

University of Pittsburgh Names 16 Legacy Laureates



Pitt's 2011 Legacy Laureates gathered for a Dinner and Awards Ceremony on Oct. 13 in Alumni Hall's Connolly Ballroom. First row (from left): Frederick W. Thieman, Robert J. Henkel, Drew H. Gitomer, Ruby Leila Wilson, Edward W. Sites, Frank E. Mosier, and Sito J. Narcisse. Back row (from left): Pitt Chancellor Mark A. Nordenberg, Harvey M. Golomb, David C. Frederick, Paul A. Rockar Jr., Sofian Effendi, Priscilla H. Hamilton, Mahmoud A. ElSohly, James S. Broadhurst, and Pitt Provost and Senior Vice Chancellor Patricia E. Beeson. U.S. Congressman Tim Murphy is not pictured, and William S. Dietrich II was honored posthumously, having passed away on Oct. 6, 2011.

The University of Pittsburgh has named 16 new Legacy Laureates, alumni recognized for their outstanding personal and professional accomplishments. The laureates were honored during Pitt's Oct. 13-16 Homecoming festivities.

The Pitt Legacy Laureate program was launched in 2000. Following are brief biographies of this year's honorees.

James S. Broadhurst

James Broadhurst is chair of Eat'n Park Hospitality Group, Inc., parent company of one of the tristate area's favorite family restaurants—Eat'n Park—as well as downtown Pittsburgh's Six Penn Kitchen and Parkhurst Dining Services and Cura Hospitality, which provide dining services to colleges, universities, corporations, museums, and senior living communities throughout the mid-Atlantic region. He earned a Master of Business Administration degree from the University of Pittsburgh's Joseph M. Katz Graduate School of Business in 1966.

Widely regarded as one of Pittsburgh's most prominent civic leaders, Broadhurst serves on numerous boards, including the University of Pittsburgh Cancer Institute and the UPMC Cancer Centers

Council, and chairs the boards of the Pittsburgh Foundation, Children's Hospital of Pittsburgh of UPMC, and the United Way of Allegheny County. His dedicated contributions have earned him numerous awards, including the Pennsylvania Restaurant Association's Restaurateur of the Year award and the Katz School Distinguished Alumnus Award.

Broadhurst's commitment to higher education is evident through his service on the Board of Trustees of the Pennsylvania State University and the establishment of special scholarship programs that provide educational support to employees of Eat'n

Widely regarded as one of Pittsburgh's most prominent civic leaders, Broadhurst serves on numerous boards. His remarkable generosity toward the University of Pittsburgh includes gifts to the School of Nursing and the Katz Graduate School of Business and those to establish the Broadhurst Basketball Excellence Fund and the Broadhurst Science Center at Pitt's Titusville campus.

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William S. Dietrich II

William Dietrich was credited with transforming Dietrich Industries, Inc., a small steel warehouse and distribution business founded by his father, Kenneth P. Dietrich, into the nation's largest manufacturer of light metal framing for the construction industry. After Worthington Industries bought Dietrich Industries in 1996, Dietrich continued to serve as a director until his retirement in 2008. While leading Dietrich Industries through a period of remarkable growth, Dietrich earned his Master of Arts and Doctor of Philosophy degrees in political science from the University of Pittsburgh in 1980 and 1984, respectively.

Dietrich, who is being honored posthumously, having passed away on Oct. 6, 2011, will be remembered for his exceptional and well-targeted philanthropy, including what many consider one of the great hallmarks of his life—his historic \$125 million gift to the University of Pittsburgh. It is the largest individual gift to Pitt in its 225-year history and is one of

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Man With Spinal Cord Injury Uses Brain-Computer Interface to Move Prosthetic Arm With His Thoughts

By Anita Srikameswaran

Seven years after a motorcycle accident damaged his spinal cord and left him paralyzed, 30-year-old Tim Hemmes reached up to touch hands with his girlfriend in a painstaking and tender high-five.

Hemmes, of Evans City, Pa., is the first to participate in a new trial assessing whether the thoughts of a person with spinal-cord injury can be used to control the movement of an external device, such as a computer cursor or a sophisticated prosthetic arm. The project, one of two brain-computer interface (BCI) studies under way at the University of Pittsburgh School of Medicine and UPMC Rehabilitation Institute, used a grid of electrodes placed on the surface of the brain to control the arm.

It was a unique robotic arm and hand, designed by the Johns Hopkins University Applied Physics Laboratory, that Hemmes willed to extend first toward the palm of a researcher on the team and, a few minutes later, to his girlfriend's hand.

"I put my heart and soul into everything they asked me to do," he said immediately after his achievement. "I got to reach out and touch somebody for the first time in seven years."

"Seeing Tim reach out with a mechanical arm to touch his girlfriend was an unexpected and poignant bonus for all of us who are involved with this exciting project," said coprincipal investigator Michael Boninger, a professor and chair in the Department of Physical Medicine and Rehabilitation in Pitt's School of Medicine and director of the UPMC Rehabilitation Institute.

"This first round of testing reinforces the great potential BCI technology holds for not only helping spinal-cord-injured patients become more independent, but also enhancing their physical and emotional connections with their friends and family," Boninger added. "It further motivates us to make this technology useful and available to those who need it."

On Aug. 25, an electrocortigraphy (ECoG) grid, about the size of a large postage stamp, adapted from seizure-mapping brain electrode arrays, was placed on the surface of Hemmes' brain during a two-hour operation performed by coinvestigator and UPMC neurosurgeon Elizabeth Tyler-Kabara, assistant professor in the Pitt School of Medicine's Department of Neurological Surgery.

"Before the procedure, we conducted several functional imaging tests to determine where his brain processed signals for moving his right arm," Tyler-Kabara explained. "We removed a small piece of his skull and opened the thick layer of protective dura mater beneath it to place the grid over that area of motor cortex. We then put the dura and skull back with the wires on the outside of the skull but under the scalp."

Tyler-Kabara tunneled the connecting wires under the neck skin to exit from the upper chest, where they could be periodically hooked up to computer cables. Six days per week for the next four weeks

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Pitt to Host One-Day Summit to Explore Image Of African American Male in American Media

By Sharon S. Blake

The news media's depictions of Black males can have a profound effect on readers and viewers. How Black men are portrayed can often reinforce stereotypes, which can lead to negative perceptions and result in racial bias in everything from court decisions to policymaking.

A group of scholars, experts, and news media executives will discuss these issues at a one-day summit at the University of Pittsburgh Nov. 1 titled "Evolving the Image of the African American Male in American Media." The by-invitation-only event will take place from 8:30 a.m. to 5:30 p.m. in the second-floor Ballroom B of Pitt's University Club. The summit, presented by Pitt's Office of Public Affairs, is made possible by a grant from the Heinz Endowments.

The day's panelists—regional and national journalists, newspaper publishers, and researchers who have studied the issue—will explore the impact of negative reporting and present ways for the media to incorporate more accurate and balanced images of young Black men in their coverage. The invited audience of about 100 people will comprise media representatives, community leaders, foundation representatives, and Pitt faculty, staff, and alumni.

A complete schedule follows.

8:45 a.m. Opening Remarks and Introduction of the Keynote Speaker

Robert Hill, vice chancellor for Public Affairs, University of Pittsburgh.

Keynote Address

Marc Lamont Hill, faculty member at Teachers College of Columbia University, host of the nationally syndicated TV show *Our World With Black Enterprise*, and regular commentator for CNN, MSNBC, and Fox News.

9:30 a.m. Imagery in the News

A discussion of the power of major news media to shape opinions and the problems that result from unbalanced news coverage.

Travis Dixon, professor of communications, UCLA;

Robert Entman, J.B. and M.C. Shapiro Professor of Media and Public Affairs, George Washington University; and

Paul Hitlin, senior researcher, Pew Research Center.

Moderator: Paula Poindexter, a journalism faculty member, University of Texas at Austin.

10:30 a.m. A Conversation Among Young African American Males

Seven teenage and young adult Black males will discuss their perceptions of the news media as well as how their communities are depicted.

Amani Davis, senior at Winchester Thurston High School, Pittsburgh;

Antoine Allen, freshman at Syracuse University;

Ashton Gibbs, senior student athlete, University of Pittsburgh;

Tosen Nwadei, sophomore, University of Pittsburgh;

Raymont Hopkins, Pittsburgh youth who attended Pittsburgh Carrick High School;

Jasiri X, Pittsburgh-based entertainer; and

Jay Oriola, senior, University of Pittsburgh.

Moderator: Chris Moore, producer and host of WQED *Horizons*.

Noon Luncheon Speaker

Larry E. Davis, dean of the School of Social Work, Donald M. Henderson Professor, and director of the Center on Race and Social Problems at Pitt, will address the psychological impact on Black men of negative stereotypes promulgated by the media.

1:30 p.m. A Conversation Among Black Media Executives

Executives from traditionally African American-focused news outlets will discuss the role of the "Black Press" in the 21st century.

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Pitt Law Professor Ronald A. Brand to Receive International Theberge Award on Oct. 15

By Patricia Lomando White

Being named Pitt's Chancellor Mark A. Nordenberg University Professor in January was just the beginning of a banner year for University of Pittsburgh law professor Ronald A. Brand, founding director of the Center for International Legal Education in Pitt's School of Law.

On Oct. 15, Brand received the Leonard J. Theberge Award for Private International Law at the meeting of the American Bar Association Section on International Law in Dublin, Ireland. The award honors persons who have made distinguished, long-standing contributions to the development of private international law.

Candidates for the award, which was established in 1982, are nominated by the Section's Private International Law Committee and selected by the Council of the Section. By resolution of the Council, the award was named in memory of Leonard J. Theberge, chair of the section in 1970-80 who had been, at the time of his death, president of the Media Institute, a business news study group, and past president of the National Legal Center for the Public Interest. Prior recipients include the late Philip W. Amram, expert on international private law who served as chair of the U.S. delegation to the 1972 Hague Conference on Private International Law and was the first to receive the award in 1983; the late Allan Farnsworth, a legal scholar on contracts who was a reporter for the 1981 Restatement of Contracts; the late John Honnold, William A. Schnader Professor of Commercial Law Emeritus at the University of Pennsylvania Law School and an expert

in private international law known as the father of the Vienna Convention; and the late Arthur Von Mehren, the Story Professor of Law Emeritus at Harvard Law School who formerly headed the U.S. delegation to the Hague Conference on Private International Law.

In addition to receiving the Theberge Award, Brand will be awarded in November the degree of Doctor *Juris Honoris Causa* by the University of Augsburg Faculty of Law in Germany to commemorate cooperation between Pitt's School of Law and Augsburg. Brand has led more than two decades of close collaboration with the Augsburg Faculty of



Ronald A. Brand

Law, beginning in 1987 with a U.S. State Department grant to celebrate the bicentennial of the U.S. Constitution. The two law schools have exchanged faculty and students and engaged in novel cooperative teaching experiences.

Earlier this year, in August, Brand was invited to teach a special course on private international law in the 2011 summer program at the Hague Academy of International Law at the Peace Palace in The Hague, the Netherlands. Titled "Transaction Planning Using Rules on Jurisdiction and Judgments Recognition," the course was attended by more than 300 students from 67 countries. Brand was the only U.S. professor among the 15 who taught courses on public and private international law in the summer program.

