

Sponsored Program Awards

January 2021

Adeola to Connor

Adeola, Olayiwola; animal sciences, from Danisco Animal Nutrition, \$13,100, "Danisco."

Adibuzzaman, Mohammad; industrial engineering, from Regenstrief Institute Inc, \$5,000, "Neurodegeneration as Immune System Driven Comorbidity in COVID-19." (a Discovery Park award – Regenstrief Center)

Ajuwon, Kolapo; animal sciences, from BioMatrix Inc, \$15,000, "Nutritional Physiology Program."

Allebach, Jan P; electrical & computer engineering, from HP Inc, \$48,000, "Training-Based Halftoning Algorithms for Better Halftone Image Quality for the HP Digital Press."

Appenzeller, Joerg; electrical & computer engineering, from Intel Corporation, \$110,000, "Dirac-Source FET with Tmd Channel."

Armstrong, Shalamar D; agronomy, from Illinois Nutrient Research & Education Council, \$211,508, "The Effect of Cover Crops on Surface Water Quality: a Paired Watershed Experiment in the Lake Bloomington Watershed."

Armstrong, Shalamar D; Ackerson, Jason P and **Cammarano, Davide**; agronomy, from University of Illinois, \$354,955, "Resolving Spatiotemporal Soil Nutrient Fluxes and Response to Bmps by Continuous in Situ N and P Monitoring to Achieve State and Regional Nutrient Loss Reduction Goals."

Aryal, Uma K; comparative pathobiology, from Department Of Veterans Affairs, \$14,589, "Personnel Agreement – Aryal Uma."

Aryal, Uma K; comparative pathobiology, from Department Of Veterans Affairs, \$21,271, "Personnel Agreement – Rodrigo Mohallem Ferreira."

Bell, Mark R; electrical & computer engineering, from SAAB – PRF, \$36,012, "PRF Portion: Bistatic Radar Direct Path and Diffuse Clutter Cancellation for Weak Target Environments (40003205)."

Benes, Bedrich; computer graphics technology, from University of Illinois, \$101,520, "Crops in Silico: Increasing Crop Production by Connecting Models from the Microscale to the Macroscale (Amendment#6 to Grant 41000562)."

Bergeson, Scott M; biology, from Beta Beta Biological Society, \$886, "Neonicotinoid Insecticide Exposure in the Bats of the Corn Belt."

Bhargava, Bharat and **Aggarwal, Vaneet**; computer science, industrial engineering, from University of Southern California, \$119,999, "Generating Novelty in Open-World Multi-Agent Environments (Gnome) (Grant 13000841)."

Bhave, Sunil A; electrical & computer engineering, from U.S. Department of Interior, \$91,000, "MCOQA: Mechanically-Driven, Coherence-Enhanced Quantum Angle Sensor (Grant 15200066)."

Bigelow, Cale A; horticulture & landscape architecture, from Petro Canada Amer Lubricants Inc, \$1,800, "Putting Greens Research."

Bigelow, Cale A; horticulture & landscape architecture, from Harrell's LLC, \$5,000, "Putting Greens Research."

Boerman, Jacquelyn P; animal sciences, from Cargill, Inc., \$68,513, "Functional Fatty Acids for Calf Health and Growth."

Bolin, Jeffrey T; Research Development Administration, from Purdue Research Foundation, \$62,238, "FY20-21 PRF Grants (60000029)."

Bolin, Jeffrey T; Executive Vice President for Research and Partnerships Administration, from Purdue Research Foundation, \$138,272, "FY20-21 PRF Grants (60000029)."

Bowman, Aaron B; health sciences, from Vanderbilt University Medical Center, \$196,976, "Manganese Exposure Susceptibility as a Modifier of Excitotoxicity in Alzheimer's Disease (Grant 11000975 Amendment #1)."

Bramson, Ali; earth, atmospheric, and planetary sciences, from Johns Hopkins University Applied Physics, \$10,417, "Ali Bramson: NASA Lro Mini-RF Esm4; Modification 2; Grant 12000368."

Buckmaster, Dennis; agricultural & biological engineering, from Centricity LLC, \$15,000, "OATS Consortium."

Bullock, Darcy M; civil engineering, from Indiana Department of Transportation, \$30,000, "Enhanced Traffic Signal Performance Measures (Grant 21000232)."

Bullock, Darcy M; civil engineering, from Indiana Department of Transportation, \$31,645, "SPR-4548 Traffic Signal Detection Systems INDOT Evaluations."

Caffee, Marc W; physics & astronomy, from U.S. Geological Survey, \$21,800, "Be-10 and Al-26 Sample Analysis."

Cappelleri, David J; Buckmaster, Dennis; Crawford, Melba M; Love, David J; Krogmeier, James V and Vyn, Tony J; mechanical engineering, agricultural & biological engineering, agronomy, electrical & computer engineering, from University of Pennsylvania, \$572,618, "NSF Engineering Research Center for Internet of Things for Precision Agriculture (lot4ag)."

Carvajal, Teresa M; agricultural & biological engineering, from Oak Ridge National Laboratory, \$9,515, "Surface Energetics of Spray Dried Cellulose."

Casteel, Shaun N; agronomy, from Fluid Fertilizer Foundation, \$20,000, "Soybean Extension Research."

Chavas, Daniel R; earth, atmospheric, and planetary sciences, from National Science Foundation, \$8,373, "CAREER: Climate Controls on Hurricane Landfall via the Subtropical High."

