

# DIMENSIONS of DISCOVERY



## Awards Ceremony Recognizes McCoy Winner, 40 Percent Increase in \$1 Million-Plus Grants

### Welcome

*"In seed time learn, in harvest teach, in winter enjoy." — William Blake, 1757-1827*

Nature's coldest season is traditionally a time of introspection, but it's also a time of celebration. At Purdue University this winter, we have much to celebrate — new grants, national accolades and innovations. In this issue, read why a global company is placing charging stations on the West Lafayette campus, where a biology-education researcher is studying the demand for science teachers this semester, and how a veterinary medicine professor plans to increase accessibility to wet labs and other research facilities. ■

**PURDUE**  
UNIVERSITY

More than 200 Purdue University faculty and staff gathered last November for the Excellence in Research Awards dinner, celebrating accomplishments and contributions of Purdue's research community.

Among the honorees were faculty members who had received college or school awards for outstanding research in 2010, along with 217 Seeds for Success honorees — principal investigators and co-investigators garnering \$1 million or more in research grants.

Last year, Purdue yielded 83 grants of \$1 million or more, representing a 40 percent increase over the previous six-year average.

"We are here to acknowledge and celebrate both single investigators and teams of investigators for their accomplishments and contributions in growing the research enterprise at Purdue University," said Richard Buckius, vice president for research, in opening remarks. "It is my privilege to extend my appreciation to the many extraordinary researchers at Purdue."

The 68 new Seeds for Success honorees received bronze acorn awards. In addition, Professor David Salt was presented with the 2010 Herbert Newby McCoy Award for his pioneering and innovative efforts in the field of ionomics.

See pages 8-9 of this newsletter for more photos. ■

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## »» Energy Savings



A USDA grant will help Cary Mitchell study LED lighting use in greenhouses.

### Purdue Receives \$4.88 Million Grant to Study LED Lighting of Plants

Researchers on a new \$4.88 million grant from the U.S. Department of Agriculture hope to increase greenhouse yields and decrease energy costs through innovative LED lighting.

Purdue is collaborating with Rutgers University, the University of Arizona, Michigan State University and Orbital Technologies Corp. on the four-year project.

"High-intensity discharge lamps used today are inefficient," says Cary Mitchell, a professor of horticulture and project director for the grant. "With LED lighting, we should be able to do as well or better with much less energy."

The USDA Specialty Crops Research Initiative Award will include \$2.44 million from the USDA and an equal amount of in-kind contributions of equipment and services from industry partners.

"The specialty crop industry plays an enormously important part in American agriculture and is valued at approximately \$50 billion every year," said USDA Deputy Secretary Kathleen Merrigan, who toured Purdue greenhouses with prototype LED lights last fall. "These projects will be key to providing specialty crop producers with the information and tools they need to successfully grow, process and market safe and high-quality products."

In the study, Mitchell will test LED side lighting on high-wire tomatoes, whose lower parts can't be reached by traditional overhead lighting. Roberto Lopez, an assistant professor of horticulture, will determine if LED lighting can lower the cost of establishing new plants from cuttings and seeds. John Burr, a lecturer in Purdue's Krannert School of Management, will evaluate costs and benefits of LED lighting. ■

Writer: Brian Wallheimer is a research news writer with Agricultural  
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## » Electric Vehicle Initiative

### Purdue Prepares for Plugged-in Economy

Pulling an electrical cord from a silver post mounted on the sidewalk outside the Purdue Armory, Tony Denhart plugged the charger into a cherry-red Chevrolet Volt, sparking a new era of electric vehicle research at Purdue. Denhart, the senior services manager and Purdue campus relations leader for General Electric, was on campus in December to debut the new GE electric vehicle charging station, one of several to be installed around campus over the next year.

The stations, resembling slender gas pumps with oversized outlets, will allow students, researchers and drivers of University-operated electric vehicles to recharge electric-powered technology. They're being acquired through a partnership between GE and the Indiana Advanced Electric Vehicle Training and Education Consortium (I-AEVTEC), which includes Purdue, University of Notre Dame, Indiana University-Purdue University Indianapolis, Ivy Tech Community College of Indiana, Purdue University Calumet and Indiana University Northwest.

The consortium is developing curricula for vehicle technicians, bachelor's and master's degree programs for electric design and manufacturing engineers, and a certificate program in electric vehicle safety for emergency responders. It also is establishing an outreach program to secondary schools and a resource-driven public Web site about electric vehicles.

"The GE Energy-Industrial Solutions charging stations are a key tool as we train students who soon will lead the way in developing alternative power for vehicles," said James Caruthers, professor of chemical engineering and I-AEVTEC director. Energy-Industrial Solutions introduced the EV charging station in July and is piloting it at commercial sites, along with Purdue and the University of California San Diego.