Brand's lectures will be published in the Hague Academy Collected Courses, one of the world's leading sources of public and private international law scholarship.

The Hague Academy, created in 1923, is housed in the Peace Palace with its sister organizations, the International Court of Justice and the Permanent Court of Arbitration. The academy has been described as the most prestigious school for international legal matters in the world. Former U.N. Secretary General Boutros Boutros-Ghali is president of its governing body, the Curatorium.

CHANCELLOR'S AWARD FOR STAFF EXCELLENCE IN SERVICE TO THE COMMUNITY 2012

Nominations are being solicited for this University-wide award to recognize staff members whose dedication and effort have made their community a better place to live and have improved quality of life for others. This award is given annually to part-time or full-time staff members who have been employed at the University for a minimum of five years. Nominations can be made by individuals, groups, students, or alumni. Self-nominations are allowed.

If you know of a staff member whose work in the community surpasses the expectations of the organization(s) he or she serves, and whose commitment and effort have made a significant impact on the community while also demonstrating a consistent pattern of dedication to the University, please visit www.hr.pitt.edu/chancellors-award to review the nomination guidelines and complete the online nomination form. The nomination will be reviewed to confirm that the nominee is eligible, after which the nominee, nominee's supervisor, and nominator will receive notice of the nomination along with a request for additional information.

The nomination deadline is Monday, November 14, 2011.

A committee appointed by the Chancellor and chaired by Jane W. Thompson will review the nominations and materials submitted and will select up to five people to be honored. For more information, please visit www.hr.pitt.edu/chancellors-award-nominate.



University of Pittsburgh

CHANCELLOR'S AWARD FOR STAFF EXCELLENCE IN SERVICE TO THE UNIVERSITY 2012

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If you know of a staff member whose work demonstrates a consistent pattern of extraordinary dedication to the University, above and beyond the responsibilities of the nominee's position, please visit www.hr.pitt.edu/chancellors-award to review the nomination guidelines and complete the online nomination form. The nomination will be reviewed to confirm that the nominee is eligible, after which the nominee, nominee's supervisor, and nominator will receive notice of the nomination along with a request for additional information.

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Bullish on Energy

Pitt Center for Energy at Forefront of Critical, Specific Energy Challenges

Spotlight on **Research**



By Daniel Bates

Western Pennsylvania sits atop one of the largest reserves of natural gas in the country. The nation's oil industry was born here. The region's vast coal deposits, which led to an industrial revolution that largely began here, continue to feed the region's electricity needs. Companies such as Westinghouse Electric Company have ensured that nuclear energy research remains firmly entrenched in the Pittsburgh area. And the U.S. Department of Energy's National Energy Technology Laboratory (NETL) resides squarely within the region.

So it should come as little surprise that, today, University of Pittsburgh researchers embrace the enduring, pioneering spirit of the Pittsburgh region's historic energy legacy with a growing diversity of collaborative, multidisciplinary research that spans the energy disciplines.

"This region historically has been rich in energy research and development, and the University of Pittsburgh for years has supported that legacy with its top-quality faculty and research programs," says Vice Provost for Research George Klinzing. "We're totally committed to energy research and development at Pitt, and we have a robust collaboration of unique talent driving our efforts. We're really bullish on energy."

But Pitt researchers are not just researching new ways to harness energy or other high-profile alternative energy solutions, Klinzing says. Helping to bridge energy's past and its long-term future, they are delving into challenges surrounding what he describes as some of the most important underpinnings of a successful energy sector. "I call it the guts of energy—what makes the sector work more efficiently and effectively," Klinzing says of Pitt's unique focus on energy research. "It's what makes energy tick."

The researchers' tools comprise a unique combination of basic, experimental science and sophisticated computer modeling and simulation that, Klinzing says, are key to solving some of the world's most vexing energy chal-



Developing advanced materials for energy-related applications is a key initiative in Pitt's Center for Energy. This includes experimental and computation efforts on structural and functional materials for use in harsh environments (including those associated with nuclear systems), robust solar materials and devices, materials for energy storage, and thermoelectrics and sensors.

lenges.

Indeed, researchers at Pitt today are using that combination to:

- Make coal into a more efficient and cleaner energy source and transform it into new synthetic fuels;

- Develop power-plant technologies that would lead to minimal carbon dioxide emissions, as well as novel methods to effectively reuse this greenhouse gas; and

- Design high-temperature valve systems for turbines that generate electricity.

In addition, they're using new polymers, nanoscale particles, and other advanced materials to capture, convert and store energy, as well as protect energy-related equipment from extreme conditions such as intense heat or ice.

Other innovators at Pitt are studying more efficient ways to integrate sources of electrical power and distribute it to consumers. One research group is inventing new technologies to capture ambient radio-frequency energy to recharge implantable medical device batteries. Still others are developing new computer modeling tools and methodologies to dramatically enhance energy research. And Pitt is helping to lead a national consortium of five universities, called the Regional University Alliance, in a wide range of basic and applied research in partnership with NETL.

Pitt's Center for Energy

Pitt's Center for Energy, which was created in 2008 under an initiative led by the Office of the Provost, brings together this powerhouse of innovators and their diversity of research—from chemists and geologists to physicists, materials scientists, mechanical engineers, electrical engineers, and environmental engineers. The center is housed in the University's Swanson School of Engineering.

The center's director is Brian Gleeson,

Harry S. Tack Chair and Professor of Materials Engineering in Pitt's Department of Mechanical Engineering and Materials Science. Associate directors are Laura Schaefer, a professor of engineering in the Department of Mechanical Engineering, and Gregory Reed, a professor of electric power engineering in the Department of Electrical and Computer Engineering. These three top researchers manage their own research programs and provide leadership to the University's overall energy endeavor.



The center's goal is to better coordinate the University's wide spectrum of in-depth energy research and facilitate innovative, multidisciplinary solutions to the world's growing energy challenges.

"Energy really is the defining social, political, and economic problem of the 21st century," Gerald Holder, U.S. Steel Dean of Engineering of the Swanson School of Engineering, says in explaining why the University has put such a strong emphasis on energy research. "The University of Pittsburgh has a long history in the energy discipline and will continue to develop it as one of the leading initiatives in engineering. It's a priority."

The center also gives the University the ability to collectively and more systematically develop stronger and more collaborative partnerships—including education and research—with such companies as Westinghouse Electric Corp., Eaton Corp., Consol Energy Inc., and other industry partners from Pittsburgh and beyond, according to Donald Shields, who serves as the center's executive director. "We're able to partner with them in both workforce development education programs and technical development, working to solve technical challenges," Shields says. "One of the things we have an ability to do because of the scope of our collaborative energy research is leveraging the participation of these partners. It gives us bigger opportunities in competing for federal research funds."

Today, the center's 70-plus affiliated research faculty University-wide are striving to combine their diverse expertise to strengthen basic- and applied-research programs in primarily five key areas: energy delivery and reliability, carbon management and utilization, high-temperature and other advanced materials, energy efficiency, and unconventional gas resources. In the short-term, the center also hopes to develop an infrastructure that

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"This region historically has been rich in energy research and development, and the University of Pittsburgh for years has supported that legacy with its top-quality faculty and research programs."
—George Klinzing

George Klinzing



Among the initiators of Pitt's formalized energy research activities were Pitt's U.S. Steel Dean of Engineering Gerald D. Holder (left), and Brian Gleeson, Harry S. Tack Chair and Professor of Materials Engineering in Pitt's Department of Mechanical Engineering and Materials Science. Their efforts, along with an initiative led by the Office of the Provost, eventually resulted in the 2008 creation of Pitt's Center for Energy, housed in the Swanson School of Engineering and directed by Gleeson. Associate directors are Laura Schaefer, a professor of engineering in the Department of Mechanical Engineering, and Gregory Reed, a professor of electric power engineering in the Department of Electrical and Computer Engineering.

Bullish on Energy

Pitt Center for Energy at Forefront of Critical, Specific Energy Challenges

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effectively transforms the research into commercially successful products and processes.

Integrating power

The importance of developing a more efficient electrical power transmission and distribution system becomes clear as more sources of electrical power generation begin to contribute electricity for general consumer use. That's where Gregory Reed and his research team at Pitt become an important part of the energy equation.

In fact, Gleeson, referring to Reed's research, says that "reducing grid instability and integrating renewable energy into the grid are crucial for the future of energy."

Reed has been working for several years to foster educational programs in engineering in partnership with companies such as Eaton Corp., ABB Inc., Siemens Energy, and Mitsubishi Electric, among others. Out of that effort, he says, has emerged a growing research program focusing on advanced power electronics-based transmission and distribution technologies that help regulate the flow of electrical power throughout the power grid. Reed has more than 25 years of industry and academic experience in the electric power and energy arena. His research program, supported by at least six research faculty and more than a dozen full-time graduate students, targets several main areas. Among them are power electronics technologies for large-scale power delivery applications, including Flexible AC Transmission Systems, or FACTS; High-Voltage DC Transmission Systems (HVDC); and Medium-Voltage DC Systems (MVDC). In addition, the group also is studying new energy storage systems, smart-grid technologies, energy efficiency, and power quality. The research is supported by grants from the U.S. Department of Energy, the U.S. Department of Commerce, Pennsylvania's Ben Franklin Technology Development Authority, the National Science Foundation, and a number of industry partners.

"There are a lot of applications to explore based on renewable energy integration and grid infrastructure development," Reed says. "As a result, we are one of the fastest-growing university programs in the country in this area at this time. Our potential for growth is tremendous, and the contributions that we are making are having an impact on technology developments for our industry partners and other constituents."

The efficiency factor

Laura Schaefer has taken on the challenge of developing more efficient energy systems. In recent years, she and her collaborators have received more than \$10 million in funding from such organizations as the National Science Foundation, the Air Force Office of Scientific Research, and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers. Schaefer's research centers on the analysis, design, and optimization of energy systems, with an emphasis on improving energy efficiency and diversification for increased sustainability. She examines energy systems from a fundamentals viewpoint and within the context of environmental and societal impact. Among the energy systems she analyzes are absorption cycles, fuel cells, two-phase microchannel flow, multijunction solar cells, hydrokinetics, and thermoacoustics. She also is developing new algorithms and sensors for what she



Gregory Reed, a professor of electric power engineering in the Swanson School's Department of Electrical and Computer Engineering, is researching how to reduce instability in the nation's electrical power grid, including methods to better implement advanced AC and DC power electronics control systems and to effectively integrate renewable energy resources into that grid. Reed, an associate director of Pitt's Center for Energy, has extensive industry and academic experience in the electric power and energy arena.

describes as the optimal operation of building systems and assessing hybrid fuel cell/turbine power generation life cycles.

Peyman Givi, meanwhile, has been focusing his research on turbulent combustion as part of an effort to increase fossil-fuel efficiency and reduce pollution associated with exhaust emissions.

Givi, William Kepler Whiteford Professor in the Department of Mechanical Engineering and Materials Science, conducts much of his research in the Swanson School's Laboratory for Computational Transport Phenomena. The lab, which he oversees, boasts high-speed minisupercomputers and graphic systems, as well as hardware and software for running simulations. Its state-of-the-art technology has allowed Givi to develop more accurate and comprehensive computer models of turbulent reacting flow and other efficiency targets.

