Dimensions of Discovery

Sponsored Program Awards

April 2011

Abbott, Angela R; consumer & family sciences, from United Way of Greater Lafayette & Tippecanoe County, Indiana, Inc, $1,000, “Poverty Simulation Voluntary Support.”

Adams, Douglas E; mechanical engineering, from CACI International Inc, $63,200, “Electro Optics Bridge 2: S10-111933 Under Grant 104371; Modification 4.”

Adeola, Olayiwola; animal sciences, from Danisco Animal Nutrition, $64,000, “Danisco.”

Agrawal, Rakesh; Gore, Jay P; Delgass, W N; Licht; Robert P; Qiao, Li and Ribeiro, Fabio H; chemical engineering, mechanical engineering, aeronautical & astronautical engineering, from Air Force Office of Scientific Research, $738, “Experimental Studies of Coal and Biomass Fuel Synthesis and Flame Characterization for Aircraft Engines (Year 3).” (a Discovery Park award — Energy Center)

Ajouwon, Kolapo; animal sciences, from Danisco Animal Nutrition, $8,000, “Research Gift Funds.”

Appenzeller, Joerg; Chen, Zhihong; Datta, Supriyo; Roy, Kaushik and Ye, Peide; electrical & computer engineering, from Suny at Albany, $450,000, “Index Phase 1.5.” (a Discovery Park award — Birck Nanotechnology Center)

Applegate, Todd J; animal sciences, from Elanco Animal Health, $48,961, “Evaluation of the Use of Coban (Monensin, USP) for the Prevention of Coccidiosis Administered at 54g/ton to Finishing Tom Turkeys in Three Different Growth Periods, 10-13, 10-16, and 10-19 Weeks.”

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

Bennett, Robert W and Hudmon, Karen S; pharmacy practice, from Physicians Institute for Excellence in Medicine, $19,121, “CS2day Part 2: Motivational Interviewing (MI).”

Bertino, Elisa; computer science, from University of Texas at Dallas, $50,000, “Secure Sensor Semantic Web and Information Fusion Applications; Amendment 2.”

Bouck, Emily C; educational studies, from Purdue Research Foundation: XR Grant, $16,375, “The Virtual History Museum: An Assistive Technology Tool to Engage Student Learning.”

Bowen, Brenda B; earth & atmospheric sciences, from Indiana University, $57,047, “Depositional and Diagenetic Heterogeneities of the Mt. Simon Sandstone and Eau Claire Formation; Amendment 4.”

Brophy, Sean; engineering education, from National Science Foundation, $99,775, “REU Site: Network for Earthquake Engineering Simulation - Reducing Seismic Vulnerability; Amendment 1.” (a Discovery Park award — Cyber Center)

Brophy, Sean; engineering education, from National Science Foundation, $12,600, “REU Site: Network for Earthquake Engineering Simulation — Reducing Seismic Vulnerability REU.” (a Discovery Park award — Cyber Center)

Cambrato, James J; agronomy, from Wolf Trax Inc, $300, “Crop Response to Micronutrient Fertilizers.”

Camera, Gabriele; economics, from National Science Foundation, $230,889, “Institutions for Cooperation in Large Economies of Strangers.”

Chang, Fen-Lei; medical education - Fort Wayne campus, from Indiana University, $59,060, “FY 2010-2011 IUSM Fort Wayne Student Technology Fund.”

Chang, Fen-Lei; medical education - Fort Wayne campus, from Indiana University, $8,925, “FY 2010-2011 IUSM Fort Wayne Student Activity Fund.”

Chang, Fen-Lei; medical education - Fort Wayne campus, from Indiana University, $26,060, “FY 2010-2011 IUSM Fort Wayne Student Technology Fund.”


Chappell, William J; electrical & computer engineering, from Multi-Sponsored Industries, $80,000, “Center for Electronic Defense Systems.”

Chen, Yong P; physics, from Charles F Day & Association LLC, $8,159, “Support for Graphene Based Solar Cells.”

Cherkauer, Keith A; Chaubey, Indrajit and Troy, Cary D; agricultural & biological engineering, civil engineering, from University of Illinois, $50,000, “Monitoring Episodic River Inflow Plumes Using In-Situ and Remote Sensing Data.” (a Discovery Park award — Center for the Environment)

Childress, Michael O; Knapp, Deborah W; Dhawan, Deepika; Low, Philip S; Miller, Margaret A; Naughton, James F; Ramos-Vara, Jose A and Rohleder, Jacob J; veterinary clinical science, chemistry, animal disease diagnostic laboratory, from AKC Canine Health Foundation, Inc., $12,474, “Pilot Study to Assess Folate Receptor Expression in Canine High-Grade Multicentric Lymphoma.”

Clark, Jason V and Ariyur, Kartik B; electrical & computer engineering, mechanical engineering, from Thornberry Technologies, LLC, $52,772, “Self Calibrating Inertial Measurement Unit (IMU).”

Clupper, Stacy A; field extension educators, from Blackford County Community Foundation, Inc., $8,159, “K-IDs BMV Safety Identification Card Program.”

Colby, David A; Rochet, Jean-Christophe; Ferruzzi, Mario and Janle, Elsa M; medicinal chemistry & molecular pharmacology, food science, foods & nutrition, from PHS-NIH National Institute on Aging, $147,980, “Anthocyanins and Structural Derivatives for Drug Discovery in Age-Related Neurodegenerative Disorders.”

