

DIMENSIONS *of* DISCOVERY

Sponsored Program Awards

January 2011

Abbott, Angela R; consumer & family sciences, from United Way of Greater Lafayette & Tippecanoe County Inc., \$1,500, "Poverty Simulation Voluntary Support."

Abraham, John; mechanical engineering, from Caterpillar Inc., \$105,812, "Grant 204421 Year 2 Funding for Development of Numerical Models for the Near-Field Physics of Diesel Sprays with Specific Focus on Flame Lift-Off Predictions."

Adams, Douglas E; mechanical engineering, from CACI International Inc., \$758,068, "CACI Grant 104317 Evaluation and Repair of the CH-53k Composite Rotor Blades, Modification 3."

Adams, Douglas E; mechanical engineering, from Army Research Office, \$23,333, "Diagnosis and Prognosis of Filament Wound Components Subject to Combined Loads Using Nonlinear Signal."

Adams, Douglas E; Bolton, J S; Davies, Patricia and Rhoads, Jeffrey F; mechanical engineering, from North Carolina State University, \$4,000, "Semiwave MURI (Multidisciplinary University Research Initiative): Sound and Electromagnetic Interacting Waves."

Adams, Douglas E; mechanical engineering, from University of Florida, \$31,799, "Nonlinear Dynamic Characterization of the Coupled Structural Response of Mechanically Preloaded Bodies Using High Resolution Laser Velocimetry, Modification 4." (a Discovery Park award — Institute for Defense Initiatives.)

Adams, Douglas E; mechanical engineering, from Multi-Sponsored Industrials, \$20,000, "PCSI Consortium-RTSC 2011."

Adams, Douglas E; Bolton, J S; Davies, Patricia and Rhoads, Jeffrey F; mechanical engineering, from North Carolina State University, \$4,000, "Semiwave MURI (Multidisciplinary University Research Initiative): Sound and Electromagnetic Interacting Waves; Amendment 1."

Akkus, Ozan and Freeman, Lynetta; biomedical engineering, veterinary clinical science, from Trask Trust Fund, \$47,600, "A Novel Actuation Device for Expedited Closure of Wounds."

Akkus, Ozan; Breur, Gert J and Adams, Stephen B; biomedical engineering, veterinary clinical science, from L-3 Services Inc., \$100,000, "In Vivo Stress Fracture Model."

Aldridge, Linda R; field extension educators, from Indiana Department of Workforce Development, \$1,000, "FIRST (For Inspiration and Recognition of Science and Technology) Robotics Grant - Huntington County."

Alexeenko, Alina; aeronautical & astronautical engineering, from National Science Foundation, \$400,000, "CAREER: Quantifying and Exploiting Knudsen Thermal Forces in Nano/Microsystems."

Allen, Janet E; field extension educators, from Ivy Technology State College, \$20,960, "Coordination of Workforce and Economic Development Partnership with Ivy Technology 2011."

Anderson, William E; Merkle, Charles L; Heister, Stephen D and Schneider, Steven P; aeronautical & astronautical engineering, from University of Maryland, \$383,200, "Studies and Support of Project Constellation, Modification Q."

Appenzeller, Joerg and Yang, Chen; electrical & computer engineering, chemistry, from Army Research Office, \$135,379, "Tunneling Devices from III-V Nanowire Heterostructures for High Frequency, Low-Powered RF Applications, Modification 2." (a Discovery Park award — Birk Nanotechnology Center)

Applegate, Todd J; animal sciences, from Degussa Corporation, \$15,000, "Poultry Research."

Bajaj, Anil K; mechanical engineering, from Ross Graduate Fellowship-Assistantship, \$8,619, "Mengtian Sun."

Bajaj, Anil K; mechanical engineering, from French Government, \$7,407, "Chateaubriand Fellowship, Carrie Hall."

Banks, Margaret K; civil engineering, from Winifred B. Bilslund Endowment, \$9,587, "Darion S Grant."

Basaran, Osman A; chemical engineering, from U.S. Department of Energy, \$135,000, "Fundamentals of Electric Field Enhanced Multiphasic separations and Analysis, Modification 18."

Bayley, William G; chemistry, from Annette M. Maier, \$300, "Instrument Van Project."

Bayley, William G; chemistry, from Annette M. Maier, \$300, "Instrument Van Project."

Bayley, William G; chemistry, from Annette M. Maier, \$1,000, "Instrument Van Project."

Beard, Jane A; field extension educators, from Davies County Sheriffs Department, \$40,713, "COPS (Community Oriented Policing Services) Funding LC Support Daviess County 2010-2011."

Beaudoin, Stephen P; chemical engineering, from Rutgers State University of New Jersey, \$41,000, "Engineering Research Center on Structural Organic Composites - Fellowship for Nyay Zarate."

Ben-Amotz, Dor; chemistry, from National Science Foundation, \$8,693, "Water-Reorganization Around Non-Polar, Polar and Ionic Solutes. Multivariate Spectroscopy, Simulation and Theory - Travel Supplement."

Bhunia, Arun K; food science, from Bioscience Inc., \$25,000, "Shuttleworth North America."

Biddings-Muro, Regina D; Chancellor - Calumet campus, from Foundations of East Chicago, \$24,472, "African American Student Achievement Conference."

Bigelow, Cale A; agronomy, from Agrotain International LLC, \$1,750, "Putting Greens Research."

Bobet, Antonio; civil engineering, from Exxon-Mobile Corporation, \$50,000, "Exxon Mobile Corp."

Borch, Richard F and Hogenesch, Harm; medicinal chemistry & molecular pharmacology, comparative pathobiology, from Trask Trust Fund, \$35,860, "Immune Response Enhancement Using Linker-Modified Proteins."