"While the electric vehicle industry is in its infancy, we believe teamwork among manufacturers, government, industry groups, educators and consumers is key to accelerating the adoption of electric vehicles," said Luis Manuel Ramírez, CEO of GE Energy-Industrial Solutions. "GE and Purdue have had a long relationship, so we're extremely proud to work with this leading institution in developing technology innovations for electric vehicles." ■

*Writer: Judith Barra Austin is a communications/marketing specialist with Purdue Marketing and Media.*

Tony Denhart, senior services manager and Purdue campus relations leader for General Electric, hooks a GE electric vehicle charging station to a Chevrolet Volt on campus. In the background are, from left, Victor Lechtenberg, Purdue vice provost for engagement; Ken Morris, General Motors executive director of global vehicle engineering; and Luis Manuel Ramírez, CEO of GE Energy-Industrial Solutions.



## Engineering Professor Honored for Innovation



Suresh V. Garimella

**Suresh V. Garimella**, the R. Eugene and Susie E. Goodson Distinguished Professor in the School of Mechanical Engineering, has received the Alexander

Schwarzkopf Prize for Technological Innovation for 2011. The award was presented to him in January at the National Science Foundation's Industry & University Cooperative Research Program (I/UCRC) annual meeting in Arlington, Va.

The Alex Prize is presented to an individual or team that has recently worked in an I/UCRC and has demonstrated exemplary contributions to technology innovation in support of the center's mission. Garimella oversees the Compact, High-Performance Cooling Technologies Research Center, an I/UCRC based at Purdue that addresses pre-competitive, longer-term research and development issues in high-performance heat removal from compact spaces. ■



# DiaGrid

## Using DiaGrid

- » DiaGrid is geared to high-throughput computing.
- » The pool can rapidly provide smaller, serial jobs with large numbers of cycles.
- » It is excellent for work such as parameter sweeps, Monte Carlo simulations or similar applications needing large processing capacity over a sustained time.
- » Some classes of parallel jobs also run well, for example, master-work problems in which big tasks can be broken into smaller parts to be taken on by a battery of computers.

For information, send an e-mail to [info@dia-grid.org](mailto:info@dia-grid.org) or visit [www.dia-grid.org](http://www.dia-grid.org).

To arrange access, follow the instructions at [www.rcac.purdue.edu/userinfo/accountrequest.cfm](http://www.rcac.purdue.edu/userinfo/accountrequest.cfm). ■

## DiaGrid Offers Thousands of Processors Worth of Readily Available Research Computing Power

If you wait until the world's largest survey telescope starts producing data to develop ways to process and analyze the anticipated 100 million CDs worth, it will be too late.

When the Large Synoptic Survey Telescope comes online around 2020, the data deluge will be so huge that catching up would be impossible in the lifetime of any researcher.

Enter DiaGrid, a Purdue-led partnership with nearly 37,000 computer processors available for research projects. To give scientists a head start on dealing with such a data cornucopia, Purdue physics Professor John Peterson and his students are using the DiaGrid pool to simulate — photon by photon — pictures that the new telescope will produce from billions of stars and galaxies.

"We have to do simulations now to make sure we can even analyze this much data," Peterson says.

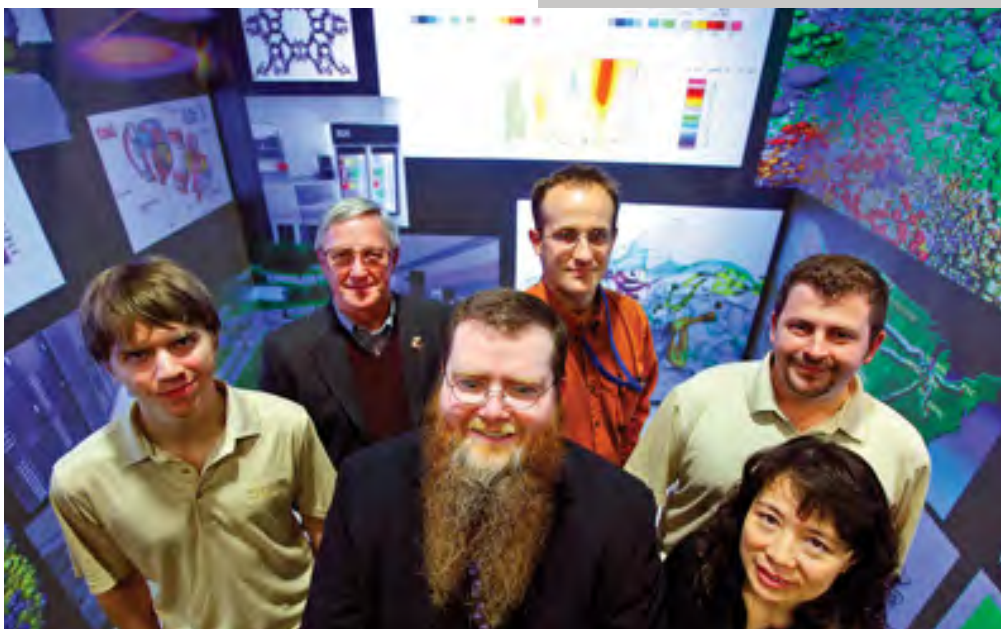
DiaGrid is readily available for use by Purdue faculty members, research staff members and students (with approval from their faculty advisor). Researchers already are using it, for example, to visualize the structure of viruses at near-atomic resolution; factor numbers larger than 100 digits; project the reliability of Indiana's electrical supply; model the spread of water pollutants; and identify millions of potential zeolites, minerals widely used for chemical reactions.