Conners, Susan E and Furdek, Jonathan M; management - Calumet campus, finance & economics - Calumet campus, from IN State Budget Agency, $35,000, “Equine Survey Phase II.”
Conners, Susan E; Couetil, Laurent L; Furdek, Jonathan M and Preston, Gregory; marketing, human resources & management - Calumet campus, veterinary clinical science, finance & economics - Calumet campus, agricultural statistics, from Multi-Sponsored Industrials, $750, “Equine Survey Project.”

Connor, Robert J; civil engineering, from Indiana Department of Transportation, $75,000, “Design and Fabrication Standards to Eliminate Fracture Critical Concerns in Two Girder Bridge Systems.”

Constable, Peter D; veterinary clinical science, from Circle City Veterinary Speciality Emergency Hospital LLC, $3,000, “Small Animal Medicine Residency Support.”

Constable, Peter D; veterinary clinical science, from Magrane Pet Medical Center, $8,922, “Support for Ophthalmology Residency.”

Cook, Robert G and Ouyang, Zheng; chemistry, biomedical engineering, from National Science Foundation, $27,500, “Collaborative Research: IBDR: Development of a BioFluid Transport, Separation and Molecular Analysis System Using Microfluidics; Amendment 2.” (a Discovery Park award — Bindley Bioscience Center)

Cordes, Samuel M; College of Agriculture - Administration, from Indiana Economic Development Corporation, $156,512, “Southeastern Small Business Development Center CY 2011 (State).”

Cordes, Samuel M; College of Agriculture - Administration, from Indiana Economic Development Corporation, $14,862, “Southeastern Small Business Development Center CY 2011 (Federal).”


Csonka, Leslie N; biological sciences, from National Science Foundation, $6,000, “REU Supplement - EAGER: Analysis of the Role of Mg2+ in Bacterial Heat Tolerance.”

Cushman, John H; earth & atmospheric sciences, from National Science Foundation, $119,337, “Modeling the Hydrology of Desiccation and Cracking of Shrinking Porous Media; Amendment 3.”

Dadarlat, Marius D; mathematics, from National Science Foundation, $101,853, “Operator Algebras and Topological Invariants.”

Davis, Susan B; Office of Engagement, from Indiana Economic Development Corporation, $14,874, “Hoosier Heartland Small Business Development Center CY 2011 (State).”

Davis, Susan B; Office of Engagement, from Indiana Economic Development Corporation, $156,635, “Hoosier Heartland Small Business Development Center CY 2011 (Federal).”

Deng, Xinyan; mechanical engineering, from National Science Foundation, $273,972, “Aero-dynamic Damping and Dynamic Stability of Flapping Flight.”

Duchateau, Martine; management - Calumet campus, from IN Economic Development Corporation, $20,235, “Northwest Indiana Small Business Development Center 2011(State).”

Duchateau, Martine; management - Calumet campus, from IN Economic Development Corporation, $213,090, “Northwest Indiana Small Business Development Center 2011 (Federal).”

Duchateau, Martine; management - Calumet campus, from Multi-Sponsored Industrials, $10,000, “Northwest Indiana Small Business Development Center 2011- IUN Cash Match Support.”

Duchateau, Martine; management - Calumet campus, from Multi-Sponsored Industrials, $15,000, “Northwest Indiana Small Business Development Center 2011- IUN Cash Match Support.”


Ehner, Paul D; animal sciences, from Agricultural Research Service, $18,850, “Immunological and Bacteriological Changes in Calves from Heat-Stressed Dams.”

Eisenhauer, Mary Jane; Vice Chancellor of Academic Affairs - North Central campus, from Indiana Campus Compact, $950, “The Born Learning Trail: Path to Partnerships.”

Elbert, Mary Lou; field extension educators, from National Endowment for Financial Education, $409, “High School Teacher Training.”

Evans, David A; consumer science & retail, from Consumer Federation of America, $750, “Indiana Saves Campaign Grant.”

Fahmy, Sonia A and Bertino, Elisa; computer science, cerasis, from National Science Foundation, $119,122, “NeTS: Medium: Collaborative Research: A Comprehensive Approach for Data Quality and Provenance in Sensor Networks; Amendment 1.”


Ferris, Virginia R and Faghihi, Jamal; entomology, from Pioneer Hi-Bred International, Inc., $7,500, “Perform Soybean Syst Nematode Screening on 101 Coded Soybean Samples (Pioneer Proprietary Property).”

Ferroli, Christina E; field extension educators, from Indianapolis Foundation, $2,000, “Summer Youth Program Marion County 2011.”

Field, William E; agricultural & biological engineering, from Kossuth Street Baptist Church, $75, “Breaking New Ground.”

Forbes, Beth A; agricultural communication, from Ohio State University, $28,563, “Cooperative Venture to Develop a Joint Electronic News Service.”

Frankenberger, Jane R; agricultural & biological engineering, from University of Wisconsin, $11,000, “Watershed Planning and Management in the Great Lakes Region (USEPA Region ).”

French, Richard M; mechanical engineering technology, from Eco-Green Cremation System Inc, $2,801, “Finite Element Analysis of Pressure Vessel.”

Frosch, Robert J and Kreger, Michael E; civil engineering, from Indiana Department of Transportation, $100,078, “Implementation of Performance Based Bridge Deck Protective Systems.”

Furnish, Virginia E; field extension educators, from United Fund of Switzerland County, $2,000, “Educational Programs in Switzerland County.”

Furnish, Virginia E; field extension educators, from Switzerland County Awareness Team, $500, “Project Lead.”

