

Sponsored Program Awards

November 2020

Abbott to Caldwell

Abbott, Angela R; Connolly, Blake A and **Stevens, Wanda J**; health and human sciences administration, nutrition science, from Indiana State Department of Health, \$5,985,566, "Indiana Nep: Snap-ED Plan 2021."

Adeola, Olayiwola; animal sciences, from Danisco Animal Nutrition, \$49,784, "Danisco."

Adibuzzaman, Mohammad; industrial engineering, from Indiana University School of Medicine, \$26,027, "Trends in Mortality in Icu Patients with Cirrhosis." (a Discovery Park award – Regenstrief Center)

Ajuwon, Kolapo; animal sciences, from AB Agri Limited, \$15,000, "Nutritional Physiology Program."

Akdere, Mesut; **Karabiyik, Umit** and **Kocsis, Jin**; technology leadership and innovation, computer information technology, from U.S. Department of Homeland Security, \$1,500,000, "Cyber Resilience Adaptive Virtual Reality Experiences (CRAVRE)."

Alexeenko, Alina; aeronautics and astronautics, from SP Scientific Industries, \$10,000, "LyoHub Consortium-Sp Scientific."

Aliaga, Daniel G; **Allebach, Jan P**; **de Cresce El Debs, Luciana** and **Filley, Timothy R**; computer science, electrical & computer engineering, construction management technology, agronomy, from Universidad Nacional de San Agustin, \$65,939, "Review of Three Academic Programs at Universidad Nacional San Agustin (Unsa)."

Ardekani, Arezoo Motavalizadeh and **Verma, Mohit S**; mechanical engineering, Agricultural & Biological Engineering Program, from Merck Sharp & Dohme Corp, \$75,000, "Qualitative and Quantitative Analysis of Viral Particles in Continuous Processing Approach for Viral Vaccines."

Bajaj, Anil Kumar; mechanical engineering, from Cummins Business Services, \$28,000, "Cummins Assistantships."

Basaran, Osman A; chemical engineering, from Pfizer Inc, \$25,000, "Purdue Process Safety and Assurance Center (P2SAC)."

Beckerman, Janna L; botany & plant pathology, from BASF Corporation, \$5,000, "Indiana Arborists Association, Inc."

Behrens, Sandra R; nursing administration, from Indiana University, \$114,856, "Northwest Indiana Area Health Center (Federal Funds 2020-21)."

Bell, Mark R and **Zoltowski, Michael D**; electrical & computer engineering, from Saab North America Inc, \$71,712, "Bistatic Radar Direct Path and Diffuse Clutter Cancellation for Weak Target Environments."

Bertino, Elisa; computer science, from IBM, \$84,978, "IBM DAIS ITA – BPP20 (Grant 13000865)."

Bertino, Elisa; computer science, from Smart Information Flow Technologies, \$111,415, "Neutron Phase II; Amendment 1, Grant 13000780."

Bhave, Sunil A; electrical & computer engineering, from University of California – Berkeley, \$49,070, "Nuclear Hyperpolarization Assisted Hybrid Quantum Sensor Magnetometry." (a Discovery Park award – Birck Nanotechnology Center)

Bhave, Sunil A; electrical & computer engineering, from University of Arizona, \$90,000, "NSF Convergence Accelerator-Track C: Quantum-Interconnected Optomechanical Transducers for Entanglement-Enhanced Force and Inertial Sensing." (a Discovery Park award – Birck Nanotechnology Center)

Bhunia, Arun K; food science, from Bioscale Inc, \$10,000, "Shuttleworth North America."

Bhunia, Arun K; food science, from BioMatrix Inc, \$10,000, "Shuttleworth North America."

Borovsky, Arielle; speech, language & hearing sciences, from Florida State University, \$21,000, "The Florida Learning Disabilities Research Center, Year 4 Funding; Grant 11000960."

Bouman, Charles A; electrical & computer engineering, from UES Inc., \$70,000, "Multi-Modal and Multi-Resolution Data Fusion for Biological and Materials Imaging Applications; Modification 3 for Grant #13000670."

Braun, James E; mechanical engineering, from Belimo Holding AG, \$50,000, "Center for High Performance Building Consortium (Belimo Holding)."

Brinton, Christopher Greg and **Krogmeier, James V**; electrical & computer engineering, from University of New Mexico, \$47,125, "Sii Planning: Spectrum-Agile Cognitive Communications for Terrestrial and Space Applications."

Byrn, Stephen Robert; industrial & physical pharmacy, from Bill & Melinda Gates Foundation, \$88,116, "Salt Screening Study."

Byrn, Stephen Robert; industrial & physical pharmacy, from National Institute on Drug Abuse, \$704,709, "Dosage Form Development, Manufacture, and Stability Studies of Mitragynine."

Byrn, Stephen Robert and **Smith, Daniel T**; industrial & physical pharmacy, from National Institute for Pharmaceutical Technology and Education, \$116,498, "Assessment of Smoking and Vaping Risk of Opiods and Commercial Products, and Standardization of Methods to Asses These Properties; Modification 1; Grant 11000977."

Caldwell, Barrett S; industrial engineering, from Purdue University, \$1,000, "INSGC Affiliate Dues-PNW 2020-21."

Caldwell, Barrett S; industrial engineering, from Indiana State University, \$1,000, "INSGC Affiliate Dues-Indiana State University (2020-21)."

Caldwell, Barrett S; industrial engineering, from Taylor University, \$1,000, "INSGC Affiliate Dues-Taylor University (2020-21)."

Caldwell, Barrett S; industrial engineering, from University of Evansville, \$1,000, "INSGC Affiliate Dues-University of Evansville (2019-20)."

Caldwell, Barrett S; industrial engineering, from Valparaiso University, \$1,000, "INSGC Affiliate Dues-Valparaiso University."