Chen, Yong P; Boltasseva, Alexandra; Shalaev, Vladimir M; Banerjee, Arnab; Bhave, Sunil A; Cui, Xingshan; Kais, Sabre; Lang, Rafael F; Ma, Ruichao; Manfra, Michael James; Rokhinson, Leonid P; Upadhyaya, Pramey and Zhou, Qi; electrical & computer engineering, physics & astronomy, mathematics, chemistry, from Oak Ridge National Laboratory, \$1,516,000, "Quantum Science Center." (a Discovery Park award – Birck Nanotechnology Center)

Connor, Robert J; civil engineering, from Indiana Department of Transportation, \$50,000, "Development of an Integrated Unmanned Aerial Systems (UAS) Validation Center, Grant 21000236."

Connor, Robert J; civil engineering, from Indiana Department of Transportation, \$120,000, "Development of Criteria to Assess the Effects of Pack-Out Corrosion in Built-Up Steel Members (Grant 21000270)."

Crossley to Hung

Crossley, William A; aeronautics & astronautics, from Wright Electric, \$7,630, "Approach for Electric Aircraft Sizing."

Cruz, Esmeralda; field extension, from Health Care Education-Training Inc, \$23,029, "Youth Rise! Year 6."

Cui, Meng; electrical & computer engineering, from University of Michigan, \$410,806, "Development of a Scalable Strategy for Reconstructing Cell-Type Determined Connectome of the Mammalian Brain." (a Discovery Park award – Bindley Bioscience Center)

Das, Chittaranjan and **Luo, Zhao-qing**; chemistry, biological sciences, from PHS-NIH National Institute of General Medical Science, \$371,981, "Mechanism of Atypical Ubiquitination and Deubiquitination by Bacterial Effectors (Grant 11000675)."

Davis, Chelsea S; materials engineering, from National Science Foundation, \$545,800, "CAREER: Illuminating Interfacial Mechanics: Utilizing Mechanophores to Visualize Damage at Soft Matter Interfaces."

Delaurentis, Daniel A and **Panchal, Jitesh H**; aeronautics & astronautics, mechanical engineering, from Defense Advanced Research Projects Agency, \$124,143, "Learning to Gamebreak (L2G); Modification 1; Grant 13000883."

Diclementi, Jeannie D; psychology, from Substance Abuse and Mental Health Services Administration, \$97,107, "Rtners United for Student Mental Health; Modification 1; Grant 11000964."

Duerstock, Bradley S and **Pitts, Brandon J**; biomedical engineering, industrial engineering, from U.S. Department of Transportation, \$300,000, "Easi Rider Project."

Duerstock, Bradley S; biomedical engineering, from Lynn Interdisciplinary Grad. Fellowship, \$31,668, "2020-21 Lynn."

Dydak, Ulrike; health sciences, from Indiana University, \$24,700, "Compounded Neuronal Damage in Comorbid Cigarette Smoking and Addiction (Grant 11000810)."

Fahmy, Sonia A; computer science, from At&T Foundation, \$20,000, "Hewlett Packard."

Felisberto Martins Ribeiro, Bruno; computer science, from YWCA Silicon Valley, \$68,736, "Recommendation System for Curated Pathways App."

Feng, Yiheng; civil engineering, from University of Michigan, \$289,955, "SaTC:Ttp:Medium:Collaborative:Exposing and Mitigating Security/Safety Concerns of Cavs: a Holistic and Realistic Security Testing Platform for Emerging Cavs."

Field, William E; agricultural & biological engineering, from Panera, LLC, \$105, "Farm Safety."

Field, William E; agricultural & biological engineering, from Butcherbox, \$25,000, "Breaking New Ground."

Freeman, Jennifer L; health sciences, from PHS-NIH National Institute of Environment Health Science, \$71,691, "Mechanisms of Atrazine Endocrine Disruption; Amendment 1; Grant 11000965."

Gallardo, Roberto; Purdue Center for Regional Development, from Regional Opportunity Initiatives, \$49,986, "Roi Regional Digital Inclusion Plan."

Gonzalez, Marcial; **Mort, Paul R** and **Wassgren, Carl R**; mechanical engineering, materials engineering, from Sandia National Laboratories, \$49,496, "Model-Directed Powder Compaction Flows; Modification 1, Grant 14000514."

Goppert, James Michael; aeronautics & astronautics, from Air Force Research Laboratory, \$60,000, "Autonomous UAS Student Project."

Gounder, Rajamani P; chemical engineering, from BASF Corporation, \$200,000, "Synthesis and Stability of Zeolites (Grant 40001534)."

Govindaraju, Rao S; civil engineering, from American Society of Civil Engineers, \$24,500, "Support for the ASCE Journal of Hydrologic Engineering."

Greene, Christopher H; physics & astronomy, from President & Fellows of Harvard, \$119,219, "New Approaches to Quantum Control with Individual Molecule Sensitivity."

Gregory, Anne E and **Bowers, Katie**; School of Education & Counseling, Academic Programs Administration, from University of Indianapolis, \$795,514, "Teach Dual Credit Indiana at PNW."

Haddock, John E; civil engineering, from Indiana Department of Transportation, \$43,006, "Field Drainage Evaluation Test on I-69 Added Travel Lanes in Indiana."

Han, Bumsoo and **Konieczny, Stephen F**; mechanical engineering, biological sciences, from University of North Carolina at Chapel Hill, \$187,845, "Targeting the Plasminogen Activation System to Limit Pancreatic Cancer Progression and Associated Thrombosis; Amendment 2, Grant 11000968."

Handwerker, Carol A; materials engineering, from Ames Laboratory, \$500,000, "Critical Material Institute: Modification 7; Grant 14000382."