William "Buddy" Clark and research collaborator Jeff Viperman, both professors of mechanical engineering and materials science, have a partnership with NETL that has helped set the stage for a strong long-term relationship with the locally based federal energy lab. The pair was asked to develop a valve system for power plant gas turbines that would decrease emissions, control combustion instabilities, and provide fuel flexibility, allowing the turbines to burn conventional

fuels such as methane as well as gases derived from coal, hydrogen, petrochemicals, cow manure, and other sources.

Clark and Viperman's research yielded a set of valves that could rapidly adjust fuel flow rate based on information obtained from a combustion sensor developed by NETL, Clark says. The research team now is working with Pitt's Office of Technology Management, along with NETL, to commercialize the innovation.

Gleeson is quick to point to such collaborations and the complex problems they are solving as exemplary of the "underpinnings" of energy research being conducted at Pitt. "They're a great research team," he says of Clark and Viperman. "Their partnership has been great in developing a long-term relationship with NETL,

The Center for Energy is dedicated to five key areas of research: energy delivery and reliability, carbon management and utilization, high temperature and other advanced materials, energy efficiency, and unconventional gas resources. The center is positioned to be a national leader in these important areas of energy-related research.

and it has led to some significant innovations. That's what these partnerships are all about."

Another promising technology—and one that also has emerged from a direct research partnership with NETL—is a new fuel sensor technology developed by Joel Falk, a professor of electrical and computer engineering, and his research team. The sensor measures and controls the composition of gases going into and coming out of gas power plant turbines, allowing for maximum efficiency. The technology is in the process of being commercialized with an outside commercial partner.

Also tackling efficiency issues with gas turbines is Minking Chyu, the Leighton and Mary Orr Chair Professor and chair of the Department of Mechanical Engineering and Materials Science. Chyu focuses primarily on thermal and material issues related to energy, power and propulsion systems, material processing, and micro/nanosystem technology. Recent research projects include convective cooling of gas turbine airfoils, nanofluid applications in heat transfer and oil and gas exploration, and thermal measurement and imaging techniques.

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Laura Schaefer, a professor of engineering in the Department of Mechanical Engineering and an associate director of Pitt's Center for Energy, focuses her research on the development of more efficient energy systems. In recent years, she and her collaborators have received more than \$10 million in funding from such organizations as the National Science Foundation and the Air Force Office of Scientific Research. Schaefer's research centers on the analysis, design, and optimization of energy systems, with an emphasis on improving energy efficiency and diversification for increased sustainability.

Spotlight on Research



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Taking the heat...and other advanced materials challenges

Potential new fuel sources are posing additional scientific challenges when it comes to electric power turbines and the high levels of heat created during power generation. Pitt researchers, armed with advanced-materials expertise linked partly to earlier ties to the region's steel industry, see such heat as an opportunity for innovation.

Take Gerald Meier, William Kepler Whiteford Professor in Pitt's Department of Mechanical Engineering and Materials Science, and Brian Gleeson, for instance. Both are exploring the potential development of new materials that would allow solid oxide fuel cells and hydrogen turbines to stand up more effectively to extremely high temperatures. Both are investigating, for example, viable new combinations of metals and ceramics for thermal barrier coatings that might better insulate turbine components typically found in aircraft and ship engines and power generators, while allowing for the generation of greater heat. The thermal barrier coatings that Meier and Gleeson are studying usually are used on aircraft engine turbines to achieve improved engine efficiency and durability.

Funding some of Meier and Gleeson's research is the U.S. Office of Naval Research (ONR), which is interested in better aircraft and ship performance and is cognizant of the fact that a hotter turbine amounts to more thrust from an engine. But the research collaborators also contend that the same science can be applied to turbines in power plants to make them more efficient.

Gleeson and Meier are also working on a number of research projects to improve the performance of materials used at high temperatures and in other severe environments. These projects, funded by the U.S. Department of Energy, ONR and other federal agencies, and indus-

Center for Energy researchers are engaged in collaborative research that spans the energy disciplines. They are employing a variety of tools, including basic and experimental science as well as sophisticated computer modeling and simulation. Their goal: to understand and help create the underpinnings of an effective and efficient energy sector.

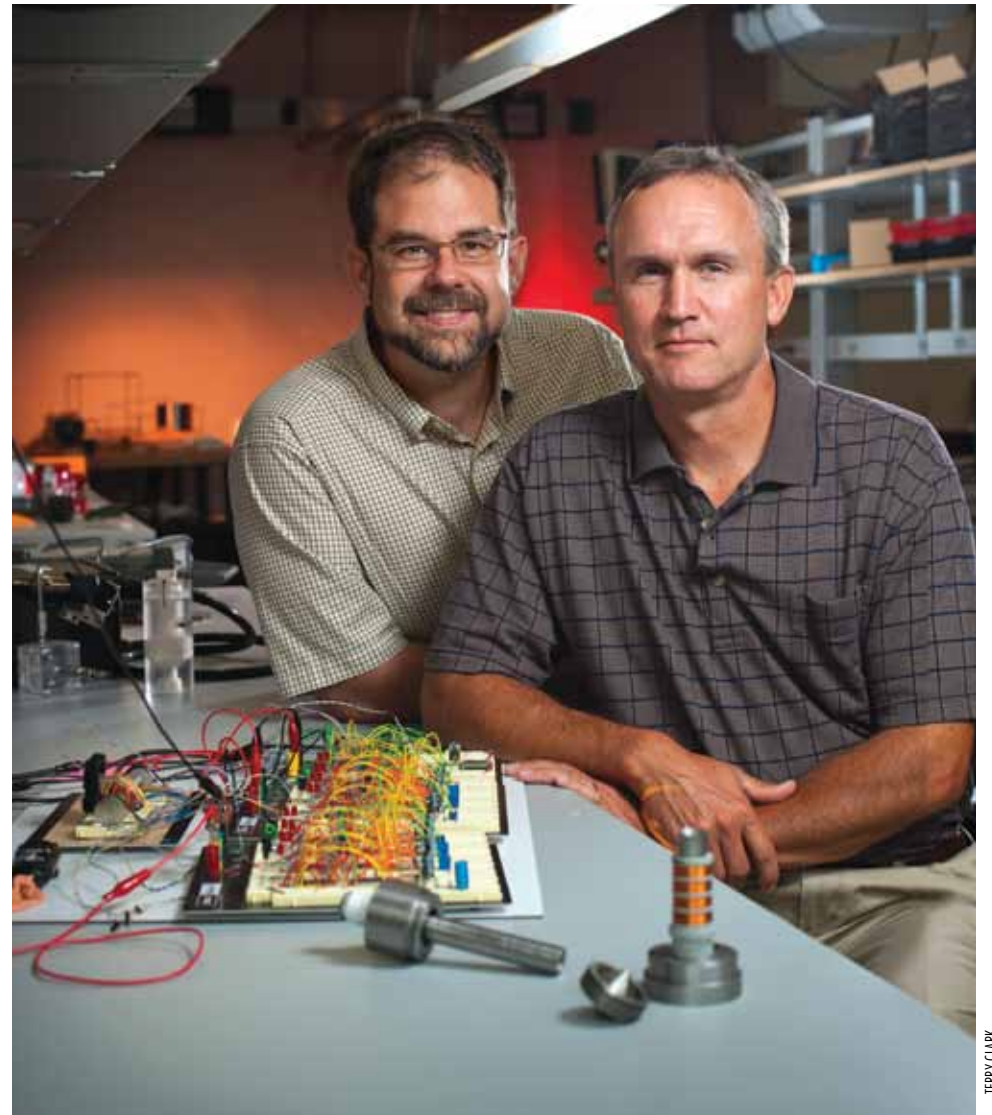
try, focus on surface degradation, protective coatings, and life-prediction modeling.

Harnessing (more) sun

In the University's Department of Chemistry, other researchers are developing new materials to better harness the immense spectrum of sunlight by using the tiniest of particles. David Waldeck, a professor and chair in the School of Arts and Science's Department of Chemistry, is exploring ways to provide a systematic and modular approach to creating a new generation of solar energy conversion devices using nanoparticle-based materials.



His research team, which includes researchers from Duke University and the Weizmann Institute of Science in Israel, is working to design, synthesize, and provide characterization of linked nanoparticle assemblies that will provide a charge separation "engine" in solar cells. The cells, in turn, then should be able to



TERRY CLARK

William "Buddy" Clark (right) and Jeff Viperman, both Pitt professors of mechanical engineering and materials science, were asked by the National Energy Technology Lab (NETL) to develop a valve system for power plant gas turbines that would decrease emissions, control combustion instabilities, and provide fuel flexibility, allowing the turbines to burn conventional fuels such as methane as well as gases derived from coal, hydrogen, petrochemicals, cow manure, and other sources. Clark and Viperman's research yielded a set of valves that could rapidly adjust fuel flow rate based on information obtained from a combustion sensor developed by NETL, Clark says. The research team now is working with Pitt's Office of Technology Management, along with NETL, to commercialize the innovation.

capture the entire available range of solar irradiance.

Back in the Swanson School, meanwhile, nanoscientist Hong Koo Kim has developed a new method of light coupling in solar cells using nano-optic structures. His innovation, which is being characterized as a platform technology and referred to as "solar-nano," has the potential to significantly increase the efficiency of solar cells in capturing photons and converting them to electrons via photovoltaic cells. Kim is the Bell of Pennsylvania/Bell Atlantic Professor, Department of Electrical and Computer Engineering, and codirector of

Pitt's Petersen Institute of NanoScience and Engineering. Kim has struck a research partnership with Pennsylvania-funded Innovation Works and its energy initiative to commercialize the technology.

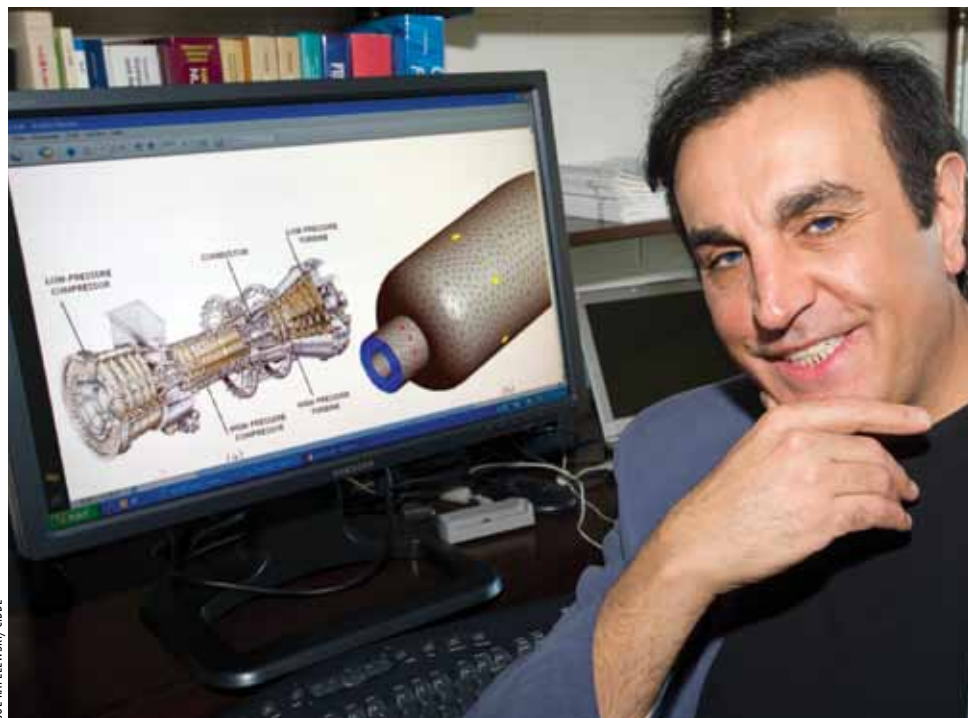
"It would be a paradigm shift in how light is captured [in solar cells]," says Harold Swift, a licensing manager with Pitt's Office of Technology Management (OTM) who is helping to facilitate the commercialization effort with Kim. "Hong Koo Kim really is a pioneer in nanotechnology, particularly in the area of nano-optics."

