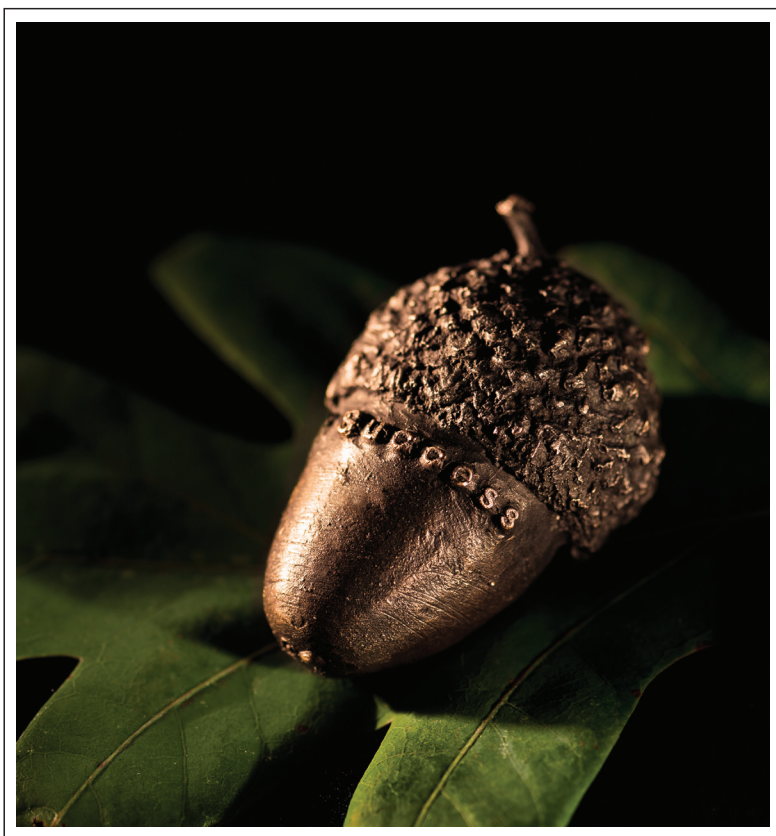


EXCELLENCE  
IN  
RESEARCH  
AWARDS DINNER

FISCAL YEAR 2013



NOVEMBER 18, 2013

**PURDUE**  
UNIVERSITY

# EXCELLENCE IN RESEARCH AWARDS DINNER

NOVEMBER 18, 2013

## REMARKS

Richard Buckius, *Vice President for Research*

## PRESENTATION OF AWARDS

Mitch Daniels, *President*

Herbert Newby McCoy Award  
Research and Scholarship Distinction Award



Tim Sands, *Provost*

Morrill Awards  
University Awards



Richard Buckius

Recognition of First-Time Bronze Acorn Awards



## DINNER

## SEED FOR SUCCESS AWARD CITATIONS

Mike Piggott  
Master of Ceremonies

## SOCIAL HOUR MUSIC

Purdue String Quartet

James Chang, violin  
Adam Horin, viola  
Jimmy Yo, cello  
Tianyi Zhang, violin

## DINNER MUSIC

John Wellman, Piano



## HERBERT NEWBY McCOY AWARD

### **Andrew Weiner**

*Scifres Family Distinguished Professor of Electrical and Computer Engineering in the College of Engineering*

For seminal contributions to the science of ultrashort optical pulse generation with arbitrary waveforms.



## RESEARCH AND SCHOLARSHIP DISTINCTION AWARD

### **Thomas Hertel**

*Distinguished Professor of Agricultural Economics in the College of Agriculture*

Unique contributions to the quantitative analysis of global economic issues and recent innovations in the analysis of global land use in the context of changing economic and environmental conditions.