Hassanein, Ahmed; nuclear engineering, from Battelle Energy Alliance LLC, \$10,000, "Cmuxe for National Science User Facility (NSUF)."

Heister, Stephen D and **Slabaugh, Carson D**; aeronautics & astronautics, from Office of Naval Research, \$64,948, "Combustion in Solid Fuel Ramjets (Grant 13000712)."

Henderson, Gregory C; nutrition science, from McKinley Educational Foundation, \$50,000, "Multi Sponsor – Voluntary Support."

Hertel, Thomas W; agricultural economics, from World Trade Organization, The, \$20,435, "GTAP Consortium-Wto."

Hogenesch, Harm; comparative pathobiology, from Toralgen, Inc, \$9,044, "Biodistribution of Nanoparticles."

Hook, Tomas 0; **Carlton, Joshua S** and **Foley, Carolyn J**; forestry & natural resources, Illinois-Indiana Sea Grant, from National Oceanographic & Atmospheric Adm, \$50,000, "2018-2022 lisg Omnibus Proposal."

Hosen, Jacob Daniel; McMillan, Sara K and **Bowling, Laura C**; agricultural & biological engineering, Academic Programs, from National Institute of Food and Agriculture, \$499,985, "Ecological Tradeoffs in Water Quality and Climate Regulation in Restored Wetlands in Agricultural Landscapes."

Hrycyna, Christine A; chemistry, from Stony Brook University, \$128,240, "Observations, Analysis, and Modeling Applied to Determination of CO2 and CH4 Emission Rates Along the U.S. East Coast; Amendment 2; (Grant 18100055)."

Hung, Chen-Lung; physics & astronomy, from National Science Foundation, \$99,214, "CAREER: Probing Non-Equilibrium Dynamics with Ultracold Atoms in Optical, Phononic, and Photonic Lattices (Grant 10001468, Amendment #2)."

Ingwell to Martinez

Ingwell, Laura L and **Terrell, Catherine**; entomology, from University of Minnesota, \$14,832, "Utilizing Black Soldier Fly Larvae on Urban Farms for Compost."

Irazoqui, Pedro and **Jefferys, John**; electrical & computer engineering, biomedical engineering, from PHS-NIH National Institute Neurological Disorders and Strokes, \$370,471, "Sequence of Physiological Events During Oxygen Conserving Reflex Activation Leading to Sudden Death in Epilepsy."

Jacob, Zubin; Li, Tongcang; Lu, Na; Rahman, Rajib and Xuan, Yi; electrical & computer engineering, physics & astronomy, civil engineering, biomedical engineering, from Defense Advanced Research Projects Agency, \$357,330, "Designing Quantum Fluctuational Meta-Molecules for Giant Cooperative Light-Matter Interaction Beyond Spectral Boundaries; Modification 4; Grant 13000678." (a Discovery Park award – Birck Nanotechnology Center)

Jin, Jian; agricultural & biological engineering, from Sumitomo Chemical Company, \$760,878, "Greenhouse Plant Phenotyping for Detecting Physiological and Morphological Changes."

Johnson, William G; botany & plant pathology, from Sipcam Agro USA, Inc, \$10,000, "Weed Science Research Voluntary Support."

Johnston, Cliff T; agronomy, from Ag Spectrum Company, \$41,045, "Multi Sponsored."

Jordan, G Logan; **Barron, John M** and **Mumford, Kevin**; management administration, economics, from Nationwide Mutual Insurance Company, \$47,500, "Veterinary Insurance Data Analysis."

Kak, Avinash C; electrical & computer engineering, from Ut-Battelle LLC, \$30,000, "Spectral Detection and Analysis Algorithms and Epipolar Reconstruction of Airborne and Satellite Imagery; Modification 1; Grant 14000499."

Karcher, Darrin M; animal sciences, from BioMatrix Inc, \$26,085, "Poultry Research (Vs)."

Kenttamaa, Hilkka I; chemistry, from Neste Oil Oyj, \$44,000, "Increase: Development of the Methods for the Analysis of Chlorine-Containing Compounds in Waste Cooking Fats and Residues (40003012)."

Key, Nicole L; mechanical engineering, from Rolls-Royce Corporation, \$348,688, "Cstar – Expanding Capabilities through Additive Manufacturing."

Kilaz, Gozdem; Sutherland, John W; Kenttamaa, Hilkka I; Mosier, Nathan S and **Trice, Rodney W**; engineering technology, environmental & ecological engineering, chemistry, agricultural & biological engineering, materials engineering, from U.S. Department of Energy, \$887,107, "Higher Energy-Content Jet Blending Components Derived from Ethanol."

Kim, Seungjin and **Ishii, Mamoru**; nuclear engineering, from Idaho National Laboratory, \$37,500, "Experimental Study and CFD Design Tool Development for the Cartridge Loop in the Versatile Test Reactor (Grant 14000435)."

Kladivko, Eileen J and **Morrow, Anna L**; agronomy, from University of Minnesota, \$90,000, "Enhancing Cover Crop Training in the North Central Region."

Knopik, Valerie S; human development & family studies, from Bradley Hospital, \$39,477, "Longitudinal Examination of DNA Methylation in Maltreated Children (Grant 11000822)."

Kong, Ningning Nicole; libraries administration, from Americaview Inc, \$23,500, "Stateview Program Development and Operations for the State of Indiana."

Krupke, Christian H; entomology, from Ohio State University, \$10,000, "Soybean Entomology Research and Extension in the North Central Region (Grant 40003048)."

