

# DIMENSIONS *of* DISCOVERY

## Sponsored Program Awards

October 2011

**Abbott, Angela R** and **Calahan, Charles A**; consumer & family sciences, child development & family studies, from Indiana State Department of Health, \$292,532, "Purdue's Pregnancy and Parenting Education for Adolescents through Extension (P2EATE) Program."

**Abel, Steven R** and **Jones, Kellie L**; pharmacy practice, from Clarian Health Partners, Inc., \$72,685, "Co-Funded Position with Clarian Health Partners."

**Adeola, Olayiwola**; animal sciences, from Danisco Animal Nutrition, \$42,305, "Effect of New DAN Enzyme on Nutrients Digestibility and Retention of Broiler Chickens Fed Wheat or Corn-Based Diets."

**Adeola, Olayiwola**; animal sciences, from Danisco Animal Nutrition, \$69,653, "Effect of Enzyme on Growth Performance of the Young Broiler Chicken Fed Wheat-Wheat Co-Products or Corn-Corn Dry Distillers' Grains with Solubles (DDGS) Based Diets."

**Allebach, Jan P** and **Chiu, George T**; electrical & computer engineering, mechanical engineering, from Lexmark International Inc, \$85,000, "Image Quality Investigations."

**Amass, Sandra F**; **Blossom, Thaddeus D**; **Flagge, Lynette L**; **Reed, Dorothy A** and **Ratliff, Timothy L**; veterinary clinical science, education — administration, comparative pathobiology, from PHS-NIH National Center for Research Resource, \$59,858, "Fat Dogs and Coughing Horses: Animal Contributions Towards a Healthier Citizenry." (a Discovery Park award — Discovery Learning Center)

**Applegate, Todd J**; animal sciences, from JBS United Inc, \$15,500, "Phytase in Poultry."

**Bayley, William G**; chemistry, from Annette M Maier, \$600, "Instrumentation Van Project."

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**Bayley, William G**; chemistry, from Annette M Maier, \$600, "Instrumentation Van Project."

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

**Beaudoin, Stephen P**; chemical engineering, from U.S. Department of Homeland Security, \$300,000, "Adhesion of Explosives Particles."

**Beckerman, Janna L**; botany & plant pathology, from Indiana Arborists Association, Inc., \$4,000, "Indiana Arborists Association, Inc."

**Bertoline, Gary R**; **Dyrenfurth, Michael J**; **Herrick, Robert J** and **Newton, Kathryn A**; technology - administration, industrial technology, electrical & computer engineering technology, from U.S. Department of Education, \$141,449, "Dual MS Degrees Focused on Technology, Innovation & Sustainability; Amendment 2."

**Bolton, J S**; mechanical engineering, from 3M General Offices, \$27,000, "Gift Support for Stuart Bolton."

**Bouman, Charles A**; electrical & computer engineering, from Northeastern University, \$50,000, "Toward Model-Based Reconstruction in Scanned Baggage Security Applications."

**Bricker, Glynn E**; physics — North Central campus, from Purdue University, \$8,000, "Solar Wind Implantation Model for the Incorporation of Short-Lived Radionuclides into Calcium-Aluminum-Inclusions."

**Brown, Paul B** and **Rode, Robert A**; forestry & natural resources, from Michigan State University, \$15,287, "Regional Aquaculture Center-North Central Region."

**Buckmaster, Dennis**; **Ault, Aaron C**; **Chaubey, Indrajeet**; **Engel, Bernard A**; **Frankenberger, Jane R** and **Krogmeier, James V**; agricultural & biological engineering, electrical & computer engineering, from National Institute of Food & Agriculture, \$395,000, "Mobile Computing Technologies to Enable More Efficient Water Management Decisions in the Field."

**Bullock, Darcy M**; civil engineering, from Indiana Department of Transportation, \$375,000, "FY 2012 Joint Transportation Research Program (JTRP) Administrative Budget."

**Bullock, Darcy M**; civil engineering, from Indiana Department of Transportation, \$99,860, "SPR-3510 Comparing Stabilized/Unstabilized Subbase for Unsealed Joints in Portland Cement Concrete Pavement (PCCP)."

**Bullock, Darcy M**; civil engineering, from Indiana Department of Transportation, \$500,000, "Active Corridor Management."

**Byrn, Stephen R**; industrial & physical pharmacy, from Argonne National Laboratory, \$34,943, "Synthesis, Characterization and Properties of Fast Acting Amorphous Drugs."

**Camberato, James J**; agronomy, from Wolf Trax Inc, \$6,000, "Crop Response to Micronutrient Fertilizers."

**Campbell, Wesley L**; Science Bound, from United Student Aid Funds, Inc, \$30,000, "Science Bound USA Parents Program."

**Chen, Jue**; biological sciences, from Howard Hughes Medical Institute, \$28,543, "The Howard Hughes Medical Institute (HHMI) Graduate Student Support for Shanshuang Chen."

**Chen, Yong P**; physics, from National Institute of Standards & Technology, \$120,000, "Quantum Electronic Metrology in Graphene Nanostructures." (a Discovery Park award — Birck Nanotechnology Center)

**Chen, Zhihong**; electrical & computer engineering, from Naval Sea Systems Command Naval Surface Warfare Center (NAVSEA/NSWC) Crane, \$20,000, "Radiation Effects in Graphene Based All Spin Logic/Memory Devices." (a Discovery Park award— Birck Nanotechnology Center)

**Cheng, Ji-Xin**; biomedical engineering, from Indiana State Department of Health, \$120,000, "A Synergistic Therapy for Early Repair of Traumatically Injured Spinal Cord."