## MORRILL AWARDS

### MORRILL AWARD RECIPIENTS 2013

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**George Bodner**

*Arthur Kelly Distinguished Professor of Chemical Education*

**Randy Roberts**

*Distinguished Professor of History*



## UNIVERSITY AWARDS

July 2012 through June 2013

### COLLEGE OF AGRICULTURE

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**Connie Weaver**

*Spirit of the Land-Grant Mission Award*

**Mario Ferruzzi**

*Purdue University Agricultural Research Award*

### COLLEGE OF EDUCATION

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#### Department of Educational Studies

**Marcia Gentry**

*Outstanding Faculty Discovery Award, Professor Level*

**Teresa Taber Doughty**

*Outstanding Faculty Discovery Award, Associate Level*

**Yukiko Maeda**

*Outstanding Faculty Discovery Award, Assistant Level*

*Continued*



# UNIVERSITY AWARDS

## COLLEGE OF ENGINEERING

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**Zheng Ouyang**  
*Early Career Research Award*

**Robert P. Lucht**  
*Research Award*

## COLLEGE OF HEALTH AND HUMAN SCIENCES

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**Michael G. Heinz**  
*Early Career Research Achievement Award*

**Donald R. Lynam**  
*Career Research Achievement Award*

**Aryn Dotterer**  
*Inaugural Award for Excellence in Family Research*

## COLLEGE OF LIBERAL ARTS

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**Marianne Boruch**  
*Discovery Excellence in Research Award for the Creative Arts*

**Daniel Morris**  
*Discovery Excellence in Research Award for the Humanities*

**Kenneth Ferraro**  
*Discovery Excellence in Research Award for the Social Sciences*

## COLLEGE OF PHARMACY

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**Carol Post**  
*JeanAnne D. and James B. Chaney Research and Scholarship Achievement Award*

## COLLEGE OF SCIENCE

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**Esteban Fernandez-Juricic**  
*Research Award*

**Matthew Lister**  
*Research Award*

**Jie Shen**  
*Research Award*

**Frederi Viens**  
*Research Award*

## COLLEGE OF TECHNOLOGY

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**Eric Matson**  
*Outstanding Faculty in Discovery Award*

## COLLEGE OF VETERINARY MEDICINE

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**Joanne B. Messick**  
*2013 Zoetis Research Award*

**Ourania Andrisani**  
*College of Veterinary Medicine Excellence in Research Award*

**Andrea Santos**  
*College of Veterinary Medicine Research Staff Award*





## SEED FOR SUCCESS AWARDS

The Seed for Success Award is given in recognition of the accomplishments of single investigators and teams of investigators for their efforts in obtaining a sponsored award of \$1 million or more. The awards listed include single year and multiyear awards.

### RECIPIENTS

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**Angela R. Abbott; Melissa K. Maulding**, from U.S. Department of Agriculture, *Indiana Family Nutrition Program Plan*, \$10,158,347

**Joerg Appenzeller; Zhihong Chen; Gerhard Klimeck**, from Defense Advanced Research Projects Agency, *Center for Low Energy Systems Technology (LEAST)*, \$3,250,917

**Joerg Appenzeller; Supriyo Datta**, from Microelectronic Advanced Research Corp., *Function Accelerated Nanomaterial Engineering (FAME)*, \$1,801,000

**James E. Braun; Qingyan Chen; William T. Horton; Jianghai Hu; Panagiota Karava; Athanasios Tzempelikos**, from U.S. Department of Energy, *Energy Efficient Building Systems Regional Innovation Cluster Initiative*, \$3,116,834

**Barrett S. Caldwell**, from National Aeronautics and Space Administration, *Indiana Space Grant Consortium Five-Year Renewal Proposal for Activity Years 2020-24*, \$3,145,000

**Clint Chapple; Natalia Doudareva; John A. Morgan**, from U.S. Department of Energy, *Modeling and Manipulating Phenylpropanoid Pathway Flux for Bioenergy*, \$5,274,045

**Weinong W. Chen**, from Army Research Office, *Multiscale Experiments and Computational Modeling of Transparent Ceramic and Glass Armors*, \$1,360,000