Borgens, Richard; Li, Jianming and Freeman, Lynetta; Center for Paralysis Research, veterinary clinical science, from Trask Trust Fund, \$47,755, "Enhanced Osmotic Effect: Safety and Efficacy in Animals."

Bortoletto, Daniela; physics, from National Science Foundation, \$7,000, "Collaborative Research: Conference for Undergraduate Women in Physics."

Bouman, Charles A; electrical & computer engineering, from Northeastern University, \$83,271, “Next Generation Priors for Model-Based Reconstruction in Scanned Baggage Security Applications.”

Boushey, Carol J; foods & nutrition, from PHS-NIH National Cancer Institute, \$24,983, “Visualizing Dietary Patterns with Pattern Recognition: Formats for the Future.”

Bowling, Laura C; agronomy, from Russell O. Blosser Memorial Fellowship, \$1,500, “Guoxiang Yang.”

Braile, Lawrence W; earth & atmospheric sciences, from Multi-Sponsored Industrials, \$350, “SAGE Industrial.”

Braun, James E; mechanical engineering, from Ecotope Inc., \$51,496, “Performance Testing of Ductless Heat Pumps.”

Brightman, Andrew O; biomedical engineering, from Indiana University School of Medicine, \$7,396, “Joint PhD Program for Graduate Support - Daniel Alge.”

Bullock, Darcy M; civil engineering, from Ross Graduate Fellowship-Assistantship, \$17,239, “Stuart R Mitkey.”

Bullock, Darcy M; civil engineering, from Indiana Department of Transportation, \$20,000, “Apt Maintenance and Operation Cost - SPR 2351.”

Bullock, Darcy M; civil engineering, from Indiana Department of Transportation, \$90,000, “An Automated Concrete Bridge Deck Delamination Detection System.”

Byrn, Stephen R; industrial & physical pharmacy, from Handa Pharmaceuticals, LLC, \$9,732, “Handa Pharmaceuticals, LLC.”

Calais, Eric; earth & atmospheric sciences, from U.S. Geological Survey, \$71,586, “Intraplate Strain and Stress in the North American Plate Interior: Collaborative Research with Purdue University and University of Wisconsin, Supplement 2.”

Campbell, Noll L; pharmacy practice, from Indiana University, \$27,391, “Pharmacological Management of Delirium.”

Campbell, Wayne W and Armstrong, Cheryl L; foods & nutrition, from National Pork Board, \$16,864, “The Effects of Protein Quantity and Source on Postprandial Appetite and Plasma Amino Acid Profile.”

Campbell, Wayne W; foods & nutrition, from U.S. Department of Agriculture, \$234,000, “Interdepartmental Nutrition Program at Purdue Fellowship Application in the Discipline of Human Nutrition and the Area of Obesity and Diet.”

Campbell, Wayne W and Armstrong, Cheryl L; foods & nutrition, from National Cattlemen Beef Association, \$10,000, “Increased Protein Intakes from Predominately Meat- Vs. Soy Protein/Pulses-Based Foods: Effects on Daily and Postprandial Appetite During Energy Restriction-Induced Weight Loss (Addendum).”

Chappell, William J; electrical & computer engineering, from Northrop Grumman Space Technology, \$50,000, “Northrop Grumman Voluntary Support.”

Chapple, Clint C; biochemistry, from Egyptian Cultural and Educational Bureau, \$148,069, “Egyptian Ministry of Higher Education Fellowship - El Hindawy.”

Chaubey, Indrajeet; Bowling, Laura C; Brouder, Sylvie M; Cherkauer, Keith A; Engel, Bernard A; Frankenberger, Jane R; Goforth, Reuben R; Gramig, Benjamin M; Murphy, Patrick T and Volenec, Jeffrey J; agricultural & biological engineering, agronomy, forestry & natural resources, agricultural economics, from U.S. Department of Energy, \$1,592,385, “Watershed Scale Optimization to Meet Sustainable Cellulosic Energy Crop Demand.”

Chen, Yong P; Klimeck, Gerhard and Wu, Yue; physics, electrical & computer engineering, chemical engineering, from Intel Corporation, \$150,000, “Topological Insulator Based Field Effect Transistors.” (a Discovery Park award — Birk Nanotechnology Center)

Cheng, Gary J; industrial engineering, from Office of Naval Research, \$35,800, “Warm Laser Shock Peening: a New Technique for Stabilized Fatigue Life and Stress Corrosion Resistance in Metals.”

Chmielewski, Jean A; science - administration, from National Science Foundation, \$142,000, “Controlling Microscale Collagen Peptide Assembly with Metal Triggers, Amendment 2.”

Choi, Jong Hyun; mechanical engineering, from National Science Foundation, \$400,000, “CAREER: Understanding Biomolecular Manufacturing and Assembly of Nanocrystals - Fundamentals and Novel Properties for Solar Energy Harvesting.” (a Discovery Park award — Bindley Bioscience Center)

Christ, Sharon L; child development & family studies, from University of Miami (Florida), \$15,500, “Surveillance of Mortality and Morbidity in US Workers.”

Colby, David A; medicinal chemistry & molecular pharmacology, from Trask Trust Fund, \$20,000, “Stable Salts to Generate Fluoroform.”

Colby, David A; medicinal chemistry & molecular pharmacology, from American Association of Colleges of Pharmacy, \$10,000, “A Strategy to Incorporate Flourine Onto Biologically Active Molecules.”

Constable, Peter D; veterinary clinical science, from VCA Antech Inc., \$9,029, “Radiology Residency Support.”