Garinella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, $30,000, “CTRC Consortium.”

Garinella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, $7,500, “CTRC Consortium.”

Garinella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, $30,000, “CTRC Consortium.”

Garinella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, $7,500, “CTRC Consortium.”

Garinella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, $30,000, “CTRC Consortium.”

Garinella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, $7,500, “CTRC Consortium.”

Garinella, Suresh V; mechanical engineering, from Multi-Sponsored Industrials, $30,000, “CTRC Consortium.”

Garinella, Suresh V; mechanical engineering, from Office of Naval Research, $113,826, “Microscale Void Fraction Measurement and Two-Phase Flow Regime Transition Models; Modification 2.”

Ghosh, Arun K; medicinal chemistry & molecular pharmacology, from Indiana Medical Center, $225,916, “Inhibition and Mechanism of Flavivirus Methyltransferase.”
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Purdue University Sponsored Program Awards — April 2011

Ghosh, Arun K; chemistry, from Multi-Sponsored Industrials, $500, “Multi-Sponsored — A. Ghosh.”

Gibson, Kevin D and Emery, Nancy C; botany & plant pathology, biological sciences, from lac Courte Oreilles Ojibwe Community College, $33,632, “Minikaan: Participatory Research on a Food and Medicinal Plant on the Lac Courte Oreilles Reservation.”

Gilbert, Hersh J and Nowack, Robert L; earth & atmospheric sciences, from Incorporated Research Institutions for Seismology, $32,397, “Technology Assistance with Implementation and Operation of Transportable Array Element of USArray and Earthscope.”

Ginther, April J; English, from Educational Testing Service, $124,704, “A Comparative Investigation into Understandings and Uses of TOEFL iBT & IELTS (Academic) in the US and Australia: A Case Study of Two University Contexts.”

Goffman, Lisa A; Zelazniki, Howard N and Smith, Anne; speech, language & hearing science, health & kinesiology, from PHS-NIH National Institute on Deafness and Other Communication Disorders, $30,302, “Language-Motor Relations in Childrens Speech Production.”


Grant, Richard H; agronomy, from Colorado State University, $2,500, “Climatological Monitoring of Ultraviolet Radiation.”

Haase, Jennifer S; earth & atmospheric sciences, from National Science Foundation, $186,898, “Climate Feedbacks in the Antarctic from Stratospheric Balloon GPS Radio Occultation Soundings.”

Haddock, John E; civil engineering, from Indiana Department of Transportation, $1,266,796, “Indiana Local Technical Assistance Program (INLTAP).”

Haddock, John E and Seidel, Joseph C; civil engineering, from Indiana Soybean Alliance, $40,913, “Paving Binder Performance-Enhancing Additives.”

Han, Bumsoo; mechanical engineering, from PHS-NIH National Institute of Biomedical Imaging and Bioengineering, $267,191, “Cryo-preservation of Functional Engineered Tissues.”

Harrison, Tyler R; communication, from University of Illinois at Champaign-Urbana, $50,026, “Say Yes When Asked, Illinois: A Replication of Michigan’s Campaign to Increase Organ Donation Registration Rates in Drivers Facilities.”


Heister, Stephen D; Anderson, William E; Sojka, Paul E; Campanella, Osvaldo H; Corvanal, Carlos M; Lucht, Robert P; Merkle, Charles L and Son, Steven F; aeronautical & astronautical engineering, mechanical engineering, agricultural & biological engineering, food science, from Army Research Office, $520,833, “Spray & Combustion of Gelled Hypergolic Propellants; Amendment 6.” (a Discovery Park award — Energy Center)

Hertel, Thomas W; agricultural economics, from Multi-Sponsored Industrials, $19,650, “Global Trade Analysis Project (GTAP) Consortium Membership 06/01-11/05/31/12.”

Hertel, Thomas W; agricultural economics, from Stanford University, $106,459, “Research in Integrated Assessment Inter-Model Development, Testing, and Diagnostics.”

Hibel, Leah C and Posada, German E; child development & family studies, from PHS-NIH National Institute of Child Health and Human Development, $182,156, “Inter-Parental Conflict, Maternal Behavior, and Mother-Child Physiology.”

Hibiki, Takashi and Ishii, Mamoru; nuclear engineering, from Mitsubishi Heavy Industries Ltd, $90,000, “Database Development on Gas-Liquid Two-Phase Flow Though Packed Bed.”

Hildebrandt, Carolyn S; field extension educators, from Pulaski Alliance for Community Education, $6,000, “Pulaski County Learning Network Project-2011.”

Hong, Wei; foreign language & literature, from Chinese Language Council International, $50,000, “Confucius Institute at Purdue (2011 Funding).”

Hoolenbeck, Peter J; biological sciences, from PHS-NIH National Institute Neurological Disorders and Stroke, $293,496, “Control of Neural Organelle Transport.”

Huang, Xisheng; mechanical engineering, from Indiana University, $105,000, “Katherine Howe Gift Fund.”

Huang, Yiping; psychology, from Indiana University, $20,000, “Low-Power Laser Initiative — 2011.”

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

Howe, Katherine M; botany & plant pathology, from U.S. Forest Service, $20,000, “Midwest Invasive Plant Network Cooperative Cost Share with the U.S. Forest Service.”

Hu, Y Charlie; electrical & computer engineering, from National Science Foundation, $277,411, “NetSE: Medium: Collaborative Research: Auditing Internet Content for Credibility, Fairness, and Privacy.”