**William A. Crossley; Chien-Tsung Lu; Mary Johnson; Karen Marais**, from Federal Aviation Administration, *Partnership to Enhance General Aviation Safety, Accessibility and Sustainability (PEGASAS)*, \$2,500,000

**W. Nicholas Delgass; Mahdi M. Abu-Omar; James M. Caruthers; Jeffrey Greeley; Fabio H. Ribeiro; Kendall T. Thomson**, from U.S. Department of Energy, *Catalyst Design by Discovery Informatics*, \$7,034,257

**William E. Field; Paul J. Jones**, from U.S. Department of Agriculture, *National AgrAbility Project*, \$2,009,968

**John P. Finley; Daniela Bortoletto; Wei K. Cui; Sergei Khlebnikov; Luis M. Kruczenski; Norbert Neumeister; Ian P. Shipsey**, from U.S. Department of Energy, *An Experimental and Theoretical High-Energy Physics Program*, \$5,044,000

**Elliot M. Friedman; Sharon L. Christ**, from National Institute on Aging, *Living Well with Later Life Multimorbidity: A Biopsychosocial Approach*, \$1,210,390

**Suresh V. Garimella; David B. Janes; Dimitrios Peroulis; Justin A. Weibel**, from Defense Advanced Research Projects Agency, *Microcooling for Intensely Concentrated Electronics (MicroICE): An Intrachip Approach*, \$1,613,611

**John Haddock**, from U.S. Department of Transportation, *2013 Local Technical Assistance Program Work Plan*, \$1,291,800.

**Ahmed Hassanein; Audeen W. Fentiman; Sivanandan Harilal**, from National Science Foundation, *PIRE: Nuclear Energy Systems and Materials Under Extreme Conditions*, \$3,916,844

**Ahmed Hassanein; Jere H. Jenkins**, from U.S. Department of Energy, *Significant Upgrade and Safety Enhancement of the Instrumentation and Control Systems of the Purdue University Reactor*, \$1,276,812

**Marlene O. Heeg**, from Salix Pharmaceuticals Inc., *Hepatology Centers of Expertise National Educational Initiative*, \$2,000,000

**Peter M. Hirst; Avinash C. Kak; Johnny Park**, from U.S. Department of Agriculture, *Automation of Dormant Pruning of Specialty Crops*, \$3,027,747

**Christine A. Hrycyna; Amy L. Davidson**, from National Institute of General Medical Sciences, *Structure, Function and Conformational Dynamics of the Stel4p Methyltransferase*, \$1,389,326

*Continued*





## SEED FOR SUCCESS AWARDS

**Pedro Irazoqui**, from Cyberonics Inc., *Cyberonics-Technology Development Plan*, \$1,017,756

**Monika Ivantysynova; John H. Lumkes Jr.; Andrea Vacca**, from National Science Foundation, *Engineering Research Center (ERC) for Compact and Efficient Fluid Power; Y7-Y10*, \$5,008,474

**William G. Johnson**, from United Soybean Board, *Development of Branded Educational Programs to Manage and Mitigate Herbicide Resistant Weeds*, \$1,337,916

**Gerhard Klimeck; Victoria A. Farnsworth; Michael J. McLennan; Krishna Madhavan; Lynn K. Zentner; Michael G. Zentner**, from National Science Foundation, *Network for Computational Nanotechnology — Cyber Platform*, \$14,500,000

**Milind Kulkarni; Samuel P. Midkiff; Vijay S. Pai; Arun Prakash**, from U.S. Department of Energy, *SLEEC: Semantics-Rich Libraries for Effective Exascale Computation*, \$1,200,000

**Mark S. Lundstrom; Muhammad A. Alam; Zhihong Chen; Supriyo Datta; Pedro Irazoqui; Anand Raghunathan; Kaushik Roy; Ali Shakouri**, from National Science Foundation, *Network for Computational Nanotechnology — NEEDS Node*, \$3,575,300