Cooper, James A; electrical & computer engineering, from II-VI Foundation, \$49,642, “II-VI Foundation Research Gift.”

Coppoc, Gordon L; medical education, from Indiana University Purdue University at Indianapolis, \$2,000, “FY10-11 IUSM - Lafayette Student and Faculty Recruitment & Retention.”

Corum, Christine L; mechanical engineering technology, from R.L. Roudebush VA Medical Center, \$75,023, “2010-11 IPA Agreement.”

Couetil, Laurent L; veterinary clinical science, from Novus Nutrition Brands, \$6,140, “A Pilot Study on the Effect of Aleria(TM) Supplementation on Airway Function of Horses with Heaves.”

Cox, Monica F; engineering education, from Norfolk State University, \$59,856, “Integrative Graduate Education and Research Traineeships Program in Magnetic and Nanostructured Materials.”

Cushman, Mark S; medicinal chemistry & molecular pharmacology, from University of Illinois at Chicago, \$208,937, “Novel Antibiotic Development for Biodefense.”

Davies, Patricia; mechanical engineering, from Hosei University, \$22,000, “Assessing Cultural Differences in Perception of Interior Sounds in Automobiles - US Data Collection.”

Davis, Susan B; Office of Engagement, from Multi-Sponsored Industrials, \$10,000, “Ivy Technology Support of HH SBDC (Hoosier Heartland Small Business Development Center) CY 11.”

Day, Harlan R; agricultural economics, from Indiana Commission for Higher Education, \$32,378, “Key Teachers: Teaching Personal Finance and Economics Using Math and Literature.”

DeLaurentis, Daniel A; aeronautical & astronautical engineering, from The Boeing Company, \$56,000, “Technology Development Support for the Meta II Program.”

Douse, Christopher D; diversity & multicultural affairs - Fort wayne campus, from Indiana Campus Compact, \$423, “Educate and Motive the MLK Way: Honoring Dr. Martin Luther King, Jr's Legacy.”

Duffy, Vincent G; agricultural & biological engineering, from Indiana University Purdue University at Indianapolis, \$9,950, “Intelligent Human Vehicle Interface.”

Ebert, David S; electrical & computer engineering, from University of Texas at Austin, \$211,041, “Enabling Transformational Science and Engineering through Integrated Collaborative Visualization and Data Analysis for the National User Community, Amendment 2.” (a Discovery Park award — Discovery Park Administration)

Elliott, Stephen J; industrial technology, from National Institute of Standards and Technology, \$149,335, “Research on Biometric Image Quality, Standards, and Performance.”

Eugster, Patrick T; computer science, from National Science Foundation, \$80,000, “CAREER: Pervasive Programming with Event Correlation, Amendment 5.”

Fentiman, Audeen W; nuclear engineering, from Argonne National Laboratory, \$13,221, “Support for Melissa Van Kleeck.”

Ferris, Jonathan C; field extension educators, from Indiana Department of Workforce Development, \$1,620, “FIRST (For Inspiration and Recognition of Science and Technology) Robotics Fayette County.”

Ferruzzi, Mario; food science, from M.H. Zeigler & Sons LLC, \$1,000, “Hills Pet Nutrition, Inc..”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$145, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$25, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$150, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$40, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$45, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$55, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$330, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$58, “Breaking New Ground.”

Field, William E; agricultural & biological engineering, from Tate & Lyle Ingredients Americas Inc., \$2,500, “Farm Safety.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, \$80, “Breaking New Ground.”

Finley, John P; physics, from University of Utah, \$31,150, “Acceptance Testing, Characterization and Calibration of the Veritas High QE PMTs for the Upgrade Program.”

Frankel, Steven H; mechanical engineering, from Beckman Coulter Inc., \$83,879, “Modeling and Simulation of Specimen Quality.”

Frankenberger, Jane R; agricultural & biological engineering, from University of Wisconsin-Madison, \$72,611, “Regional Water Quality Leadership Phase 3.”

Friedman, Alan M; biological sciences, from National Science Foundation, \$165,901, “III: Small: Collaborative Research: Analysis of Multi-Dimensional Protein Design Spaces with Pareto Optimization of Experimental Designs.” (a Discovery Park award — Bindley Bioscience Center)

Garimella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, \$30,000, “CRTC Membership.”

Garimella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, \$30,000, “2011 Cooling Technologies Research Center (CTRC).”

Garrison, James L; aeronautical & astronautical engineering, from ITT Corporation, \$10,000, “Travel and Associated Expenses for Dr. James Garrison of Purdue University.”

Gibson, Kevin D; botany & plant pathology, from Ohio State University, \$57,746, “Mental Models and Participatory Research to Redesign Extension Programming for Organic Weed Management.”

Gilbert, Hersch J; earth & atmospheric sciences, from D’Appolonia, \$5,000, “Multi-Sponsor.”

Gluhovsky, Alexander and Agee, Ernest M; earth & atmospheric sciences, from National Science Foundation, \$133,646, “Taming Complexity of Mesoscale Dynamics with Low-Order Models.”

Golden, Barbara L; biochemistry, from PHS-NIH National Institute of General Medical Sciences, \$327,696, “Coupling of Structure and Dynamics in RNA Catalysis.”

Groll, Eckhard A; mechanical engineering, from Ecothermics Corporation, \$3,500, “CO2 Compressor Research.”

Haddock, John E and Labi, Samuel; civil engineering, from Indiana Department of Transportation, \$85,760, “Service Lives of Selected Pavement Rehabilitation Treatments.”