Kuhn, Richard J and **Nicholls, Conrrad**; biological sciences, from PHS-NIH National Institute Allergy Infectious Disorders, \$36,426, "Identification of Flavivirus Nucleocapsid Core-Envelope Glycoprotein Interactions."

Kurdelak, Erik S; food science, from Wells Enterprises Inc, \$5,000, "Pilot Plant Multi-Sponsored Gift."

Li, Christina W; chemistry, from National Science Foundation, \$256,337, "CAREER: Cas: Colloidal Ligand-Exchange Synthesis of Dilute Noble Metal Surfaces for Electrosynthesis of Hydrogen Peroxide."

Liceaga, Andrea M; food science, from Simulate, Inc., \$2,000, "Multi Sponsored Gift- Sensory."

Liceaga, Andrea M; food science, from The Hain Celestial Group, Inc., \$3,000, "Nutritional Physiology Program."

Liceaga, Andrea M; food science, from EggLife Foods, Inc, \$5,500, "Multi Sponsored Gift- Sensory."

Lin, Guang; mechanical engineering, from Argonne National Laboratory, \$12,148, "Traffic Data Analysis Using Machine Learning."

Lindemann, Stephen R; food science, from Bay State Milling Company, \$43,594, "Fermentation of Healthsense Flours by Human Gut Microbiota."

Linnes, Jacqueline C; biomedical engineering, from OmniVis, \$43,980, "Phase II: a Rapid Portable Biosensor for Field Detection of Vibrio Cholerae in Environmental Water Sources."

Lopez-de-Bertodano, Martin A; nuclear engineering, from Fluor Marine Propulsion, LLC, \$82,838, "Transient Two-Fluid Model Development (Grant 14000450 Amendment #2)."

Low, Philip S; chemistry, from Morphlmmune, Inc, \$50,000, "Multi Sponsor – Voluntary Support."

Lu, Na; civil engineering, from National Science Foundation, \$50,000, "NSF I-Corps: Piezoelectric Sensor for IN-Situ Strength Monitoring of Infrastructure Materials."

Lu, Yung-hsiang; electrical & computer engineering, from Facebook, \$60,000, "Real Time Analysis of Visual Data Using."

Lucht, Robert P; mechanical engineering, from U.S. Department of Energy, \$180,000, "Polarization Spectroscopy and Electronic-Resonance-Enhanced Coherent Anti-Stokes Raman Scattering for Quantitative Concentration Measurements (Grant 14000191)."

Marshall, Maria I; Feng, Yaohua; Langenhoven, Petrus; Shoaf, Nathan Lee and Wiatt, Renee D; agricultural economics, food science, horticulture & landscape architecture, Cooperative Extension Service, from National Institute of Food and Agriculture, \$499,997, "Taking the Next Step as a Small and Medium Sized Farm: Understanding the Integration of Production, Food Safety, and Profitability."

Martinez, Carlos J; materials engineering, from The National GEM Consortium, \$20,000, "GEM Consortium – Brandon Wells."

Matosevic to Raghunathan

Matosevic, Sandro; industrial & physical pharmacy, from Chambers, Steve/Linda Living Trust, \$2,500, "Multi Sponsor Voluntary Support."

Matosevic, Sandro; industrial & physical pharmacy, from PHS-NIH National Cancer Institute, \$175,849, "Usurping Tigit and Cd73 Activities with Responsive, Genetically-Engineered Nk Cells as Immunotherapy for Glioblastoma."

Mattes, Richard D; nutrition science, from Gelesis, S.R.L., \$9,609, "Randomized, Controlled, 2 X 2, Cross-Over Metabolic Trial."

Mayer, Theresa Stellwag; Ladisch, Michael R; Reklaitis, Gintaras V; Vlachos, Pavlos; Yeo, Yoon and Beck, Kaethe A; Bindley Bioscience Center, agricultural & biological engineering, chemical engineering, mechanical engineering, industrial & physical pharmacy, from Eli Lilly and Company, \$7,327,865, "Lilly Injectable Biologics 2021."

McCormick, Carolyn E B; human development & family studies, from Indiana University, \$171,024, "Translating Measures of Visual Search to Children with Autism and Down Syndrome."

McCullouch, Bobby G; civil engineering, from Indiana Department of Transportation, \$15,000, "INDOT Research Program Benefit Cost Analysis-Return on Investment (Grant 21000203)."

McLuckey, Scott A; chemistry, from PHS-NIH National Institute of General Medical Science, \$294,741, "Gas-Phase Bio-Conjugation in the Tandem Mass Spectrometry of Peptides, Proteins, and Protein Complexes (Grant 11000826)."

Merwade, Venkatesh Mohan; civil engineering, from University of Cincinnati, \$203,974, "The Urban Flooding Open Knowledge Network."

Mishra, Dharmendra K; food science, from Alfred R Nerz, Jr, \$225, "Multi Sponsored Gift."

Morgan, John A; chemical engineering, from University of Florida, \$38,294, "BII Design: Using Synthetic Biology to Discover Cross-Kingdom Metabolic Rules of Life."

Ogata, Niwako; veterinary clinical sciences, from Royal Canin SAS, \$6,156, "Development of a Process to Detect CANINE Serum Brain-Derived-Neurotrophic-Factor (BDNF) with Liquid Chromatography Mass Spectrometry (LC-MS)."

Olek, Jan; Williams, Christopher S; Youngblood, Jeffrey P and **Zavattieri, Pablo D**; civil engineering, materials engineering, from Arizona State University, \$200,000, "AccelNet: 3-D Concrete Printing Network (3dconnect) – an International Alliance for Concrete Additive Manufacturing."