**Cherkauer, Keith A; Chaubey, Indrajeet and Troy, Cary D**; agricultural & biological engineering, civil engineering, from University of Illinois, \$150,000, "Monitoring Episodic River Inflow Plumes Using In-Situ and Remote Sensing Data; Amendment 1." (a Discovery Park award — Center for the Environment)

**Choi, Kyoung-Shin**; chemistry, from California Institute of Technology, \$150,000, "Powering the Planet: A Chemical Bonding Center in the Direct Conversion of Sunlight into the Chemical Fuel; Modification 3."

**Christ, Sharon L**; child development & family studies, from University of Miami (Florida), \$14,000, "Surveillance of Mortality and Morbidity in US Workers; Amendment 1."

**Christian, John A**; comparative pathobiology, from Wyeth Ayerst Pharmaceuticals, \$500, "Cytology Resource Center."

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

**Colucci, Frank J**; history & political science — Calumet campus, from University of Colorado, \$51,000, "Keller Center Fellowship at University of Colorado, Boulder."

**Connor, Robert J**; civil engineering, from Michael Baker Jr. Inc, \$73,145, "Proposal for Fitness-for-Service Evaluation to Assess the Potential for Fatigue Cracking and Crack Growth in the Sherman Minton Bridge."

**Constable, Peter D**; veterinary clinical science, from VCA Antech Inc, \$18,236, "Radiology Residency Support."

**Constable, Peter D**; veterinary clinical science, from Circle City Veterinary Specialty & Emergency Hospital LLC, \$10,000, "Small Animal Medicine Residency Support."

**Cooks, Robert G**; chemistry, from Thermo Fisher Scientific, \$50,000, "Thermo Fisher Voluntary Support Account."

**Cooks, Robert G**; chemistry, from Glaxo Smith Kline, \$20,347, "Exploration of Desorption Electrospray Ionization (DESI) in Product Development-PTS." (a Discovery Park award — Bindley Bioscience Center)

**Crawford, Melba M**; College of Engineering Administration Engineering Experiment, from Semiconductor Research Corporation (SRC) Education Alliance, \$33,000, "Semiconductor Research Corporation (SRC) Education Alliance 2010-11."

**Crossley, William A and DeLaurentis, Daniel A**; aeronautical & astronautical engineering, from Metron Aviation Inc, \$100,000, "Metron Aviation; Modification 1."

**Delp, Edward J**; electrical & computer engineering, from Curtin University of Technology, \$20,000, "Mobile Telephone Dietary Assessment."

**Doerge, Rebecca W**; statistics, from Purdue Doctoral Program, \$3,412, "Gautier, Phillip."

**Donkin, Shawn S**; animal sciences, from Zinpro Corporation, \$6,000, "Ruminant Research."

**Ebert, David S and Collins, Timothy F**; electrical & computer engineering, from U.S. Coast Guard, \$92,340, "A Targeted Risk-Based Approach to Fisheries Law Enforcement in the First Coast Guard (CG) District." (a Discovery Park award — Discovery Park Administration)

**Ebert, David S**; electrical & computer engineering, from U.S. Coast Guard, \$1,496, "Temporal/Spatial Visual Analysis of Government-Provided Historical Boston Ports and Waterways and Coastal Security: HSGC32-11-P-E04046." (a Discovery Park award — Discovery Park Administration)

**Elicker, James G**; child development & family studies, from U.S. Department of Health and Human Services, \$24,490, "Church-Sponsored Child Care: Association of Regulatory Level with Quality for Young Children."

**Engel, Bernard A**; agricultural & biological engineering, from State of Minnesota, \$3,500, "Driftwatch Maintenance-Illinois."

**Engel, Bernard A**; agricultural & biological engineering, from State of Minnesota, \$6,500, "Driftwatch Maintenance-Michigan."

**Fahmy, Sonia A**; computer science, from BBN Technologies, \$112,000, "BBN PO #9500010080 Modification 3."

**Fentiman, Audeen W**; nuclear engineering, from Argonne National Laboratory, \$64,649, "Support for Van Kleeck, Melissa."

**Fernandez-Juricic, Esteban**; biological sciences, from Department of the Army, \$74,000, "Effects of Military Training with Dogs on the Reproductive Behavior and Breeding Success of California Least Terns and Snowy Plovers."

**Ferruzzi, Mario**; food science, from Suranaree University of Technology, \$5,000, "Polyphenol Assessment of Thai Onions and Shallots."

**Ferruzzi, Mario and Kim, Kee Hong**; food science, from Mead Johnson & Company, \$53,118, "Assessment of Infant Brain Polyphenol Levels and Endogenous Antioxidant Activity."

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

**Field, William E**; agricultural & biological engineering, from Kossuth Street Baptist Church, \$750, "Breaking New Ground."

**Field, William E**; agricultural & biological engineering, from Tate & Lyle Ingredients Americas, Inc., \$750, "Farm Safety."

**Field, William E**; agricultural & biological engineering, from Cooperative State Research Service, \$554,362, "National Agrability Project."