Caldwell, Barrett S; industrial engineering, from Trine University, \$1,000, "INSGC Affiliate Dues-Trine University (2020-21)."

Caldwell, Barrett S; industrial engineering, from Purdue University, \$1,000, "INSGC Affiliate Dues-PFW 2020-21."

Cameron to Feng

Cameron, Stephen L; entomology, from Yale University, \$25,000, "Digitization Pen: Addition of the Yale Peabody Museum to the Terrestrial Parasite Tracker (Tpt) Network."

Campbell, Noll L; pharmacy practice, from Indiana University, \$10,213, "Indiana Geriatrics Education and Training Center (Indiana GETC) 2.0; Amendment 1, Grant 11000920."

Caruthers, James M; chemical engineering, from University of California-Santa Barbara, \$50,178, "Mechanism Based Oligomerization Catalysis for Upgrading Olefins to Produce Specialty Fuels and Chemicals – Amendment 2 for Grant #14000414."

Casteel, Shaun N; agronomy, from Indiana Soybean Alliance, \$74,167, "Systems that Improve Nutrient Efficiency, Foliar Protection, and Yield of Soybean."

Chan, Stanley H; electrical & computer engineering, from Intel Corporation, \$10,000, "Multi Sponsor – Voluntary Support."

Chawla, Nikhilesh; materials engineering, from University of Puerto Rico – San Juan, \$41,367, "Scale Dependent Studies of Meteorite Strength and Fragmentation."

Chawla, Nikhilesh; materials engineering, from Arizona State University, \$158,742, "Aperiodic Lattice Design Optimization for Multi-Functional Lightweight Aerospace Structures."

Chew, Weng C; electrical & computer engineering, from Synopsys, Inc, \$100,000, "Consortium on Electromagnetics Technologies (CEMT)-Synopsys Inc."

Childress, Michael 0; veterinary clinical sciences, from University of Minnesota, \$3,503, "Clinical Evaluation of Propranolol in Combination with Doxorubicin for the Treatment of Hemangiosarcoma."

Chopra, Gaurav; chemistry, from The Geneva Foundation, \$209,000, "Modeling Molecular Mechanisms of Pirfenidone Interaction with Kinases."

Christian, John A; comparative pathobiology, from Western University of Health Sciences, \$3,770, "Cytology Resource Center (40001198)."

Coddington, Jennifer A; nursing, from Indiana University Health Arnett, \$48,954, "IU Health Faculty Practice Partnership."

Corley, Baraka B; Student Success, from Council for Opportunity in Education, \$8,000, "Council for Opportunity in Education Emergency Grant Aid."

Crawford, Melba M; electrical & computer engineering, from Korea Polar Research Institute, \$16,800, "UAV-Based Advanced Remote Sensing of the Polar Regions."

Cziczo, Daniel James; earth, atmospheric & planetary sciences, from National Science Foundation, \$342,319, "Collaborative Research: an in Situ Closure Study of Mixed Phase Clouds at Storm Peak."

Day, Gordon J; hospitality & tourism management, from American Councils for International Educ, \$22,000, "Ecotourism Development – Uzbekistan."

Delp, Edward J and **Comer, Mary L**; electrical & computer engineering, from Lockheed Martin Corp., \$97,000, "Multi-Entity Activity Characterization."

Dietz, James Eric; computer information technology, from General Dynamics Information Technology, Inc, \$56,532, "Technical Instruction and Evaluation for Automating Navy STIG/Cybersecurity."

Dilkes, Brian; biochemistry, from Donald Danforth Plant Science Center, \$156,280, "Elucidating the Molecular Mechanisms Underlying Drought Resilience in Sorghum (Grant 14000513 Amendment #1)."

Donkin, Shawn S; agricultural research & graduate education, from ADM Alliance Nutrition, Inc., \$43,000, "Dose Response to Rp-Lys Product: Evaluation of Screening Doses for Encapsulated Products."

Dorribo Camba, Jorge; Fuerst, Travis J; Hutcheson, John S; Cappelleri, David J and Jun, Martin Byung-Guk; computer graphics technology, engineering technology, mechanical engineering, from TMHNA, \$205,866, "Material Handling for Industry 4.0 in Small and Medium Enterprises (Smes)."

Doucette, Suzanne C; chemistry, from Florida State University, \$52,785, "Energy Frontier Research Center: Center for Interdisciplinary Actinide Science."

Duerstock, Bradley S; biomedical engineering, from US Army Medical Res Acquisition, \$643,129, "Noninvasive, Multimodal System to Detect Autonomic Dysreflexia in Individuals with Tetraplegia."

Duvall, John N; English, from Johns Hopkins University, \$15,665, "Journal of Modern Fiction Studies."

Ekenstedt, Kari J; basic medical science, from PHS-NIH Office of the Director, \$112,825, "Novel Genetic Models for Vertebral Abnormalities (Grant 11000827)."

Engelberth, Abigail S; Johnston, Cliff T; Jafvert, Chad T; Foster, Erika J and Filley, Timothy R; Agricultural & Biological Engineering Program, agronomy, civil engineering, earth, atmospheric & planetary sciences, from Koppers Recovery Resources LLC, \$40,000, "Upcycling Spent Railroad Ties into a Value-Added Biochar to Improve Water Quality." (a Discovery Park award – Center for Environment)

Engelberth, Abigail S; Johnston, Cliff T; Jafvert, Chad T; Foster, Erika J and Filley, Timothy R; Agricultural & Biological Engineering Program, agronomy, civil engineering, earth, atmospheric & planetary sciences, from The Indiana Rail Road, \$20,000, "Upcycling Spent Railroad Ties into a Value-Added Biochar to Improve Water Quality." (a Discovery Park award – Center for Environment)

Engelberth, Abigail S; Johnston, Cliff T; Jafvert, Chad T; Foster, Erika J and Filley, Timothy R; Agricultural & Biological Engineering Program, agronomy, civil engineering, earth, atmospheric & planetary sciences, from CSX Transportation Inc, \$40,000, "Upcycling Spent Railroad Ties into a Value-Added Biochar to Improve Water Quality." (a Discovery Park award – Center for Environment)

Engelberth, Abigail S; Johnston, Cliff T; Jafvert, Chad T; Foster, Erika J and Filley, Timothy R; Agricultural & Biological Engineering Program, agronomy, civil engineering, earth, atmospheric & planetary sciences, from Stella-Jones Corporation, \$50,000, "Upcycling Spent Railroad Ties into a Value-Added Biochar to Improve Water Quality." (a Discovery Park award – Center for Environment)

Feng, Yaohua; food science, from Indiana State Department of Agriculture, \$58,757, "Virtual and Interactive Education Program for Fruit and Vegetable on-Farm Manufacturing."

