Excellence in Research Awards Dinner

Fiscal Year 2015

November 9, 2015

Purdue University
SOCIAL HOUR MUSIC
Purdue String Quartet
Sami Labban, viola
Xin Li Phuah, violin
Myranda Moye, violin
Taylor Winpenny, cello

DINNER MUSIC
John Wellman, piano
EXCELLENCE IN RESEARCH AWARDS DINNER

NOVEMBER 9, 2015

REMARKS

Suresh Garimella
Executive Vice President for Research and Partnerships

Recognition of First-time Bronze Acorn Awards

PRESENTATION OF AWARDS

Mitch Daniels
President
Herbert Newby McCoy Award
Research and Scholarship Distinction Award

Arden Bement Jr.
Purdue Professor Emeritus
Arden L. Bement Jr. Award

DINNER

Deba Dutta
Provost
Morrill Awards
University Awards

SEED FOR SUCCESS AWARD CITATIONS

Mike Piggott
Master of Ceremonies
The Herbert Newby McCoy Award is presented to Arun Ghosh in recognition of his extraordinary contributions in broad areas of organic, bioorganic and medicinal chemistry that have improved human health.
RESEARCH AND SCHOLARSHIP DISTINCTION AWARD

Ronnie Wilbur
Professor of Speech, Language, and Hearing Sciences and
Professor of Linguistics

The Research and Scholarship Distinction Award is presented to Ronnie Wilbur in honor of her work on the linguistic structure of American Sign Language (ASL), its perception and production by native deaf signers, and its application to deaf education.
ARDEN L. BEMENT JR.
AWARD

Wojciech Szpankowski
Saul Rosen Professor of Computer Science and
Professor of Electrical and Computer Engineering

The Arden L. Bement Jr. Award recognizes Wojciech Szpankowski for his outstanding contributions to the development of innovative analytic methods, leading to solutions of several open problems in information theory and computer science.
The Morrill Award recognizes those whose careers have demonstrated excellence in their teaching, research and engagement missions, as well as in demonstrating synergies among them.

MORRILL AWARD RECIPIENTS 2015

Gebisa Ejeta
*Distinguished Professor of Plant Breeding and Genetics and International Agriculture*
For his contributions to improving the food supply for millions of people in parts of sub-Saharan Africa, his extensive public and private engagement to ensure that the improved seeds reach the hands of villagers, and for his advocacy for technical solutions such as plant genetics in fighting hunger. Professor Ejeta has mentored and advised more than 100 graduate students and postdoctoral fellows.

Michael Ladisch
*Distinguished Professor of Agricultural and Biological Engineering*
For key advances that enabled efficient and environmentally friendly production of ethanol from corn allowing the next generation of biofuels to come from biofeedstocks, and for his research reducing the time required to detect food pathogens from several days to four hours. Professor Ladisch has furthered his discoveries into practical applications mentoring students and faculty in entrepreneurship.

Wallace Tyner
*The James and Lois Ackerman Professor in Agricultural Economics*
For his vision to address the economics of biofuels in the 1970s and delineate the connection of energy economics with agricultural economics by 2008 — framing the issues before others recognized them. Professor Tyner is a leading analyst of U.S. energy economics policy and is sought after for his insights and his policy recommendations.
UNIVERSITY AWARDS
July 2014 through June 2015

COLLEGE OF AGRICULTURE

Kevin Keener
_Spirit of the Land-Grant Mission Award_
For improved processing technologies for food safety, human health and reducing the environmental impact.

Nathan Mosier
_Purdue University Agricultural Research Award_
For significant contributions to agriculture through his research in the area of renewable bioenergy.

COLLEGE OF EDUCATION

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Anatoli Rapoport
_Outstanding Faculty Discovery Award: Scholarship of Engagement_
For exceptional contributions to fostering global understanding and international education.

Jennifer Richardson
_Outstanding Faculty Discovery Award: Research-based Scholarship_
For scholarship on improving teaching practices for online learning environments and integrating technology to enhance learning.
DEPARTMENT OF EDUCATION STUDIES

Ming Ming Chiu
*Outstanding Faculty Discovery Award, Professor Level*
For extensive methodological contributions to educational research as reflected in his superior publication record.