Mingui Sun, a professor of neurological surgery, bioengineering, and electrical engineering, likewise is targeting the sun, but with a novel wireless energy transmission technology that can transmit significant levels of energy, captured via solar-panel systems, safely through walls (or roofs) and spaces without any direct wire cable connections. His innovation, Sun says, uses uniquely designed oscillating thin-film coils and resonators to convert electrical energy to magnetic energy over short distances to either electricity storage devices or directly to electrical devices.

The value proposition of the innovation, Sun contends, is that it alleviates the traditional need for complicated—and expensive—solar panel installation procedures that require, for example, holes in a rooftop through which



A defining characteristic of the center is its track record of working closely with the concentration of energy-related companies in the region such as Westinghouse Electric Corporation, Eaton Corporation, Consol Energy Inc., and other industry partners from Pittsburgh and beyond.



Peyman Givi's research focuses on turbulent combustion as part of an effort to increase fossil-fuel efficiency and reduce pollution associated with exhaust emissions. Givi, William Kepler Whiteford Professor in the Department of Mechanical Engineering and Materials Science and director of the Laboratory for Computational Transport Phenomena at Pitt, uses advanced simulation and modeling to provide an accurate way for engineers to experiment with engines even before they are built. Rolls-Royce and NASA engineers already use Givi's model to predict temperature differential, fuel usage, and emissions for different engine and fuel combinations.

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Bullish on Energy

Pitt Center for Energy at Forefront of Critical, Specific Energy Challenges

Spotlight on **Research**



Continued from page 5

to run wiring into a home. Sun also is working with Pitt's OTM to commercialize his technology.

Unconventional gas

Few could argue that the Marcellus Shale geologic formation spanning Pennsylvania and parts of Ohio, West Virginia, Maryland, and New York has proven a boon for the energy industry, particularly in Pennsylvania. It's considered unconventional, of course, because of the nature of the deposits—and the way natural gas must be extracted, which includes deep and then horizontal drilling before pushing a pressurized water slurry into the hole to "fracture" the shale deposits and release the gas from the rock.

The process has provided many new opportunities for the use of natural gas and has created new jobs and even new industries in the region. But it also has created a gusher of new scientific challenges—which means lots of collaborative research opportunities for University researchers, who happen to sit in the heart of Marcellus drilling country.

Perhaps one of the most pressing issues is the proper management of water



used in the process, according to Radisav Vidic, William Kepler Whiteford Professor and Chair in Pitt's Department of Civil and Environmental Engineering, who has added this issue to his portfolio of research endeavors. Horizontal drilling and multi-stage hydraulic fracturing requires the use of millions of gallons of water mixed with other materials. Vidic is studying the resulting polluted water, including its movement before, during, and after the fracturing process.

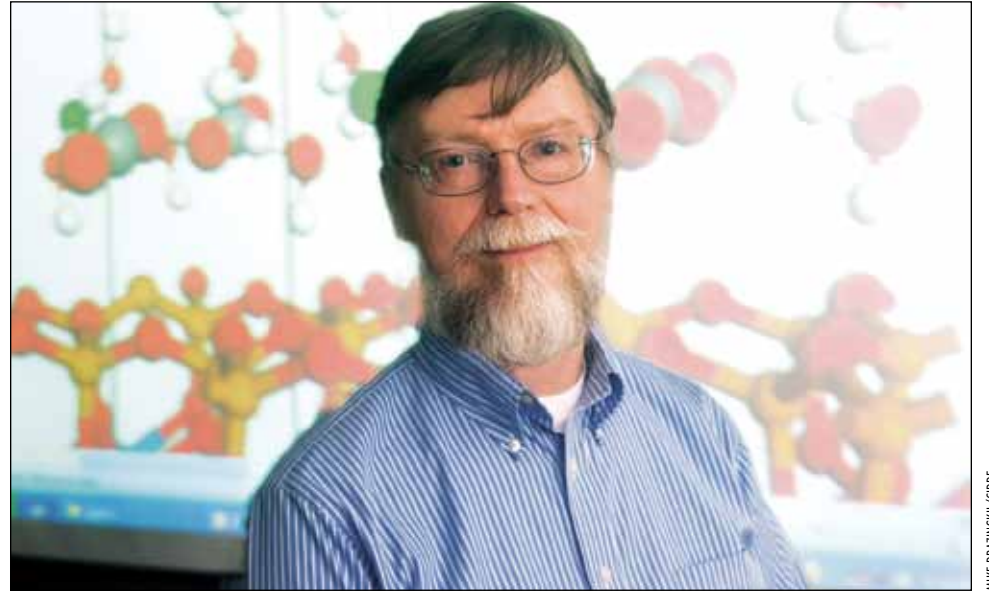
Gleeson and others at Pitt currently are in the early stages of developing increased research focusing on unconventional gas, covering everything from flow-back water management and naturally occurring radioactive matter to health, safety, transportation, and even workforce development issues.

Carbon challenges

Despite a national push toward new and renewable energy sources, coal and other fossil fuels still predominate when it comes to energy production. Thus, Pitt researchers also continue to study coal, its carbon properties, uses, byproducts, environmental impact, and other related issues. Such coal research remains imperative, at least in the foreseeable future, because the nation's plentiful coal reserves continue to fuel the generation of at least 50 percent of the nation's electricity, according to the DOE's Energy Information Administration. As such, Pitt faculty members, many supported by research partnerships with NETL and its fossil fuel research interests, are discovering better ways to burn coal, convert coal into cleaner-burning synthetic fuels, and build better turbines and fuel cells that would use those synthetic fuels. University researchers also are tackling such issues as how to reduce or eliminate the emission of carbon dioxide produced by power plants that burn coal and how to store, use, or reuse greenhouse gas



The center is ideally situated to accomplish its mission, given the region's abundant natural resources, the presence of leading energy companies, Pitt's long-term relationship with NETL, and the experience of more than 70 faculty members from multiple disciplines Universitywide.



MIKE DRAZINSKI/CODE

Distinguished Professor of Computational Chemistry Kenneth Jordan is studying CO₂ with particular emphasis on how to capture and store it as well as on how to convert it into fuels. Among several of Jordan's recent projects is a NETL-funded study of the use of clay materials to capture and store CO₂. The background of the above photo of Jordan shows images of CO₂ molecules trapped in interlayer water in a clay sample.

rather than releasing it into the atmosphere.

Badie Morsi, a professor of chemical and petroleum engineering at Pitt, offers his own vision for coal's future, saying it begins with developing much cleaner and energy-efficient coal-derived fuels.

Morsi, who serves as director of the University's petroleum engineering program, says he is applying 21st-century innovation to a technology that was first developed and used in the 1920s.

Morsi is working to improve the gasification process to work more effectively and cleanly with modern coal gasifiers. As he explains, today's gasifiers use high pressure and temperature, add oxygen or steam to break down the coal into its original components, and then set off a chemical reaction that produces hydrogen, carbon monoxide, and carbon dioxide. The resulting hydrocarbons then can be used to produce diesel, gasoline, jet fuel, and lubricating oil, among others. Morsi's current research focuses on designing and scaling up multiphase reactors, such as bubble columns, slurry bubble columns, high-pressure/temperature-stirred vessels, membrane reactors, and trickle-bed reactors. He also is conducting computer modeling and optimization tests on these chemical processes.

William Harbert, a professor of geophysics in Pitt's Department of Geology and Planetary Science, believes that capturing carbon dioxide (CO₂) from power plants and safely sequestering it underground in the long term is possible. After all, oil recovery workers already pump CO₂ into reservoir rock made from compressed sand, forcing hydrocarbons out of the ground. The big question, he asks, is, "Is

The Marcellus Shale geologic formation has created a gusher of new scientific challenges—which means lots of collaborative opportunities for University researchers.

it staying there?"

The geophysicist and his research team are using 4-D seismic data to study such CO₂ sequestration sites before and after CO₂ is injected into the geological reservoirs—and then six months later, to see whether the CO₂ is staying there.

Distinguished Professor of Computational Chemistry Kenneth Jordan also is studying CO₂ and how to store it safely and effectively. But he's just as interested, he says, in finding ways to essentially reactivate it out of storage via chemical transformations and temperature changes and even using CO₂ as a mechanism for transporting energy.

Among several of Jordan's recent projects is a NETL-funded study of the use of clay materials to capture and hold CO₂ for future reuse and the role played by water in absorbing CO₂.

Another NETL-funded project focuses on the use of so-called ionic fluids for storage and reuse. "Our interest is in an inexpensive medium in which you can capture and store CO₂ long-term—one that you can later heat up or whose pressure you can change in order to release the CO₂ again," Jordan says.

Jordan, who also is the director of the University's Center for Molecular and Materials Simulations, says he also is researching the use of sunlight to convert CO₂ and water-derived hydrogen into useful products like methanol and methane.

What brings all of Jordan's research together is his pioneering use of computer modeling and simulations to "push the theoretical methods," he says. "These projects have a lot of components and are like a puzzle that you're trying to figure out. So with a combination of experimental studies and modeling, our energy research is a much more effective—and powerful—combination."

University of Pittsburgh Names 16 Legacy Laureates

Continued from page 1

Dietrich will be remembered for his exceptional and well-targeted philanthropy, including what many consider one of the great hallmarks of his life—his historic \$125 million gift to the University of Pittsburgh.

the 10 largest gifts made by an individual to a public university in the United States.

Dietrich, who earned the rank of distinguished Eagle Scout and served in the U.S. Marine Corps Reserve, devoted himself to a wide range of civic duties, including service as a member of Pitt's Board of Trustees from 1991 to 2011 and as the board's chair from 2001 to 2003. He also served as chair of the board's audit, investment, and conflict of interest committees in addition to serving on the boards of several other institutions, including Carnegie Mellon University, the Carnegie Museum of Art, Chatham University, and the Pittsburgh Symphony Society.

His passionate interest in history and economics inspired him to author two books: *In the Shadow of the Rising Sun: The Political Roots of American Economic Decline* and *Eminent Pittsburghers: Profiles of the City's Founding Industrialists*. He was a regular contributor to *Pittsburgh Quarterly*, and, at the time of his death, was writing a third book.

Sofian Effendi

Sofian Effendi's distinguished academic career began at Gadjah Mada University (UGM), the largest and oldest national university in Indonesia. After traveling to the United States to continue his studies at the University of Pittsburgh, where he held both a Fulbright Scholarship and a Rockefeller Foundation Fellowship, he earned his Master of Public and International Affairs in economic and social development and Doctor of Philosophy degrees from the University of Pittsburgh Graduate School of Public and International Affairs in 1975 and 1978, respectively.