Field to Jacob

Field, William E; Agricultural & Biological Engineering Program, from Multi-Sponsored Industrials, \$400, "Breaking New Ground."

Filley, Timothy R and **Welp-Smith, Lisa R**; earth, atmospheric & planetary sciences, from University of Illinois at Champaign-Urbana, \$62,406, "Network Cluster Cinet: Critical Interface Network in Intensively Managed Landscapes."

Flachs, Andrew T and **Raturi, Ankita**; anthropology, Agricultural & Biological Engineering Program, from Social Science Research Council, \$6,697, "Technological Transitions in the US Local Food System in Response to COVID-19."

Foster, Ricky E; **Pettigrew, Alexandria L** and **Shoaf, Nathan Lee**; Cooperative Extension Service, field extension, from University of Minnesota, \$3,828, "Creating Youth Leaders Using Sustainable Urban Agricultural Practices."

Gallardo, Roberto and **Kumar, Indraneel**; Purdue Center for Regional Development, from East Central Indiana Development Council, \$3,000, "Wage & Benefits Analysis."

Gan, Dongming; engineering technology, from Khalifa University, \$75,102, "Flexible & Smart Textile Architectures with Integrated Tactile Sensor Arrays and Memristive Networks for Robotic Applications."

Ghosh, Arun K; medicinal chemistry & molecular pharmacology, from National Center Global Health Medicine, \$113,464, "Development of Novel Compounds Against RNA-Dependent, RNA Polymerase (Rdrp) Enzyme Target that Exert Potent Activity Against Sars-Cov-2 and Related Viruses."

Gibert, James M; **Lin, Guang** and **Davies, Patricia**; mechanical engineering, mathematics, from John Deere US Ag, \$135,996, "Gearboxe Vibration Project."

Gibert, James M; **Lin, Guang** and **Davies, Patricia**; mechanical engineering, mathematics, from John Deere US Ag, \$165,719, "Gearboxe Vibration Project."

Ginzel, Matthew D; entomology, from Indiana Hardwood Lumbermen's Assn., \$25,000, "Multi Sponsor."

Gkritza, Konstantina; civil engineering, from Federal Highway Administration, \$5,000, "Dwight David Eisenhower Transportation Fellowship Program (Ddetfp) Graduate Fellowship."

Gkritza, Konstantina; civil engineering, from Federal Highway Administration, \$10,000, "Dwight David Eisenhower Transportation Fellowship Program (Ddetfp) Graduate Fellowship."

Goergen, Craig J; biomedical engineering, from Kent Scientific Corporation, \$1,500, "Multi Sponsor."

Goergen, Craig J; biomedical engineering, from Indiana University Purdue University at Indianapolis, \$93,486, "2020-22 Joint MDPhD Program Graduate Support – Nathaniel Smith."

Gonzalvo, Jasmine D; pharmacy practice, from College of Psych and Neuro Pharm Fd, \$1,125, "Multi Sponsor."

Gray, Nicholas W; TRIO Programs, from Council for Opportunity in Education, \$8,000, "Emergency Aid for PFW Upward Bound I."

Gray, Nicholas W; TRIO Programs, from Council for Opportunity in Education, \$8,000, "Emergency Aid for PFW Upward Bound II."

Guzey, Sukru; civil engineering, from Baker Consulting Group, \$14,800, "Analysis and Design of Fixed Equipment."

Harpur, Brock Alexander; entomology, from Eva Crane Trust, \$39,294, "How Unique Are Feral Honey Bee Populations: Using Genetics to Characterize Feral Honey Bee Colonies."

Heber, Albert J and **Ni, Jiqin**; Agricultural & Biological Engineering Program, from Ohio Fresh Eggs, LLC, \$299,988, "Measurement of Pm10 Emissions from a Laying House in Ohio."

Heister, Stephen D and **Slabaugh, Carson D**; aeronautics and astronautics, from Office of Naval Research, \$190,000, "Combustion in Solid Fuel Ramjets – Modification 2 for Grant #13000712."

Hertel, Thomas W; agricultural economics, from U.S. Department of Commerce, \$20,435, "GTAP Consortium-NIST."

Hertel, Thomas W; agricultural economics, from IMF- International Monetary Fund, \$20,435, "GTAP Consortium-Imf."

Hertel, Thomas W; agricultural economics, from Asian Development Bank, The, \$20,435, "GTAP Consortium-Adb."

Hertel, Thomas W; agricultural economics, from Oecd Development Center, \$20,435, "GTAP Consortium-Oecd."

Hertel, Thomas W; agricultural economics, from U.S. International Trade Commission, \$20,435, "GTAP Consortium-Usitc."

Horgan, Briony H; earth, atmospheric & planetary sciences, from Arizona State University, \$65,000, "Mastcam-Z: a Geologic Stereoscopic and Multispectral Investigation for the NASA Mars-2020 Rover Mission – Phase E."

Horton, William Travis; civil engineering, from Kulthorn Kirby, \$258,470, "Promoting the Uptake of Highly Energy Efficient Rac in Thailand and Vietnam."