Hamaker, Bruce R; food science, from Pepsi-Cola Company, \$68,000, “Relationship Between Frito Lay Potato Variety Composition and Oil Uptake During Frying of Potato Chips.”

Harbin, Sherry L; basic medical science, from Cook Biotech Inc., \$51,512, “Subcutaneous Angiogenesis into Porcine Small Intestinal Submucosa: Multiple Formulations of Biomaterial Constructs.”

Hartman, Nathan W; computer graphics technology, from Rolls-Royce Corporation, \$100,000, “Phase VII Rolls Royce / Purdue PLM Collaboration Proposal.”

Hassanein, Ahmed and Sizyuk, Tatyana S; nuclear engineering, from Sandia National Laboratories, \$150,000, “Generic Flow Flow and Thermal Analysis to Support ITER First Wall Design.”

Hastak, Makarand; civil engineering, from Indiana Department of Transportation, \$80,000, “Performance Evaluation of Crack Sealing and Filling Materials with Pavement Preservation Treatments.”

Hastak, Makarand; civil engineering, from Indiana Department of Transportation, \$80,000, “Project Evaluation Methods for Pavement Preservation Treatments.”

Heathman, Gary C; agronomy, from Agricultural Research Service, \$36,066, “Acquisition of Goods and Services - Eunjin Han.”

Heber, Albert J and Ni, Jiqin; agricultural & biological engineering, from Washington State University, \$132,034, “Impact of Anaerobic Digestion on Air Quality in a Community Anaerobic Digester.”

Heber, Albert J and Ni, Jiqin; agricultural & biological engineering, from United Egg Producers, \$54,549, “Evaluation and Analysis of NAEMS (National Air Emissions Monitoring Study) Layer House Emissions Data Proposal United Egg Board.”

Heinz, Michael G; biomedical engineering, from National Institutes of Health, \$41,380, “NIH - Ruth Kirschstein Fellowship, Jon Boley.”

Heister, Stephen D; aeronautical & astronautical engineering, from Allison Advanced Development Company, \$20,000, “Rolls-Royce University Technology Center in High Mach Propulsion-2010.”

Hertel, Thomas W; Golub, Alla A and Villoria, Nelson B; agricultural economics, from Electric Power Research Institute (EPRI), \$180,000, “Global Agriculture and Forestry Greenhouse Gas and Renewable Energy Research.”

Hertel, Thomas W and Golub, Alla A; agricultural economics, from Environmental Protection Agency, \$98,003, “Dynamic General Equilibrium Analysis of the Global Impacts of Biofuels.”

Hirst, Peter M; horticulture & landscape architecture, from Egyptian Cultural and Educational Bureau, \$148,069, “Egyptian Government Scholarship, Mokhles Elsysy.”

Hoagland, Lori A; horticulture & landscape architecture, from Washington State University, \$31,500, “Plant Breeding and Agronomic Research for Organic Hop Production Systems.”

Hooser, Stephen B; animal disease diagnostic laboratory, from Indiana Department of Natural Resources, \$11,412, “Diagnostic Evaluation of Chronic Wasting Disease in White-Tailed Deer.”

Howe, Katherine M; botany & plant pathology, from University of Wisconsin-Madison, \$5,007, “Great Lakes Early Detection Network.”

Howe, Katherine M; botany & plant pathology, from Multi-Sponsored Industrials, \$50, “Katherine Howe Gift Fund.”

Howe, Katherine M; botany & plant pathology, from Multi-Sponsored Industrials, \$30, “Katherine Howe Gift Fund.”

Hu, Jianghai; electrical & computer engineering, from Indiana University, \$2,914, “Simulation Model for Mental Health Systems Planning - Tuition Reimbursement for Harpreetsigh Banvair; Amendment 1.”

Hutcheson, John S; Office of Engagement, from Multi-Sponsored Industrials, \$2,779, “Purdue Center for Regional Development.”

Hutcheson, John S; Office of Engagement, from Multi-Sponsored Industrials, \$2,911, “Multi-Sponsored Account (PCRD).”

Hutcheson, John S; agriculture - administration, from Multi-Sponsored Industrials, \$411, “Fee and Travel Expenses Associated with the Purdue Center for Regional Development-Ed Morrison.”

Hutcheson, John S; Office of Engagement, from Multi-Sponsored Industrials, \$512, “Multi-Sponsored Account (PCRD).”

Hutzel, William J; mechanical engineering technology, from National Renewable Energy Laboratory, \$50,000, “Purdue Solar Decathlon.”

Irudayaraj, Joseph M; agricultural & biological engineering, from Biomerieux Inc., \$80,000, “Pathogen Detection Using SERS (Surface-Enhanced Raman Scattering) Biosensors.” (a Discovery Park award — Bindley Bioscience Center)

Ishii, Mamoru; nuclear engineering, from Bechtel Bettis, Inc., \$111,076, “Three Dimensional Interfacial Area Transport Equation (IATE) Development PO 3017044; Amendment 5.”

Ivanisevic, Albena; biomedical engineering, from National Science Foundation, \$423,416, “Understanding of Molecular Phenomena on Planar and Nanosized GaP Surfaces Under Different Environmental Conditions.”

Jackson, Scott A; agronomy, from United Soybean Board, \$12,500, “United Soybean Board Fellowship, Trulie Campbell.”

Jiao, Dan; electrical & computer engineering, from Office of Naval Research, \$49,000, “Rigorous and Fast Physics-Based Co-Simulation of Device-Structure-Material Interactions in Complex, Nonlinear; Modification 3.”

Keener, Kevin M; food science, from Griffith Laboratories, \$500, “Multi-Sponsored Gift.”