Huber, Jessica E; speech lang hear science, from PHS-NIH National Institute on Deafness and Other Communication Disorders, $330,500, “Use of External Cueing to Treat Hypophonia in Parkinsons Disease.”

Hunt, Greg J; entomology, from University of Georgia, $65,336, “Sustainable Solutions to Problems Affecting Health of Managed Bees.”

Irudayaraj, Joseph M; College of Agriculture - Administration, from Covidien, $90,000, “Single Molecule Assessment of Ligand Targeting and Localization.” (a Discovery Park award — bindley bioscience Center)

Jacobs, Douglass F; forestry & natural resources, from Multi-Sponsored Industrials, $274,500, “Controlled-Release Fertilization to Improve Fertilizer Use Efficiency and Optimize Growth of Tree Seedlings on Reclaimed Oil Sands.”

Jenkins, Jere H; Handy, Mary J and Schweitzer, James F; nuclear engineering, radiological & environmental management, from Battelle Pacific Northwest Labs, $371,300, “Voluntary Security Enhancements for Purdue University.”

Jenkins, Jere H; nuclear engineering, from Battelle Pacific Northwest Labs, $89,112, “Extended Warranty, Maintenance and Preventative Maintenance Activities for the Voluntary Security Enhancements for Purdue University.”

Jenkins, Michael A; forestry & natural resources, from U.S. Forest Service, $16,000, “Carbon Sequestration in the Central Hardwood Region: What Are the Relative Contributions of Primary and Managed Secondary Forests?”

Johnson, Stacey R; field extension educators, from IN State Department of Agriculture, $6,374, “Organic Specialty Vegetable Production Research with a Focus on Fungicide Use in Cucurbits.”


Johnson, William G; Jordan, Thomas N and Whitford, Fred; botany & plant pathology, from Indiana Soybean Alliance, $50,000, “Influence of 2, 4-D, and Dicamba Drift on Soybean Yield and Yield Components and Spray Water Quality Evaluations.”

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

Keith, Douglas P and Rapp, Randy R; building construction & management technology, from Earthlok, $5,504, “Determine the Practical and Cost Effectiveness of Soil Stabilization Process that is New to the Construction Industry.”

Kenttamaa, Hilkka I; chemistry, from ExxonMobil Research Engineering Company, $65,000, “ExxonMobil Research.”

Kladivko, Eileen J; agronomy, from Iowa State University, $637,336, “Climate Change, Mitigation and Adaptation in Corn-Based Cropping.”

Klimeck, Gerhard; electrical & computer engineering, from Ruhr University Bochum, $7,500, “Multi-Sponsored Gift Account.”

Krupke, Christian H; entomology, from Amvac Chemical Corporation, $2,000, “Krupke - Entomology - Research.”

Krupke, Christian H; entomology, from Pioneer Hi-Bred International, Inc., $20,700, “Purdue 2011 University Corn Rootworm Dual Pyramidal Efficacy and Yield Evaluation.”


Landry, Steven J and Sun, Dengfeng; industrial engineering, aeronautical & astronautical engineering, from National Aeronautics and Space Administration, $137,500, “Stream Management: A Concept for Dynamic Airspace.”

Lechtenberg, Victor L; office of engagement, from U.S. Department of Health and Human Services, $588,000, “Purdue University Establishment of the Indiana Health Information Technology Extension Center; Amendment 2.”

Lee, Chun-Sing G; electrical & computer engineering, from National Science Foundation, $8,000, “REU Supplement: RI Small: on Robot Motor Capability for Skill Learning.”

Li, Kai Ming; mechanical engineering, from Indiana Department of Transportation, $100,000, “In-Situ Characterization of the Size Distribution of Air Voids in Concrete Pavements - A Feasibility Study.”


Lopez, Roberto G; horticulture & landscape architecture, from Multi-Sponsored Industrials, $7,500, “Multi-Sponsored Gift Account.”

Lopez, Roberto G; horticulture & landscape architecture, from IN State Department of Agriculture, $30,000, “Specialty Cut Flower Production for Indiana.”

Lumkes, John H; agricultural & biological engineering, from Parker Hannifin Foundation, $9,000, “Parker Laboratory Gift Account.”

Ma, Jianxin; agronomy, from Smith Bucklin & Associates, LLC, $71,904, “Deciphering Soybean Stem Growth Habit Toward Molecular Design Breeding of Morphological and Agronomic Traits with High Yield Potential.”

Maccormick Wadsworth, Shelley; college of consumer & family sciences, from University of Texas at San Antonio, $2,292, “Military Stress-Bust Program for Family Caregivers; Amendment 1.”

Mann, Rebecca L; educational studies, from Davidson Foundation, the, $18,000, “Diversity Initiative for Gifted Students.”

Mao, Chengde; chemistry, from Arizona State University, $22,000, “DNA Based Three-Dimensional Nanofabrication; Amendment 2.”

Mao, Chengde; chemistry, from Arizona State University, $22,000, “DNA Based Three-Dimensional Nanofabrication; Amendment 3.”

Marlatt, Gracie N; field extension educators, from Rush County Community Foundation, Inc., $970, “Captain Cash.”


Mattes, Richard D; Ferruzzi, Mario and McCabe, George P; foods & nutrition, food science, statistics, from PHS-NIH National Institute of Diabetes and Digestive and Kidney Diseases, $403,506, “Pre-Ingestive Influences on Solid and Fluid Food Intake in Lean and Obese Adults.”