Hountz, Randall A; industrial engineering, from In State Office of Rural Health, \$175,000, "Leadership-Pull Improvements in Critical Access Hospital." (a Discovery Park award – Regenstrief Center)

Hountz, Randall A and **Cline, Melanie R**; industrial engineering, from Marion General Hospital, \$80,000, "HRSA-Rural Process Improvement Capability Building – Marion General Hospital (Grand 11000978)." (a Discovery Park award – Regenstrief Center)

Iyer, Ananth V; **Labi, Samuel** and **Dunlop, Steven R**; management, civil engineering, Dauch Center for the Management of Manufacturing Enterprises/ Global Supply Chain Management Initiative (DCMME/GSCMI), from Indiana Department of Transportation, \$120,000, "SPR 4502 – Heavy Fleet and Facilities Optimization."

Jacob, Zubin and **Li, Tongcang**; electrical & computer engineering, from Defense Advanced Research Projects Agency, \$64,807, "Engineering Giant Momentum Asymmetry of the Quantum Vacuum; Modification 1; Grant 13000902." (a Discovery Park award – Birck Nanotechnology Center)

Jacob, Zubin and **Bhave, Sunil A**; electrical & computer engineering, from Defense Advanced Research Projects Agency, \$118,965, "High Temperature Hybrid Metamaterials for Thermal Dual-Barrier Coatings." (a Discovery Park award – Birck Nanotechnology Center)

Jacob, Zubin and **Li, Tongcang**; electrical & computer engineering, from Defense Advanced Research Projects Agency, \$327,082, "Engineering Giant Momentum Asymmetry of the Quantum Vacuum; Modification 2; Grant 13000902." (a Discovery Park award – Birck Nanotechnology Center)

Jayant to Mayer

Jayant, Krishna; biomedical engineering, from Oak Ridge Associated Universities, \$5,000, "Orau Ralph E. Powe Junior Faculty Enhancement Awards."

Jayant, Krishna; biomedical engineering, from Human Frontier Science Program Organization, \$185,000, "Large-Scale Mapping of Intracellular Dendritic Dynamics During Memory Formation and Replay."

Jewell, Joseph S; aeronautics and astronautics, from Lockheed Martin Corp., \$245,470, "Attenuation of Second-Mode Waves in Hypersonic Boundary Layers Over Porous Surfaces."

Jiao, Dan; electrical & computer engineering, from Defense Advanced Research Projects Agency, \$275,097, "Rapid Modeling and Analysis Framework for Full-Chip/Package/Board Layout Automation."

Jin, Jian; Agricultural & Biological Engineering Program, from FMC Agricultural Chemical Group, \$95,261, "Reliable Early Detection of Slb Symptoms with Handheld Hyperspectral Leafspec."

Jun, Martin Byung-Guk; mechanical engineering, from Kyungpook National University, \$125,520, "IoT and AI Based Machine Monitoring and Ar/Vr-Based Human Interaction and Decision Making."

Keehn, Brandon M; speech, language & hearing sciences, from Indiana University, \$169,337, "An Innovative Model of Early ASD Diagnosis in the Primary Care Setting: Integrating Clinical Evaluation and Biomarkers to Improve Diagnostic Accuracy."

Kim, Hye-Ji; horticulture & landscape architecture, from Higher Educ Commission Pakistan, \$3,500, "Bench Fees for Shaiza Rasool."

Klimeck, Gerhard; electrical & computer engineering, from Harvard University, \$100,000, "Qii-TAQS: Majorana Nanomanipulation for Topological Quantum Computing; Amendment 1, Grant 10001607." (a Discovery Park award – Network for Computational Nanotechnology)

Knapp, Deborah W; veterinary clinical sciences, from Robert and Donna Poynter, (Individual Donors), \$1,000, "Cancer Treatment Program."

Knapp, Deborah W; veterinary clinical sciences, from Robert and Donna Poynter, (Individual Donors), \$1,000, "Cancer Treatment Program."

Knopik, Valerie S; human development & family studies, from Emory University, \$38,874, "The Kinship Risk SCORE: an Integrative Tool to Prioritize Alcohol and Drug-Addiction (Grant 11000698 Amendment #4)."

Kramer, Robert A; Energy Efficiency and Reliability Center, from Indiana Department of Transportation, \$25,000, "INDOT Highway Lighting Support Services."

Kuhn, Richard J; biological sciences, from Elanco Inc, \$11,853, "Elanco Cryoem Data Collection and 2D Class Averaging Analysis."

Kulkarni, Milind; electrical & computer engineering, from Adobe Systems Incorporated, \$20,000, "Multi Sponsor."

Labi, Samuel; civil engineering, from Federal Highway Administration, \$5,000, "Dwight David Eisenhower Transportation Fellowship Program (DDETFP) Graduate Fellowship."

Labi, Samuel and **Sinha, Kumares C**; civil engineering, from Indiana Local Tech Assistance Prog, \$0, "Financial Needs for Local Agency Highway and Street Departments."

LaCount, Douglas J; medicinal chemistry & molecular pharmacology, from Washington University, \$271,250, "Structural and Functional Characterization of the Ebola Virus Replication Complex."

Lee, Chi Hwan; mechanical engineering, from UES Inc., \$100,000, "Defect-Free Integration of Plasmonic Thin Film; Modification 3, Grant 13000782."

Liceaga, Andrea M; food science, from Heartland Food Products Group, \$1,500, "Multi Sponsored Gift- Sensory."

Liceaga, Andrea M; food science, from Handy Seafood Inc., \$1,500, "Multi Sponsored Gift- Sensory."

Liceaga, Andrea M; food science, from The Peel UP, \$3,000, "Multi Sponsored Gift- Sensory."

Liceaga, Andrea M; food science, from TH Foods, INC, \$4,500, "Multi Sponsored Gift- Sensory."