**Mark S. Lundstrom; Rakesh Agrawal; Muhammad A. Alam; Suresh V. Garimella; Pankaj Sharma**, from National Renewable Energy Laboratory, *Solar Energy Research Institute for India and the United States (SERIUS)*, \$1,274,981

**Renee K. McKee; Shelley Macdermid Wadsworth**, from U.S. Department of Defense, *Military-Extension Partnership Overall Leadership*, \$1,363,636

**Renee K. McKee**, from U.S. Department of Agriculture, *Military-Extension Internship Program*, \$1,500,000

**Renee K. McKee**, from U.S. Department of Defense, *Community, Family and Youth Extension Program*, \$2,500,000

**Kevin McNamara; Dieudonne Baributsa; Ricky E. Foster**, from U.S. Department of Agriculture, *Building a New Partnership: MAIL Extension Services Engage the Afghan Farmer*, \$2,925,000

**Michael James Manfra; Gabor A. Csathy; David R. Johnson; Kevin P. Trumble**, from W.M. Keck Foundation, *200 Million Mobility 2DEGs: Pushing Materials to the Extreme*, \$1,000,000

**Lisa Mauer; Bruce M. Applegate; Arun K. Bhunia; Joseph M. Irudayaraj; Michael R. Ladisch**, from U.S. Department of Agriculture, *Food Safety, Office of Scientific Quality Review (OSQR)*, \$2,569,590

**David D. Nolte; John J. Turek**, from National Institute of Biomedical Imaging and Bioengineering, *Tissue-Dynamics Imaging for Therapeutic Efficacy in Ovarian Cancer*, \$1,326,289

**Zheng Ouyang; R. Graham Cooks**, from National Institute of General Medical Sciences, *Development of a Point-of-Care Mass Spectrometry Analysis System*, \$1,081,381

**Srinivas Peeta**, from U.S. Department of Transportation, *NEXTRANS - Integrated and Sustainable Transportation Solutions: From Concepts to Deployment*, \$6,897,600

**Linda S. Prokopy; Otto C. Doering; Benjamin M. Gramig; Devdutta S. Niyogi; Xiaohui Carol Song**, from U.S. Department of Agriculture, *Useful to Usable (U2U): Transforming Climate Variability and Change Information for Cereal Crop Producers*, \$5,000,000

**Julio Alfonso Ramirez; Saurabh Bagchi; Sean Brophy; Shirley Dyke; Rudolf Eigenmann; Barbara Fossum; Thomas J. Hacker; Ayhan Irfanoglu; Santiago Pujol**, from National Science Foundation, *The George E. Brown, Jr. Network for Earthquake Engineering Simulation Operations (NEES)*, \$105,000,000

**Timothy L. Ratliff**, from National Cancer Institute, *Cancer Center Support Grant — Core*, \$6,384,851

**Gintaras V. Reklaitis; James D. Litster; Lynne S. Taylor; Carl R. Wassgren Jr.**, from National Science Foundation, *Engineering Research Center on Structural Organic Composites*, \$7,592,652

**Torbert R. Rocheford**, from National Science Foundation, *Natural Variation and Drought Responses in Maize Inflorescence Development*, \$1,041,903

Continued



## SEED FOR SUCCESS AWARDS

**Michael G. Rossmann; Richard J. Kuhn**, from National Institute of Allergy and Infectious Diseases, *Structure and Function of Flaviviruses*, \$2,872,037

**Kaushik Roy**, from Defense Advanced Research Projects Agency, *Embedded POWER Optimized Systems Using Near and Super-Threshold Computing Fabric (EMPOWER)*, \$1,217,284

**Kaushik Roy**, from Defense Advanced Research Projects Agency, *Unconventional Processing of Signals for Intelligent Data Exploitation (UPSIDE)*, \$1,849,940