Keener, Kevin M; food science, from Trask Trust Fund, \$44,228, “Sterilization of Medical Devices Using In-Package Ionization.”

Killian, Charles E; computer science, from National Science Foundation, \$82,778, “CAREER: Analyzing Distributed Systems Behavior Using Repeated Execution.”

Kim, Chang H; Andrisani, Ourania M and Hogenesch, Harm; comparative pathobiology, basic medical science, veterinary medicine - administration, from PHS-NIH National Institute of Allergy and Infectious Diseases, \$298,319, “FoxP3+ Regulatory T Cells of Mucosal Tissues.”

Kim, Young L; biomedical engineering, from U.S. Department of Energy, \$120,000, “Mesoscopic Tumor Margin Visualization for Breast Conserving Surgery.”

Koh, Cheng-Kok and Lu, Yung-Hsiang; electrical & computer engineering, from National Science Foundation, \$100,000, “CI-ADDO-NEW (Community Infrastructure Development, Deployment and/or Operations): Collaborative Research: Development of Darwin Humanoid Robots for Research, Education - Amendment 1.”

Kranz, Sibylle; foods & nutrition, from Dry Bean Health Research Program, \$10,000, “Long-Term Effect of Increased Legume Intake on Body Weight Status and Cardiovascular Disease Risk Factors in Preschool-Age Children from Various Socio-Demographic Backgrounds.”

Kranz, Sibylle; foods & nutrition, from Dry Bean Health Research Program, \$10,000, “Long-Term Effect of Increased Legume Intake on Body Weight Status and Cardiovascular Disease Risk Factors in Preschool-Age Children.”

Kranz, Sibylle; foods & nutrition, from Kellogg Company, \$25,000, “Kranz Kellogg.”

Lasker, Gregory C; building construction & management technology, from American Society for Healthcare Engineering, \$16,881, “Enhance HFCx Handbook Development.”

Lawley, Mark A; biomedical engineering, from Advanced Process Combinatorics, \$45,742, “Optimizing Operating Room Efficiency.”

Leary, James F; basic medical science, from Christopher Columbus Fellowship Foundation, \$25,000, “Research in Nanomedicine.”

Lechtenberg, Victor L; Office of Engagement, from U.S. Department of Health and Human Services, \$404,775, “I-HITEC Regional Extension Center Supplement.”

Lin, Tsang Long and Wu, Ching C; Animal Disease Diagnostic Laboratory, from Indiana Department of Natural Resources, \$78,096, “Diagnostic Evaluation and Fish Health Inspection of Indiana Fish.”

Linton, Richard H; food science, from Almond Board of California, \$7,000, “Multi-Sponsored/Research.”

Liu, Shuang; health sciences, from PHS-NIH National Cancer Institute, \$237,214, “TC-Labeled Cyclic RGDfK Tetramers for Breast Cancer Imaging.”

Lloyd, Lyle L; educational studies, from John M or Helen H Arvidson (Individual Donor), \$100, “AAC Program Support.”

Lloyd, Lyle L; educational studies, from John M or Helen H Arvidson (Individual Donor), \$200, “AAC Program Support.”

Lopez, Roberto G; horticulture & landscape architecture, from Multi-Sponsored Industrials, \$6,500, “Multi Sponsored Gift Account.”

Lopez, Roberto G; horticulture & landscape architecture, from American Floral Endowment, \$7,500, “American Floral Endowment.”

Luke, Eileen M; CERIS, from Animal Plant Health Inspection Service, \$369,820, “Exerpt Cooperative Agreement.”

Lundstrom, Mark S; electrical & computer engineering, from Massachusetts Institute of Technology, \$535,984, “Theory, Modeling, and Simulation of Nanotransistors, Amendment 2.”

Lundstrom, Mark S; electrical & computer engineering, from Intel Corporation, \$75,000, “Intel-NCN (Network for Computational Nanotechnology) Membership.” (a Discovery Park award — Birck Nanotechnology Center)

Machaty, Zoltan and Jaeger, Laurie A; animal sciences, basic medical science, from National Institute of Food and Agriculture, \$499,937, “Store-Operated Calcium Entry in Pig Oocytes.”

Manfra, Michael J; physics, from Alcatel-Lucent, \$50,000, “Alcatel Lucent Voluntary Support.”

Mayboroda, Svitlana; mathematics, from National Science Foundation, \$71,421, “CAREER: Analysis of Partial Differential Equations in Non-Smooth Media.”

McCullough, Bobby G; civil engineering, from Indiana Department of Transportation, \$10,000, “Information Technology Initiatives - Software Purchase.”

Mentzer, Nathan; industrial technology, from Utah State University, \$45,000, “Design Thinking and Information Gathering.”

Mesecar, Andrew D; biological sciences, from University of Illinois at Chicago, \$369,622, “Novel Antibiotic Development for Biodefense.”

Michalski, Greg M; earth & atmospheric sciences, from National Geographic Society, \$15,800, “The Origin of the Nitrate Deposits in the Turfan-Hami Basin, Xinjiang, China.”

Miller, Margaret A; animal disease diagnostic laboratory, from Western University of Health Sciences, \$1,885, “Honorarium for Animal Disease Diagnostic Laboratory.”

Minchella, Dennis J; Loudon, Marc; Chmielewski, Jean A; Hrycyna, Christine A and Sanders, David A; biological sciences, medicinal chemistry & molecular pharmacology, chemistry, from Howard Hughes Medical Institute, \$400,000, “A Challenge in Life Sciences Undergraduate Education.” (a Discovery Park award — Discovery Learning Center)

Morris, Pamala V; agriculture - administration, from University of Nebraska, \$14,997, “Diversity, Equity and Inclusion.”