Lin, Tan; Director of Dining, from Facebook, \$50,000, "Voluntary Support - Multi Sponsor."

Lin, Xiaojun; electrical & computer engineering, from Duke University, \$58,036, "Bigdata: F: Collaborative Research: Mining for Patterns in Graphs and High-Dimensional Data: Achieving the Limits; Amendment 1, Grant 10001641."

Lindemann, Stephen R and **Hamaker, Bruce R**; food science, from Army Research Office, \$74,800, "Complex Substrates and Microbial Interactions: Does Substrate Chemical Structure Dictate Microbial Diversity and Function? (Grant 13000655, Modification 4)."

Lindsay, lan C; anthropology, from Indiana University, \$3,000, "Anth 523: GIS for Humanities and Social Science Research."

Liu, Pi Ju; nursing, from State of Montana, \$100,000, "Contract with Montana Adult Protective Services 2020-2022."

Low, Philip S; chemistry, from On Target Laboratories LLC, \$40,000, "Tumor-Targeted Nir Dyes for Fluorescence-Guided Surgery."

Lyle, LaDawn T; comparative pathobiology, from The Geneva Foundation, \$13,333, "Leptomeningeal Metastases of Breast Cancer; Toward New Therapies (Grant 13000861 Modification 1)."

MacDermid Wadsworth, Shelley; **Broniarczyk, Kathy M** and **Topp, Dave**; human development & family studies, from Indiana Family & Social Services Administration, \$499,998, "Star Behavioral Health Providers – Indiana Department of Mental Health and Addiction."

Macheret, Sergey 0; aeronautics and astronautics, from Verus Research, \$27,000, "Plasma Switches and Antennas for Contested Electromagnetic Environments."

Maji, Hemanta K and **Kate, Aniket Pundlik**; computer science, from Mitre Corporation, \$149,350, "Practical Secure Computation via Efficient Matrix Multiplication Over General Algebras."

Martinez, Kimber J; agricultural sciences education and communication, from Indiana State Department of Health, \$26,399, "Mesa Latinx Training."

Mason, Linda J; graduate school administration, from Council of Graduate Schools, \$15,000, "Cgs Understanding PhD Career Pathways for Program Improvement Project."

Mayer, Theresa Stellwag; Executive Vice President for Research and Partnerships administration, from Lockheed Martin Corp., \$25,000, "Grin Diamond Coatings."

McMillan to Roy

McMillan, Sara K; Agricultural & Biological Engineering Program, from Wabash River Enhancement Corp, \$4,268, "Water Quality Analysis for Wabash River Sampling Blitz."

Mei, Jianguo; chemistry, from Ambilight, Inc., \$225,000, "Ambilight, Inc."

Mei, Jianguo and **Perera, Kuluni**; chemistry, from Eastman Foundation, \$8,000, "Eastman Fellowship Award Kuluni Perera – Advisor, Professor."

Meyer, Terrence R and **Jewell, Joseph S**; mechanical engineering, aeronautics and astronautics, from Spectral Energies, LLC, \$65,000, "Spatiotemporal Evolution of Hydrometeors and Flow Interactions During Aerobreakup."

Meyer, Terrence R and **Son, Steven F**; mechanical engineering, from Spectral Energies, LLC, \$249,795, "High-Fidelity Diagnostics of Aerosols and Vapors at High Temperatures and Pressures."

Meyer, Terrence R; mechanical engineering, from Spectral Energies, LLC, \$159,956, "Design, Development, Evaluation, and Testing of Advanced Laser Based Diagnostic Techniques for Combustion and Propulsion Research."

Miller, Jeffrey T; chemical engineering, from Argonne National Laboratory, \$30,000, "Catalyst Characterization to Support Catalyst Development for Converting Biomass; Amendment 9, (Grant 14000242)."

Miller, Jeffrey T; chemical engineering, from Pacific Northwest National Laboratory, \$50,000, "The Center for Molecular Electrocatalysis; Modification 3 (Grant 14000394)."

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

Mishra, Dharmendra K; food science, from Northern Block Foods, \$100, "Multi Sponsored Gift."

Mishra, Dharmendra K; food science, from Melvin and Rosanne Yoder, \$150, "Multi Sponsored Gift."

Mishra, Dharmendra K; food science, from Darnell School Farm LLC, \$375, "Multi Sponsored Gift."

Mishra, Dharmendra K; food science, from American Mayhem LLC, \$1,575, "Multi Sponsored Gift."

Mishra, Dharmendra K; food science, from Commission of Higher Education in Thailand, \$3,113, "Bench Fee – Puncharat Pilong."

Mishra, Dharmendra K and **Deering, Amanda J**; food science, from The Popcorn Board, \$61,959, "Microbial Testing for the Inactivation of Pathogenic Organisms During Popcorn Processing."

Moding, Kameron Jean; human development & family studies, from Global Alliance Improved Nutrition, \$25,452, "Development of a Live Coding Method and Manual to Assess Infant Food Acceptance."

Morisette, Dallas T; electrical & computer engineering, from II-VI Foundation, \$150,310, "Deposited Gate Oxides for Next Generation Sic Power MOSFETs."

Mort, Paul R; materials engineering, from Procter & Gamble Company, \$15,000, "Multi Sponsor."

Mull, Casey Downs; Cooperative Extension Service – 4-H, from North Carolina State University, \$140,000, "4-H Military Professional Development and Technical Assistance."

Nauman, Eric A; mechanical engineering, from Corvid Technologies, \$75,663, "Advanced Models of Head Trauma: Phase II."

Newby, Timothy J; Koehler-Blair, Adrie Anne; Richardson, Jennifer C; Grimmet, Kharon D and Morita-Mullaney, Patricia M; curriculum & instruction, educational studies, from Indiana Department of Education, \$1,548,824, "Becoming an Online Teacher? Even When I Didn?T Sign Up for IT."