Effendi returned to UGM, where he played a major role in establishing the UGM Population Studies Center and was the founding director of the UGM Graduate School of Public Policy and Administration. From 2002 until 2007, he served as president of UGM. Currently, he is a professor of public policy at UGM and a senior decentralization advisor to the United Nations Development Programme in Indonesia.

Effendi's leadership and scholarship have been recognized through a number of prestigious government appointments, including service as chair of the National Civil Service Commission of Indonesia, where he led reforms and introduced legislation to help the country's civil servants. He is the author of numerous articles and papers and is a member of many professional and public organizations, including the Indonesian

Effendi's leadership and scholarship have been recognized through a number of prestigious government appointments. He is the author of numerous articles and papers and is a member of many professional and public organizations, including the Indonesian Academy of Sciences.



Drew Gitomer, during Oct. 13 Legacy Laureates Luncheon.

Academy of Sciences.

His many awards and honors include a 2009 Distinguished Alumnus Award from the Graduate School of Public and International Affairs. Effendi also is a member of the Graduate School of Public and International Affairs Board of Visitors and International Advisory Board.

Mahmoud A. ElSohly

Mahmoud ElSohly has commanded a distinguished career in biochemical pharmacology. He is a research professor at the University of Mississippi's National Center for Natural Products Research in the Research Institute of Pharmaceutical Sciences, a professor of pharmaceuticals in that university's School of Pharmacy, and director of the National Institute on Drug Abuse Marijuana Project. He also serves as president and laboratory director of ElSohly Laboratories, Inc., a multifaceted laboratory that offers analytical and advisory services in the area of drug testing to commercial and governmental clients. ElSohly earned a Doctor of Philosophy degree from the University of Pittsburgh School of Pharmacy in 1975.

ElSohly has worked on many projects to advance human health and alleviate the suffering of others, including a vaccine to protect people with severe allergies to poisonous plants as well as drugs that stimulate the appetite of patients being treated for cancer or AIDS. ElSohly and his Pitt alumus wife, Hala (PHARM '75), isolated a compound to treat malaria, allowing the World Health Organization to create the first supply of a drug to treat the disease in Western Europe.

A fellow of the American Academy of Forensic Sciences, American College of Forensic Examiners International, and American

Institute of Chemists, ElSohly has been recognized by *The Scientist*, *Science Watch*, and the *Journal of Analytical Toxicology* as one of the most-cited authors in forensic sciences in the world. He has presented at more than 200 scientific meetings of professional societies and holds more than 20 patents.

David C. Frederick

David Frederick is a partner at Kellogg, Huber, Hansen, Todd, Evans & Figel, P.L.L.C., specializing in appellate and U.S. Supreme Court cases. He earned his Bachelor of Arts degree, summa cum laude, in political science in 1983 from the School of Arts and Sciences at the University of Pittsburgh. Frederick holds the distinction of being Pitt's first Rhodes scholar. While at Pitt, he was among the first students to matriculate in the University honors program, was an award-winning debater in the William Pitt Debating Union, was a member of the academic honor societies Omicron Delta Kappa and Phi Beta Kappa, and was the recipient of Rotary Ambassadorial and Truman scholarships and the University's Emma W. Locke Award.

Frederick served as a law clerk for the Honorable Joseph T. Sneed III of the U.S. Court of Appeals for the Ninth Circuit and U.S. Supreme Court Justice Byron R. White, was counselor and assistant to the solicitor general in the U.S. Department of Justice, and has extensive experience in private law practice.

One of the nation's leading appellate attorneys, Frederick has published four books and authored many articles and commentaries on trial advocacy, the Supreme Court, and the history of the Ninth Circuit, in addition to having argued 36 cases in

Gitomer has dedicated his career to the advancement of education research while contributing to literature on teaching, teacher development, and assessment.

front of the Supreme Court.

A loyal Pitt alumnus, Frederick helped to establish the G. Alec Stewart Endowed Student Research Fund in memory of the founding dean of the University Honors College and is an active volunteer with the Pitt Alumni Association.

Drew H. Gitomer

Drew Gitomer has dedicated his career to the advancement of education research while contributing to literature on teaching, teacher development, and assessment. He is the Rose and Nicholas DeMarzo Chair in Education at the Rutgers University Graduate School of Education. After beginning his career in education as an outreach worker for the School District of Lancaster in Pennsylvania, he enrolled at the University of Pittsburgh, where he served as a graduate research assistant and earned his Master of Science and Doctor of Philosophy degrees from the School of Arts and Sciences in 1982 and 1984, respectively.

In 1985, Gitomer joined the Educational Testing Service (ETS), which administers exams such as the SAT and GRE, as a scientist in its research division. He went on to become senior vice president for research and development and distinguished researcher and director of the Understanding Teaching Quality Center at ETS. Gitomer

also spent time as a senior fellow at the University of Chicago's National Opinion Research Center, one of the oldest nonprofit academic research organizations in the United States. His research has been funded by such prestigious organizations as the Bill & Melinda Gates Foundation, the National Science Foundation, the U.S. Department of Education, and the William T. Grant and Spencer foundations.

Gitomer serves on the boards of the Educational Policy Institute and American Psychological Association, among others, and has been an editor and reviewer for scholarly texts and journals, including the American Educational Research Association's *Educational Evaluation and Policy Analysis*, *Educational Researcher*, and *Review of Educational Research*.

Harvey M. Golomb

Harvey Golomb is senior advisor to the medical center president at the University of Chicago, where he has devoted 36 years to the research and treatment of cancer.

After earning his Doctor of Medicine degree from the University of Pittsburgh School of Medicine in 1968, he spent time as a captain in the U.S. Army Medical Service Corps assigned to the Armed Forces Institute of Pathology, received a National Institutes of Health fellowship in the Johns Hopkins University School of Medicine's Division of Medical Genetics, and received a fellowship in hematology/oncology at the University of Chicago Medical Center.

Golomb is an internationally recognized

Frederick helped to establish the G. Alec Stewart Endowed Student Research Fund in memory of the founding dean of the University Honors College and is an active volunteer with the Pitt Alumni Association.

ElSohly and his Pitt alumus wife, Hala, isolated a compound to treat malaria, allowing the World Health Organization to create the first supply of a drug to treat the disease in Western Europe.

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University of Pittsburgh Names 16 Legacy Laureates

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Golomb is an internationally recognized expert on the genetic abnormalities that cause various cancers. He was among the first physicians in the world to perform clinical studies using interferon to boost a patient's own immune system as a weapon against cancer.

expert on the genetic abnormalities that cause various cancers and is a leading authority on the treatment of hairy cell leukemia. He was among the first physicians in the world to perform clinical studies using interferon to boost a patient's own immune system as a weapon against cancer.

The author of more than 350 peer-reviewed publications and nearly 300 scientific abstracts, Golomb has served in editorial capacities for multiple journals and publications and as president of the American Society of Clinical Oncology. He is a diplomate of the American Board of Internal Medicine and a fellow of both the American Association for the Advancement of Science and the American College of Physicians. His numerous awards and honors include the Philip S. Hench Distinguished Alumnus Award from the University of Pittsburgh School of Medicine.

Priscilla H. Hamilton

Priscilla Hamilton is a highly decorated colonel in the U.S. Army Dental Care System whose long and distinguished career has been devoted to serving our country and improving the health and the quality of the lives of service members and their families. She earned her Doctor of Dental Medicine degree from the University of Pittsburgh School of Dental Medicine in 1982.

A veteran of Operations Desert Shield and Desert Storm, in which she served with the 257th Medical Detachment and the 5th Mobile Army Surgical Hospital, Hamilton has held a wide range of command, staff, and operational assignments around the world. She is the first woman to serve as commander of the U.S. Army Dental Command and oversees 5,000 personnel worldwide.

Hamilton is a fellow of the International College of Dentists, American College of Dentists, and American College of Healthcare Executives. She is certified by, among other professional organizations, the American Board of General Dentistry, on whose Board of Directors she served as a member, ending her term of service as the board's president.

Her service to the U.S. Army has earned her numerous awards, including the Legion of Merit (with two Oak Leaf Clusters), Bronze Star, and Meritorious Service Medal (with five Oak Leaf Clusters). In 2011, Pitt's School of Dental Medicine named Hamilton Distinguished Alumnus of the Year in Dental Medicine.

Robert J. Henkel

Robert Henkel has

overseen the operation of a number of health care organizations, instituting changes to improve health, safety, and operational practices that have benefited patients across the country. He is president of healthcare operations and chief operating officer of Ascension Health, the nation's largest nonprofit Catholic health system. He earned his Master of Public Health degree from the University of Pittsburgh Graduate School of Public Health in 1983.

Henkel joined Ascension Health in 1998 after holding a wide range of executive positions at health care facilities throughout the country, including the Eye & Ear Hospital in Pittsburgh; Mount Sinai Medical Center in Miami Beach, Fla.; and the St. Louis Healthcare Network, where he led the discussion and process that resulted in the merger of six St. Louis, Mo., hospitals and three medical groups.

A fellow of the American College of Healthcare Executives (ACHE), Henkel has given presentations to organizations such as the World Health Care Congress and at events such as the annual ACHE breakfast with the Healthcare Leadership Network of the Delaware Valley. In 2010, he received a Regent's Award from the ACHE.

In addition to performing his professional responsibilities, Henkel serves on the boards of the Make-A-Wish Foundation of Metro St. Louis and the Marian Middle School, a St. Louis Catholic school committed to breaking the cycle of poverty by preparing disadvantaged young women for academic success.

Frank E. Mosier

Frank Mosier's nearly 40-year career with petroleum began after earning his Bachelor of Science in Chemical Engineering degree from the University of Pittsburgh in 1953. That same year, Mosier, a veteran of the U.S. Army, joined Standard Oil of Ohio as an engineer and quickly rose through the corporate ranks, becoming president in 1987.

After the British Petroleum Company acquired Standard Oil in 1987, Mosier became president of BP America and was elected vice chair of its board in 1988. After retiring in 1991, Mosier was named an honorary commander of the Civil Division of the Order of the British Empire by Queen Elizabeth II for a lifetime of work that included playing a significant role in building the Trans-Alaska Pipeline System.

Mosier has been active in many professional and civic organizations, including the American Institute of Chemical



Legacy Laureate Priscilla Hamilton and Paul Casey, director of development for the School of Dental Medicine.

Mosier was named an honorary commander of the Civil Division of the Order of the British Empire by Queen Elizabeth II for a lifetime of work.

Engineers, the National Council of the Boy Scouts of America, and the Technology Leadership Council of Northeast Ohio. He has served as a director of Centior Energy Corporation, Boykin Lodging Company, and Associated Estates Realty Corporation.

Mosier's dedication to the University of Pittsburgh includes a record 25 years of extraordinary service as a member of the Swanson School of Engineering's Board of Visitors and the University's Board of Trustees, serving five years as the Board of Trustees' vice chair. His exceptional philanthropy has led to the establishment of the Frank E. Mosier Scholarship and the Frank Mosier Chemical Engineering Learning Center. For his distinguished accomplishments, Mosier has received many honors—among them, the University of Pittsburgh Bicentennial Medallion of Distinction and the Swanson School of Engineering's Distinguished Alumnus Award.