Mustillo, Sarah A; sociology, from Vanderbilt University, \$146,077, “Improving Deployment-Related Primary Care Provider Assessments of PTSD and Mental Health Conditions; Amendment 1.”

Newton, Kathryn A; industrial technology, from University of Industrial Distribution, \$20,000, “Coordination of University of Industrial Distribution Program.”

Nie, Huiling; health sciences, from University of Illinois at Chicago, \$19,979, “Noninvasive in Vivo Quantification of Lead and Cadmium in Bone.”

Novak, Robert E; speech, language, and hearing sciences, from Indiana Lions Speech and Hearing Inc., \$2,000, “Clinical Support for Speech-Language-Audiology Services from the Indiana Lions Club.”

Nyenhuis, John A; electrical & computer engineering, from Zimmer, \$2,880, “Interactions of Zimmer Orthopaedic Implant HKTE with the Electromagnetic Fields in MRI.”

Olynk, Nicole J; agricultural economics, from Indiana Soybean Alliance, \$9,962, “Feasibility Study: Alternative Agricultural Production Systems.”

Patton, Aaron J; agronomy, from Dow Agro Sciences, \$600, “Multi-Sponsored.”

Patton, Aaron J; agronomy, from Dow Agro Sciences, \$31,700, “Multi-Sponsored.”

Patton, Aaron J; agronomy, from Dow Agro Sciences, \$1,200, “Multi Sponsored.”

Pekarek, Steven D and Decarlo, Raymond A; electrical & computer engineering, from Converteam Naval Systems Inc., \$12,000, “Compact Power Conversion Technologies (CPCT) ONR Phase I PROGRAM.”

Pekarek, Steven D and Decarlo, Raymond A; electrical & computer engineering, from Converteam Naval Systems Inc., \$30,000, “Compact Power Conversion Technologies (CPCT) ONR Phase I PROGRAM.”

Pekarek, Steven D; electrical & computer engineering, from ABB Corporate Research, \$40,000, “ABB Fellowship in High Speed Permanent Magnet Machine Design.”

Peroulis, Dimitrios; Adams, Douglas E; Jung, Byunghoo and Sadeghi, Farshid; electrical & computer engineering, mechanical engineering, from Office of Naval Research, \$35,000, “Ultra Low-Size Self-Powered Wireless Sensors for Condition Monitoring of Cracks in Aircraft Structural Components, Modification 2.” (a Discovery Park award — Birck Nanotechnology Center)

Peroulis, Dimitrios; electrical & computer engineering, from Red River Microdevices, \$94,000, “Tunable Power Amplifiers.” (a Discovery Park award — Birck Nanotechnology Center)

Peroulis, Dimitrios; electrical & computer engineering, from University of California - Davis, \$56,500, “Reconfigurable MEMS Filters for Cognitive Radio.” (a Discovery Park award — Birck Nanotechnology Center)

Peroulis, Dimitrios; electrical & computer engineering, from Virtual Em Inc., \$168,224, “RF MEMS Switches for Self-Structuring Antennas - Phase II, Grant 104007, Amendment 1.”

Pinal, Rodolfo; industrial & physical pharmacy, from Multi-Sponsored Industrials, \$35,000, “CPPR (Center for Pharmaceutical Processing Research) Consortium.”

Pizlo, Zygmunt; psychological sciences, from Sandia National Laboratories, \$200,000, “Support from Sandia.”

Pizlo, Zygmunt; psychological sciences, from Air Force Office of Scientific Research, \$200,000, “Robotic Navigation Emulating Human Performance: Research Plan, Modification 3.”

Porterfield, D. M; agricultural & biological engineering, from Nestle, \$476,000, “Smart Packaging for Tamper Detection.” (a Discovery Park award — Bindley Bioscience Center)

Post, Carol B; medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute of Allergy and Infectious Diseases, \$199,944, “Protein Stability and Antiviral Activity in Human Rhinovirus.”

Qi, Yuan; computer science, from National Science Foundation, \$92,548, “CAREER: Scalable Bayesian Learning for Multi-Source and Multi-Aspect Data.”

Rao, Sanjay G; electrical & computer engineering, from National Science Foundation, \$80,000, “CAREER: Towards Automated and Assurable Enterprise Network Migration, Amendment 2.”

Ratliff, Timothy L; Cheng, Ji-Xin; Cooks, Robert G and Crist, Scott A; Cancer Research Center, from Walther Cancer Institute Foundation Inc., \$260,000, “Development of Prostate Cancer Progression Markers.”

Ratliff, Timothy L; Cancer Research Center, from Walther Cancer Institute Foundation Inc., \$50,000, “Center Director Developmental Funds Award.”

Reicher, Zachary J; agronomy, from Midwest Regional Turf Foundation, \$6,876, “Midwest Regional Turf Foundation.”

Ritchie, Kenneth P and Wanner, Barry L; physics, biological sciences, from PHS-NIH National Institute of General Medical Sciences, \$248,218, “Single Molecule Study of Receptor Localization in Cellular Membranes.”

Rochet, Jean-Christophe; medicinal chemistry & molecular pharmacology, from PHS-NIH National Institute on Drug Abuse, \$72,094, “Mechanisms of DJ-1 Protection Against Methamphetamine Neurotoxicity.”

Rogers, Marcus K; computer & information technology, from Multi-Sponsored Industrials, \$1,000, “Forensic Seminars.”

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Rogers, Marcus K; computer & information technology, from Multi-Sponsored Industrials, \$1,000, “Forensic Seminars.”

Sadeghi, Farshid; mechanical engineering, from Tecumseh Compressor Group, \$2,500, “Tribology Lab Research.”