Nunez, Isabel; education, from Indiana Department of Education, \$104,798, "Course Reimbursement for Individuals to Complete Coursework in High Need Areas Such as High Ability Education, Dual Language Education, and Indiana English as a New Language (ENL) Licensure."

Olek, Jan and **Shah, Ayesha**; civil engineering, from Indiana Department of Transportation, \$25,000, "NCSC Base Funding Expansion."

Paniagua Perez, Guillermo; mechanical engineering, from Air Force Office of Scientific Research, \$75,000, "Bfcontur: Embedded Flow Control for High Work / Low Reynolds Number Turbines."

Peng, Chunyi; computer science, from Adobe Systems Incorporated, \$10,000, "Multi Sponsored Voluntary Support."

Peroulis, Dimitrios; electrical & computer engineering, from Sandia National Laboratories, \$80,000, "Sandia-Purdue Academic Alliance: High-Power Tunable Limiters/Switches."

Pothen, Alex; computer science, from Pacific Northwest National Laboratory, \$83,485, "ExaGraph: Exascale Computing Project Codesign Center."

Pourpoint, Timothee L; aeronautics and astronautics, from Aerojet Rocketdyne INC, \$121,956, "Green Hydrazine Blend Hot-Fire Testing."

Purzer, Senay; engineering education, from The Concord Consortium Inc, \$70,051, "Science and Engineering Education for Infrastructure Transformation (SEEIT)."

Rainey, Maceo M; Educational Opportunities Program, from U.S. Department of Education, \$12,738, "Education through Success."

Rainey, Maceo M; Educational Opportunities Program, from U.S. Department of Education, \$376,676, "Educational Talent Search Program (Westville Campus 2020-2021)."

Ramanathan, Shriram; materials engineering, from University of California – San Diego, \$124,536, "Quantum Materials for Energy Efficient Neuromorphic Computing (Q-Meen-C) (Grant 14000407 Mod1)."

Rao, Sanjay G; electrical & computer engineering, from Silicon Valley Community Foundation, \$108,070, "Cisco Video."

Ribeiro, Fabio H; chemical engineering, from BASF Corporation, \$60,000, "CISTAR Industrial Consortium, BASF 40001938."

Rogers, Timothy G; electrical & computer engineering, from Sandia National Laboratories, \$80,000, "Gpgpu Simulation Studies."

Rompf, Tiark; computer science, from U.S. Department of Energy, \$150,000, "Program Generators for Exascale and Beyond; Modification 3 for Grant #14000326."

Rompf, Tiark; computer science, from Facebook, \$200,000, "Multi Sponsor – PurPL Center."

Roy, Kaushik; electrical & computer engineering, from Sandia National Laboratories, \$95,000, "Neural-Inspired Approaches & Implementations for Automatic Target Recognition; Amendment 1, Grant 14000501."

Ruple to Tuinstra

Ruple, Audrey; public health, from University of Washington, \$26,552, "The Dog Aging Project: Genetic and Environmental Determinants of Healthy Aging in Companion Dogs (Year 3 Funds); Grant 11000962."

Sadeghi, Farshid; mechanical engineering, from UES Inc., \$138,547, "Experimental and Analytical Investigation of Rolling Contact Fatigue of Aerospace Bearing Material; Amendment 2; Grant 13000766."

Sadeghi, Farshid; mechanical engineering, from Honeywell International Foundation Incor, \$90,000, "Tribology Lab Research."

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

Salgado, Rodrigo and **Prezzi, Monica**; civil engineering, from Indiana Department of Transportation, \$51,000, "Implementation Study: Continuous, Wireless Data Collection and Monitoring of the Sagamore Parkway Bridge."

Sardeshmukh, Swanand V; **Kenttamaa, Hilkka I** and **Pourpoint, Timothee L**; aeronautics and astronautics, chemistry, from National Institute of Aerospace, \$30,929, "Quantum Computing for Propellant Chemistry (Qcpc)."

Scalo, Carlo; mechanical engineering, from Army Research Office, \$35,000, "ARO-YIP: Coherent-Vorticity-Preserving (CVP) Large-Eddy Simulations (LES) of Very-High-Reynolds-Number Vortex Dynamics (Grant 13000616 – Modification 6)."

Schneider, Steven P; aeronautics and astronautics, from Clayton A Smith, \$15, "Mach-6 Quiet Tunnel."

Schneider, Steven P; aeronautics and astronautics, from Dr Thomas James Juliano, \$25, "Mach-6 Quiet Tunnel."

Sen, Shreyas and **Peroulis, Dimitrios**; electrical & computer engineering, from Saab North America Inc, \$83,713, "Adaptive Wideband Digital Receivers with Fast Interference Detection and Tuning."

Shalaev, Vladimir M; **Boltasseva, Alexandra** and **Kildishev, Alexander V**; electrical & computer engineering, from Air Force Office of Scientific Research, \$195,000, "Space-Time Photonic Metamaterials: from Design and Materials to Device Concepts (Grant 13000610 Modification 4)."

Sheehan, Amy Heck; pharmacy practice, from Eli Lilly and Company, \$116,700, "Purdue/ELI Lilly and Company Drug Information Pharmaceutical Fellowship."

Shie, Wesley RJ; continuing studies, from Indiana Economic Development Corporation, \$174,570, "CARES Funding for Northeast Indiana SBDC at Purdue Univeristy Fort Wayne."

Slipchenko, Mikhail N; mechanical engineering, from Sandia National Laboratories, \$88,290, "High-Speed Diagnostic and Simulation Capabilities for Reacting Hypersonic Reentry Flows."

Son, Steven F; mechanical engineering, from National Aeronautics and Space Administration, \$15,000, "Development of High-Performance Ammonia Borane Based Rocket Propellants – Fellowship for Baier (Grant 12000208)."