Tim Murphy

U.S. Congressman Tim Murphy has devoted his career to the betterment of his fellow citizens. He spent three decades as a practicing psychologist, working at and consulting in hospitals and schools around Western Pennsylvania, where he also offered his expertise to the media. He taught at the University of Pittsburgh, where he earned his Doctor of Philosophy degree from the School of Education in 1979.

In 1996, Murphy was elected to the Pennsylvania State Senate, where, a year later, he authored the Commonwealth's historic Patients' Bill of Rights. In 2002, Murphy was elected to the U.S. Congress, where he is serving his fifth term representing the 18th District of Pennsylvania. He is one of only a few representatives with a background in health care, and he leads advocacy efforts for increasing health care affordability and accessibility for all Americans, authoring legislation and books in an effort to advance knowledge and understanding of mental

health.

In the U.S. House of Representatives, Murphy serves on a wide range of committees, serving as chair of the Congressional Steel Caucus, cochair of the Congressional Mental Health Caucus and GOP Doctors Caucus, and vice chair of the Subcommittee on Environment and Economy, and cofounding the Congressional Natural Gas Caucus.

Murphy joined the Navy Reserve Medical Service Corps in 2009 in order to work with wounded warriors with traumatic brain injury and post-traumatic stress disorder. His commitment to mental health treatment and practice was recognized by the American Psychological Association in 2005, when it awarded Murphy its

Outstanding Leadership Award. Murphy also serves on the boards of Westmoreland Community Action and the University of Pittsburgh Institute of Politics.

Sito J. Narcisse

Sito Narcisse has built a career dedicated to helping underserved students in urban areas to succeed when others thought they would fail. He is headmaster of the English High School, America's oldest public high school, in Boston, Mass., where he has forged partnerships with corporations and institutions of higher

education to help underserved students in that urban setting. As a William A. Yeager fellow, he earned his Doctor of Education degree in administrative and policy studies from the University of Pittsburgh School of Education in 2007.

After beginning his career at

Sito Narcisse has built a career dedicated to helping underserved students in urban areas to succeed when others thought they would fail.

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Legacy Laureate Frederick W. Thieman talks with Tessa Walker, a second-year Pitt Law student, during the Oct. 13 luncheon.

Ravenwood High School in Nashville, Tenn., as a French instructor, Narcisse became chair of the French department; came to Pittsburgh to serve as assistant principal of Woodland Hills High School; and was later recruited to serve as the founding principal of University Preparatory School, a unique partnership between the University of Pittsburgh and the Pittsburgh Public Schools.

He is a member of such organizations as the American Educational Research Association; the American Association of School Administrators; the Association for Supervision and Curriculum Development, now known as ASCD; the National Association of Secondary School Principals; and the University Council for Educational Administration.

Narcisse has been honored for outstanding minority leadership by the City of Boston and as a Black male educator by the Union of Minority Neighborhoods. Additionally, the Massachusetts Senate has recognized his work at the English High School as well as his commitment to and passion for education.

Paul A. Rockar Jr.

Paul Rockar Jr. is one of the Pittsburgh region's most respected physical therapists, having devoted 30 years to helping patients lead fuller lives. He is chief executive officer and partner of UPMC Centers for Rehab Services, one of the nation's largest networks of community-based comprehensive outpatient rehabilitation services. Rockar earned his Master of Science degree, cum laude, in health-related professions with an emphasis in

Rockar is chief executive officer and partner of UPMC Centers for Rehab Services, one of the nation's largest networks of community-based comprehensive outpatient rehabilitation services.

The longest-serving faculty member in the history of the Pitt School of Social Work, Sites has promoted ecumenical understanding, tolerance, cooperation, and education.

orthopaedic and sports physical therapy in 1981 from what was then the University of Pittsburgh's School of Health Related Professions, where his exemplary performance earned him the distinction of being named a University scholar.

In addition to having extensive experience as a rehabilitation scientist, Rockar is the author or coauthor of numerous textbooks and articles and an adjunct assistant professor at Slippery Rock University, Duquesne University, and Pitt. He helped to develop and expand Pitt's orthopaedic physical therapy track of study in what is now the School of Health and Rehabilitation Sciences.

Rockar is a member of a number of professional organizations, including the American Physical Therapy Association, which he serves as vice president, and is the recipient of many awards, including the Carlin-Michels Achievement Award of the Pennsylvania Physical Therapy Association. He is involved with the School of Health and

Rehabilitation Sciences Alumni Society, of which he is past president, and, with his wife, Judy, is the benefactor of a variety of University of Pittsburgh programs, including the Paul and Judy Rockar Endowed Scholarship Fund, which they established.

Edward W. Sites

Professor Emeritus Edward Sites holds the record as the longest-serving faculty member in the history of the University of Pittsburgh School of Social Work and is known as one of its most successful principal investigators. He

developed a comprehensive child-welfare training program now used in every Pennsylvania county—one of the nation's largest child-welfare training systems and a model program for other states. Sites earned his Master of Social Work degree, summa cum laude, from the Pitt School of Social Work and his Doctor of Philosophy degree from the Pitt School of Education in 1964 and 1976, respectively.

Throughout his career, Sites has promoted ecumenical understanding, tolerance, cooperation, and education, most notably through his 38-year leadership of the joint Master of Divinity/Master of Social Work degree offered by Pitt and the Pittsburgh Theological Seminary. He is the only social worker who was appointed to serve on the Pennsylvania Board of Psychologist Examiners, and he has served on other governing bodies that hear charges of unethical conduct brought against social workers. Because of Sites' expertise and impact, former Pennsylvania Governor Edward G. Rendell asked Sites to accompany him to Haiti after its devastating 2010 earthquake to aid in the rescue effort of 54 orphans.

Lauded for his many contributions to his profession, Sites has been honored as the Social Worker of the Year in Pennsylvania by the National Association of Social Workers, and he has received the Bertha Paulssen Award from the Lutheran Theological Seminary at Gettysburg and the Chancellor's Distinguished Public Service Award and School of Social Work Distinguished Alumni Award from the University of Pittsburgh.

Frederick W. Thieman

Frederick Thieman has devoted a significant portion of his career to public service, beginning with his first position as a clerk to Pennsylvania Supreme Court Justice Thomas W. Pomeroy Jr. and continuing in his present role as president of the region's oldest foundation, the Buhl Foundation. Thieman

Thieman led the formation of the Youth Crime Prevention Council in Allegheny County, an organization whose methods of combating and preventing violent juvenile crime became a national model.

earned his Juris Doctor degree, magna cum laude, in 1977 from the University of Pittsburgh School of Law, where he was a member of the Order of the Coif, an Owens fellow, class marshal, and assistant editor of the University of Pittsburgh Law Review.

In 1993, President Bill Clinton appointed Thieman U.S. Attorney for the Western District of Pennsylvania. In that role, he led the formation of the Youth Crime Prevention Council in Allegheny County, an organization whose methods of combating and preventing violent juvenile crime became a national model for stemming the tide of youth violence. In addition to being known for his public service, Thieman has earned a reputation as one of Pennsylvania's leading trial attorneys.

Thieman's service on a number of nonprofit boards, foundations, and committees has garnered him numerous honors and awards, including the Western Pennsylvania Community Leadership Award from the U.S. Department of Justice and the Distinguished Service Award from Pitt's School of Law. Thieman serves on Pitt's Dick Thornburgh Forum for Law and Public Policy advisory board and the Institute of Politics Board of Fellows.

Ruby Leila Wilson

Ruby Wilson has been a leader in the field of nursing and nursing education, pioneering many innovative education practices throughout her career. She is assistant to the chancellor for health affairs and professor and dean emeritus of the School of Nursing at Duke University. She earned her Bachelor of Science in Nursing Education degree from the University of Pittsburgh School of Nursing in 1954.

Wilson first joined Duke's School of Nursing in 1955. As a young faculty member, she was the principal developer of the country's first clinical master's program in nursing and the first primary nursing project, which revolutionized the way nurses interact with doctors and led to dramatic improvements in patient care. She went on to serve as dean of Duke's School of Nursing for 13 years before accepting her current position.

A longtime advocate for legislative policy on health and nursing matters, Wilson consulted on nursing curricula in the United States and numerous foreign countries, including China, India, and Thailand, where she was a visiting professor and consultant for the Rockefeller Foundation.

Wilson has been a leader in the field of nursing and nursing education, pioneering many innovative education practices throughout her career.

Wilson's many honors include election as a fellow of both the American Academy of Nursing and the Institute of Medicine, induction into the North Carolina Nurses Association Hall of Fame, designation as a Living Legend of the American Academy of Nursing, receipt of the Duke University

Medal for Distinguished Meritorious Service (Duke's highest honor), being named a Distinguished Alumnus of the University of Pittsburgh School of Nursing, and having the Ruby L. Wilson Patient Assessment Lab and the Ruby L. Wilson Professorship at Duke named after her.

Man With Spinal Cord Injury Uses Brain-Computer Interface to Move Prosthetic Arm With His Thoughts



Study participant Tim Hemmes (right) reaches out to his girlfriend, Katie Schaffer (left), using a brain-controlled prosthetic arm. Also pictured is research team member Jennifer L. Collinger.

Continued from page 1

at home and on campus, Hemmes and the team tested the technology. The researchers used computer software they developed in earlier studies to interpret the neural signals sensed by the brain grid.

After watching a computer-generated figure move an arm, Hemmes began trying to guide a ball from the middle of a large television screen either up, down, left, or right to a target, within a time limit. With practice, he could do this two-dimensional task without any computer assistance, or what the researchers call “100 percent brain control.” He then performed a similar task with the arm, reaching out to touch a target on a large, desk-mounted panel.

It wasn't the simultaneous thought-and-move process that Hemmes knew before becoming paralyzed. Instead, he imagined flexing his thumb, which created a brain signal pattern that the computer then interpreted as “move left,” or bending his elbow to move the object right, explained coprincipal investigator Wei Wang, assistant professor in the Pitt School of Medicine's Department of Physical Medicine and Rehabilitation.

“He mentally associated specific motor imageries with desired movement direction,” Wang said. “It required concentration and patience, but this process seemed to get easier for him with practice, just like when someone learns to drive a car with a manual transmission. In future studies, we also will test other approaches, including the participant simply thinking ‘up’ for up, ‘down’ for down, and so on.”

After about eight sessions, Hemmes tackled more complicated tasks. While wearing special goggles to properly view a three-dimensional television screen, he moved the ball in the previous directions, and also to the front or back. He practiced moving the arm in all directions, culminating in the joyful moments after formal testing when he reached out to his girlfriend and to Wang. Tyler-Kabara removed the ECoG brain grid and wiring in a short operation the next day, Sept. 22.

The researchers are now analyzing the data and seeking for additional studies at least five more adults with spinal cord injuries or brainstem strokes who have very little or no use of their hands and arms.

The researchers also are looking for

participants for a yearlong trial of another kind of brain-computer interface—that is, a 10-by-10 array of tiny electrode points that penetrate the brain tissue by less than 1/10th of an inch and pick up signals from 100 individual neurons. Two of these grids will be put in place, one in the brain region that controls hand movement, and one in the region that controls the arm, said coprincipal investigator Andrew Schwartz, a professor in the Pitt School of Medicine's Department of Neurobiology.