**Fisher, Timothy and Klimeck, Gerhard**; mechanical engineering, electrical & computer engineering, from Universal Technology Corporation, \$45,000, "Multiscale Modeling for Thermal Management." (a Discovery Park award - Network for Computational Nanotechnology)

**Foster, Ricky E**; entomology, from Richard K Kesler, \$2,000, "Vegetable & Fruit Research."

**Foster, Ricky E**; entomology, from Richard K Kesler, \$1,000, "Vegetable & Fruit Research."

**Foster, Ricky E**; entomology, from Multi-Sponsored Industrials, \$6,000, "Multi-Sponsor."

**Frosch, Robert J**; civil engineering, from Precast/Prestressed Concrete Institute, \$400, "Precast/Prestressed Concrete Institute."

**Garcia, R Edwin**; materials engineering, from Wyle Laboratories, \$40,000, "Origin of Failure in High Electron Mobility Transistor (HEMT) Devices."

**Garimella, Suresh V**; mechanical engineering, from Multi-Sponsored Industrials, \$7,500, "Cooling Technologies Research Center (CTRC) 2011 Membership."

**Garimella, Suresh V**; mechanical engineering, from Office of Naval Research, \$45,000, "Microscale Void Fraction Measurement and Two-Phase Flow Regime Transition Models; Modification 3."

**Giordano, Nicholas J**; physics, from Winifred B. Bilsland Endowment, \$9,673, "Zheng, Yu."

**Giordano, Nicholas J**; physics, from Winifred B. Bilsland Endowment, \$9,673, "Clausen-Brown, Eric R."

**Gletsu-Miller, Nana A**; foods & nutrition, from International Copper Association Ltd, \$50,000, "Copper."

**Goldsbrough, Peter B; Creswell, Tom C and Ruhl, Gail E**; botany & plant pathology, from Michigan State University, \$50,000, "National Plant Pest Diagnostic Network."

**Gopalakrishnan, Badri Narayanan**; agricultural economics, from PricewaterhouseCoopers AG, \$2,103, "Advice on Modeling the Effects of Energy Market Regulations in Turkey."

**Groven, Lori J**; mechanical engineering, from Fuelstreamers Inc, \$56,349, "Fuel Streamers Group - Statement of Work."

**Hamaker, Bruce R**; food science, from Gates Foundation, \$100,000, "Assessing Moderately Malnourished Malian Young Children for Starch Digestion Problems and Identifying Better Energy Providing Foods for Growth and Recovery."

**Harrison, Tyler R**; communication, from University of Illinois at Champaign-Urbana, \$52,229, "Say Yes When Asked, Illinois: a Replication of Michigan's Campaign to Increase Organ Donation Registration Rates in Drivers Facilities; Amendment 1."

**Hartman, Nathan W**; computer graphics technology, from The Boeing Company, \$30,000, "Maintenance and Extension of the Purdue Product Lifecycle Management Certificate Program."

**Heeg, Marlene O**; pharmacy practice, from Eli Lilly and Company, \$80,530, "Exploring the Oncologists Tool-Kit in Advanced Colorectal Cancer (CRC): Patient Assessment, Therapy Selection, and Other Considerations for Optimizing Care (PPVNE07423)."

**Hertel, Thomas W**; agricultural economics, from Multi-Sponsored Industrials, \$19,650, "Global Trade Analysis Project (GTAP) Consortium - 2011."

**Hertel, Thomas W and Villoria, Nelson B**; agricultural economics, from Economic Research Service, \$100,000, "Geospatial Open Source Hosting of Agriculture, Resource and Environmental Data." (a Discovery Park award — Global Sustainability)

**Hertel, Thomas W**; agricultural economics, from Economic Research Service, \$5,000, "Global Trade Analysis Project (GTAP) Satellite Data Base."

**Hertel, Thomas W**; agricultural economics, from Multi-Sponsored Industrials, \$20,750, "Global Trade Analysis Project (GTAP) Consortium - 2011."

**Hertel, Thomas W**; agricultural economics, from University of Chicago, \$148,670, "Center for Robust Decision-Making Tools for Climate and Energy Policy Project; Amendment 1."

**Hertel, Thomas W**; agricultural economics, from Multi-Sponsored Industrials, \$19,650, "Global Trade Analysis Project (GTAP) Consortium - 2011."

**Hook, Tomas O**; forestry & natural resources, from University of Illinois, \$14,886, "Subcontract Agreement No. 2010-02247-03; Amendment 03."

**Hook, Tomas O and Bowen, Gabriel J**; forestry & natural resources, earth & atmospheric sciences, from University of Illinois, \$25,730, "Subaward No. 2010-03932-03, Amendment 01."

**Hooser, Stephen B**; animal disease diagnostic laboratory, from Cooperative State Research Service, \$31,000, "National Animal Health Laboratory Network for the Food and Agriculture Defense Initiative."

**Howe, Katherine M**; botany & plant pathology, from University of Wisconsin-Madison, \$5,000, "Great Lakes Early Detection Network; Amendment 2; NCE Grant 105140."

**Hundley, Gregory S**; management, from U.S. Department of Education, \$170,289, "Center for International Business Education and Research; Modification 2."

**Hurt, R D**; history, from Puskas Memorial Fund, \$20,435, "Ghionea, Angela, C."

**Hutcheson, John S**; Office of Engagement, from Multi-Sponsored Industrials, \$5,000, "Multi-Sponsored Account Purdue Center for Regional Development (PCRD)."