**Kaushik Roy; Supriyo Datta; Anand Raghunathan**, from Microelectronics Advanced Research Corp., *Center for Spintronic Materials, Interfaces and Novel Architectures (C-SPIN)*, \$2,299,200

**Garth J. Simpson**, from National Institute of General Medical Science, *Ultrafast Nonlinear Optical Approaches Toward High-Throughput Membrane Protein Nanocrystal Detection*, \$1,111,451

**Jeffrey M. Siskind**, from U.S. Department of Defense, *Robust and Principled Visual Intelligence*, \$6,000,000

**M.J.T. Smith**, from National Science Foundation, *Graduate Research Fellowship Program (GRFP)*, \$1,069,500

**Anne Smith; Sharon L. Christ; Donald R. Lynam; Anu Subramanian; Bridget M. Walsh; Christine M. Weber-Fox**, from National Institutes on Deafness and Other Communicative Disorders, *Physiological Correlates of Stuttering*, \$3,037,382

**Xiaohui Carol Song**, from National Science Foundation, *XSEDE: Extreme Science and Engineering Discovery Environment*, \$2,530,000

**Alejandro H. Strachan**, from U.S. Department of Defense, *Shock Wave Energy Dissipation (SWED) by Mechanochemically Active Nanoporous Materials*, \$1,220,886

**Daniel M. Suter**, from National Science Foundation, *Nanomechanics of Src Signaling in Neuronal Growth Cones*, \$1,041,631

**Wojciech Szpankowski; Ruben C. Aguilar; Muhammad A. Alam; Mikhail J. Atallah; Christopher Clifton; Supriyo Datta; Ananth Y. Grama; Suresh Jagannathan; Aditya P. Mathur; Jennifer L. Neville; Zygmunt Pizlo; Yuan Qi; Doraiswami Ramkrishna; Vernon J. Rego; Mark D. Ward**, from National Science Foundation, *Emerging Frontiers of Science of Information (STC)*, \$25,000,000

**Elizabeth M. Topp; Markus A. Lill; Chiwook Park; Fred E. Regnier**, from National Institute of General Medical Sciences, *Protein Aggregation in Amorphous Solids*, \$1,190,102

**Mitchell R. Tuinstra; Brian Dilkes; Clifford F. Weil**, from Bill & Melinda Gates Foundation, *Developing a Functional Gene Discovery Platform for Sorghum Improvement*, \$1,000,000

**Mitchell R. Tuinstra; Gurmukh S. Johal**, from CIMMYT, International, Maize and Wheat Improvement Center, *Heat Stress Resilient Maize for South Asia Through a Public Private Partnership*, \$1,129,342

**Mark D. Ward; Guang Cheng; Sharon L. Christ; Hyonho Chun; Bruce A. Craig; Rebecca W. Doerge; Bo Li; Frederi G. Viens; Xiao Wang; Jun Xie; Hao Zhang; Lingsong Zhang**, from National Science Foundation, *MCTP: Sophomore Transitions: Bridges into a Statistics Major and Big Data Research Experience via Learning Communities*, \$1,500,000

**Andrew M. Weiner; Minghao Qi**, from Army Armament Munition and Chemical Command, *Integrated Coherent Comb and Line-by-Line Pulse Shaper for RF Photonic Filtering*, \$5,711,535

**Steven M. Witz; Kenneth J. Musselman**, from Regenstrief Foundation, *Driving to Impact: Regenstrief Center for Healthcare Engineering*, \$10,000,000

**Charles P. Woloshuk; Gurmukh S. Johal; Kiersten A. Wise**, from U.S. Department of Agriculture, *Integrated Management Strategies for Aspergillus and Fusarium Ear Rots of Corn*, \$5,349,650

**Jian-Kang Zhu**, from National Institute of General Medical Sciences, *DNA Demethylation and Transcriptional Gene Silencing*, \$1,006,826







*The Excellence in Research Awards Dinner hosted by the  
Office of the President  
Office of the Provost  
Office of the Vice President for Research*