Oliver, Haley F; food science, from Diversey, Inc, \$43,852, "Study 13.1 Determining Optimal Floor Cleaning Practices for Staphylococcus Aureus Contaminated Floors."

Ostafe, Raluca; biological sciences, from Novilytic LLC, \$2,748, "Culture Filtrate from Cho Cells Grown in Suspension Culture."

Pan, Liang; mechanical engineering, from Red Bull Technology Ltd, \$1,775, "Development of Heat Transfer Technology."

Paniagua Perez, Guillermo and **Meyer, Terrence R**; mechanical engineering, from Southwest Research Institute, \$373,782, "Syngas Combustion CO2 Turbine."

Parkinson, Elizabeth I and **Sintim, Herman 0**; chemistry, from PHS-NIH National Institute of General Medical Science, \$64,554, "Gamma Butyrolactones as Biosynthetic Gene Cluster Inducers."

Pastakia, Sonak D; pharmacy practice, from MOI University, \$30,309, "Strengthening Referral Networks for Management of Hypertension Across the Health System (Strengths) (Grant 11001093)."

Patton, Aaron J; horticulture & landscape architecture, from Nufarm Americas Inc., \$8,000, "Patton Multi Sponsored #2 (Orig 301226)."

Patton, Aaron J; horticulture & landscape architecture, from Midwest Regional Turf Foundation, \$16,750, "Turfgrass Research."

Patton, Aaron J; horticulture & landscape architecture, from Pbi Gordon Corp., \$11,500, "Patton Multi Sponsored #2 (Orig 301226)."

Patton, Aaron J; horticulture & landscape architecture, from Prime Source, LLC, \$7,000, "Patton Multi Sponsored #2 (Orig 301226)."

Patton, Aaron J; horticulture & landscape architecture, from Bayer Corporation(Agricultural Division), \$4,800, "Patton Multi Sponsored #2 (Orig 301226)."

Patton, Aaron J; horticulture & landscape architecture, from Golf Course Superintdts Association of America, \$26,372, "Investigation of Water Submersion Tolerance of Fine Fescues (Festuca Spp.) in Comparison to Other Cool-Season Turfgrass Species."

Patton, Aaron J; horticulture & landscape architecture, from Corteva AgriScience, \$1,500, "Patton Multi Sponsored #2 (Orig 301226)."

Pekarek, Steven D; electrical & computer engineering, from Kohler Company, \$22,000, "Kohler – Student Assist (Vs)."

Pires dos Santos, Andrea and **Malek, Sarah**; comparative pathobiology, veterinary clinical sciences, from American Society for Veterinary Clinical Pathology, \$2,500, "Evaluation of Folate Receptors in Activated Synovial Macrophages of Dogs with Stifle Osteoarthritis Associated with Cranial Cruciate Ligament Rupture."

Pomeranz, Irith; electrical & computer engineering, from Semiconductor Research Corporation, \$85,000, "Src Contract 2020-CT-2967; Amendment No. 1 (Yr 2 Funding – Grant 40002949)."

Pourpoint, Timothee L; aeronautics & astronautics, from Masten Space Systems, \$29,998, "Masten Material Compatibility Testing."

Pourpoint, Timothee L; aeronautics & astronautics, from Analytical Mechanics Associates, Inc, \$163,480, "Helium Evolution from Helium-Saturated Hypergolic Propellants; R03 Funding."

Qiu, Qiang; electrical & computer engineering, from Defense Advanced Research Projects Agency, \$110,436, "Time-Aware Meta-Learning Using Decomposed Convolution."

Qiu, Qiang; electrical & computer engineering, from Facebook, \$25,000, "Multi Sponsor."

Radcliffe, John Scott; animal sciences, from AZOMITE Mineral Products Inc, \$12,500, "Multi-Sponsored."

Raghunathan, Anand; electrical & computer engineering, from Semiconductor Research Corporation, \$80,000, "Local-Sgd: Selective Localized Learning to Accelerate Training of Deep Neural Networks."

Raghunathan, Anand; electrical & computer engineering, from University of California – San Diego, \$192,675, "Proposed Work for DARPA Aiss Program."

Raghunathan, Vijay; electrical & computer engineering, from Programa Nac de Becas y Credito Edu, \$151,330, "Fellowship for Marco Paul Enrique Apolinario Lainez."

Rahimi to Su

Rahimi, Rahim; materials engineering, from Bayer AG, \$11,570, "Grant-s4tech: Seedsensor Award Money."

Ramanathan, Shriram and Roy, Kaushik; materials engineering, electrical & computer engineering, from Department of the Army, \$38,387, "W911nf-17-S-0002: Plasticity Mechanisms and Neuromorphic Learning with Correlated Semiconductors; Modification 1; Grant 13000777."

Ramirez, Julio Alfonso; civil engineering, from Rensselaer Polytechnic Institute, \$21,044, "EAGER: Pandemics and Engineered Structures and Services."

Reifenberger, Ronald George; physics & astronomy, from Colorado State University, \$20,000, "A Study of Protective Clothing to Prevent Nanoparticle Exposure and Surface Contamination; Amendment 1; Grant 11000957."

Rhoads, Jeffrey Frederick; mechanical engineering, from Ensign-Bickford Aerospace and Defense Co, \$15,000, "Ensign Bickford (Vs) Rhoads."

Richert, Brian T; animal sciences, from Archer Daniels Midland Co, \$9,800, "Swine Research."

Richert, Brian T; animal sciences, from AZOMITE Mineral Products Inc, \$12,500, "Swine Research."

