

**Rodriguez, Natalia Maria;** public health, from PHS-NIH National Cancer Institute, \$168,965, "Community-Based Participatory Design of a Human Papillomavirus (HPV) Rapid Diagnostic Test for Cervical Cancer Screening in South Florida; Amendment 2; Grant 11000934."

**Rodriguez, Natalia Maria;** public health, from PHS-NIH National Cancer Institute, \$71,824, "Community-Based Participatory Design of a Human Papillomavirus (HPV) Rapid Diagnostic Test for Cervical Cancer Screening in South Florida (Grant 11000934)."

**Roy, Kaushik;** electrical & computer engineering, from Ross Graduate Fellowship-Assistantship, \$32,677, "He, Kang."

**Ruhl, Christopher A;** Chief Financial Officer and Treasurer, from U.S. Department of Education, \$11,294,397, "HEERF – CARES Act Institutional Portion – PWL."

**Sadof, Clifford S; Johnson, William G; Beckerman, Janna L; Harpur, Brock Alexander; Ingwell, Laura L; Krupke, Christian H; Long, Elizabeth Yim; Richmond, Douglas Scott and Egel, Daniel S;** botany & plant pathology, entomology, from National Institute of Food & Agriculture, \$291,146, "Advancing IPM Knowledge and Adoption in Indiana (Parent)."

**Sadof, Clifford S;** entomology, from Animal Plant Health Inspection Service, \$23,593, "Forest Insect Taxonomic Support (FITS) Initiative for the USDA-APHIS-PPQ/CAPS Exotic Pest Detection Survey Program and the National Emerald Ash Borer (EAB) Survey."

**Sanders, Jimmie L;** Educational Opportunities Program, from U.S. Department of Education, \$412,179, "Educational Talent Search Program, 2020-2021 (Grant 19100052)."

**Sandhage, Kenneth H;** materials engineering, from Rolls-Royce Corporation, \$149,999, "Chemical Interactions Between Si-Based Liquids and Si: Thermodynamic and Kinetic Analyses."

**Saraswat, Dharmendra; Hancock, Benjamin G and Engel, Bernard A;** agricultural & biological engineering, Agricultural Research and Graduate Education, from Environmental Protection Agency, \$199,468, "Modernizing Web-Based L-THIA and Increasing Access to Delineated Watersheds' Characteristics through Rest API."

**Saunders, Michael R;** forestry & natural resources, from Department of the Navy, \$108,630, "Understanding Oak Regeneration and Growth Across Light and Woody Competition Gradients at Naval Support Activity Crane, Crane, Indiana; Amendment 2; Grant 13000812."

**Scharf, Michael E;** entomology, from Robert or Karen Tarver, \$5,000, "Voluntary Support."

**Scharf, Michael E;** entomology, from Robert or Karen Tarver, \$2,500, "Multi Sponsor."

**Schoenlein, William E;** biomedical engineering, from Cook Research Incorporated, \$180,000, "Capital Equipment Purchase for BME Building- July 2020."

**Schultheiss, Nathan C and Holloway, Eric A;** chemical engineering, engineering administration, from NineTwelve Institute, Inc, \$247,938, "Oil and Gas Analytical Chemist."

**Scutari, Gesualdo;** industrial engineering, from Ross Graduate Fellowship-Assistantship, \$20,132, "Cao, Tianyu."

**Shih, Tom I-P;** aeronautics and astronautics, from Ames Laboratory, \$100,000, "Computational Analysis of Advanced Cooling Strategies for High-Efficiency and Long-Service Life Gas Turbines; Amendment 3; Grant 14000477."

**Simpson, Garth J;** chemistry, from National Science Foundation, \$300,000, "Phase I IUCRC Purdue: Center for Bioanalytical Metrology (CBM) (Grant 10001557)."

**Sintim, Herman O;** chemistry, from National Science Foundation, \$258,686, "IPA Assignment Agreement Herman Sintim."

**Sintim, Herman O;** chemistry, from KinaRx, LLC, \$120,000, "Aminonaphthyridine Compounds as Potential Therapeutics for Lung and Thyroid Cancers."

## Sintim to Weibel

**Sintim, Herman O;** chemistry, from Indiana University School of Medicine, \$214,313, "Targeting Cyclic Dinucleotide Signaling Pathways to Interrupt the Nature Cycle of *Borrelia burgdorferi*."

**Sivasankar, Preeti Mahalakshmi;** speech, language & hearing sciences, from Purdue University F N Andrews Fellowship, \$30,744, "Arkenberg, Rachel Elizabeth Hah."

**Sivasankar, Preeti Mahalakshmi;** speech, language & hearing sciences, from Purdue University Frederick N. Andrews Fellowship, \$31,383, "Schroeder, Mariel Lee."

**Sizyuk, Tatyana S and Brooks, Jeffrey N;** nuclear engineering, from U.S. Department of Energy, \$264,790, "Integrated Modeling of DIII-D Divertor/Dimes-Probe Materials Erosion/Redeposition/Migration."