Maynard, Elizabeth T; Monroe, James S and Ballard, Roy W; horticulture & landscape architecture, field extension educators, from Indiana State Department of Agriculture, $28,965, “Food Safety for Fresh Fruits and Vegetables: Education and Resources for Farmers.”

McCullough, Bobby G; civil engineering, from Indiana Department of Transportation, $13,000, “Web Interfacing Video.”

McCullough, Robert G; anthropology - Fort Wayne campus, from Indiana Department of Natural Resources, $3,640, “Archaeological Reconnaissance for Brookville Lake in Franklin Co., Indiana.”

McGlothlin, James D; health sciences, from Multi-Sponsored Industrials, $526, “Ergonomics.”

McLuckey, Scott A; chemistry, from U.S. Department of Energy, $150,000, “The Dynamics and Thermodynamics of Gaseous Macro-Ions- Replacement Equipment Supplement - Mod 12.”

McNamara, Kevin T; agricultural economics, from IN National Guard, $2,000, “Military Agreement for Agriculture Development Team (ADT) Training--Beekeeping.”

McNamara, Kevin T and Van Scoyoc, George E; agricultural economics, agronomy, from Indiana National Guard, $3,462, “National Guard Training:Soils and Soil Fertility--Missouri.”

McNamara, Kevin T and Bralts, Vincent F; agricultural economics, College of Engineering Administration Engineering Experiment, from IN National Guard, $4,230, “National Guard Training:Irrigation Concepts-Georgia.”

McNamara, Kevin T; agricultural economics, from Indiana National Guard, $43,400, “Indiana National Guard April Training.”

McNamara, Kevin T and Hunt, Greg J; agricultural economics, entomology, from Indiana National Guard, $2,539, “National Guard Training: Bee Keeping Operations & Maintenance-Illinois.”

McNamara, Kevin T; agricultural economics, from Indiana National Guard, $2,000, “Military Agreement for Agriculture Development Team (ADT) Training.”

McNamara, Kevin T and Quagrainie, Kwamena K; agricultural economics, from Indiana National Guard, $1,964, “ Agriculture Development Team (ADT) Training: Fish Hatchery.”

Merritt, Jeanette K; food science, from Indiana State Department of Agriculture, $27,200, “Enhancing the Development of the Indiana Wine Industry through Our Signature Grape, Traminette.”

Merwade, Venkatesh M and Niyogi, Devdutta S; civil engineering, agronomy, from National Science Foundation, $29,999, “RAPID: Initial Assessments of Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) Multi-Model Ensembles for Hydroclimatic Features at Global and Regional Scales.” (a Discovery Park award — Center for the Environment.)

Morgan, John A; chemical engineering, from Purdue Research Foundation: XR Grant, $16,795, “A Genetically Tractable Microalga Platform for Advanced Biofuel Production.”


Murdoch, Larry L and Lowenberg-Deboer, James M; entomology, international programs in agriculture, from Bill & Melinda Gates Foundation, $1,099,709, “Encouraging Marketing and Trade in Sub-Saharan Africa through Hermetic Storage of Crops by Smallholder Farmers.”

Murthy, Jayathi Y; Alam, Muhammad A; Bajaj, Anil K; Chen, Weiming W; Grafa, Anantha Y; Perulias, Dimitrios and Strachan, Alejandro H; mechanical engineering, electrical & computer engineering, aeronautical & astronomical engineering, computer science, materials engineering, from U.S. Department of Energy, $1,200,000, “PRISM: Center for Prediction of Reliability, Integrity and Survivability of Microsystems; Modification 7.” (a Discovery Park award — Birck Nanotechnology Center)

Neu, Corey P and Nauman, Eric A; biomedical engineering, mechanical engineering, from National Science Foundation, $360,000, “Stress Distributions Determined in Short T2 Biomaterials by MRI-Based Finite Strain and Material Modeling.”

Novak, Robert E; speech, language & hearing science, from Wilford H M Morris Estate, $75,000, “Wilford H. M. Morris Estate Fellowship.”


Panitch, Alyssa and Park, Kinam; biomedical engineering, from PHS-NIH National Heart, Lung & Blood Institute, $398,500, “Improved Therapeutics for Drug Eluting Stents.”

Park, Johnny; electrical & computer engineering, from Samsung Electronics Co., Ltd, $50,000, “New Methods for High Resolution Digital Image Scaling.”

Park, Kinam; biomedical engineering, from IU School of Medicine, $71,683, “Exercise, Diabates, & Coronary Smooth Muscle Ca2+.”

Patton, Aaron J; agronomy, from Dow Agro Sciences, $3,000, “Multi-Sponsored.”

Pawley, Alice L and Purzer, Senay; engineering education, from National Science Foundation, $37,036, “PEER: Collaborative: a National Workshop.”

Pendleton, Kyle A; Dean of Students, from Coalition for a Drug Free Tippecanoe County, $3,500, “Fraternity and Sorority Server Education and Training Program.”

Penney, Richard C; mathematics, from Jeffrey A or Jean A Beckley, $1,000, “Voluntary Support.”

Perney, Richard C; mathematics, from Multi-Sponsored Industries, $2,500, “Multi-Sponsored.”