Son, Steven F; mechanical engineering, from National Aeronautics and Space Administration, \$23,420, "Development of High-Performance Ammonia Borane Based Rocket Propellants (Phase B) – Fellowship for Baier (Grant 12000208)."

Son, Steven F; **Manship, Timothy D** and **Beaudoin, Stephen P**; mechanical engineering, materials engineering, chemical engineering, from Naval Surface Warfare Center Crane Division, \$50,000, "Extrudable DAAF-Based Explosives: Insensitive Explosive with Small Critical Diameter 3.4.4."

Son, Steven F; **Manship, Timothy D** and **Beaudoin, Stephen P**; mechanical engineering, materials engineering, chemical engineering, from Naval Surface Warfare Center Crane Division, \$168,000, "Extrudable DAAF-Based Explosives: Insensitive Explosive with Small Critical Diameter 3.4.5."

Song, Qianqi; psychological sciences, from University of Kansas, \$31,380, "Development of a Military-Specific Transdiagnostic Eating-Disorder Survey and Screening Tool in a Nationally Representative Sample of Veterans (Grant 13000825)."

Sudhoff, Scott D; electrical & computer engineering, from Newport News Shipbuilding, \$19,686, "NPAU Analysis."

Sundaram, Neera J; mechanical engineering, from PC Krause and Associates, \$87,733, "A Unified System-of-Systems Design and Analysis Toolset for Aircraft Thermal Management Systems."

Swihart, Robert K and **DeWoody, James Andrew**; forestry & natural resources, from Indiana Department of Natural Resources, \$154,682, "Integrated Deer Management in Indiana."

Taheripour, Farzad; agricultural economics, from CoverCress, Inc, \$20,000, "Induced Land Use Change: Case of Biodiesel Produced from Pennycress as a Second Crop."

Taylor, Lynne S; industrial and physical pharmacy, from Glaxo Smith Kline, \$79,991, "Can We Predict the Disproportionation Tendency of Weakly Basic Compounds?"

Thomas, Renee A; Black Cultural Center, from 400 Yrs African-American History Commission, \$10,000, "Treasure Trek."

Thompson, Michelle S; earth, atmospheric & planetary sciences, from National Aeronautics and Space Administration, \$77,879, "An Experimental Investigation of Space Weathering Processes of Regoliths on Primitive Carbonaceous Asteroids – Supplement 3 for Grant #12000298."

Thompson, Michelle S; earth, atmospheric & planetary sciences, from National Aeronautics and Space Administration, \$94,174, "Laboratory Studies of the Evolution of Airless Planetary Surfaces (Leaps)."

Trice, Rodney W and **Youngblood, Jeffrey P**; materials engineering, from Lockheed Martin Corp., \$100,849, "Development of Mechanically Robust Transparent Alumina for Infrared (Ir) Windows."

Tu, Manghui; **Jin, Ge** and **Zhang, Yueqi**; computer information technology & graphics (CIT&G), communication & creative arts, from University of Alabama Huntsville, \$205,921, "Cae-C K12 Pipeline Development Initiative at Purdue Northwest."

Tuinstra, Mitchell R; Crawford, Melba M; Cherkauer, Keith A; Delp, Edward J; Ebert, David S; Habib, Ayman F and Weil, Clifford F; agronomy, Agricultural & Biological Engineering Program, electrical & computer engineering, civil engineering, from Advanced Research Projects Agency – Energy, \$2,150,266, "Automated Sorghum Phenotyping and Trait Development Platform; Modification 1, Grant 14000461."

Turco to Zavattieri

Turco, Ronald F; agronomy, from Agribusiness Council of Indiana, The, \$1,000, "St Mary Watershed Voluntary Support (Cost Share for 20000224 / 209968)."

Turco, Ronald F; agronomy, from Indiana State Poultry Association, \$1,250, "St Mary Watershed Voluntary Support (Cost Share for 20000224 / 209968)."

Turco, Ronald F; agronomy, from Indiana Pork Producers Association Inc., \$3,500, "St Mary Watershed Voluntary Support (Cost Share for 20000224 / 209968)."

Turco, Ronald F; agronomy, from The Nature Conservancy, \$5,000, "St Mary Watershed Voluntary Support (Cost Share for 20000224 / 209968)."

Turco, Ronald F; agronomy, from Indiana Soybean Alliance, \$15,000, "St Mary Watershed Voluntary Support (Cost Share for 20000224 / 209968)."

Turco, Ronald F; agronomy, from Indiana Corn Marketing Council, \$15,000, "St Mary Watershed Voluntary Support (Cost Share for 20000224 / 209968)."

Vacca, Andrea; Agricultural & Biological Engineering Program, from U.S. Department of Energy, \$726,345, "A New Approach for Increasing Efficiency of Agricultural Tractors and Implements."

Varala, Kranthi K; horticulture & landscape architecture, from Cold Spring Harbor Laboratory, \$80,976, "Research-PGR: Living Fossils: Applying Advances in Single Molecule Sequencing to Decode Large and Complex Genomes of Ancient Plant Lineages (Grant 10001460; Amendment #2)."

Verma, Mohit S; Agricultural & Biological Engineering Program, from Raytheon BBN Technologies, \$56,000, "COVID-19 Diagnostics."

Verma, Mohit S; Ault, Aaron C; Johnson, Timothy; Koziol, Jennifer H; Pillai, Deepti K and Schoonmaker, Jon; Agricultural & Biological Engineering Program, electrical & computer engineering, animal sciences, veterinary clinical sciences, comparative pathobiology, from Foundation for Food and Agriculture Research, \$450,000, "Field-Deployable Biosensors for Managing Animal Health."

Voyles, Richard M; engineering technology, from Tupperware, \$10,000, "Rose-Hub Membership (Members Cost Shared on 107355)."

Wang, Haifeng; aeronautics and astronautics, from FM Global, \$67,000, "Multi Sponsor – Voluntary Support."