“We anticipate that these penetrating grids can pick up very clear signals from the brain to reveal what motion is intended by the participant,” Schwartz said. “The second grid will allow us to see what might be possible in controlling the fine movement of the fingers and hand, which is far more complicated but also could offer more useful function for the participant.”

In Schwartz's other experiments, a monkey implanted with the penetrating grid has been able to use an APL arm to reach out and hold a doorknob-like object, building on earlier work in which a monkey was able to grasp a marshmallow with a gripper device on a less sophisticated robotic arm and feed

the treat to itself.

The team plans to make the technology wireless and to include sensors in the prosthesis that can send signals back to the brain to simulate sensation.

It might be possible to connect brain-computer interfaces to existing devices that stimulate muscle fibers in the arm and hand, in effect bypassing the spinal-cord injury to allow these individuals to use their own limbs again, the researchers said. That approach could be studied in future trials.

An example of multiagency cooperation, funding for the two projects comes from the National Institute of Neurological Disorders and Stroke, part of the National Institutes of Health; the U.S. Department of Defense's Defense Advanced Research Projects Agency; the U.S. Department of Veterans Affairs; the University of Pittsburgh Clinical and Translational Science Institute; and UPMC.

After watching a computer-generated figure move an arm, Hemmes began trying to guide a ball from the middle of a large television screen either up, down, left, or right to a target, within a time limit. With practice, he could do this two-dimensional task without any computer assistance, or what the researchers call “100 percent brain control.” He then performed a similar task with the arm, reaching out to touch a target on a large, desk-mounted panel.

Summit Explores African American Image in Media

Continued from page 2

Tene' Croom, former news director, American Urban Radio Network;

Rod Doss, editor and publisher, *New Pittsburgh Courier*;

Pamela Newkirk, journalism faculty member, New York University; and

John B. Smith, publisher, *Atlanta Inquirer*.

Moderator: George E. Curry, president and CEO, George Curry Media, LLC, and former editor-in-chief, National Newspaper Publishers Association News Service.

2:30 p.m. A Conversation Among News Decision Makers

Panelists will reveal how decisions are made in the coverage of the African American community, providing an insider's view into how race and race-based issues are discussed and managed at major news outlets.

Shirley Carswell, deputy managing editor, *The Washington Post*;

James N. Crutchfield, former president and publisher, *Akron Beacon Journal*;

Rick Henry, former president, WTAE-TV; and

David Shribman, executive editor, *Pittsburgh Post-Gazette*.

Moderator: Lorraine Branham, dean, S. I. Newhouse School of Public Communications, Syracuse University.

4 p.m. Town Hall Meeting

This session is designed for open feedback and discussion.

A representative from each of the panels will engage with the audience about topics discussed during the day and answer questions.

5 p.m. Concluding Remarks

Ervin E. Dyer, senior editor, *PITT Magazine*, and former news reporter, *Pittsburgh Post-Gazette*.

About Marc Lamont Hill

Marc Lamont Hill, a faculty member at Teachers College of Columbia University, is the host of the TV One television series *Our World With Black Enterprise* and has contributed commentary for such national news outlets as NPR, CNN, MSNBC, and Fox News. Hill serves as a columnist and editor for the *Philadelphia Daily News* and has been published in *The Washington Post*, *Essence Magazine*, and *The New York Times*. He is the author of *Beats, Rhymes, and Classroom Life: Hip-Hop Pedagogy and the Politics of Identity* (Teachers College Press, 2009). He earned a Bachelor of Science degree at Temple University and a PhD degree at the University of Pennsylvania.

About Larry E. Davis

Larry E. Davis, dean of the University of Pittsburgh School of Social Work, established in 2001 Pitt's Center on Race and Social Problems (CRSP)—the first research center on race at any school of social work in the United States. The center and its programs look at how race affects economic and education gaps, relations between groups of people, mental health, criminal justice, youth and families, and the elderly. The inaugural holder of Pitt's Donald M. Henderson Professorship, Davis has established programs to mentor faculty from traditionally underrepresented groups, launched a successful CRSP lecture series as well as summer institutes, and added several courses to the social work curriculum aimed at educating students on racial issues. In 2009, Davis created the groundbreaking *Journal on Race and Social Problems*. A multidisciplinary periodical, it is designed to unite scholars who may previously have been divided by fields of study. Davis' projects are designed to help faculty and the community understand racial conditions in Pittsburgh and beyond and to explore promising solutions to race-related problems.

Davis is coeditor-in-chief of the 20th edition of the *Encyclopedia of Social Work* (NASW Press/Oxford University Press, 2008); coauthor of *Measuring Race and Ethnicity* (Springer, 2011) and *Race, Gender and Class: Guidelines for Practice With Individuals, Families and Groups* (Prentice Hall, 1989); and author of *Black and Single: Finding and Choosing a Partner Who Is Right for You* (Agate, 3rd edition, 2004).

About the Heinz Endowments

The Heinz Endowments was formed from the Howard Heinz Endowment, established in 1941, and the Vira I. Heinz Endowment, established in 1986. Its vision is for Southwestern Pennsylvania to prosper as a premier place to both live and work, as a center for learning and educational excellence, and as a region that embraces diversity and inclusion.

The foundation's mission is to help the region thrive as a whole community—economically, ecologically, educationally, and culturally—while advancing the state of knowledge and practice in the fields in which people work. Its fields of emphasis include philanthropy in general and the disciplines represented by its five grant-making programs: Arts & Culture; Children, Youth & Families; Education; Environment; and Innovation Economy.

Bookshelf

Poverty, Battered Women, and Work in U.S. Public Policy

By Lisa D. Brush, Pitt sociology professor

With October proclaimed Domestic Violence Awareness Month, a new book by Pitt professor of sociology Lisa D. Brush calls for a re-examination of policies designed to keep women economically productive and safe from abusive partners.

In *Poverty, Battered Women, and Work in U.S. Public Policy* (Oxford University Press, 2011), Brush explores the intersection of poverty, welfare-to-work programs, and partner-perpetrated abuse and coercive control.

According to Brush, physical abuse and other coercive methods of control factor into women's poverty, their ability to comply with welfare eligibility requirements, and their progress toward safety and solvency through paying jobs.

The researcher offers new insight into three sources of data from Allegheny County: administrative records for

women who received welfare or filed for a protective order; interviews with 40 women who together entered a work-first program in 2001; and texts from a community literacy project, in which eight current and former welfare recipients were able to address the stereotyping and stigma they sometimes encountered.

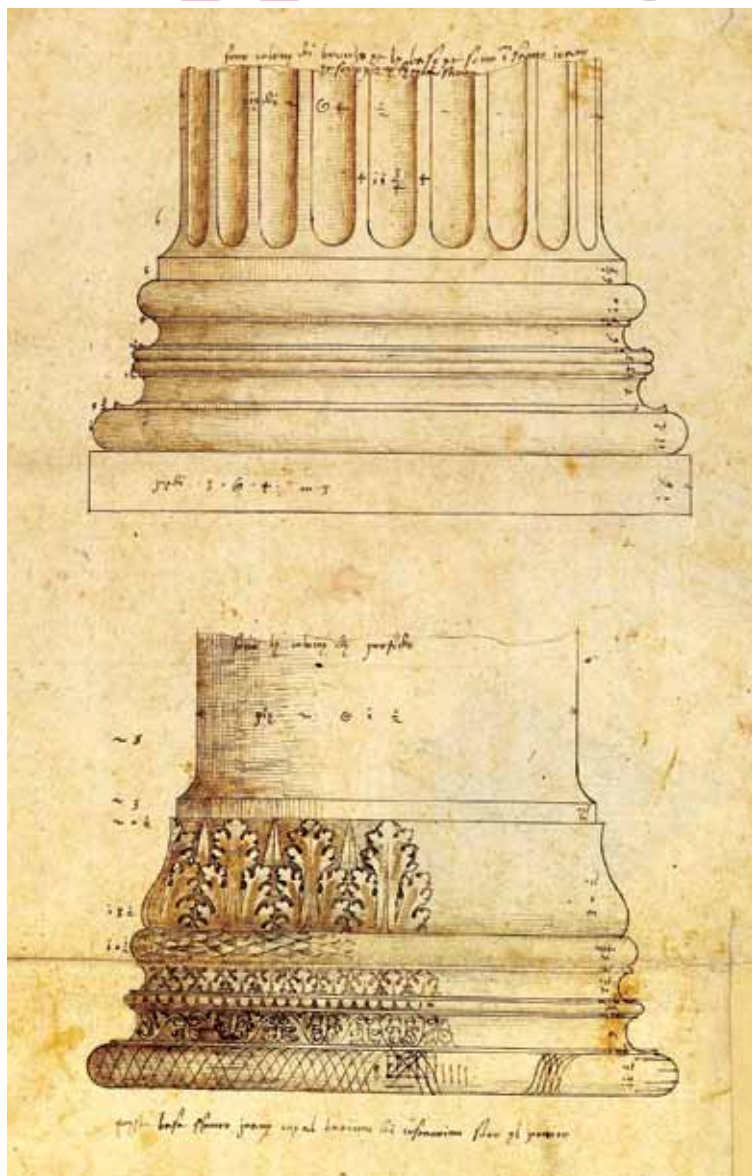
“The administrative data helped us test hypotheses about the costs of taking a beating. The interview data showed us what happens when abuse and abusers follow women to the workplace. The literacy project allowed us to listen to the stories and viewpoints of women who are ordinarily excluded from democratic deliberation,” said Brush. “It gave them a chance to share their visions of what would decrease the poverty and abuse in their lives.”

Mimi Abramovitz, the Bertha Capen Reynolds Professor of Social Work and Social Policy at Hunter College, calls the book “an important text that powerfully exposes the overlapping logics that endorse battering and poverty, promotes a human rights agenda, and gives voice and visibility to the women the book sets out to appreciate and serve.”

—By Sharon S. Blake



Happenings



Baptistry of Constantine Rome

Palladio and His Legacy: A Transatlantic Journey, Carnegie Museum of Art, through December 31

Rabi-Sashtriya: A Musical Celebration of the 150th Birth Anniversary of Rabindranath Tagore, directed by Pandit Samir Chatterjee, codirector of Pitt's Indian music program and virtuoso tabla player of India, 6:30 p.m. **Oct. 23,** Frick Fine Arts Auditorium, free and open to the public, Pitt Department of Music, www.music.pitt.edu.

Exhibitions

University Art Gallery, On a Lucky Day a Surprising Balance of Forms and Spaces Will Appear, through **Oct. 21,** exhibition comprising work of 14 faculty members in Pitt's Department of Studio Arts; **The Imprint of War: Responses in Print,** through **Dec. 5,** exhibition showcasing artwork by war-inspired artists Jacques Callot, Nicolas Naughton, and Sandow Birk, sponsored by students in Pitt's Museum Studies Seminar course, free public opening reception 6:30-8:30 p.m. **Oct. 31** at gallery, 610-357-4599.

Carnegie Museum of Art, Palladio and His Legacy: A Transatlantic Journey, through **Dec. 31;** **Hand Made: Contemporary Craft in Ceramic, Glass, and Wood,** ongoing; **Past Meets Present: Decorative Arts and Design at Carnegie Museum of Art,** ongoing, 4400 Forbes Ave., Oakland, 412-622-3131, www.cmoa.org.