Perulias, Dimitrios; electrical & computer engineering, from Laserlith Corp, $210,000, “Microelectromechanical System (MEMS) for Electronically Steerable Antennas.” (a Discovery Park award — Birck Nanotechnology Center)

Perulias, Dimitrios; electrical & computer engineering, from Virtual Em Inc, $28,690, “Reconfigurable High-Q Radio Frequency (RF) Microelectromechanical System (MEMS) Filters Biased with Low-Noise Charge Pumps.” (a Discovery Park award — Birck Nanotechnology Center)

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

Porterfield, D. M; agricultural & biological engineering, from National Aeronautics and Space Administration, $100,000, “Soresat Mission: Investigating Biophysical Mechanisms of Plant Gravinsensing Using a Lab-on-a-Chip Approach.” (a Discovery Park award — Bindley Bioscience Center)

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.”

Pujol, Santiago and Catlin, Ann C; civil engineering, rcac, from Consortium of Universities for Research in Earthquake Engineering, $75,783, “Ground Motion and Building Performance Data from the 2010 Chile Earthquake.” (a Discovery Park award — Cyber Center)

Purcell, Lindsey A; forestry & natural resources, from Duke Energy Foundation, $500, “Voluntary Support - Purcell.”

Qi, Minghao; electrical & computer engineering, from Clemson University, $19,893, “Grain Boundary Complexes and Transitions in Doped Silicon; Amendment 2.”

Ramani, Karthik; Zhao, Fu and Sutherland, John W; mechanical engineering, environmental & ecological engineering, from National Science Foundation, $418,284, “Integrating Design and Manufacturing Considerations Towards Sustainable Decision Making.”

Rao, Sanjay G; electrical & computer engineering, from Silicon Valley Community Foundation, $50,000, “Abstracting & Simplifying Routing Design.”

Raskin, Rose E; compa pathology, from Antech Diagnostics, $3,600, “Immunochemical Expression of CD3 in Veterinary Hemolymphe Cytologic Specimens.”

Rebar, Alan H; Cosier, Richard A and Duval-Couetil, Nathalie A; Vice President for Research, management, discovery park administration, from American Councils for International Education, $64,750, “Center for Student Innovation and Entrepreneurship.” (a Discovery Park award — Burton D Morgan Entrepreneurship Center)

Rich, Jane M; continuing studies - Fort Wayne campus, from IN Economic Development Corporation, $12,937, “Northeast Indiana Small Business Development Center 2011 (State Funding).”

Rich, Jane M; continuing studies - Fort Wayne campus, from IN Economic Development Corporation, $198,399, “Northeast Indiana Small Business Development Center 2011 (Federal Funds).”

Richardson, James E; earth & atmospheric sciences, from National Aeronautics and Space Administration, $31,504, “Investigating the Seismic Contribution of Meteoritic impacts to the Current Seismicity of Mars and its Potential for Exploration of the Martian Interior.”

Richert, Brian T; animal sciences, from Fleischmanns Yeast, Inc., $12,000, “Swine Research.”

Richert, Brian T; animal sciences, from Agricultural Research Service, $18,850, “Dietary Modification to Eliminate Ulcers in Sows.”

Richardt, Brian T; animal sciences, from Fleischmanns Yeast, Inc., $13,000, “Swine Research.”

Ritchie, Kenneth P; physics, from University of Oklahoma, $24,063, “Mechanism of TonB Action in Membrane Transport; Amendment 1.”

Rocheford, Torbert R; agronomy, from University of California - Berkeley, $333,251, “Genetic Mechanisms Regulating Inflorence Architecture in Maize and Related Cereals.”

Rogers, Ralph V and Naanna, Aghai A; Purdue Calumet Water Institute, mechanical engineering - calumet campus, from BP America Inc., $888,000, “Pilot Scale Test - Module IV.”

Saha, Shubin K; horticulture & landscape architecture, from Multi-Sponsored Industrials, $500, “Multi-Sponsored Gift Account.”

Saha, Shubin K; horticulture & landscape architecture, from Multi-Sponsored Industrials, $500, “Multi-Sponsored Gift Account.”

Saha, Shubin K; horticulture & landscape architecture, from Multi-Sponsored Industrials, $1,250, “Multi-Sponsored Gift Account.”

Saha, Shubin K; horticulture & landscape architecture, from Multi-Sponsored Industrials, $1,250, “Multi-Sponsored Gift Account.”

Salt, David E and Baker, Peter N; College of Agriculture - Administration, computer science, from University of Arizona, $71,506, “Plant Adaptation to the Environment: Required Cyber Infrastructure.” (a Discovery Park award — Cyber Center)

Salt, David E; horticulture & landscape architecture, from PHS-NIH National Institute of General Medical Science, $361,715, “The Genetic Basis of Natural Ionomic Variation.” (a Discovery Park award — Bindley Bioscience Center)

Scharf, Michael E; entomology, from Multi-Sponsored Industrials, $50,000, “Multi-Sponsor.”

Schoenlein, William E and Van Alstine, William G; biomedical engineering, comparative pathobiology, from Medical Engineering & Development Institute Inc., $22,982, “Enteric Device Testing: Study CBI-FIL4 Addendum to Grant # 202362.”

Schoenlein, William E and Van Alstine, William G; biomedical engineering, comparative pathobiology, from Medical Engineering & Development Institute Inc., $34,410, “Stent Testing Study: CI-SAC Grant # 203133 Addendum.”

Schoonmaker, Jon and Lemener, Ronald P; animal sciences, from Indiana Corn Marketing Council, $24,999, “Improving Nutrient Composition, Consistency and Marketability of Distillers Grains and Corn Stalks for Livestock Production.”