DiaGrid is based on the Condor distributed computing software developed at the University of Wisconsin and refined by researchers at ITaP, which administers DiaGrid. The project began with a pool called BoilerGrid tapping machines on the West Lafayette campus alone and now includes Purdue and nine DiaGrid partner campuses.

To perform their simulations, Peterson and his students run trillions of computations on DiaGrid, which taps what would otherwise be idle hardware in student computer labs, offices, server rooms and supercomputing clusters.

"Basically, every computer can work on some small part of the sky and just simulate the photons from that small part of the sky," Peterson says. "With DiaGrid, you can for periods of time use thousands of machines." ■

*Writer: Greg Kline is a science and technology writer with Information Technology at Purdue (ITaP).*



DiaGrid team members (L-R) Andy Howard, Phil Cheeseman, John Campbell, David Braun, Preston Smith and Carol Song pose with images from scientific research enabled by DiaGrid. The images are projected in a multi-walled virtual environment at ITaP's visualization facility.



### Purdue Unveils 'Impact: Earth!' Calculator

Purdue has unveiled an interactive Web site that allows anyone to calculate the potential damage a comet or asteroid would cause if it hit the Earth.

"Impact: Earth!" ([www.purdue.edu/impacEarth](http://www.purdue.edu/impacEarth)) is scientifically accurate enough for homeland security and NASA, but user-friendly and visual enough for elementary school students, says Jay Melosh, a distinguished professor of earth and atmospheric sciences and physics who led creation of the calculator.

"The site is intended for a broad global audience because an impact is an inevitable aspect of life on this planet," he says.

Users first enter a few parameters such as the diameter of the impact object, its density, velocity, angle of entry and where it will hit the Earth. The site then estimates the consequences of its impact, including the atmospheric blast wave, ground shaking, size of tsunami generated, fireball expansion, distribution of debris and size of the crater produced. ■

Writer: Elizabeth K. Gardner is a communications and marketing specialist with Purdue Marketing and Media.



### USDA Grant Will Increase Opportunities for Organic Farming

A team of Purdue University officials will use a \$1.2 million U.S. Department of Agriculture grant to boost organic farming in Indiana.

Kevin Gibson, an associate professor of botany and plant pathology and leader of the project, will focus on increasing the amount of information Purdue Extension educators have on organic farming practices. Maria Marshall and Corinne Alexander, associate professors of agricultural economics, will seek to identify potential economic and marketing obstacles and opportunities for organic farmers.

"Indiana has fewer organic farms than our surrounding states," Gibson said. "We want to better understand that and see if we can help to increase the number of organic farms in our state." ■

Writer: Brian Wallheimer is a research news writer with Agricultural Communication.



### Wereley Receives Award for Response to Oil Rig Explosion

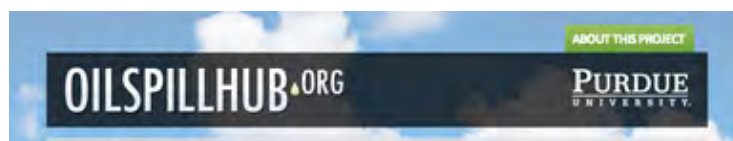


Steven Wereley

**Steven Wereley**, professor of mechanical engineering, has been given the U.S. Geological Survey Director's Award for assisting with the response to the April 2010 Deepwater Horizon explosion and subsequent oil spill.

Marcia McNutt, director of the U.S. Geological Survey, noted in a letter to Wereley that he was instrumental in answering key questions about the amount of oil flowing into the Gulf of Mexico, the well's structural integrity, and the safest and most effective way to kill the well.

"I was extremely fortunate to be able to call upon talented and dedicated people like you to help answer these questions," McNutt wrote. "Under difficult circumstances, you and the other team members set your personal and professional lives aside to tackle these challenges. Your answers and insights helped guide important decisions and made a very real and positive difference during the response to this unprecedented oil spill event." ■



### Oil Spill Videos Part of Purdue-Developed Science Site

More than 30,000 hours of underwater videos of the failed Deepwater Horizon oil drill platform are available on a new Web site, [www.oilspillHUB.org](http://www.oilspillHUB.org).

Designed for scientists, engineers and the general public, the site examines the scientific and engineering issues of the largest environmental disaster in United States history.

"Researchers can use tools we are developing, such as photogrammetry tools, to learn much more about what happened and what we could do to stop it if this were to occur again," says Steve Wereley, mechanical engineering professor and lead researcher of the site.

Eventually, the site will connect to Facebook and Twitter and will allow viewing on mobile devices. ■

*Writer: Steve Tally is a marketing consultant with Purdue Marketing and Media.*



Purdue University photo/Andrew Hancock

Bradley S. Duerstock, at right, an assistant research professor at the Purdue University Center for Paralysis Research, received a \$2 million grant to help people with disabilities study science. Duerstock is collaborating with Susan M. Mendrysa, an assistant professor of basic medical sciences in the School of Veterinary Medicine. Learning Research Center.