Sadeghi, Farshid; mechanical engineering, from Tecumseh Compressor Group, \$100,000, “Tribology Lab Research.”

Saha, Shubin K; horticulture & landscape architecture, from Monsanto Company, \$3,000, “MABC Converted Phytophthora Resistant Versions of Commercial Pepper Hybrids and Commercial Product Checks for Equivalency.”

Sameh, Ahmed H; computer science, from Sandia National Laboratories, \$28,043, “Support for Deaglan Halligan from Sandia National Labs.”

Santerre, Charles R; Amberg, Shannon M; Cho, Hyunyi and McCabe, George P; foods & nutrition, forestry & natural resources, communication, statistics, from National Institute of Food and Agriculture, \$600,000, “Helping Childbearing-Aged Women Make Informed Decisions Regarding Seafood Consumption.”

Scharenberg, Rolf P; physics, from U.S. Department of Energy, \$690,000, “The Experimental Study of the Phase Structure of Hadronic Matter, Modification 30.”

Scharf, Michael E; entomology, from Chesapeake Perl Inc., \$101,964, “Identification, Production and Characterization of Novel Lignase Proteins from Termites for Depolymerization of Lignocellulose.”

Schoenlein, William E and Van Alstine, William G; biomedical engineering, comparative pathobiology, from Medical Engineering and Development Institute Inc., \$27,983, “Enteric Device Testing: Study CUI-SVA1 Addendum to Grant # 202362.”

Schoonmaker, Jon; animal sciences, from West Central (Soyplus), \$8,000, “Beef Research.”

Shalaev, Vladimir M and Drachev, Vladimir P; electrical & computer engineering, from Science and Technology Corporation, \$55,434, “Bi-Spectral Plasmonic Obscurants.” (a Discovery Park award — Birck Nanotechnology Center)

Shalaev, Vladimir M; electrical & computer engineering, from University of Pennsylvania, \$111,647, “Large-Area, 3-D Optical Metamaterials with Tunability and Low Loss; Amendment 1.”

Shipsey, Ian P; physics, from Ann R. Eberle, \$500, “High Energy Physics Project.”

Shipsey, Ian P; physics, from U.S. Department of Energy, \$1,976,000, “An Experimental and Theoretical High Energy Physics Program, Modification 47.”

Shoffner, Melanie; English, from National Council of Teachers of English, \$1,900, “Pedagogy, Passion and Preparation: Exploring the Concerns of Beginning English Teachers.”

Shukle, Richard H; entomology, from Agricultural Research Service, \$34,420, “Acquisition of Goods and Services.”

Sloan, Mary Anne and Pekny, Joseph F; Technology Assistance Program, industrial engineering, from Clarian Arnett Health, \$280,594, “Clarian Support of IE Faculty.”

Sloan, Mary Anne; Technology Assistance Program, from Indiana State Department of Health, \$37,254, “PHSQIP Attachment 9 FY 11.”

Smith, Alan L; health & kinesiology, from Purdue University Special Initiative Program, \$19,173, “Felicia E. Trembath, (2).”

Smith, Mjt; graduate school administration, from National Science Foundation, \$1,259,559, “Midwest Crossroads AGEP (Alliances for Graduate Education and the Professoriate).” (a Discovery Park award — Discovery Learning Center)

Smith, Mjt; graduate school administration, from Purdue University Special Initiative Program, \$3,403, “Andrew P. Robinson.”

Smith, Richard S; food science, from Alcoa Inc., \$250, “Food Science Research.”

Smith, Richard S; food science, from Hinsdale Farms Ltd, \$1,000, “Sensory Evaluation Research.”

Smith, Richard S; food science, from Hinsdale Farms Ltd, \$12,000, “Sensory Evaluation Research.”

Smith, Richard S; food science, from Hinsdale Farms Ltd, \$1,000, “Sensory Evaluation Research.”

Smith, Richard S; food science, from Hinsdale Farms Ltd, \$3,000, “Sensory Evaluation Research.”

Smith, Richard S; food science, from Hinsdale Farms Ltd, \$13,000, “Sensory Evaluation Research.”

Son, Steven F; mechanical engineering, from Ensign-Bickford Aerospace and Defense Company, \$82,538, “Evaluation of Nano Energetic Materials for Semiconductor Bridge (SCB) Initiators, Phase II.”

Son, Steven F and Pourpoint, Timothee L; mechanical engineering, aeronautical & astronautical engineering, from Pennsylvania State University, \$340,150, “Nanoenergetics and High Hydrogen Content Materials for Space Propulsion.”

Spafford, Eugene H; Bagchi, Saurabh; Bertino, Elisa; Fahmy, Sonia A; Xu, Dongyan and Zhang, Xiangyu; CERIAS, electrical & computer engineering, computer science, from Northrop Grumman Space Technology, \$242,170, “NGIT (Northrop Grumman Information Technology) Cybersecurity Research Consortium.”

Spafford, Eugene H; computer science, from John Wiley & Sons Limited England, \$60,000, “CERIAS (Center for Education and Research in Information Assurance and Security) Voluntary Support.”

Straw, Mark L; animal sciences, from Agricultural Marketing Service, \$18,450, “State Surveillance.”

Suitor, J Jill; sociology, from Lynn Interdisciplinary Graduate Fellowship, \$10,202, “Xiao-zhao Yang.”

Sullivan, John P; aeronautical & astronautical engineering, from The Boeing Company, \$50,000, “Product Lifecycle Management Center of Excellence (PLM).”