Shalaev, Vladimir M and Boltasseva, Alexandra; electrical & computer engineering, from University of Pennsylvania, $334,479, “Large-Area, 3-D Optical Metamaterials with Tunability and Low Loss; Amendment 3.” (a Discovery Park award — Birck Nanotechnology Center)

Shalaev, Vladimir M; Boltasseva, Alexandra and Narimanov, Evgenii E; electrical & computer engineering, from Duke University, $430,500, “Transformation Optical Metamaterials; Amendment 1.” (a Discovery Park award — Birck Nanotechnology Center)

Shaver, Gregory M; mechanical engineering, from Cummins Inc., $142,741, “Real-Time Estimation and Control of Rate-Shaping for a Direct Acting Piezo-Electric Fuel Injector.”

Shih, Tom I; aeronautical & astronautical engineering, from Siemens Corporate Research Inc., $72,885, “CFD Study of Fluid Flow and Heat Transfer in a U-Duct Lined with Pin Fins Under Rotating and Nonrotating Conditions.”

Shukle, Richard H; entomology, from Agricultural Research Service, $182, “Acquisition of Goods and Services.”

Siskind, Jeffrey M; electrical & computer engineering, from Army Research Laboratory, $766,034, “Robust and Principled Visual Intelligence; Modification 2.”

Sloan, Mary Anne; Technology Assistance Program, from Indiana State Department of Health, $30,050, “MLC-3 Amendment 7.”

Smith, Richard S; food science, from Alcoa Inc, $2,600, “Food Science Research.”

Smith, Richard S; food science, from Hinsdale Farms Ltd, $8,000, “Sensory Evaluation Research.”

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

Smith, Richard S; food science, from Alcoa Inc, $4,500, “Food Science Research.”

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

Smith, Richard S; food science, from Hinsdale Farms Ltd, $1,500, “Sensory Evaluation Research.”

Smith, Richard S; food science, from Hinsdale Farms Ltd, $1,500, “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, $500, “Sensory Evaluation Research.”

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

Snow, Lowell D; technology assistance program, from Indiana Economic Development Corporation, $168,588, “Manufacturing Extension Partnership FY 2010-2011; Amendment 3.”

Snow, Lowell D; technology assistance program, from Indiana Office of Energy & Defense Development, $300,007, “Save Energy Now Indiana; Amendment 1; Grant 204121.”

Son, Steven F and Pourpoint, Timothee L; mechanical engineering, aeronautical & astronautical engineering, from Pennsylvania State University, $185,150, “Nanoenergetics and High Hydrogen Content Materials for Space Propulsion; Amendment 2.”

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

Spafford, Eugene H; computer science, from John Wiley & Sons Limited England, $50,000, “Center for Education and Research in Information Assurance and Security (CERIAS) Voluntary Support.”

Spafford, Eugene H; computer science, from John Wiley & Sons Limited England, $42,500, “Lockheed Martin Assistantships.”

Spafford, Eugene H; computer science, from John Wiley & Sons Limited England, $50,000, “Center for Education and Research in Information Assurance and Security (CERIAS) Voluntary Support.”

Stainback, Kevin M; sociology, from National Science Foundation, $61,925, “Collaborative Research: Diversity and Firm Performance in Fortune 500 Corporations, 1996-2008.”

Stefanov, Plamen D; mathematics, from National Science Foundation, $86,928, “Scattering and Traveltime Tomography; Amendment 3.”

Story, Jon A; Lelievre, Sophie A and Shi, Riyi; Bindley Bioscience Center, Basic Medical Science, from IU School of Medicine, $55,075, “T-Awards. Indiana Clinical and Translational Sciences Institute (CTSI) Asishtanats Gary Leung & Juan Cardenas.” (a Discovery Park award — Bindley Bioscience Center)

Stuart, Jeffrey J; entomology, from National Institute of Food & Agriculture, $453,658, “Insect Effectors in Molecular Plant-Insect Interactions.”

Sutton, Edith E; field extension educators, from St Joseph County 4-H Fair, Inc., $10,500, “4-H Promotion Position St. Joseph County.”

Swihart, Robert K and Smyser, Timothy J; forestry & natural resources, from Indiana Department of Natural Resources, $161,593, “Role of Wild Mammal, Especially Woodrats, and Birds in Seed Survival: Implications for Oak Regeneration and Chestnut Restoration.”

Szpankowski, Wojciech; Aguilar, Ruben C; Atallah, Mikhail J; Bingham, Clifton W; Datta, Supriyo; Graama, Ananth Y; Jagannathan, Suresh; Mathur, Aditya P; Neville, Jennifer L; Pizlo, Zymgunt, Qi, Yuan; Ramkrishna, Doraiswami, Rego, Vernon J and Ward, Mark D; computer science, biological sciences, electrical & computer engineering, nursing, chemical engineering, statistics, from National Science Foundation, $5,000,000, “Emerging Frontiers of Science of Information.”
Tarko, Andrew P and Shan, Jic; civil engineering, from Indiana Department of Transportation, $150,000, “SPR-3640: Create a Performance Index/Condition Assessment Measure.”

Tarko, Andrew P; civil engineering, from Indiana Department of Transportation, $200,000, “SPR 3616: A Systematic Approach of Identifying Safety Intervention Programs for Indiana.”

Tharp, Susan J; field extension educators, from Learning Network of Clinton County, $24,614, “Minority Health Prevention Programs Clinton County.”

Toms, Andrew S; mathematics, from National Science Foundation, $49,122, “Hilbert Modules and the Structure of C*-Algebras; Amendment 1.”