**Ileleji, Klein**; agricultural & biological engineering, from Environmental Protection Agency, \$74,074, "Development of

Community Power from Sustainable Small Hydro Power Systems - A Capacity Building Project in Bangang, Cameroon."

**Ileleji, Klein**; agricultural & biological engineering, from Foreign Agricultural Service, \$95,281, "Nigeria Commodity Storage & Handling Training Sessions."

**Ivantysynova, Monika; Lumkes, John H and Martini, Ashlie M**; agriculture — administration, agricultural & biological engineering, mechanical engineering, from University of Minnesota, \$1,550, "Engineering Research Center (ERC) for Compact and Efficient Fluid Power." (a Discovery Park award— Energy Center)

**Janle, Elsa M; Ferruzzi, Mario and Kritchevsky, Janice E**; foods & nutrition, food science, veterinary clinical science, from Mead Johnson & Company, \$309,593, "Assessment of the Bioavailability and Functionality of Brain-Targeting Polyphenol Metabolites in Piglets."

**Jiao, Dan**; electrical & computer engineering, from Office of Naval Research, \$27,803, "Rigorous and Fast Physics-Based Co-Simulation of Device-Structure-Material Interactions in Complex, Nonlinear, and Time-Variant Mixed Signal Circuits; Modification 7."

**Joern, Brad C**; agronomy, from Natural Resources Conservation Services, \$200,000, "Tactical Planning and Record Keeping Software Development."

**Joern, Brad C; Camberato, James J and Nielsen, Robert L**; agronomy, from Indiana Soybean Alliance, \$74,435, "Field Evaluation of Application Timing and Instinct Impacts on Swine Manure Nitrogen Availability to Corn."

**Johnson, William G**; botany & plant pathology, from Du Pont Crop Protection, \$24,400, "Weed Research."

**Johnson, William G**; botany & plant pathology, from Du Pont Crop Protection, \$10,000, "Weed Research."

**Johnson, William G**; botany & plant pathology, from Du Pont Crop Protection, \$28,600, "Weed Research."

**Johnson, William G**; botany & plant pathology, from Du Pont Crop Protection, \$19,000, "Weed Research."

**Kak, Avinash C**; electrical & computer engineering, from Elsevier Ltd, \$3,888, "Editorship of Our Journal, Computer Vision Graphics and Image Processing (CVGIP): Image Understand."



**Kang, Bongsu**; engineering — Fort Wayne campus, from General Motors Corp, \$81,604, “Vibration and Energy Flow Analysis of Ultrasonic Welding Processes for Robust Battery Module Manufacturing, Phase I: Modeling and Simulations.”

**Keener, Kevin M**; food science, from Griffith Laboratories, \$50, “Multi-Sponsored Gift.”

**Keener, Kevin M**; food science, from Griffith Laboratories, \$50, “Multi-Sponsored Gift.”

**Keener, Kevin M**; food science, from Griffith Laboratories, \$150, “Multi-Sponsored Gift.”

**Kirchmaier, Ann L**; biochemistry, from National Science Foundation, \$261,581, “Replication-Coupled Chromatin Assembly and Epigenetic Processes in *S. Cerevisiae*.” (a Discovery Park award — Bindley Bioscience Center)

**Klimeck, Gerhard**; electrical & computer engineering, from Wyle Laboratories, \$80,000, “Modeling Current Collapse in GaN High Electron Mobility Transistor (HEMT).” (a Discovery Park award— Network for Computational Nanotechnology)

**Knipp, Gregory T**; industrial & physical pharmacy, from Lilly (ELI) and Company, \$41,477, “Pharmacokinetic Studies on Intravenous and Oral Formulations of Glipizide and Immediate and Modified Release Formulation of Metformin in Pigs.”

**Krane, Matthew J**; materials engineering, from Purdue Doctoral Program, \$173, “Busch, Jonathan Davis.”

**Krupke, Christian H**; entomology, from University of Minnesota, \$21,033, “University of Minnesota-North Central Soybean Research Board Year 3 Funding: Soybean Aphid H002384702.”

**Krutz, Gary W**; agricultural & biological engineering, from Caterpillar Foundation, \$1,500, “Center for Advancement of Electrohydraulic Teaching and Research.”

**Kuhn, Richard J**; biological sciences, from Purdue University F N Andrews Fellowship, \$15,843, “Ronald, Kelly.”

**Latin, Richard X**; botany & plant pathology, from Syngenta Crop Protection Inc., \$5,400, “Turfgrass Disease Research.”

**Latin, Richard X**; botany & plant pathology, from Syngenta Crop Protection Inc., \$3,500, “Turfgrass Disease Research.”

**Lechtenberg, Victor L; Koverman, Donald F; Dark, Melissa J; Davis, Susan B; Hutcheson, John S; Kumar, Indraneel; McKinnis, David R; Nolan, Christine E and Vibbert, Candiss B**; Office of Engagement, technology — administration, agriculture — administration, technology assistance program, from Economic Development Administration, \$188,373, “Purdue Innovation Network: Linking Resources to Leverage Innovation.”