### \$2 Million Grant Will Help People with Disabilities Study Science

Students who dream of scientific careers but face barriers in education and research may find new options, thanks to a \$2 million grant awarded to Purdue University.

"The science community sees a drop in students studying science when they move from undergraduate to graduate work because graduate students need to be able to work independently in laboratories," says principal investigator **Bradley S. Duerstock**, an assistant research professor at the Center for Paralysis Research.

"Many laboratories do not have the physical space to navigate a wheelchair or accessible lab equipment that provides people with disabilities the necessary hands-on experience required in many research-oriented science fields. These obstacles are keeping many bright minds from studying and pursuing careers in areas such as biomedical research."

The grant, administered by the National Institute of General Medical Sciences, will support the creation of an Institute for Accessible Science (IAS) at Purdue. The institute will include an accessible wet laboratory based at the Discovery Laboratory Research Center and a hub to serve as a Web-based community for individuals with disabilities working in or pursuing biomedical research careers.

"Thanks to technology today, most laboratory equipment can be adapted for students with disabilities, but we need information to determine the exact needs and available resources," says Duerstock, who uses a wheelchair as well as adaptive-assistive technologies, some of which he has created. ■

*Writer: Amy Patterson Neubert is a health sciences and news writer with Purdue Marketing and Media.*





### Education, History, Library Science Professors Travel Overseas as Fulbright Scholars

From African rainforests to a walled Mediterranean city to the site of the most famous library in antiquity, three Purdue faculty

members are immersing themselves in distant cultures as Fulbright Scholars this semester.

**David Eichinger** is at Uganda Christian University in the tropical city of Mukono, Uganda, where he is co-teaching biology courses, conducting science teaching workshops for primary and secondary school teachers and researching Ugandan teachers' views on the nature of science.

"I'm also interested in getting a better sense of how a country like Uganda is dealing with the demand for science teachers," says Eichinger, who volunteered for the Peace Corps in the 1980s as a high school biology and chemistry teacher in the Democratic Republic of Congo. "STEM (science, technology, engineering and mathematics) is also emphasized in developing countries like Uganda, but they don't have teacher prep programs or specializations, and I want to see how remote areas meet the needs for qualified teachers."

**Charles Ingrao** is located in Nicosia, Cyprus, a town that is divided in half because of conflicts between the Greek Cypriot and Turkish Cypriot communities. He is lecturing to the different ethnic groups at two separate institutions.

"I'll be teaching people who haven't really thought about their conflict within the context of worldwide conflicts," says Ingrao, a frequent traveler to the Balkans and author of *Confronting the Yugoslav Controversies*. "We're all facing the same challenges; it's just that in the United States, it hasn't resulted in quite the same end product as in the Balkans or in Cyprus."

**Michael Witt** is living with his family in Alexandria, Egypt, where he is lecturing and conducting research at the Bibliotheca Alexandria. The city once housed the Library of Alexandria, which was founded in the third century B.C. and housed as many as 700,000 scrolls at its peak.

"The Library of Alexandria is perhaps the most famous and significant library of ancient times," says Witt. "My host institution, the Bibliotheca Alexandrina, has recaptured the spirit of the old library and has become one of the world's eminent libraries in a very short period of time since its construction in 2002. To be able to visit and do research there as a librarian is unbelievable."

The U.S. State Department's Bureau of Educational and Cultural Affairs sponsors the Fulbright U.S. Scholar Program. Each year, around 1,100 U.S. faculty and professionals travel abroad through the Fulbright U.S. Scholar Program. ■

### Wodicka Wins Purdue Commercialization Award



George Wodicka

**George Wodicka**, head of the Weldon School of Biomedical Engineering and professor of biomedical engineering and electrical and computer engineering, has received the 2010-2011 Outstanding Commercialization Award for Purdue University Faculty.

As head of the Weldon School, Wodicka has promoted company partnerships to improve biomedical technologies, and he co-founded Purdue's graduate program in biomedical entrepreneurship (Biomedship). He also has developed novel, cost-effective technologies in biomedical acoustics.

Wodicka is the eighth recipient of the Outstanding Commercialization Award, which includes a \$5,000 stipend. ■

*Writer: Judith Barra Austin is a communications/marketing specialist with Purdue Marketing and Media.*

### nanoHUB.org Founder Receives 2010 Aristotle Award



Mark Lundstrom

**Mark Lundstrom**, founding chairman of nanoHUB.org, has been named the 2010 recipient of the Semiconductor Research Corporation's Aristotle Award.

Lundstrom, who also is the Don and Carol Scifres Distinguished Professor of Electrical and Computer Engineering, was honored last fall at SRC's annual conference, TECHCON, in Austin, Texas.