Toms, Andrew S; mathematics, from American Mathematical Society, $86,900, “American Mathematical Society Centennial Research Fellowship.”

Trice, Rodney W; materials engineering, from GE Aviation, $10,000, “Testing Agreement: Type I (900 Degree C) Hot Corrosion Testing.”

Trumble, Kevin P and Chandrasekar, Srini-vasan; materials engineering, industrial engineering, from National Science Foundation, $328,673, “Goal: Direct High-Efficiency Production of Sheet Single-Stage Deformation Processing.”

Uhan, Nelson A; Kenney, Rachael H and Yi, Ji Soo; industrial engineering, mathematics, from National Science Foundation, $199,939, “The Poet Project: Investigating the Use of Visualization to Effectively Teach Optimization Modeling Skills.”

Vitek, Jan; computer science, from Mozilla Corporation, $75,000, “Mozilla Stop Workshop.”

Vyn, Tony J; agronomy, from Fluid Fertilizer Foundation, $1,200, “Agricultural Cropping Systems.”

Vyn, Tony J; agronomy, from Dow Agro Sciences, $75,000, “Optimum Integration of Instinct(TM) and Urea Ammonium Nitrate for Improved Nitrogen Use Efficiency and Lower Nitrous Oxide Emissions in Corn Production.”

Wagstaff, Samuel S; computer science, from National Science Foundation, $10,000, “Compute Cluster Nodes for Factoring Integers.”

Wang, Chih-Chun; electrical & computer engineering, from National Science Foundation, $161,628, “CAREER: Next Generation Network Coding: Distributed Design via Coded Feedback; Amendment 1.”

Wasserman, Adam; chemistry, from National University of Colombia, $18,000, “Pan-American Advanced Study Institute on Electronic Properties of Complex Systems - Support from National University of Colombia.”

Waters, David J; veterinary clinical science, from Gerald P. Murphy Cancer Foundation, $16,500, “Activities that Support the Research and Communication Efforts of Professor David J. Waters.”

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.”

Weaver, Connie M; foods & nutrition, from Mount Sinai School of Medicine, $9,877, “Protective Roles of Grape Derived Polyphenols in Alzheimers Disease; Amendment 1.”

Weaver, Kyle E; field extension educators, from Switzerland County Awareness Team, $500, “10th Grade Leadership Program.”

Weaver, Laura A; Vice Chancellor of Academic Affairs - North Central campus, from Indiana Campus Compact, $300, “Red Cross Month.”

Wei, Alexander; chemistry, from Argonne National Laboratory, $30,000, “Synthesis of Compounds for Lithium Battery Electrolytes.”

Weil, Clifford F and Doerge, Rebecca W; agronomy, statistics, from University of Missouri-Columbia, $342,017, “Genetic and Genomic Approaches to Understanding Long-Distance Transport and Carbon Partitioning in Plants.”

Weiss, William J; civil engineering, from Purdue Research Foundation: XR Grant, $16,795, “Increasing the Service Life and Sustainability of the Built Infrastructure with Internally Cured Concrete.”

Weiss, William J; civil engineering, from Texas Industries, Inc, $9,875, “Quantifying Sustainability Aspects of Internally Cured Concrete - Assessment of the Time Dependent Chloride Diffusivity (and M Coefficient) for High Volumes of Fly Ash.”

Weiss, William J; civil engineering, from Expanded Shale, Clay and Slate Institute, $8,100, “Evaluating Transport Properties of Conventional and Internally Cured Concrete.”

Whitford, Fred; botany & plant pathology, from Professional Landcare Network Inc, $2,784, “Purdue Pesticide Programs.”

Wilker, Jonathan J; chemistry, from Office of Naval Research, $37,500, “Mechanism-Based Antifouling: Characterizing Bioadhesives and Inhibiting Adhesion; Modification 4.”

Williams, Rod N and Olson, Zachary H; forestry & natural resources, from Cryptobranchid Group, $1,000, “Efficacy of Vetellogenin (Vtg) Assays for Sex Determination in Eastern Hellbenders.”


Woloshuk, Charles P; Jiang, Gurumukh S and Wise, Kiersten A; botany & plant pathology, from Indiana Corn Marketing Council, $46,297, “Finding Solutions to Diplodia Ear Rot of Corn.”

Wu, Ching C; comparative pathobiology, from Eli Lilly and Company, $8,050, “Professional Development and Research.”

Xu, Xianfan; Yang, Chen; Qi, Minghao; Stach, Eric A and Reifenberger, Ronald G; mechanical engineering, chemistry, electrical & computer engineering, materials engineering, physics, from Defense Advanced Research Projects Agency, $148,200, “Nanoscale Optical Antenna Array for Controlled, Massively Parallel Manufacturing of Nanowire Devices; Modification 5” (a Discovery Park award — Birck Nanotechnology Center)

Yau, David K; computer science, from National Science Foundation, $93,600, “TC: Medium: Collaborative Research:Towards Formal, Risk Aware Authorization; Amendment 1.”

Ye, Peide; electrical & computer engineering, from Individual Donors, $100,000, “Scientific Research Voluntary Support.”

Zheng, Wei; health sciences, from Multi-Sponsored Industries, $2,000, “Xian Conference.”

Zheng, Wei; health sciences, from Multi-Sponsored Industries, $1,500, “Industrial Support for the Xian International Neurotoxology Conference.”


Zollner, Patrick A; forestry & natural resources, from The Nature Conservancy, $16,000, “Evaluation of Mammalian Community Response to Oak Barrens Restoration on Lands.”