**Liceaga, Andrea M**; food science, from Multi-Sponsored Industrials, \$250, “Multi-Sponsored Gift Funds.”

**Liu, Shuang**; health sciences, from Avid Radiopharmaceuticals, \$2,000, “Brain Imaging Research.”

**Liu, Shuang**; health sciences, from Abbott Laboratories, \$70,000, “Monitoring Antiangiogenic Therapy Using Integrin  $\alpha v \beta 3$ -Targeted SPECT Radiotracer  $^{99m}\text{Tc}$ -3P-RGD2.”

**Lopez, Roberto G**; horticulture & landscape architecture, from Multi-Sponsored Industrials, \$8,000, “Multi-Sponsored Gift Account.”

**Lowenberg-Deboer, James M; McNamara, Kevin T and Murdock, Larry L**; International Programs in Agriculture, agricultural economics, entomology, from Agency for International Development, \$88,400, “Developing a Supply Chain for Hermetic Storage of Grain in Afghanistan.”

**Lucht, Robert P**; mechanical engineering, from GE Aviation, \$70,000, “High Pressure TAPS Flame Visualization.”

**Lucht, Robert P and Anderson, William E**; mechanical engineering, aeronautical & astronautical engineering, from National Energy Technology Laboratory, \$468,995, “Structure and Dynamics of Fuel Jets Injected into a High-Temperature Subsonic Crossflow: High-Data-Rate Laser Diagnostic Investigation.”

**Lynch, Gerald J**; management, from Accenture LLP, \$25,000, “Accenture LLP: Entrepreneurship Bootcamp for Veterans with Disabilities.”

**Lyrantzis, Anastasios S and Blaisdell, Gregory A**; aeronautical & astronautical engineering, from Combustion Research and Flow Technology, Inc. (CRAFT Tech), \$37,576, “Large Eddy Simulations of Hot Supersonic Jets for Aeroacoustics; Modification 1.”

**Maier, Dirk E**; agricultural & biological engineering, from Purdue University F N Andrews Fellowship, \$9,843, “McClurkin, Janie, D.”

**Mathur, Aditya P**; computer science, from Purdue University F N Andrews Fellowship, \$20,935, “Pfeiffer, Joseph.”

**Matter, Kathryn C; Shoults, Kent A and Trout, Marion T**; university bands, business office - academic services, from Tippecanoe Arts Federation, \$2,991, “Purdue Jazz Festival Artist in Residence/Indiana Arts Commission Grant (Application 12008).”

**McCullough, Bobby G**; construction engineering & management, from Indiana Department of Transportation, \$80,087, “Total Liquid Routes and Anti-Icing Liquids.”

**McCullough, Bobby G**; construction engineering & management, from Indiana Department of Transportation, \$10,000, “Performance Evaluation of Deployed Cathodic Protection SPR-3512.”

**McCullough, Bobby G**; construction engineering & management, from Indiana Department of Transportation, \$7,161, “Information Technology Initiatives of the Joint Transportation Research Program (JTRP).”

**McDaniel, Rebecca S**; civil engineering, from Gannett Fleming Inc, \$5,197, “Analysis of Texture and Friction of Asphalt Mixtures on I-80 in Pennsylvania.”

**McGlothlin, James D**; health sciences, from Multi-Sponsored Industrials, \$10,000, “Ergonomics.”

**McKinnis, David R**; technology assistance program, from Economic Development Administration, \$0, “Cost Share Support of Council on Competitiveness EDA.”

**McNamara, Kevin T and Lowenberg-Deboer, James M**; agricultural economics, international programs in agriculture, from Institute of International Education, \$127,309, “Afghan Junior Faculty Development Program.”

**McNamara, Kevin T and Lowenberg-Deboer, James M**; agricultural economics, international programs in agriculture, from Foreign Agricultural Service, \$3,099,861, “Mail Agricultural Data Collection and Utilization System Project.”

**Meilan, Richard**; forestry & natural resources, from Futuragene, Inc., \$65,000, “Futuragene Transformation Optimization.”

**Melosh, Henry J**; earth & atmospheric sciences, from Southwest Research Institute, \$2,114, “Southwest Research Institute; Modification 5.”

**Mengiste, Tesfaye D;** botany & plant pathology, from Binational Agricultural Research & Development, \$107,000, "Mechanisms Activated by Fungal-Based Host pH Modulators Quiescent Infections and Active Post-harvest Disease Development."

**Mesecar, Andrew D;** biological sciences, from University of Illinois at Chicago, \$96,877, "Design and Study of New Nicotinic Analogs for Use in Depression."

**Mickelbart, Michael V;** horticulture & landscape architecture, from Bayer Crop-science LP, \$3,500, "Landscape Architecture Research."

**Morgan, Mark T and Paxson, Benjamin N;** food science, from Invensys, \$1,800, "European Hygienic Engineering & Design Group (EHEDG) Evaluation of a 2 871FT Conductivity Flow-through Sensor for Invensys Operations Management."

**Morgan, Mark T and Paxson, Benjamin N;** food science, from ITT Corporation, \$6,700, "European Hygienic Engineering & Design Group (EHEDG) Phase II Cleanability Assessment of a 1 Pure-Flo Diaphragm Valve (316 L Forging - Polytetrafluoroethylene (PTFE) Diaphragm) for ITT Corporation."

**Morgan, Mark T and Paxson, Benjamin N;** food science, from Q-Pumps S.A. de C.V., \$4,500, "European Hygienic Engineering & Design Group (EHEDG) Phase II Cleanability Assessment of a Sanitary Centrifugal Pump for Q Pumps S.A. de C.V."