COLLEGE OF ENGINEERING

Bumsoo Han
*Early Career Research Award*
For superior performance in the fields of biotransport phenomena, tissue engineering and cancer therapy.

Joseph Irudayaraj
*Research Award*
For preeminent work in the area of bionanotechnology and the development of live cell analysis tools.

COLLEGE OF HEALTH AND HUMAN SCIENCES

Linda Nie
*Early Career Research Achievement Award*
For excellence in scientific and scholarly contributions during her early years at Purdue.

Qing Jiang
*Career Research Achievement Award*
For excellence in research throughout her career.
Christie Sennott  
_Award for Excellence in Family Research_
For outstanding research that serves to strengthen the capacity of families to provide a nurturing environment for their family members.

**COLLEGE OF LIBERAL ARTS**

Charles Ingrao  
_Discovery Excellence in Research Award for the Humanities_
For scholarship of European history and bringing his extensive research into the classroom to enhance learning.

Jill Suitor  
_Discovery Excellence in Research Award for the Social Sciences_
For scholarship and leadership in disciplinary and interdisciplinary research on intergenerational issues within families.

**LIBRARIES**

Clarence D. Maybee  
_Libraries First Research Award_
For scholarship contributing to our understanding of how information literacy may be addressed in the discipline-focused classroom, thus opening a new area of research.
COLLEGE OF PHARMACY

V. Jo Davison  
*Chaney Faculty Scholar Award*  
For outstanding research, scholarship and professional accomplishments in pharmacy and the pharmaceutical sciences.

Yoon Yeo  
*Chaney Family Early Scholar Award*  
For the impact and potential of her research program during the first 10 years of her career.

COLLEGE OF SCIENCE

Garth Simpson  
*Research Award*  
For his vibrant and highly interdisciplinary research program developing new methods for detecting microcrystals with sensitivities of nearly a millionfold more than other competing technologies.

Jennifer Neville  
*Research Award*  
For development of the fields of statistical relational learning and social-network mining to analyze large-scale, heterogeneous networks.

Christopher J. Staiger  
*Research Award*  
For research contributions in areas that have revolutionized how plant biologists and others look at acting cytoskeletal dynamics.
PURDUE POLYTECHNIC INSTITUTE

Mary Johnson  
Outstanding Faculty in Discovery Award  
For superior achievements in the areas of aviation sustainability, alternative aviation fuels and analysis of general aviation operations.

COLLEGE OF VETERINARY MEDICINE

Mohamed Seleem  
2015 Zoetis Research Award  
For outstanding research on developing new antimicrobials and on improved delivery of drugs for the treatment of infectious diseases that affect both humans and animals.

Laurent Couëtil  
College of Veterinary Medicine Excellence in Research Award  
For exceptional success in developing and conducting innovative research on the pathophysiology and treatment of respiratory disease in athletic horses.

John Cirillo  
College of Veterinary Medicine Research Staff Award  
For innovative development of practical biomedical engineering tools designed for the treatment of spinal cord injury, head injury and stroke.
The Seed for Success Award is given in recognition of the accomplishments of single investigators and teams of investigators for their efforts in obtaining external sponsored award of $1 million or more. The awards listed in this program include single year and multiyear awards received in fiscal year 2015.