**Solomon, Kevin V;** agricultural & biological engineering, from National Science Foundation, \$209,992, "Collaborative Research: Protein Engineering and Processing of Plant Viral Templates for Controlled Nanoparticle Synthesis (10001764)."

**Solomon, Kevin V; Harris, Michael T and Loesch-Fries, Loretta Sue;** agricultural & biological engineering, chemical engineering, botany & plant pathology, from National Science Foundation, \$411,652, "Collaborative Research: Protein Engineering and Processing of Plant Viral Templates for Controlled Nanoparticle Synthesis."

**Son, Steven F and Manship, Timothy D;** mechanical engineering, materials engineering, from Alion Science and Technology, \$65,000, "Support to Naval Surface Warfare Center (NSWC) Crane for Sustainment and Development of Manned and Unmanned Airborne Weapon Systems Capabilities in Support of Naval Air Systems Command (NAVAIR)."

**Song, Xiaohui Carol;** IT Research Computing, from University of Illinois at Champaign-Urbana, \$297,029, "XSEDE 2.0: Integrating, Enabling and Enhancing National Cyberinfrastructure with Expanding Community Involvement."

**Stefanek, George L and Tu, Manghui;** computer information technology & graphics (CIT&G), from National Security Agency, \$43,181, "DoD Cyber Scholarship Program at Purdue University Northwest."

**Stewart, Kara R;** animal sciences, from Indiana University, \$94,687, "Evaluation of Fetal Sex on Metabolic Responses of the Dam."

**Sun, Dengfeng and Wang, Xiaoqian;** aeronautics and astronautics, electrical & computer engineering, from National Science Foundation, \$96,315, "Collaborative Research: III: Medium: Integrating Large-Scale Machine Learning and Edge Computing for Collaborative Autonomous Vehicles."

**Sundaram, Shreyas;** electrical & computer engineering, from National Science Foundation, \$35,940, "CAREER: Towards Secure Large-Scale Networked Systems: Resilient Distributed Algorithms for Coordination in Networks Under Cyber Attacks (Grant 10001118)."

**Sundaram, Shreyas;** electrical & computer engineering, from Intel Corporation, \$80,000, "Voluntary Support."

**Swanson, Irena;** mathematics, from Purdue Doctoral Program, \$36,414, "Lopez, Alejandra."

**Swanson, Irena;** mathematics, from Purdue University F N Andrews Fellowship, \$31,201, "Stewart, Henry Howard."

**Swithers, Susan E;** psychological sciences, from PHS-NIH National Institute of Child Health and Human Development, \$12,000, "Annual Meeting of the International Society for Developmental Psychobiology (Grant 11000515)."

**Taleyarkhan, Rusi P;** nuclear engineering, from Savannah River Nuclear Solutions LLC, \$200,000, "Novel Sensor for Assay Monitoring and Dosimetry Related to SNM."

**Tao, Weiguo Andy and Rochet, Jean-Christophe;** biochemistry, medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute on Aging, \$1,526,896, "Dissecting Signaling Pathways and Seeking EV Phosphoproteins as Novel Biomarkers for Alzheimer's Disease."

**Telenko, Darcy E P;** botany & plant pathology, from Gowan Company, \$6,500, "Extension Voluntary Support."

**Telenko, Darcy E P;** botany & plant pathology, from FMC Corporation, \$31,000, "Extension Voluntary Support."

**Telenko, Darcy E P;** botany & plant pathology, from Agricultural Research Service, \$9,957, "Managing Frogeye Leaf Spot of Soybean in the Midwest."

**Thomas, Renee A;** Black Cultural Center, from Indiana Humanities, \$1,000, "Advancing Racial Equity Collection Development."

**Thompson, Michelle S;** earth, atmospheric & planetary sciences, from Lyndon B. Johnson Space Center, \$63,373, "Consortium for the Advanced Analysis of Apollo Samples; Supplement 1, Grant 12000316."

**Towns, Marcy H;** chemistry, from National Science Foundation, \$300,000, "Investigating How Undergraduate Students Use Their Understanding of Conservation of Energy Across the Disciplines of Chemistry, Physics, and Engineering."

**Trader, Darci J;** medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute of General Medical Science, \$193,750, "Development of Activity-Based Chemical Reporters to Differentiate Proteasome Isoforms in Cells (Grant 11000926)."

**Tu, Manghui; Blades, Deborah J and Jiang, Keyuan;** computer information technology & graphics (CIT&G), technology administration, from National Security Agency, \$5,971,053, "Establishing a Workforce Development Consortium for Pilot AI-Cybersecurity Certification Based National Training Program."

**Vacca, Andrea;** agricultural & biological engineering, from University of Minnesota, \$50,000, "Electro-Hydraulic Axial Piston Machine."

**Vandergraff, Donna J;** nutrition science, from University of Maryland Baltimore County, \$3,000, "Improving FDA Health Communications with Older Women in the U.S. Regarding FDA-Regulated Products: Phase 1B Focus Groups."

**Varma, Amit H; Seo, Jungil and Connor, Robert J;** civil engineering, from Indiana Department of Transportation, \$225,000, "SPR 4527 - Shear and Bearing Capacity of Corroded Steel Beam Bridges and Effects on Load Rating."