The SRC created the Aristotle Award in 1995 to recognize faculty whose deep commitment to the educational experience of students has had a profound and continuing impact on their professional careers. Lundstrom was nominated by an industry liaison who remarked, "One of the unique positions of Professor Lundstrom in advising his students stems from being the founder and the director of the Network for Computational Nanotechnology. ... Sharing such tools puts Lundstrom's students in a position of scientific leadership ... and allows them very high impact and visibility." ■

*Writer: Greg Perigo is NCN communications specialist with Birck Nanotechnology Center.*

## » Excellence in Research







Please visit the Office of the Vice President for Research Web site for a complete list of the awardees, project titles, sponsors and funding at [www.purdue.edu/research/vpr/publications/excellence.php](http://www.purdue.edu/research/vpr/publications/excellence.php).

## →|| RESEARCH ADMINISTRATION



## New Employees, Accolades and Promotions

**Ianthe “Cookie” Bryant-Gawthrop** has been promoted to director of research regulatory compliance. She previously was the sponsored programs regulatory administrator. Bryant-Gawthrop’s office is Hovde Hall 332. Contact her at 494-7458 or [ibg@purdue.edu](mailto:ibg@purdue.edu).

**Elizabeth Kipp Campbell** is the new director of the Human Research Protection Program. She previously worked as an Institutional Review Board administrator for the Children’s Hospitals and Clinics of Minnesota. Campbell’s office is at YONG 1021. Contact her at 496-2739 or [ekcampbe@purdue.edu](mailto:ekcampbe@purdue.edu).

**Kristine Hershberger**, Institutional Review Board administrator, has been recognized as a Certified IRB Professional (CIP) by the Council for Certification of IRB Professionals. Hershberger’s office address is YONG 1044. Contact her at 494-5942 or [kh@purdue.edu](mailto:kh@purdue.edu).

**Christelene Horton** is the new sponsored programs regulatory administrator. Horton comes to Purdue from Bridge Global Pharmaceutical Services, a contract research organization in Gaithersburg, Md. Horton’s office is located at YONG 1023. Contact her at 494-0585 or [horton1@purdue.edu](mailto:horton1@purdue.edu). ■

## →|| SPONSORED PROGRAM SERVICES

## Pre-Award Centers Mark First Anniversary

February 1, 2011 marked the first-year anniversary for Sponsored Program Services’ Pre-Award Centers on the West Lafayette campus. Last year, the success of Pre-Award Centers for Discovery Park (established in 2006) and the College of Engineering (established in 2009) led to the creation of three more centers for the other colleges and schools, resulting in services available now to all investigators on campus.

Designed to enhance the quality of proposals submitted to sponsors, the centers allow researchers to focus on technical content while pre-award staff members develop administrative sections.

“I find the pre-award staff to be enormously helpful. They seem eager to assist in the submission process,” says Robert Gaehlen, associate dean for graduate programs in the College of Pharmacy. “I have been here for over 25 years, and submitting proposals has never been more convenient.”

From February 1 to December 31, 2010, the five Pre-Award Centers prepared, reviewed and submitted 3,493 proposals representing 1,650 investigators from 216 departments. Those numbers translate to around \$1.8 billion in potential funding for the University.

Overall response to the Pre-Award Centers has been positive. Post-submission survey responses indicate that the centers have enhanced the submission process through increased proposal expertise, improved responsiveness and more focused assistance with proposal submissions.

“This is a vast improvement,” says John Finley, professor of physics. “I found the staff knowledgeable and friendly. This is a valuable service that makes for a more efficient operation.”

For more information on Pre-Award Centers, visit [www.purdue.edu/sps/preaward](http://www.purdue.edu/sps/preaward) or e-mail [proposal@purdue.edu](mailto:proposal@purdue.edu). ■

### SPONSOR

National Science Foundation

Dept. of Health and Human Services

Dept. of Defense

Dept. of Energy

Dept. of Agriculture

National Aeronautics and Space Administration

Other Federal

Dept. of Education

Environmental Protection Agency

Dept. of Transportation

Agency for International Development

### Total Federal

Industrials and Foundations

State/Local Governments

Purdue Research Foundation/Purdue University

Foreign Governments

### Total Non-Federal

### Total Purdue System-wide

[www.purdue.edu](http://www.purdue.edu)



# Program Year-to-Date Activity

## Comprehensive monthly awards list includes search and sort capabilities

A list of sponsored program awards received is available online and includes additional awards, known as B-awards, which were not previously published in print.

A search and sort Excel file version of the awards is also available online. Please visit the OVPR Web site at [www.purdue.edu/research/vpr/](http://www.purdue.edu/research/vpr/) for access to the awards.