RECIPIENTS 2015

Angela R. Abbott, Heather A. Eicher-Miller, Melissa Maulding, from U.S. Department of Agriculture, Snap Ed/FNP Project, $5,813,552

Anil Kumar Bajaj, Edward J. Berger, Edward F. Morrison, from National Science Foundation, IUSE/PFE: RED: Thought Into Action, $1,993,490

Gary R. Bertoline, Leah H. Jamieson, James L. Mullins, from Lilly Endowment Inc., Purdue Moves Indiana Forward, $40,000,000

Barrett Caldwell, from National Aeronautics and Space Administration, IN Space Grant Fellowship Program, $1,375,000


Weinong W. Chen, from Department of the Army, Development of a Predictive Indicator for Fabric Ballistic Performance, $1,013,400

Ji-Xin Cheng, Mingji Dai, Andrew M. Weiner, from W.M. Keck Foundation, Microsecond Time Scale Vibrational Spectral Imaging of Living Systems, $1,000,000
Ryan M. Drenan, from National Institute on Drug Abuse (NIH), Nicotinic Acetylcholine Receptor Function in the Mesolimbic Dopamine System, $1,667,829

Ulrike Dydak, Sebastien Helie, Dorothy Teegarden, from National Institutes of Health, Office of the Director, 3T MRI Scanner Dedicated to Life Sciences Research, $2,000,000

Jane R. Frankenberger, Laura C. Bowling; Bernard A. Engel, Eileen J. Kladivko; Linda S. Prokopy, from National Institute of Food and Agriculture (USDA), Managing Water for Increased Resiliency of Drained Agricultural Landscapes, $4,997,009

Marcia L. Gentry, Yukiko Maeda, Kristina Paul, Jennifer C. Richardson, from U.S. Department of Education, Developing Talents and Improving Student Achievement Among Traditionally Underrepresented Populations: An Experimental Investigation Scaling-up the Total School Cluster Grouping Model, $2,468,371

Arun K. Ghosh, from Stem Cent Rx, Stem Cent Rx, $1,000,000

Jeffrey P. Greeley, Volkan Ortalan, Fabio H. Ribeiro, from National Science Foundation, DMREF: Collaborative Research: Design of Multifunctional Catalytic Interfaces from First Principles, $1,160,000

Marlene O. Heeg, from Salix Pharmaceuticals Inc., 2015 CLF EXPAND Series, $1,200,000

Michael G. Heinz, from National Institute on Deafness and Other Communication Disorders (NIH), Effects of Sensorineural Hearing Loss on Robust Speech Coding, $1,612,027

Lori A. Hoagland, Daniel S. Egel, Tesfaye D. Mengiste, from National Institute of Food and Agriculture (USDA), Practical Approach to Controlling Foliar Pathogens in Organic Tomato Production through Participatory Breeding and Integrated Pest Management, $1,987,150
Randall A. Hountz, David R. McKinnis, from Indiana Family and Social Services Administration, Statewide Medicaid-Eligible Incentive Meaningful Use Assistance, $2,309,378

Wen Jiang, from National Institute of Allergy and Infectious Diseases (NIH), HBGA Receptors in Host Cell Entry and Infection of Norovirus, $2,453,914

Mary E. Johnson, Jay Gore, Gozdem Kilaz, James M. Thom, from Federal Aviation Administration, NextGeN Alternative for GA Phase I - Rig Testing Support, $1,900,000

Jeffrey D. Karpicke, from U.S. Department of Education, Computer-Based Guided Retrieval Practice for Elementary School Children, $1,499,697

Nicole L. Key, from Rolls-Royce Inc., 3-Stage Compressor Research for Rear Block Performance, $2,517,951

Nicole L. Key, from Rolls-Royce Inc., CSTAR Performance Research, $2,250,248

Yeong E. Kim, from Cumberland & Western Resources, Low Energy Nuclear Reactions, $2,488,596

Regina A. Kreisle, from Indiana University, IUSM West Lafayette, $2,568,945

Douglas J. LaCount, Ananth Y. Grama, Ernesto S. Nakayasu, from National Institute of Allergy and Infectious Diseases (NIH), Emerging Virus-Host Cell Protein Interaction Networks, $3,541,057

Chantal Levesque-Bristol, David Nelson, from U.S. Department of Education, Success through Transformative Education and Active Learning, $2,373,003

Zhongming Liu, from National Institute of Mental Health (NIH), Multimodal Hyperspectral Imaging of Brain Activity and Connectivity, $2,342,874
Shelley MacDermid Wadsworth, Melissa M. Franks, Shawn D. Whiteman, from U.S. Army Medical Reserves Acquisition Activity, *Changing Family Roles—Across the Deployment Cycle*, $3,547,933