Wang, Haifeng; aeronautics and astronautics, from American Chemical Society, \$110,000, "Direct Numerical Simulations and First-Principle Guided Modeling of Turbulent Direct Numerical Simulations and First-Principle Guided Modeling of Turbulent Pre-Chamber Hot Jet Ignition."

Wang, Haiyan; materials engineering, from Sandia National Laboratories, \$20,000, "From Atoms to Devices: Advancing Nanoelectronics through Atomic Scale Electron Energy-Loss Spectroscopy Characterization."

Wang, Nien-hwa L; chemical engineering, from Multi-Sponsored Industrials, \$35,000, "Multi Sponsor."

Ward, Mark Daniel and **Patel, Kamlesh D**; Discovery Park administration, from Sandia National Laboratories, \$62,181, "Analytic Tools for Experimental Wargames."

Wassgren, Carl R and **Gonzalez, Marcial**; mechanical engineering, from Pfizer Inc, \$149,423, "A Mechano-Probabilistic Particle-Level Punch Sticking Model."

Weibel, Justin A; mechanical engineering, from Dow Chemical Company Foundation, \$11,250, "Cooling Technologies Research Center (CTRC) – Dow 02."

Weibel, Justin A; mechanical engineering, from Ford Motor Company, \$30,000, "Cooling Technologies Research Center (CTRC), Ford \$30,000."

Weibel, Justin A and **Pan, Liang**; mechanical engineering, from Saab North America Inc, \$59,770, "Topology Optimization of AM Cold Plates for Pitch-Constrained, Aesa-Compatible Cooling."

Whelton, Andrew J; Jafvert, Chad T and Zyaykina, Nadezhda N; civil engineering, environmental & ecological engineering, from Indiana Department of Transportation, \$19,939, "Air Cooled Blast Furnace Slag Test Method and Leachate Field Analysis."

Wodicka, George R; biomedical engineering, from Indiana University Purdue University at Indianapolis, \$18,807, "Institutional Career Development Core (Grant 11000990)." (a Discovery Park award – Bindley Bioscience Center)

Wright, Gail G; field extension, from Area 7 Agency Aging Disabled, \$665, "Matter of Balance Training."

Wu, Benxin; mechanical engineering, from National Science Foundation, \$59,837, "Fundamental Research on a Novel Double-Pulse Laser Micro Sintering Technology."

Xu, Dongyan; computer science, from Rolls-Royce, Inc., \$60,000, "CERIAS Voluntary Support."

Xu, Dongyan; **Deng, Xinyan** and **Zhang, Xiangyu**; Engineering Projects in Community Service, mechanical engineering, from Office of Naval Research, \$210,628, "A Cross-Layer Framework for Retrofitting Robotic Vehicle Controllers (Grant 13000515)."

Xuan, Yi; biomedical engineering, from Quantram Corporation, \$10,000, "Sea Harvest Group Inc Voluntary Support." (a Discovery Park award – Birck Nanotechnology Center)

Yang, Yang; medicinal chemistry & molecular pharmacology, from FamiliesSCN2A Foundation, \$50,000, "Advancing Gene Therapy in a Pre-Clinical Mouse Model of Scn2a Deficiencys."

Ye, Peide; electrical & computer engineering, from Intel Corporation, \$120,000, "Ferroelectric Semiconductor In2se3 for Non-Volatile Memory Applications (Grant 40002918; Amendment #1)."

Ye, Peide; electrical & computer engineering, from Air Force Office of Scientific Research, \$150,000, "Perfect – Performance Enhancement of Robust Gan Moshfets by Ferroelectric Dielectric and Negative Capacitance Effect (Grant 13000896)."

Yu, Denny; industrial engineering, from Indiana University, \$32,208, "Fostering Skill Building for Surgeons."

Yu, Wenbin; aeronautics and astronautics, from MSC Software, \$15,000, "CdmHUB (Consortium)."

Zavattieri, Pablo D; civil engineering, from University of California-Irvine, \$85,749, "Investigation of Force Transduction and Actuation in Integrated Multifunctional Biological Structures."

Zhang to Zollner

Zhang, Dianyun; aeronautics and astronautics, from National Science Foundation, \$550,000, "CAREER: Pushing the Performance Limit of Composite Structures: Integrated Modeling of Manufacturing Processes and Materials."

Zhang, Xinghang; materials engineering, from University of Nebraska-Lincoln, \$99,475, "Bridging Microscale to Macroscale Mechanical Property Measurements and Predication of Performance Limitation for Fecral Alloys Under Extreme Reactor Applications (Grant 14000390 Amendment #1)."

Zhang, Zhong-Yin; medicinal chemistry & molecular pharmacology, from PHS-NIH National Cancer Institute, \$309,336, "Structure/Function of Protein Tyrosine Phosphatases (Grant 11000814)."

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

Zhu, Fengqing; electrical & computer engineering, from University of Hawaii, \$22,626, "Exploring Diet Diversity of Native Hawaiian and Pacific Islander Infants."

Zhuang, Qianlai; agronomy, from University of Colorado at Boulder, \$82,894, "Process-Level Investigation of Revised Global Methane Budget Based on in Situ and Remote Sensing of Atmospheric Composition and the Land Surface (Grant 12000218)."

Zillich, Alan J; pharmacy practice, from R.L. Roudebush Veterans Administration Medical Center, \$81,632, "R.L. Roudebush VA Medical Center for Deanna Kania."

Zillich, Alan J; pharmacy practice, from One to One Health, \$289,597, "Services Agreement Between Purdue University and One to One Health."

Zollner, Patrick A; forestry & natural resources, from Indiana Department of Natural Resources, \$160,120, "Mitigating the Spread of Chronic Wasting Disease by Implementing Artificial Ecological Traps: Using Agent-Based Models to Compare Scenarios." ■

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