Sandhage, Kenneth H; materials engineering, from Rolls-Royce Corporation, \$95,444, "Chemical Interactions Between Si-Based Liquids and Si: Thermodynamic and Kinetic Analyses (Grant 40001707)."

Sangid, Michael D; aeronautics & astronautics, from National Institute of Standards & Tech, \$999,929, "Towards a Standard for Rapid Qualification of Additive Manufactured Materials Based on Defect Structures."

Santagata, Maria Caterina; civil engineering, from Indiana Department of Transportation, \$75,226, "SPR – 4547 – Interpretation of Automated Plate Loading Tests for Real Time Determination of IN-Situ Resilient Modulus."

Scalo, Carlo; mechanical engineering, from National Science Foundation, \$50,000, "Large-Scale Waste Heat Recovery Solution Based on Thermoacoustic Energy Conversion."

Schoenlein, William E; biomedical engineering, from Cook Research Incorporated, \$22,738, "Pre-Clinical Evaluation Testing Agreement: POC and Sentinels."

Schwab, Abraham P; Academic Affairs Administration, from University of Indianapolis, \$21,301, "Teach Dual Credit Indiana."

Scott-Moncrieff, Joanna C R; veterinary clinical sciences, from Animal Eye Specialists, Inc, \$23,125, "Ophthalmology Residency Program."

Scott-Moncrieff, Joanna C R; veterinary clinical sciences, from MSPCA-Angell, \$22,975, "LAS Moroccan Residency."

Scott-Moncrieff, Joanna C R; veterinary clinical sciences, from Antech Diagnostics, \$23,040, "DXI Residency -- Multi Sponsor."

Scott-Moncrieff, Joanna C R; veterinary clinical sciences, from Fitness Studio Avi Zipori, \$23,095, "Multi Sponsor – Voluntary Support."

Seigfried-Spellar, Kathryn C; **Rogers, Marcus K**; **Springer, John A** and **Yang, Baijian**; computer information technology, from National Institute of Justice, \$400,973, "Filetsar+ an Elastic Network Forensic Toolkit for Law Enforcement."

Shang, Lizhi and **Vacca, Andrea**; agricultural & biological engineering, from NineTwelve Institute, Inc, \$57,780, "Experimental Validation and Field Study of a Saltwater Disposal Well Energy Harvest System."

Shang, Lizhi and **Vacca, Andrea**; agricultural & biological engineering, from Pioneer Oil Company, \$19,713, "Experimental Validation and Field Study of a Saltwater Disposal Well Energy Harvest System."

Shaver, Gregory M; mechanical engineering, from Argonne National Laboratory, \$45,000, "Si Engine Controls Development for an Extended Range Electric Vehicle; Modification 5; Grant 14000346."

Shi, Riyi; basic medical science, from Massachusetts General Hospital, \$108,467, "Targeting the Ubiquitous Oxidative Aldehyde Acrolein in MS (Grant 41000765)."

Sinfield, Joseph V; **Rayz, Julia M** and **Sheth, Ananya B**; civil engineering, computer information technology, from National Science Foundation, \$37,975, "Doctoral Dissertation Research in Drms: Building a Comprehensive Understanding of Enterprise Risks and Their Interdependencies for Improved Risk-Intelligence."

Sivasankar, Preeti Mahalakshmi; speech, language, & hearing sciences, from Indiana Lions Speech and Hearing Inc., \$4,500, "2021 Increase: Clinical Support for Speech-Language-Audiology Services from the Indiana Lion'S Club (40001192)."

Son, Steven F; mechanical engineering, from Air Force Office of Scientific Research, \$1,499,985, "Piezoenergetics – Coupled Piezoelectric and Nanoenergetic Materials with Tailorable and Switchable Reactivity (Grant 13000716)."

Son, Steven F; mechanical engineering, from Ensign-Bickford Aerospace and Defense Co, \$15,000, "Ensign Bickford (Vs) Son."

Son, Steven F; **Manship, Timothy D** and **Strachan, Alejandro H**; mechanical engineering, materials engineering, from Defense Advanced Research Projects Agency, \$983,937, "Characterization of Novel Energetic Material with Sub-Scale Experiments Correlated to Large Scale Tests Using Machine Learning."

Sors, Thomas G; biological sciences, from Rockefeller Philanthropy Advisors, \$120,000, "Ohpp-Formulated Niclosamide to Treat Sars-Cov-2." (a Discovery Park award – Bindley Bioscience Center)

Spafford, Eugene H and **Ngambeki, Busiime Ida**; computer science, computer information technology, from University of Illinois at Champaign-Urbana, \$400.000, "Hub & Spoke Cybersecurity Education Network."

Steinbach, Sarah M.L. and **Baird, Aubrey N**; veterinary clinical sciences, from Indiana University School of Medicine, \$7,251, "A Therapeutic Extracorporeal Medical Device for Renal Protection in COVID-19 Patients."

Stewart, Kara R; animal sciences, from Smithfield Premium Genetics, \$9,900, "Swine Research."

Stewart, Kara R; animal sciences, from Iowa State University, \$39,811, "An Integrated Approach to Improve Whole Herd Pig Survivability, Modification 3; Grant 40002565."

Strimel, Greg J.; **Briller, Sherylyn H**; **Kelley, Todd R** and **Kim, Tong J**; technology leadership & innovation, Anthropology, Rueff School of Design, Art, and Performance, from National Science Foundation, \$295,816, "Mission Meaning Making (M3): Transforming Undergraduate Learning for Pursuing Innovation in a Changing World."

Su, Jianxi; statistics, from Illinois State University, \$12,499, "Actuarial Professional in the New Era of IoT: Cybersecurity Risks in Fog Computing."