The Warhol, Fifteen Minutes: Homage to Andy Warhol, through **Jan. 8;** **I Just Want to Watch: Warhol's Film, Video, and Television,** ongoing, 117 Sandusky St., North Side, 412-237-8300, www.warhol.org.

Heinz History Center, Angels of Mercy: Sisters in Healthcare in Western Pennsylvania, through **late Fall 2011;** 1212 Smallman St., Strip District, 412-454-6000, www.heinzhistorycenter.org.

The Hunt Institute for Botanical Documentation, Botany and History Entwined: Rachel Hunt's Legacy, rare gems from the original collection of founder Rachel McMasters Miller Hunt (1882-1963), through **Dec. 15,** 5th floor of Hunt Library, 4909 Frew St., Carnegie Mellon University, 412-268-2434, http://huntbot.andrew.cmu.edu/.

Wood Street Galleries, Cell Phone Disco, ongoing, Tito Way, Downtown, 412-456-6666, www.pgharts.org.

Lectures/Seminars/Readings

"Making Pittsburgh 'Most Livable' for All: Lessons Being Learned From the Homewood Children's Village," John M. Wallace Jr., the Philip Hallen Chair in Community Health and Social Justice, Pitt School of Social Work, 4:30 p.m. **Oct. 18,** 2500 Posvar Hall, Provost's Inaugural Lecture Series, www.socialwork.pitt.edu.

"Impact Assessment of Free Trade Agreements on Vietnam's Economy," James Cassing, Pitt professor of economics, noon **Oct. 19,** 4130 Posvar Hall, Asian Studies Center, 412-648-7370, asia@pitt.edu.

"Clouds Drift Aloft, Do You See the Waves?" Pitt School of Arts and Sciences postdoctoral fellow Michael Gardiner and Noh Training Project faculty member Joyce S. Lim, 1 p.m. **Oct. 19,** 132 Music Building, Pitt Department of Music, 412-624-4125.

"Beyond Price: Differentiate Your Company in Ways That Really Matter," Mary Kay Plantes, MIT-trained economist and corporate strategist, 7:30-10 a.m. **Oct. 20,** University Club, Pitt Institute of Entrepreneurial Excellence, register at 412-648-1544.

"The Hydra: Forked Discourses, Taxidermy and Freedom in Early Colonial Peru," Gonzalo Lamana, professor in Pitt Department of Hispanic Languages and Literatures, 12:30-2 p.m. **Oct. 20,** 602 Cathedral of Learning, Pitt Humanities Center, www.humcenter.pitt.edu.

"Open Access: What Every Graduate Student Needs to Know," Timothy S. Deliyannides, director of University Library System's Office of Scholarly Communication and Publishing; John H. Barnett, scholarly communications librarian, session focuses on open-access publishing and author rights, 2-3 p.m. **Oct. 20,** University Club, Ballroom B, University Library System Office



Paul Taylor Dance Company, Byham Theater, October 22

Opera/Theater/Dance

Paul Taylor Dance Company, modern dance performance, 8 p.m. **Oct 22,** Byham Theater, 101 Sixth St., Downtown, Pittsburgh Cultural Trust, 412-471-6930, www.pgharts.org, PITT ARTS Cheap Seats Program, 412-624-4498, www.pittarts.pitt.edu.

The End of the Affair, dramatization of Graham Greene's iconic novel about a passionate affair that highlights the impossibility of knowing someone and the ways in which we order our morality, select dates through **Oct. 30,** former Emma Kaufmann Clinic, 3028 Brereton St., Polish Hill, Quantum Theatre, 412-697-2929, www.quantumtheatre.com, PITT ARTS Cheap Seats Program, 412-624-4498, www.pittarts.pitt.edu.

La Traviata, Verdi's music set to libretto based on Dumas' *La Dame aux Camellias*, **Oct. 18, 21, 23,** Benedum Center, 237 Seventh Ave., Downtown, Pittsburgh Opera, 412-281-0912, www.pittsburghopera.org, PITT ARTS Cheap Seats Program, 412-624-4498, www.pittarts.pitt.edu.

Time Stands Still by Donald Margulies, adventuresome couple shares love of reporting from war zones until one of them is seriously wounded, through **Nov. 6,** City Theatre, 1300 Bingham St., South Side, City Theatre Company, 412-431-4400, www.citytheatrecompany.org.

Electra, Sophocles' drama that brings to life the myths of ancient Greece while telling the timeless tale of one family's tragedy, through **Oct. 30,** O'Reilly Theater, 621 Penn Ave., Downtown, Pittsburgh Public Theater, www.ppt.org, PITT ARTS Cheap Seats Program, 412-624-4498, www.pittarts.pitt.edu.

Pitt PhD Dissertation Defenses

Kyoung Yuel Lim, School of Health and Rehabilitation Sciences' Department of Communication Science and Disorders, 3 p.m. **Oct. 19,** "Executive Attention Deficits in Persons With Aphasia: Conflict Resolution and Goal Maintenance," 6053 Forbes Tower.

Concerts

Melinda Crawford, U.S. national Scottish fiddle champion, noon **Oct 19,** free, Nurdy's Café, ground floor, William Pitt Union, Artful Wednesdays Concert Series Fall 2011, PITT ARTS, 412-624-4498, www.pittarts.pitt.edu.

The Honey Dewdrops, writers and singers of folk, old-time country, and bluegrass music, 7:30 p.m. **Oct 20,** Pittsburgh Center for the Arts, 6300 Fifth Ave., Shadyside, Calliope Center Stage Concerts, 412-316-1915, www.calliopehouse.org, PITT ARTS Cheap Seats Program, 412-624-4498, www.pittarts.pitt.edu.

AppalAsia, musical trio that combines Appalachian and Asian influences, noon **Oct. 21,** Cup & Chaucer Café, ground

floor Hillman Library, Emerging Legend Series, University of Pittsburgh Library System, Calliope: The Pittsburgh Folk Music Society, www.calliopehouse.org/legends.htm.

Viva Bahia, featuring songstress Kenia and jazz musician Ivan Lins, both from Brazil, 8 p.m. **Oct. 21,** Kelly-Strayhorn Theatre, 5941 Pennsylvania Ave., East Liberty, Mooka Entertainment in conjunction with Pitt Center for Latin American Studies and Manchester Craftsmen's Guild, 412-291-4959, www.kelly-strayhorn.org/tickets.

Prokofiev's Second Violin Concerto, with Xian Zhang conducting and Xiang Yu, violin, **Oct. 21, 23,** Heinz Hall, 600 Penn Ave., Downtown, Pittsburgh Symphony Orchestra, BNY Mellon Grand Classics Series, www.pittsburghsymphony.org, PITT ARTS Cheap Seats Program, 412-624-4498, www.pittarts.pitt.edu.



Toi Derricotte



Dawn Lundy

Toi Derricotte and Dawn Lundy, Frick Fine Arts Auditorium, October 20



Melinda Crawford Nurdy's Café, October 19

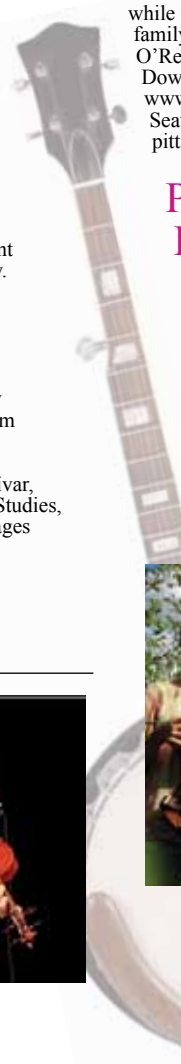


AppalAsia Cup & Chaucer Café, October 21

Miscellaneous

"Getting a Plum Internship in Media, Publishing, and PR," panel discussion featuring professionals from several media and publishing outlets, Q&A and dessert reception, 7:30 p.m. **Oct. 18,** William Pitt Union Ballroom, Pitt Department of English, *The Pitt News*, www.english.pitt.edu.

"(In)visible Cosmovisions: Dialogues in Afro and Indigenous Latin America and the Caribbean" two-day conference, **Oct. 21-22,** William Pitt Union, keynote speaker is Catherine Walsh, professor at Universidad Andina Simón Bolívar, Pitt Center for Latin American Studies, Department of Hispanic Languages and Literatures, and others, des.articulaciones@gmail.com.





Pitt Institute of Entrepreneurial Excellence, Regional Partners Secure \$1.95 Million to Spur Economic Growth



By Audrey M. Marks

Together, Pitt's Institute for Entrepreneurial Excellence (IEE), the Hill House Association (HHA), and the Pittsburgh Central Keystone Innovation Zone (PCKIZ) have been awarded a \$1.95 million grant from the U.S. Department of Commerce's Economic Development Administration, the U.S. Department of Labor's Employment and Training Administration, and the U.S. Small Business Administration. The funds will be used to accelerate the creation of jobs and economic growth in underserved communities that have not benefited from the resurgence of industries in the region.

The Pittsburgh communities to be targeted through the program are the Hill District, East Liberty, Garfield, Larimer, Lincoln, and Homewood.

"The Institute for Entrepreneurial Excellence has great respect for entrepreneurs and believes that they are the lifeblood of the community—providing jobs and leadership at a time when both are sorely needed. This grant will enable the institute to continue its work in underserved communities and provide support so entrepreneurs can sustain and grow their businesses," said Christine Kush, associate director of IEE.

As part of the grant, IEE and

Duquesne University's Small Business Development Center will provide individualized business management consulting and educational programs to emerging and existing business owners. The PCKIZ, the Hill House Economic Development Corporation, the Hill Community Development Corporation, and Innovation Works will promote entrepreneurship and innovation in underserved communities to spur community development and job creation. HHA, the Community College of Allegheny County, and the Hill District Development Corporation will recruit individuals in distressed neighborhoods to participate in training programs that will prepare them for career advancement in the energy and health care fields.

"Our proposal addresses longstanding racial economic disparities in our region," said William Generett Jr., president and CEO of PCKIZ. "It creates opportunities for residents of communities that haven't yet benefited from the region's economic transformation."

The grant is part of the Obama Administration's Jobs and Innovation Accelerator Challenge, which is designed to support 20 projects nationwide to help develop a skilled workforce and bolster long-term regional success.

"Collectively, these activities will produce a critical mass of programming that will have a substantial impact on these neighborhoods," says Cheryl Hall-Russell, president and CEO of HHA. "Hill House looks forward to partnering with Community College and the Hill Community Development Corporation to

"The Institute for Entrepreneurial Excellence has great respect for entrepreneurs and believes that they are the lifeblood of the community—providing jobs and leadership at a time when both are sorely needed. This grant will enable the institute to continue its work in underserved communities and provide support so entrepreneurs can sustain and grow their businesses."

—Christine Kush

provide advanced job training opportunities for individuals."

PUBLICATION NOTICE The next edition of *Pitt Chronicle* will be published Oct. 24. Items for publication in the newspaper's *Happenings* calendar (See page 11) should be received at least two weeks prior to the event date. *Happenings* items should include the following information: title of the event, name and title of speaker(s), date, time, location, sponsor(s), and a phone number and Web site for additional information. Items may be e-mailed to chron@pitt.edu, or sent by campus mail to 422 Craig Hall. For more information, call 412-624-1033 or e-mail robinet@pitt.edu.