Sun, Chin-Teh; aeronautical & astronautical engineering, from Universal Technology Corporation, \$31,000, “On-Site Visiting Scientist.”

Sun, Chin-Teh; aeronautical & astronautical engineering, from Egyptian Ministry of Defense, \$40,237, “Egyptian Ministry of Defense, Ahmed Hussien.”

Swaminathan, Vishwanathan; Kirshner, Sergey; Neville, Jennifer L; Si, Luo and Wang, Tao; computer science, statistics, from National Science Foundation, \$24,000, “The 2011 Machine Learning Summer School at Purdue University.”

Taylor, Kevin D; electrical & computer engineering technology, from Indiana Department of Education, \$40,000, “Project Lead the Way (PLTW) High School Certification.”

Taylor, Lynne S; industrial & physical pharmacy, from Merck Research Laboratories, \$3,500, “Merck Co., Inc.”

Taylor, Lynne S; industrial & physical pharmacy, from Merck Research Laboratories, \$10,000, “Merck Co., Inc.”

Thomas, Volker K; child development & family studies, from Lafayette Community Development Department, \$29,251, “Weed and Seed Downtown Lafayette Community Involving Families and Schools Together (FAST).”

Thompson, David H; chemistry, from PHS-NIH National Institute of General Medical Sciences, \$263,936, “Bioresponsive Lipids for Intracellular Delivery.”

Thompson, Leslie E; biological sciences - Calumet campus, from Ohio State University Extension, \$17,052, “Great Lakes Sea Grant Network Education and Outreach Project: Adaptive Management Needs Assessment.”

Topp, Elizabeth M; industrial & physical pharmacy, from Catalent Pharma Solutions, \$50,000, “Catalent.”

Trice, Rodney W; materials engineering, from Rolls-Royce Corporation, \$1,739, “Testing Agreement: Type II Hot Corrosion Testing of 4 Square Samples.”

Tseng, Charles C and Yang, Xiaoli; biological sciences - Calumet campus, elec & computer engineering - Calumet campus, from Indiana University, \$29,657, “Teaching Genetics Biology with Interactive Computer Programs for High School Teachers.”

Ukkusuri, Satish V; civil engineering, from Vietnam International Education Development, \$27,000, “Vietnam International Education Development.”

Viens, Frederi G; statistics, from National Science Foundation, \$27,240, “International Conference on Malliavin Calculus and Stochastic Analysis.”

Villoria, Nelson B; agricultural economics, from Food and Agriculture Organization of the United Nations, \$30,000, “Land Use Impacts of Agricultural Research.”

Vyn, Tony J; agronomy, from Fluid Fertilizer Foundation, \$500, “Agricultural Cropping Systems.”

Vyn, Tony J; agronomy, from Fluid Fertilizer Foundation, \$5,000, “Agricultural Cropping Systems.”

Waldorf, Brigitte S; agricultural economics, from Kinley Trust, \$16,180, “The Effect of Macroeconomic Shocks on the Food Stamp Program.”

Wasynczuk, Oleg; electrical & computer engineering, from Sandia National Laboratories, \$80,000, “Enabling, Scalable Microgrids with High Penetration Renewables.”

Watts, Michael W; economics, from Kazanjian, Calvin K. Economics Foundation Inc., \$15,000, “Developing a Wiki Site on Using Art to Teach Economics.”

Weaver, Connie M; foods & nutrition, from Kraft Foods Global Inc., \$6,000, “Corporate Affiliates Fund.”

Weiss, William J; civil engineering, from Owens-Corning Fiberglas Corporation, \$3,750, “Plastic Shrinkage Evaluation of a Glass Fiber.”

Weller, Stephen C; horticulture & landscape architecture, from E.I. Du Pont De Nemours and Company, \$15,000, “Research Gift.”

Whittaker, Alan D; Student Access, Transition, Success Program, from Office of Twenty-First Century Scholars, \$272,024, “Twenty-First Century Scholars Program.”

Williams, Sharon R; anthropology, from Blosser, Russell O. Memorial Fellowship, \$1,500, “Elizabeth J. Wirtz.”

Wise, Kiersten A; botany & plant pathology, from E.I. Du Pont De Nemours and Company, \$2,000, “Wheat Disease Research.”

Wise, Kiersten A; botany & plant pathology, from E.I. Du Pont De Nemours and Company, \$8,000, “Voluntary Support Account.”

Wise, Kiersten A; botany & plant pathology, from E.I. Du Pont De Nemours and Company, \$4,500, “Voluntary Support Account.”

Zheng, Wei; health sciences, from Multi-Sponsored Industrials, \$6,000, “Industrial Support for the Xian International Neurotox Conference.”

Zheng, Wei; health sciences, from Indiana University School of Medicine, \$19,923, “Support for Huisi Ai from Dr. Yun Liang.”

Zheng, Wei; health sciences, from Multi-Sponsored Industrials, \$10,000, “Industrial Support for the Xian International Neurotox Conference.”

Zhu, Jian-Kang; biochemistry, from PHS-NIH National Institute of General Medical Sciences, \$309,577, “Calcium Signaling and Ion Homeostasis Regulation.”

Zimmerman, Neil J; health sciences, from University of California - Santa Cruz, \$118,878, “Neurologic Function in Children Exposed to Ambient Manganese.”

Zinsmeister, William J; earth & atmospheric sciences, from Paul P. & Linda L. Krishna (Individual Donor), \$500, “Zinsmeister Research.”

Zwier, Timothy S; chemistry, from National Aeronautics and Space Administration, \$145,000, “Laboratory Studies of Photochemical, Photoisomerization, and Discharge-Driven Pathways to Fused-Ring; Supplement 1.” ■

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