Subbarayan-Shastri to Widhalm

Subbarayan-Shastri, Ganesh; mechanical engineering, from Semiconductor Research Corporation, \$708,333, "Nonlinear Multiscale Modeling for BEOL Structures – Amendment 4 for Grant #40002579 (Src Contract 2019-Pk-2878; Amendment No. 4)."

Sundaram, Shreyas; **Bagchi, Saurabh** and **Cason, Timothy N**; electrical & computer engineering, economics, from National Science Foundation, \$16,000, "SaTC: CORE: Small: the Impacts of Human Decision-Making on Security and Robustness of Interdependent Systems."

Taheripour, Farzad; agricultural economics, from National Biodiesel Board, \$85,000, "Land Use Change and Economic Analysis Research Proposal."

Tay, Sien Chieh; **Hickman, Louis C** and **Woo, Sang Eun**; psychological sciences, from Society for Industrial & Organizational Psychology, \$10,000, "Algorithmic Racial Bias in Automated Video Interviews."

Taylor, Lynne S and **Moseson, Dana Elaine**; industrial & physical pharmacy, from PhRMA Foundation, \$50,000, "Atomic Layer Deposition to Improve Physical and Chemical Stability of Pharmaceutical Materials."

Taylor, Lynne S; industrial & physical pharmacy, from Bill & Melinda Gates Foundation, \$465,624, "Further Development of Delamanid and Other Solubility Enhancing Formulations."

Teegarden, Dorothy; **Donkin, Shawn S** and **Wendt, Michael K**; nutrition science, animal sciences, medicinal chemistry & molecular pharmacology, from PHS-NIH National Cancer Institute, \$22,939, "Obesity, Metabolism and Breast Cancer Metastasis. (Grant 11000823)."

Teegarden, Dorothy; **Donkin, Shawn S** and **Wendt, Michael K**; nutrition science, animal sciences, medicinal chemistry & molecular pharmacology, from PHS-NIH National Cancer Institute, \$435,842, "Obesity, Metabolism and Breast Cancer Metastasis."

Telenko, Darcy E P and **O'Donnell, Michael J**; botany & plant pathology , field extension, from University of Minnesota, \$249,984, "Identifying and Expanding Integrated Disease Management Resources to Include Organic Grains in Support of Organic and Transitional North Central Farms."

Telenko, Darcy E P; botany & plant pathology, from Sipcam Agro USA, Inc, \$10,000, "Extension Voluntary Support (Vs)."

Telenko, Darcy E P and **Cruz, Christian D**; botany & plant pathology , from Indiana Corn Marketing Council, \$69,928, "Mitigating Corn Yield Losses Due to Tar Spot by Identifying Disease Management Strategies that Improve Crop Protection."

Telenko, Darcy E P; botany & plant pathology, from Indiana Soybean Alliance, \$49,120, "Determining the Distribution of Foliar Diseases and Fungicide Resistance in Indiana to Identify Best Management Options for Improved Disease Control in Soybean."

Telenko, Darcy E P; botany & plant pathology, from University of Kentucky, \$17,000, "Scn Coalition: Reinforcing and Maintaining Local Efforts and Sustainable Yields."

Thompson, Michelle S and **Horgan, Briony H**; earth, atmospheric, and planetary sciences, from National Aeronautics and Space Administration, \$60,000, "Investigating the Role of Sulfides and Fe-Oxide Minerals in the Space Weathering of Asteroidal Regoliths."

Tomar, Vikas; aeronautics & astronautics, from Lynn Interdisciplinary Grad. Fellowship, \$31,668, "2020-21 Lynn Interdisciplinary Graduate Fellowship/Assistantship – Graduate School."

Tomar, Vikas; aeronautics & astronautics, from Sandia National Laboratories, \$80,000, "High-Throughput Testing of High Entropy Alloys."

Trice, Rodney W and **Youngblood, Jeffrey P**; materials engineering, from Massachusetts Institute of Technology, \$166,741, "Multiscale Porous High-Temperature Heat Exchanger Using Ceramic Coextrusion; Amendment 1: Grant 14000460."

Troy, Cary D and **Habib, Ayman F**; civil engineering, from Indiana Department of Natural Resources, \$50,000, "Shoreline Surveys to Support Resilient Beaches."

Tuinstra, Mitchell R; **Crawford, Melba M** and **Habib, Ayman F**; agronomy, civil engineering, from Cimmyt, Int., \$25,224, "Heat Stress Resilient Maize for South Asia through a Public-Private Partnership."

Turco, Ronald F; agronomy, from Indiana Farm Bureau, Inc., \$10,000, "St Mary Watershed Voluntary Support (Cost Share for 20000224 / 209968)."

Upadhyaya, Pramey; electrical & computer engineering, from University of California-Los Angeles, \$65,038, "Superfluid-Inspired Reconfigurable Magnetic Devices (Grant 10001587; Amendment #1)."

van der Mensbrugghe, Dominique Y; agricultural economics, from United Nations Conference on Trade and Development (UNCTAD), \$9,655, "Carbon Border Adjustment Tax in the GTAP-E Model."

Varma, Amit H and **Seo, Jungil**; civil engineering, from Charles Pankow Foundation, \$216,000, "Composite Floor-to-Speedcore Wall Systems: Performance-Based Fire Resistance and Design."

Verma, Mohit S and **Ault, Aaron C**; agricultural & biological engineering, electrical & computer engineering, from The Center for Produce Safety, \$390,670, "Field Evaluation of Microfluidic Paper-Based Analytical Devices for Microbial Source Tracking."