**Murray, Michael D;** pharmacy practice, from Regenstrief Institute Inc, \$54,118, "Observational Medical Outcomes Partnership (OMOP) 2011 Research Collaborations."

**Neary, Michael and Tower, Jason E;** animal sciences, Southern Indiana-Purdue Agricultural Center, from Midwest Veterinary Services, Inc., \$8,500, "Dose Confirmation of Monepantel (Formulation A-20072 B) for the Control of the Immature (L4) Stage of Gastro-Intestinal Nematodes in Caprine (Goat)."

**Neumeister, Norbert and Bortoletto, Daniela;** physics, from University of California, \$171,580, "University of California Los Angeles (UCLA) Subaward No. 1000 G HD870, Amendment 10."

**Nielsen, Robert L;** Pinney-Purdue Agricultural Center, from Mary S. Rice Farm Estate, \$1, "Precision Agriculture Technologies for the PACs."

**Niyogi, Devdutta S and Carroll, Natalie J;** agronomy, agricultural & biological engineering, from University of California - Berkeley, \$96,749, "Communicating Ocean Sciences Informal Education Network: Scientists and Educators Working Together to Promote Ocean Literacy; Amendment 2." (a Discovery Park award — Discovery Learning Center)

**Oakes, William C;** engineering education, from Multi-Sponsored Industrials, \$5,650, "Engineering Projects in Community Service (EPICS)."

**Ouyang, Zheng;** biomedical engineering, from Thermo Fisher Scientific, \$50,000, "Thermo Fisher Voluntary Support Account."

**Park, Johnny and Kak, Avinash C;** electrical & computer engineering, from Carnegie-Mellon University, \$120,321, "Comprehensive Automation for Specialty Crops."

**Parker, Laurie L;** medicinal chemistry & molecular pharmacology, from PHS-NIH National Cancer Institute, \$165,931, "Bio-sensor Technology to Monitor Leukemia-Related Kinase Activity in Patient Cells."

**Peroulis, Dimitrios;** electrical & computer engineering, from Flowserve Corp, \$10,000, "Flowserve." (a Discovery Park award — Birk Nanotechnology Center)

**Peroulis, Dimitrios;** electrical & computer engineering, from Red River Microdevices, \$30,000, "Tunable Power Amplifiers." (a Discovery Park award — Birk Nanotechnology Center)

**Peterson, Jean P;** educational studies, from National Board for Certified Counselors Inc, \$5,000, "NBCC Professional Identity Award."

**Povolotskyi, Mykhailo;** electrical & computer engineering, from University of California - Santa Barbara, \$96,776, "NEB: Superlattice-FETs, Gamma-L-FETs, and Tunnel-FETs: Materials, Devices and Circuits for Fast Ultra-Lower-Power Integrated Circuits (ICs)." (a Discovery Park award — Network for Computational Nanotechnology)

**Preston, Gregory;** agricultural statistics, from National Agricultural Statistics Service, \$28,000, "Collection, Analysis, & Publication of Primary Crop & Livestock Data."

**Prokopy, Linda S; Gramig, Benjamin M; Niyogi, Devdutta S; Song, Xiaohui C and Doering, Otto C;** forestry & natural resources, agricultural economics, agronomy, Rosen Center for Advanced Computing, from National Institute of Food & Agriculture, \$1,000,000, "Useful to Usable (U2U): Transforming Climate Variability and Change Information for Cereal Crop Producers."

**Radcliffe, John S and Richert, Brian T;** animal sciences, from University of Arkansas, \$89,176, "Integrated Resource Management Tool to Mitigate the Carbon Footprint of Swine Produced in the U.S."

**Rafferty, M D;** chemistry, from Indiana University, \$43,554, "Role of Hypoxia Induced (MicroRNA) miR-210 in Tumor Metabolism."

**Raskin, Rose E;** comparative pathobiology, from Antech Diagnostics, \$1,325, "Immuno-chemical Expression of CD3 in Veterinary Hemolymphatic Cytologic Specimens."

**Ratliff, Timothy L;** cancer research center, from Moerae Matrix, Inc, \$23,250, "Ratliff Prostate Inflammation Research."

**Ratliff, Timothy L;** cancer research center, from Indiana State Department of Health, \$45,000, "Affecting Cancer Together."

**Ratliff, Timothy L;** comparative pathobiology, from Indiana Elks Charities Inc., \$115,000, "Indiana Elks Charities Inc."

**Rebar, Alan H;** Vice President for Research, from US Russia Foundation, \$94,836, "The Yegor Gaidar Annual Leadership Program." (a Discovery Park award — Discovery Park Administration)

**Richardson, James E;** earth & atmospheric sciences, from University of California - Santa Cruz, \$32,628, "Geophysical Properties of Near-Earth Asteroids: Surface and Structure."

**Richmond, Douglas S;** entomology, from Multi-Sponsored Industrials, \$10,000, "Multi-Sponsored."

**Richmond, Douglas S;** entomology, from Bayer Cropscience LP, \$1,500, "Turfgrass Entomology Research."

**Ricker-Gilbert, Jacob E;** agricultural economics, from Michigan State University, \$144,269, "Impact of Increasing Population Density on African Farming Systems."