Shelley MacDermid Wadsworth, from Lilly Endowment Inc., *Mobilizing Innovation to Support Military and Veteran Families*, $3,573,000


Michael J. Manfra, from Microsoft Corp., *Materials for Topological Quantum Computing*, $4,130,000

Matthew W. Ohland, Daniel M. Ferguson, from National Science Foundation, *Optimizing Student Team Skill Development Using Evidence-Based Strategies*, $1,707,830

Helen Patrick, Panaota Y. Mantzicopoulos-James, from Institute of Education Services, *Measuring Effective Teaching across Core Academic Content Areas in Kindergarten*, $1,599,681

Santiago Pujol, Ann C. Catlin, Michael J. McLennan, Chungwook Sim, Lisa D. Zilinski, from National Science Foundation, *Building a Modular Cyber-Platform for Systematic Collection, Curation, and Preservation of Large Engineering and Science Data — A Pilot Demonstration Project*, $1,500,000

Michael Rossmann, from National Institute of Allergy and Infectious Diseases (NIH), *Structural Studies of Bacteriophage T4 and Their Potential Medical Applications*, $3,207,875

Sandra F. San Miguel, Omolola A. Adedokun, Wilella D. Burgess; Kauline S. Cipriani, Alejandro Cuza-Blanco; Loran C. Parker, from National Institutes of Health, Office of the Director, *This Is How We Role: Inspiring Future Researchers Through Veterinary Medicine*, $1,184,230

Susan M. Scachitti, from Department of Veterans Affairs, VA-CASE *Lean Management System*, $2,081,738


Garth J. Simpson, Chittaranjan Das, from National Institute of General Medical Sciences (NIH), *Nonlinear Optical Imaging for Guiding Protein Structure Determination*, $1,098,713

Lowell D. Snow, from National Institute of Standards and Technology, *Award Competition for Indiana Hollings NIST MEP Center*, $13,793,44

Lynne S. Taylor, Raymond E. Galinsky, Garth J. Simpson, from Food and Drug Administration, Formulation, Processing and Performance Interrelationships for Amorphous Solid Dispersions, $1,500,000

James M. Thom, Mary E. Johnson, from Federal Aviation Administration, NextGeN Alternative Fuels for GA Phase I Material Compatibility Testing, $1,220,000

Lefteri Tsoukalas, Chan K. Choi, from National Nuclear Security Administration, Proposal for a Consortium for Nonproliferation-Enabling Capabilities, $1,587,000

Fuqiang Wang, Wei Xie, from U.S. Department of Energy, Study QCD Matter Under Extreme Conditions By Particle Correlation and Heavy Flavor Probes in Relativistic Heavy Ion Collisions, $1,650,000

Vikki Marie Weake, from National Eye Institute (NIH), Epigenetic Regulation of Gene Expression in the Aging Eye, $1,902,765

Connie M. Weaver, Bruce R. Cooper, Mario Ferruzzi, Elsa M. Janle, George P. McCabe, from National Center for Complementary and Integrative Health (NIH), Berries and Bones, $3,698,084

Fenggang Yang, Jonathan E. Pettit, from John Templeton Foundation, Chinese Religious Markets and Spiritual Capital: A Research and Networking Initiative, $3,499,820

Jeffrey P. Youngblood, George T. Chiu, Alexander Wei, Pablo D. Zavattieri, from National Science Foundation, SNM: Roll-to-Roll Manufacturing of Films and Laminates Based on Cellulose Nanomaterials, $1,477,970

Pablo D. Zavattieri, from Air Force Office of Scientific Research, Convergent Evolution to Engineering: Multiscale Structures and Mechanics in Damage Tolerant Functional Bio-Composite and Biomimetic Materials, $1,050,000
The Excellence in Research Awards Dinner hosted by the
Office of the President
Office of the Provost
Office of the Executive Vice President for Research and Partnerships