## Awards by Sponsor

July 1, 2010 to December 31, 2010

	FY2011 (YTD 12/31/2010)		FY2010 (YTD 12/31/2009)		% Change	
	NO.	\$ AMOUNT	NO.	\$ AMOUNT	NO.	\$ AMOUNT
	186	67,641,132	261	79,491,460	-29%	-15%
	145	35,374,965	148	30,457,911	-2%	16%
	135	16,301,321	99	13,843,879	36%	18%
	65	20,119,729	69	37,567,097	-6%	-46%
	94	22,918,163	100	13,307,879	-6%	72%
	28	2,737,773	35	2,492,796	-20%	10%
	78	8,020,118	52	3,703,902	50%	117%
	18	8,658,408	19	4,132,818	-5%	110%
	13	1,144,231	6	521,043	117%	120%
	9	2,320,498	12	3,801,908	-25%	-39%
	13	1,998,647	9	1,141,475	44%	75%
	784	\$187,234,977	810	\$190,462,168	-3%	-2%
	794	28,582,235	685	29,920,059	16%	-4%
	95	15,529,197	95	15,582,166	0%	0%
	396	6,686,453	240	3,361,952	65%	99%
	8	6,211,800	16	800,502	-50%	676%
	1,293	\$57,009,685	1,036	\$49,664,679	25%	15%
<b>de</b>	<b>2,077</b>	<b>\$244,244,662</b>	<b>1,846</b>	<b>\$240,126,848</b>	<b>13%</b>	<b>2%</b>

Data provided by Sponsored Program Services

[www.purdue.edu/research/vpr/](http://www.purdue.edu/research/vpr/)



## Humanities Seminar



### National Endowment for the Humanities (NEH) Regional Seminar

- » **When** March 30-31, 8:30 a.m. – 5 p.m.
- » **Where** Stewart Center, Room 214
- » **Sponsor** Office of the Vice President for Research

"This event will provide an excellent opportunity for faculty from Purdue, as well as from neighboring colleges and universities, to learn more about funding opportunities with the primary federal funder of research and scholarship in the humanities," says Cris King, director of research development services in the OVRP. "A major goal of this event is to provide information that will help faculty write more compelling and competitive proposals to the Endowment."

Jane Aikin, director of the Division of Research Programs at the NEH, will be the featured speaker. Panelists will include Purdue faculty members experienced with NEH.

Sessions for the first day include:

- Overview of NEH mission and programs
- NEH review process, including a panel discussion on successful applications
- Individual meetings with attendees to discuss their research as it relates to NEH

An evening reception will allow participants to network with colleagues from Purdue and other institutions who conduct research in areas funded by NEH.

The second day will be devoted to more individual meetings with faculty members.

The seminar, including the first day's breakfast, lunch and reception, is free to attendees from all Purdue University campuses. To register, visit [www.conf.purdue.edu/NEH](http://www.conf.purdue.edu/NEH).

To see what areas of research and scholarship are covered by NEH, visit [www.neh.gov/grants](http://www.neh.gov/grants). For more information about NEH or the seminar, contact Cris King ([hcking@purdue.edu](mailto:hcking@purdue.edu)) or Sue Grimes ([sgrimes@purdue.edu](mailto:sgrimes@purdue.edu)). ■

## Purdue Opens West Coast Office

Purdue University has opened a West Coast Partnership Center in Mountain View, Calif.

Located in Silicon Valley, the center will link Purdue experts in engineering and technology with the West Coast's high-tech companies and entrepreneurs, including some of Purdue's 18,000 California alumni.

"There is a demand on the West Coast for technology and engineering research and skills. Purdue can



John C. Boyle

be a supplier," says John C. Boyle, a veteran Silicon Valley executive who is heading up the new office. "There's a natural fit for Purdue on the West Coast."

Along with contributing technical expertise to the Pacific coast, the partnership is intended to also bring research and development dollars back to Indiana and provide Purdue researchers with new ideas for the discovery-with-delivery process.

"Increasingly Purdue's researchers are engaged in entrepreneurial activities," says Purdue President France A. Córdova. "Extending our outreach to our entrepreneurial alumni and others in the Silicon Valley can enhance the impact of these activities and contribute to the growth of Indiana's economy." ■

*Writer: Judith Barra Austin is a communications/marketing specialist with Purdue Marketing and Media.*



## »» Analytical Chemistry Conference



### Purdue Hosts International Conference Focused on Challenges for Analytical Chemistry

A three-day workshop on the West Lafayette campus last fall helped to broaden collaborations between leading analytical chemists at universities here and in China.

Chinese researchers representing more than a dozen universities participated in the U.S.-China Workshop on Analytical Chemistry in October, discussing key national and global issues the chemistry field is facing.

"This international event drawing more than 100 researchers helped us reconnect with friends and colleagues to showcase how analytical chemistry is shaping the dynamic landscape of measurement science," said conference moderator and organizer R. Graham Cooks, the Henry B. Hass Distinguished Professor of Analytical Chemistry.

Participants from China and the United States pledged to work more aggressively in collaborating on research papers, workshops and exchange programs for faculty, researchers and graduate and undergraduate students. Areas topping the list included energy, the environment, bioanalytical chemistry, informatics and economics — with an emphasis on growing interdisciplinary research opportunities.

"We were able to outline key trends and strategies for research, teaching and service in the broad context of analytical chemistry and to gather to exchange ideas and report on cutting-edge work in progress," said Purdue biomedical engineering professor Zheng Ouyang, a co-organizer of the event.

The conference also outlined how China could benefit from the U.S. model that fosters greater collaboration of academics with vendors for the acquisition, maintenance and development of technologies and instruments used in analytical chemistry research.

The U.S.-China Workshop was supported by the U.S. National Science Foundation and its Chinese counterpart, the National Natural Science Foundation of China, as well as the Chinese National Institute for Metrology.