**Rockman, Bert;** political science, from Ludwig Kruhe Graduate Scholarship, \$17,173, "Cleven, Erik, T."

**Sadeghi, Farshid;** mechanical engineering, from Tecumseh Compressor Group, \$80,000, "Tribology Lab Research."

**Sadof, Clifford S;** entomology, from Michigan State University, \$10,000, "Interregional Research Project #4 Minor Crop Pest Management Program."



**Salt, David E and Ouzzani, Mourad;** agriculture — administration, horticulture & landscape architecture, from National Science Foundation, \$1,454,950, “Ionome to Genome: Mapping the Gene Networks Controlling Nutrient Content in Rice Grain.” (a Discovery Park award — Bindley Bioscience Center)

**Schoenlein, William E and Van Alstine, William G;** biomedical engineering, comparative pathobiology, from Medical Engineering & Development Institute Inc., \$90,855, “Intravascular Device Testing: Studies CI-UHPE, CI-HCSA, CI-NMDX Addendum to Grant 203133.”

**Schoenlein, William E and Van Alstine, William G;** biomedical engineering, comparative pathobiology, from Medical Engineering & Development Institute Inc., \$66,419, “Enteric Device Testing: Study CE-HESP Addendum to Grant # 22362.”

**Schoenlein, William E;** biomedical engineering, from Med Institute, Inc., \$16,208, “Osteogenic Repair of Calvarial Defects Study:MFN-CLI (Continuation of Grant 204411).”

**Scotfield, Steven R;** agronomy, from Agricultural Research Service, \$1,650, “Acquisition of Goods and Services.”

**Scott, David E;** Indiana State Chemist, from Environmental Protection Agency, \$216,455, “2012 EPA Cooperative Agreement.”

**Shen, Jie;** mathematics, from Air Force Office of Scientific Research, \$73,943, “Sparse Spectral Methods and Applications to Kinetic Equations.”

**Shi, Riye;** basic medical science, from Winifred B. Bilsland Endowment, \$6,449, “Ambaw, Abeje.”

**Shin, Yung C;** mechanical engineering, from Naval Sea Systems Command Naval Surface Warfare Center (NAVSEA/NSWC) Crane, \$20,000, “Multi-Scale Modeling of High Energy, Ultrashort Laser-Material Interaction.” (a Discovery Park award — Institute for Defense Initiatives)

**Shin, Yung C;** mechanical engineering, from The Boeing Company, \$33,300, “Laser Assisted Hybrid Milling of Titanium Alloy.”

**Sivasankar, Mahalakshmi;** speech, language, and hearing sciences, from McGill University, \$60,863, “Design, Construction, and Evaluation of Biomaterials for Vocal Fold Reconstruction; Amendment 3.”

**Sloan, Mary Anne;** technology assistance program, from Multi-Sponsored Industrials, \$2,500, “Multi-Sponsor HTAP.”

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

**Smith, Richard S;** food science, from Hinsdale Farms Ltd, \$2,000, “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, \$4,000, “Sensory Evaluation Research.”

**Smith, Richard S;** food science, from Hinsdale Farms Ltd, \$2,000, “Sensory Evaluation Research.”

**Smith, Richard S;** food science, from Alcoa Inc, \$600, “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, \$2,000, “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, \$1,100, “Sensory Evaluation Research.”

**Smith, Richard S;** food science, from Alcoa Inc, \$1,500, “Food Science Research.”

**Smith, Richard S;** food science, from Hinsdale Farms Ltd, \$2,000, “Sensory Evaluation Research.”

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

**Snyder, Lori J;** agronomy, from Mary S. Rice Farm Estate, \$35, “Evaluation of Animal Performance and Pasture & Soil Quality When Co-Grazing Dairy Heifers and Goats.”

**Son, Steven F;** mechanical engineering, from National Aeronautics and Space Administration, \$65,400, “Development of High Performance Hybrid Fuels.”

**Song, Xiaohui C;** Rosen Center for Advanced Computing, from University of Illinois at Champaign-Urbana, \$253,000, “XSEDE: eXtreme Science and Engineering Discovery Environment.”

**Sorge, Brandon; Staver, John R and Walker, William S;** office of engagement, curriculum & instruction, from Indiana Department of Education, \$1,898,984, “Literacy Enriched Science through Guided Inquiry - Elevating Thinking and Knowledge.”

**Spafford, Eugene H;** computer science, from Lockheed Martin Corp., \$17,000, “Lockheed Martin Assistantships.”

**Spafford, Eugene H;** computer science, from Soonchunhyang University, \$55,312, “Korean Voluntary Support.”

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

**Straw, Mark L;** animal sciences, from Agricultural Marketing Service, \$1,431, “State Shell Egg Surveillance FY 11.”

**Talavage, Thomas M and Leverenz, Larry J;** electrical & computer engineering, health & kinesiology, from Indiana State Department of Health, \$119,586, “Predictive Modeling of Cognitive Impairment from Head Trauma in High School Athletes.”

**Taleyarkhan, Rusi P;** nuclear engineering, from Larry or Mary Selander, \$5,000, “Taleyarkhan Research.”

**Tarko, Andrew P;** civil engineering, from Indiana Criminal Justice Institute, \$115,000, “Proposal to Assist Indiana Criminal Justice Institute in the Identification of Indianas Traffic Safety Problems - Safety Belt Survey/Indiana Codes FY 2011-12.”