**Wassgren, Carl R and Gonzalez, Marcial;** mechanical engineering, from AbbVie Inc, \$169,349, "Modeling Screw Feeding of Cohesive Powders Using a Continuum Finite Element Method Model."

**Weibel, Justin A;** mechanical engineering, from Aavid Thermalloy, \$7,500, "Cooling Technologies Research Center (CTRC), Aavid Q2 40002838."

**Weibel, Justin A;** mechanical engineering, from Multi-Sponsored Industrials, \$7,500, "Cooling Technologies Research Center (CTRC), Aavid Q3 40002838."



## Weinstein to Zhao

**Weinstein, Dana**; engineering administration, from LASPAU, \$30,384, "LASPAU Scholarship for Lampert Ayala, Jorge Antonio."

**Welp-Smith, Lisa R**; earth, atmospheric & planetary sciences, from Purdue Doctoral Program, \$34,192, "Meyer, Alexandra."

**Widmar, Nicole J Olynk**; agricultural economics, from Purdue University Frederick N. Andrews Fellowship, \$30,758, "Fiechter, Chad M."

**Wilcox, Michael D; Adams, Nicole and Thompson, Aaron W**; Cooperative Extension Service, nursing, horticulture & landscape architecture, from Turtle Mountain Band of Chippewa Indians, \$64,519, "Technical Assistance for Turtle Mountain Recovery Center."

**Wilson-Frank, Christina R and Hooser, Stephen B**; comparative pathobiology, from Food and Drug Administration, \$61,994, "Vet-LIRN Capacity Building Detection of Botulinum Neurotoxins by MALDI-MS."

**Xie, Yi**; nuclear engineering, from Idaho National Laboratory, \$15,000, "Develop Nd and U Doped Poly-Crystalline YAG Crystal."

**Ximenes, Eduardo A and Wu, Dancia**; agricultural & biological engineering, Indiana State Chemist, from Food and Drug Administration, \$110,000, "Microbiology Animal Food Project Testing Track 3 Accelerated Sample Preparation for Microbial Pathogen Detection in Pet Food Samples."

**Xu, Dongyan**; computer science, from Multi-Sponsored Industrials, \$30,000, "CERIAS Voluntary Support 30001799."

**Xu, Dongyan**; computer science, from LASPAU, \$3,544, "LASPAU Scholarship for Andrea Cristina Zapata Delgado."

**Xu, Jin-Rong and Cai, Guohong**; botany & plant pathology, from Agricultural Research Service, \$15,014, "Soybean Sudden Death Syndrome: Infection Process and Phytotoxins."

**Xu, Jin-Rong**; botany & plant pathology, from Agricultural Research Service, \$70,737, "Mechanisms of Ammonium Sensing and Ammonium Suppression of DON Biosynthesis."

**Xu, Xianfan**; mechanical engineering, from Advancement Storage Technology Consortium, \$35,000, "Voluntary Support."

**Yazawa, Kazuaki**; electrical & computer engineering, from Northrop Grumman Corporation, \$100,000, "Integrated Thermal Management of Aerospace Vehicles Consortium Membership (Northrop Grumman)." (a Discovery Park award – Birk Nanotechnology Center)

**Yih, Yuehwern**; industrial engineering, from Agency for International Development, \$1,500,000, "Laser Buy-in: Crime and Violence Prevention."

**Yoon, Gyeong Mee**; botany & plant pathology, from Purdue University Frederick N. Andrews Fellowship, \$36,969, "Chien, Yuan-Chi."

**Youngblood, Jeffrey P**; materials engineering, from U.S. Forest Service, \$23,500, "Fiber Reinforcement of Mechanically Fibrillated Cellulose Nanofibril (mCNF) Laminates with Increased Mechanical Strength and Toughness."

**Yu, Denny**; industrial engineering, from University of Buffalo, \$30,000, "Optimizing the Layout of the Robotic-Assisted Surgery Operating Room."

**Yu, Denny and Wachs, Juan P**; industrial engineering, from PHS-Biomedical Imaging & Bioengineering, \$183,111, "Real-Time Non-Intrusive Workload Monitoring-Integration of Human Factors in Surgery Training and Assessment (Grant 11000901)."

**Zhang, Dabao and Zhang, Min**; statistics, from University of Washington, \$152,489, "Modeling Blood Metabolite Homeostasis for Cancer Risk Assessment."

**Zhang, Min; Atallah Lanman, Nadia M; Zhang, Dabao and Ratliff, Timothy L**; statistics, comparative pathobiology, from PHS-NIH National Cancer Institute, \$238,709, "Big Data Training for Cancer Research; Amendment 1, Grant 11000927."

**Zhang, Xinghang**; materials engineering, from National Science Foundation, \$49,213, "Mechanics and Kinetics of Void Swelling in Irradiated Nanoporous Materials."

**Zhao, Lin and Ye, Chen**; quantitative business, from Indiana Campus Compact, \$2,500, "Developing and Implementing an Undergraduate Research Project on the Effects of COVID-19: Evidence from Twitter." ■

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