A follow-up workshop will be held in Beijing in 2011, where it will be hosted by Tsinghua University in Beijing and Shaanxi Normal University in Xi'an. ■

*Writer: Phillip Fiorini is a senior communications/marketing specialist with Purdue Marketing and Media.*



Felix Haas Hall

### Office of Technology Commercialization Opens Extension Office on West Lafayette Campus

Purdue Research Foundation's Office of Technology Commercialization (OTC) has opened an extension office to increase faculty and staff accessibility to technology transfer professionals.

The office is open from 9 a.m. to 5 p.m. weekdays in Felix Haas Hall, Room 214. Professional project managers occupy the office on a rotating basis. A notary is in the office on Wednesdays to assist with signing of legal documents that support commercialization.

OTC operates one of the most comprehensive technology transfer programs among leading research universities in the United States. Services support the economic development initiatives of Purdue University and benefit the University's academic activities through strategic partnerships with committed development partners that realize the full potential of Purdue's intellectual property. For more information, contact Elizabeth Hart-Wells, assistant vice president and OTC director, at 588-3481. ■

## »» Winter/Spring 2011 Events

### There's a Blog for That? Social Media Resources for Women

- » **When** 3:00 p.m., February 17
- » **Where** Burton D. Morgan Center
- » **Contact** ButlerCenter@purdue.edu; RSVP by February 12 at [www.purdue.edu/discoverypark/sbbcle/events.php](http://www.purdue.edu/discoverypark/sbbcle/events.php).

## Butler Center for Leadership Excellence Spring 2011 Public Events

### Professional Development Series for Purdue Women Lead

- » **Contact** [wro@purdue.edu](mailto:wro@purdue.edu) to register

#### Influence: Gaining Commitment and Getting Results

- » **When** 11:45 a.m. - 1 p.m., February 24
- » **Where** Hovde Hall, Room 119

#### Do Less and Accomplish More Now!

- » **When** 11:45 a.m. - 1 p.m., March 22
- » **Where** Hillenbrand Atrium

Session sponsored by University Residences

#### Leadership Networking: Connect, Collaborate, Create

- » **When** 11:45 a.m. - 1 p.m., April 20
- » **Where** Hovde Hall, Room 119

### Public Events

#### Catalyst LeaderShape Workshop

- » **When** 8:30 a.m. - 4:00 p.m., February 25
- » **Where** Discovery Learning Research Center, Room 141

Developed by LeaderShape, "Catalyst" will give you the tools needed to examine the possibility of your future, your personal integrity and how to develop your capacity to lead. Through small group dialogue, large group interaction and personal reflection, you will discover your core skills, strengths and interpersonal style attributes, as well as the communities, organizations and causes you care most about. To learn more or to register, visit [www.purdue.edu/dp/sbbcle](http://www.purdue.edu/dp/sbbcle) or e-mail [wro@purdue.edu](mailto:wro@purdue.edu).

#### Distinguished Women's Scholars Panel

- » **When** 3:00 p.m., March 3
- » **Where** Stewart Center Room 206

The Office of the Provost, in partnership with the Butler Center for Leadership Excellence and the Women's Resource Office, is sponsoring the inaugural Distinguished Women Scholars program, honoring alumni who have realized success in their fields. The event also is designed to acknowledge and celebrate faculty members' contributions to mentoring successful scholars and highlight Purdue's contribution to diversifying university faculty across the nation. ■



### Purdue Climate Change Research Center Events

Visit [www.purdue.edu/climate/](http://www.purdue.edu/climate/) or contact Cindy Fate at 494-5146 or [cynthia@purdue.edu](mailto:cynthia@purdue.edu).

#### Seminar by Prof. Jeff Andresen, Michigan State University

- » **When** 11:30 a.m., February 17
- » **Where** Gerald D. and Edna E. Mann Hall, Room 203

#### Seminar: Creating Incentives for REDD in Indonesia, by Dr. Jonah Busch, Climate and Forest Economist with Conservation International

- » **When** 3:30 p.m., February 21
- » **Where** Krannert Building, Room 661

#### PCCRC Annual Meeting and Poster Session

- » **When** 3:00 - 5:30 p.m., March 4
- » **Where** Gerald D. and Edna E. Mann Hall atrium

#### Network Resilience Conference

- » **When** 1:00 - 5:00 p.m., April 7
- » **Where** Burton D. Morgan Center for Entrepreneurship, Room 121

#### Symposium: Perspectives in the Global Analysis of Agri- cultural and Environmental Issues

- » **When** 8:00 a.m. - 5:00 p.m., May 23
- » **Where** Burton D. Morgan Center for Entrepreneurship, Room 121 ■





### Business Plan Competition

- » **When** February 22
- » **Where** Burton D. Morgan Center for Entrepreneurship, Room 121
- » **Contact** Jackie Lanter, [lanter@purdue.edu](mailto:lanter@purdue.edu)
- » **Re** [www.purdue.edu/discoverypark/entrepreneurship/programs/competition/bdmcompetition/](http://www.purdue.edu/discoverypark/entrepreneurship/programs/competition/bdmcompetition/)