**Taylor, Lynne S;** industrial & physical pharmacy, from Kyowa Kakko Kirin Co Ltd, \$10,000, “Takafumi Sato Voluntary Support Lynne Taylor.”

**Thomas, Joseph;** pharmacy practice, from Pfizer Inc, \$84,920, “Health Outcomes Research.”

**Thomas, Volker K;** child development & family studies, from Lafayette Community Development Department, \$1,200, “Weed & Seed Downtown Lafayette Community with Shelter Plus Care 2010 - 2011.”

**Thompson, David H;** chemistry, from Ara Parseghian Medical Research Foundation, \$45,000, “Development of Multivalent B-Cyclodextrin Polymer Constructs as Potential Delivery Vehicles for Niemann-Pick Type C Therapy.”

**Thompson, David H;** chemistry, from Pandion Laboratories LLC, \$60,000, “Development of an Affinity Grid Fabrication Process to Accelerate Cryoelectron Tomography Analysis.”

**Thompson, Leslie E;** biological sciences — Calumet campus, from University of Illinois, \$11,185, “Healthy Landscapes, Healthy Lakes.”

**Tricoche, Xavier M;** computer science, from Intel Corporation, \$50,000, “Voluntary Support - Intel.”

**Tyner, Wallace E;** agricultural economics, from California Air Resources Board (CARB), \$300,000, “Global Trade Analysis Project (GTAP) Model Refinement and Indirect Land Use Change (ILUC) Calculations.”

**Tyner, Wallace E;** agricultural economics, from Office of the Chief Economist, \$50,000, “Economic Analysis of Alternative Biofuels Policy: Coop Agr #58-0111-8-002.”

**Vacca, Andrea;** agricultural & biological engineering, from Multi-Sponsored Industrials, \$5,000, “Multi-Sponsored Gift.”

**Varma, Arvind;** chemical engineering, from Fred L Hartley Family Foundation, \$123,000, “Oxidative Coupling of Methane Using Novel Catalytic Materials.”

**Waltz, Robert D and Engel, Bernard A;** Indiana State Chemist, agricultural & biological engineering, from Environmental Protection Agency, \$197,676, “Empowering Water Quality Programs with Data Flows and Web-Based Decision Support Tools.”

**Waltz, Robert D;** Indiana State Chemist, from PHS-Food and Drug Administration, \$18,944, “FY 2011 FDA Feed Mill and BSE Inspection.”

**Wasynczuk, Oleg;** electrical & computer engineering, from Sandia National Laboratories, \$4,697, “Enabling, Scalable Microgrids with High Penetration Renewables.”

**Weaver, Connie M;** foods & nutrition, from Purdue University F N Andrews Fellowship, \$16,988, “Tucker-Falconer, Robin.”

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

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

**Wei, Alexander;** cancer research center, from Eli Lilly and Company, \$5,000, “Funding Request for Drug Delivery and Molecular Sensing.”

**Wereley, Steven T;** mechanical engineering, from University of California-Irvine, \$3,500, “Micro/Nano Fluidics Fundamentals Focus (MF3) Matching Funds Proposal.” (a Discovery Park award — Birck Nanotechnology Center)

**Whitford, Fred;** botany & plant pathology, from Professional Landcare Network Inc, \$1,200, “Purdue Pesticide Programs.”

**Whitford, Fred;** botany & plant pathology, from National Institute of Food & Agriculture, \$10,000, “Indiana Pesticide Applicator Certification Training.”

**Whitford, Fred;** botany & plant pathology, from Professional Landcare Network Inc, \$1,000, “Purdue Pesticide Programs.”

**Whiting, Nancy M;** civil engineering, from Indiana Department of Transportation, \$18,484, “Quantification of Benefits of Sub-surface Drainage.”

**Wilker, Jonathan J;** chemistry, from Office of Naval Research, \$5,770, “Mechanism-Based Antifouling: Characterizing Bioadhesives and Inhibiting Adhesion; Modification 6.”

**Wise, Kiersten A;** botany & plant pathology, from E.I. Du Pont de Nemours and Company, \$3,750, “Voluntary Support Account.”

**Wise, Kiersten A;** botany & plant pathology, from E.I. Du Pont de Nemours and Company, \$15,400, “Voluntary Support Account.”

**Wise, Kiersten A;** botany & plant pathology, from E.I. Du Pont de Nemours and Company, \$3,500, “Voluntary Support Account.”

**Xiu, Dongbin;** mathematics, from Air Force Office of Scientific Research, \$81,086, “Reliability-Based Design Optimization Algorithms for Reliable Complex Systems.”

**Xu, Dongyan;** computer science, from Telcordia Technologies, \$20,000, “Grant 105356; Amendment 1.”

**Xu, Xianfan;** mechanical engineering, from Inform Storage Industry Consortium, \$11,667, “Voluntary Support.”

**Ye, Peide;** electrical & computer engineering, from International Business Machines Corp., \$30,000, “2011-12 IBM Fellowship for Adam Neal.”

**Yuan, Chongli;** chemical engineering, from Purdue University, \$8,000, “Assembly of Structured Nanoparticle Clusters Using a Nucleosome Array Template.”

**Zahraee, Mohammad A;** engineering technology — Calumet campus, from Sinclair Community College, \$28,500, “The High-school Science, Technology, Engineering & Mathematics (STEM) Teacher Synergistic Institute.” ■

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