Wachs, Juan P and **Tunga, Anirudh**; industrial engineering, from National Science Foundation, \$50,000, "I-Corps: an Offline Surgical Telementoring Platform that Guides the Surgeon via an Augmented Reality Headset (Al-Medic)."

Wasserman, Adam; chemistry, from Molecular Sciences Software Institute, \$41,886, "PDFT: on the Path to a Versatile and Robust Embedding Method; Amendment 2; Grant 10001627."

Weake, Vikki Marie and **Hall, Hana**; biochemistry, from PHS-NIH National Eye Institute, \$169,266, "R-Loops as a Novel Driver of Photoreceptor Aging; Amendment 1; Grant 11000959."

Wei, Alexander; chemistry, from Dundas I Flaherty, \$1,000, "Wei Gift Funds."

Weibel, Justin A; mechanical engineering, from Seagate, \$30,000, "Cooling Technologies Research Center (CTRC), Seagate 2021-40002838."

Weibel, Justin A; mechanical engineering, from SAAB – PRF, \$5,662, "PRF Portion: Topology Optimization of AM Cold Plates for Pitch-Constrained, Aesa-Compatible Cooling (40003285)."

Weiner, Andrew M; electrical & computer engineering, from Sandia National Laboratories, \$652,292, "Trapped-Ion Clock with Photonic Technologies on Chip (Tictoc), Revision 1; Grant 14000437."

Widhalm, Joshua R and **Varala, Kranthi K**; horticulture & landscape architecture, from National Institute of Food and Agriculture, \$500,000, "Invinvestigating Phylloquinone Pathway Regulation for Production of High-Value 1,4-Naphthoquinones in Cover Crops."

Wu to Zillich

Wu, Wenzhuo; industrial engineering, from National Science Foundation, \$500,000, "CAREER: Scalable Continuous Nanomanufacturing of Two-Dimensional Topological Materials for Quantum Nanoelectronics."

Ximenes, Eduardo A; Ladisch, Michael R and Mosier, Nathan S; agricultural & biological engineering, from Indiana Corn Marketing Council, \$47,929, "Value-Added Product from Dry-Grind Corn: Purified Ethanol for Hand Sanitizers."

Ye, Peide; electrical & computer engineering, from Stanford University, \$150,000, "Transition Metal Dichalcogenides Based Liners by Atomic Layer Deposition – Impact (Innovative Materials and Processes for Accelerated Compute Technologies) (Grant 40003045 Yr 2)."

Yih, Yuehwern; industrial engineering, from Agency for International Development, \$31,831, "Laser Buy-in: Research on the Nature and Scope of Trafficking in Persons (Tip) in South Africa."

Young, Bryan G; botany & plant pathology , from Exacto Chemical Company, \$19,200, "Multi Sponsored Gift Account (Vs)."

Young, Bryan G; botany & plant pathology , from Rosen's Inc, \$23,650, "Weed Science Research Voluntary Support."

Young, Bryan G and **Johnson, William G**; botany & plant pathology, from Indiana Soybean Alliance, \$82,000, "Postemergence Herbicide Mixtures: the Pros and Cons for Management of Herbicide-Resistant Weeds."

Young, Bryan G; botany & plant pathology, from Precision Laboratories Inc., \$36,800, "Multi Sponsored Gift Account (Vs)."

Yu, Denny; industrial engineering, from University of Michigan, \$20,000, "Computer Vision Predicts Force During Lifting."

Zavattieri, Pablo D; civil engineering, from University of California-Riverside, \$125,000, "Convergent Evolution to Engineering: Multiscale Structures and Mechanics in Damage Tolerant Functional Bio-Composite and Biomimetic Materials."

Zhang, Zhong-Yin and **Putt, Karson S**; medicinal chemistry & molecular pharmacology, from Indiana University, \$243,398, "U54 Addd Center Supplement – Hts Substrates."

Zhang, Zhong-Yin; **Mesecar, Andrew D** and **Putt, Karson S**; medicinal chemistry & molecular pharmacology, biochemistry, from Indiana University, \$3,460,978, "IUSM Alzheimer'S Disease Drug Discovery Center."

Zhang, Zhong-Yin; medicinal chemistry & molecular pharmacology, from PHS-NIH National Cancer Institute, \$16,282, "Structure/Function of Protein Tyrosine Phosphatases (Grant 11000814)."

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

Zhou, Chenn Qian; mechanical & civil engineering, from U.S. Steel Corporation, \$45,000, "Steel Manufacturing Visualization and Simulation Consortium (SMVSC) Membership."

Zhou, Chenn Qian; mechanical & civil engineering, from Union Gas Limited, \$22,500, "Steel Manufacturing Visualization and Simulation Consortium (SMVSC) Membership."

Zhou, Chenn Qian and **Silaen, Armin K**; Center for Innovation through Visualization and Simulation, from Worcester Polytechnic Institute, \$115,470, "Numerical Simulation of a Secondary Lead Reverberatory Furnace."

Zhou, Chenn Qian; mechanical & civil engineering, from Florida Keys Community College, \$101,895, "Developing Reliable Education Avenues to Manifest (DREAM) STEM Careers: Amendment 1: Grant 10001657."

Zhou, Chenn Qian; mechanical & civil engineering, from NiSource Corporate Services Company, \$45,000, "Steel Manufacturing Visualization and Simulation Consortium (SMVSC) Membership."

Zikas, Vasileios; computer science, from Sunday Group Inc, \$125,000, "Multi Sponsor."

Zillich, Alan J; pharmacy practice, from Eskenazi Health, \$478,382, "Clinical Services for Eskenazi Health." ■

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