## Regenstrief Center for Healthcare Engineering Spring 2011 Conference

### Care Management in Chronic Disease

- » **When** 8:30 a.m. – 4:00 p.m., February 25
- » **Where** Burton D. Morgan Center for Entrepreneurship, Room 121
- » **Speaker** Dr. Bob Lubitz from St. Vincent Health in Indianapolis
- » **Register** [www.purdue.edu/discoverypark/rche](http://www.purdue.edu/discoverypark/rche)

→|| LABORATORY ANIMAL PROGRAM

### Rodent Handling & Care Workshops

- » **Where** Animal Holding Facility, Room 1155
- » **Contact** Carol Dowell, training coordinator for the Laboratory Animal Program, at [dowellc@purdue.edu](mailto:dowellc@purdue.edu) or 494-2521
- » **Register** [www.purdue.edu/research/vpr/rschadmin/rschoversight/animals/events.php](http://www.purdue.edu/research/vpr/rschadmin/rschoversight/animals/events.php)

These hands-on workshops, outlined on the Web page listed above, introduce participants to basic techniques for laboratory rat and mouse care. Each workshop allows a maximum of five participants per session. Registrations are filled on a first-come, first-serve basis. The LAP requests a minimum of three days' notice for cancellation.

Please note: the Handling/Restraint workshop is a prerequisite for participation in injection, oral gavage, blood collection and catheter placement workshops, unless investigators have had previous training and/or experience in this area. ■



### The Future of Nanotechnology Research Fair

- » **When** 10 a.m. - noon, March 25, 2011
- » **Where** Birck Nanotechnology Center Atrium

### Nanotechnology New Ventures Competition

- » **When** 1-4 p.m., March 25, 2011
- » **Where** Burton D. Morgan Center for Entrepreneurship, Room 121
- » **Contact** Candiss B. Vibbert, Purdue University Discovery Park at [vibbert@purdue.edu](mailto:vibbert@purdue.edu) or 494-9404 or Karen C. Slaggert, University of Notre Dame, at [kslaggert@nd.edu](mailto:kslaggert@nd.edu) or 574-631-2714.

### NanoDays

- » **When** April 15 and 16, 2011
- » **Where** Birck Nanotechnology Center
- » **Contact** Jeff Goecker, [jgoecker@purdue.edu](mailto:jgoecker@purdue.edu) or visit the NanoDays Web site at [www.purdue.edu/discoverypark/Nanotechnology/nanodays/](http://www.purdue.edu/discoverypark/Nanotechnology/nanodays/)

### Nanotechnology New Ventures Competition

- » **When** March 25
- » **Where** Burton D. Morgan Center for Entrepreneurship, Room 121
- » **Contact** Jackie Lanter, [lanter@purdue.edu](mailto:lanter@purdue.edu)
- » **Re** [www.purdue.edu/discoverypark/global/news/news.php?id=827&center=8](http://www.purdue.edu/discoverypark/global/news/news.php?id=827&center=8)

# DIMENSIONS of DISCOVERY

→|| OFFICE OF THE VICE PRESIDENT FOR RESEARCH

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610 Purdue Mall

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## »» Research Services Directory

- » General Information & Questions; 494-9806
- » Vice President for Research; 494-6209; Richard O. Buckius, rbuckius@purdue.edu
- » Discovery Park; 496-6625; Alan Rebar, rebar@purdue.edu
- » Research Core Facilities; Cost Sharing; 496-1938; Jeff Bolin, jtb@purdue.edu
- » Internal Competitions, 494-4231; Marietta Harrison, harrisom@purdue.edu
- » Industry Research and Technology Programs; 494-0743; John Schneider, jas@purdue.edu
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- » Export Controls; 494-1852; Michael Reckowsky, mreckowsky@purdue.edu
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- » Animals; 494-7206; Lisa Snider, ldsnider@purdue.edu
- » Biohazards; 494-1496; Bob Golden, rwgolden@purdue.edu

### Award Information

- » Sponsored Program Services; 494-1055; [www.purdue.edu/sps](http://www.purdue.edu/sps)
- » Proposal Information, Transmittal to Agency; 494-6204; [proposal@purdue.edu](mailto:proposal@purdue.edu)

### Technology Commercialization

- » Patent & Copyright Information; 588-3475; Elizabeth Hart-Wells, [otcip@prf.org](mailto:otcip@prf.org)

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## OVPR Releases Annual Report

In the human, natural and cyber-sciences, Purdue University's scholars are reaching across borders, forming new connections to address the world's greatest challenges. Some of their latest accomplishments are reflected in the OVPR's 2009-10 annual report, *Transformation: Innovation at the Nexus of Humans, Nature and Cyber-science*.

The report, which highlights a record \$438 million in research funding, is available online at [www.purdue.edu/research/vpr/publications](http://www.purdue.edu/research/vpr/publications). Comments are welcome.

If you'd like a hard copy of the report, contact Pam Burroff-Murr at [burroff@purdue.edu](mailto:burroff@purdue.edu). ■