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William E. Strickland Jr. at the Manchester Craftsmen's Guild on Pittsburgh's North Side

## William E. Strickland Jr., Pitt **Alumnus and Trustee, Is Recipient** Of the 2011 Goi Peace Award

## By Sharon S. Blake

The Goi Peace Foundation has honored Pitt alumnus and trustee William E. Strickland Jr. (A&S '70), president and chief executive officer of Manchester Bidwell Corporation, with its 2011 Goi Peace Award.

The annual award recognizes individuals and organizations in various fields that have made outstanding contributions toward the realization of a peaceful and harmonious world for humanity and all life on

earth. Previous recipients have included Microsoft chair Bill Gates, former Costa Rican president and Nobel Peace Prize recipient Oscar Arias, social entrepreneur Bill Drayton, and Indian medical doctor

Deepak Chopra. Strickland recently accepted the award at the Goi<sup>Peace</sup> Foundation Forum 2011 in Tokyo.

Strickland founded the Manchester Craftsmen's Guild while still a Pitt student in 1968 to bring arts education and mentorship to inner-city

youth in his North Side neighborhood. In 1972, he assumed leadership of the Bidwell Training Center and molded it into a successful jobs training program for disadvantaged adults. Manchester Bidwell-a nonprofit corporation comprising these two main operations—has proven to be a successful model for change.

Calling Strickland a "social innovator," the Peace Award selection committee praised him for his "visionary social work to help the underserved population transform their lives" and for "inspiring others to dream bigger." The committee added: "By offering innovative educational and cultural opportunities with emphasis on the arts, beauty, and respect. Mr. Strickland has empowered thousands of youth and adults to restore hope and dignity and become creative contributors to their communities."

The selection of distinguished Pitt alumnus and University trustee Bill Strickland for this prestigious international award honors a 'home grown' humanitarian whose reach is global and who has devoted his life to improving the lives of others," said Pitt Chancellor Mark A. Nordenberg. "Bill's simple philosophy-of making beauty and opportunity accessible to others, of instilling in them the power of hope, and of watching them find their own way—has opened minds and imaginations and restored meaning and self- dignity.

"During 2012, the University of Pittsburgh is celebrating its 225th anniversary with "Bill Strickland used the the theme '225 Years of Building Better Lives," Chancellor Nordenberg added. "Bill Strickland power of a Pitt education to help build his own life used the power of a Pitt education to help build and is now doing special his own life and is now work every day and doing special work every day and throughout the throughout the world to world to help others build better lives. We continue help others build better to applaud and be inspired by Bill and are privileged to claim him as one of our

-Mark A. Nordenberg

lives."

Strickland graduated cum laude from Pitt with a bachelor's degree in history and foreign relations. He serves as a consultant, grant evaluator, and mentor in the fields of the arts and arts education, community development, and workforce development training.

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Śtrickland's Manchester Bidwell model uses the philosophy that environment shapes people's lives. His institution is known for providing an empowering atmosphere of art, light, music, and respect. The model has been replicated in San Francisco; Cincinnati; and Grand Rapids, Mich., and other centers are planned.

Strickland has been accorded numerous honors, including selection as a MacArthur 'genius" Fellow; being named a Pitt Distinguished Alumni Fellow; being inducted into the University's inaugural Legacy Laureate class; and being named 2007 Pittsburgher of the Year by Pittsburgh Magazine. Strickland is the author of Make the Impossible Possible: One Man's Crusade to Inspire

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## Pitt Celebrates Black History Month With World Premiere Screening of *Thaddeus Mosley: Sculptor*

#### By Sharon S. Blake

University of Pittsburgh Chancellor Mark A. Nordenberg and Pitt Vice Chancellor for Public Affairs Robert Hill will cohost a private program and reception Feb. 1 for the world-premiere screening of *Thaddeus Mosley: Sculptor*—a documentary chronicling the life and artistic career of the renowned Western Pennsylvania sculptor and 1950 graduate of Pitt's Kenneth P. Dietrich School of Arts and Sciences.

The 45-minute documentary is the work of filmmaker and Pitt alumnus Kenneth Love (A&S '71). The Feb. 1 event, which will take place at the Twentieth Century Club, 4201 Bigelow Blvd., Oakland, is the Pitt 2012 K. Leroy Irvis Black History Month Program. Thaddeus Mosley: Sculptor explores

Mosley's creative processes and provides unique insight into the sculptor's background, individual style, and artistic influences. Love and fellow Pitt alumnus Barbara McNulty (MED '75, A&S '71), the documentary's executive producer, capture Mosley working with gouge and chisel in his studio on Pittsburgh's North Side and teaching at the Touchstone Center for Crafts in Farmington, Pa.

Included in the film is commentary by Richard Armstrong, director of the Frank Lloyd Wright-designed Solomon R. Guggenheim Museum in New York City; David Lewis, author of *Thaddeus Mosley*: African-American Sculptor (University of Pittsburgh Press, 1997); acclaimed poet and Pitt alumnus Ed Roberson (A&S a former Pitt English faculty member; Pitt alumnus and trustee William E. Strickland Jr. (A&S '70), chief executive officer of Manchester Bidwell Corporation and recipient of a MacArthur "Genius" award; and Pitt alumnus Lynda S. Waggoner (A&S '76), vice president of the Western Pennsylvania Conservancy, director of Fallingwater, and founding executive director of the Touchstone Center.



Sculptor Thaddeus Mosley

Mosley, who was born in New Castle, Pa., in 1926, earned his Pitt Bachelor of Arts degree in English after service in the U.S. Navy. He then worked as a sportswriter and sports photographer for The Pittsburgh Courier. Eventually, he took a job with the U.S. Postal Service, where he worked during the day for 40 years to support his family of six children, while he sculpted at night. The self-taught sculptor who works primarily in wood, collects cherry, walnut, and sycamore logs from the city's Forestry Division and hauls them to his studio. He also finds stones at sites of demolished buildings and pieces of metal at area scrap yards. His finished works of art, many of them more than eight feet high, have been exhibited throughout the nation and at the Carnegie Museum of Art, Pittsburgh Center for the Arts (PCA), and Manchester Craftsmen's Guild.

Mosley's 14-foot Phoenix, made of cedar, graces the corner of Centre Avenue and Dinwiddie Street in Pittsburgh's Hill District. The limestone Mountaintop stands

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## **Pitt Astronomers Determine Color** Of the Milky Way Galaxy

#### By B. Rose Huber

A team of astronomers in Pitt's Kenneth P. Dietrich School of Arts and Sciences announced Jan. 11 the most accurate determination yet of the color of the (aptly named) Milky Way Galaxy: "a very pure white, almost mirroring a fresh spring snowfall." Jeffrey Newman, Pitt professor of physics and astronomy, and Timothy Licquia, a PhD student in physics at Pitt, reported their findings during a presentation at the 219th American Astronomical Society (AAS) Meeting in Austin, Texas.

While color is one of the most important properties of galaxies that astronomers study, it has been difficult to make the measurement for the Milky Way, as our solar system is located well within the Galaxy. Because of this, clouds of gas and dust obscure all but the closest regions of the Galaxy from view, preventing researchers



from getting the "big picture."

The problem is similar to determining the overall color of the Earth, when you're only able to tell what Pennsylvania looks like," Newman noted.

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# Brieflynoted

## Measuring Poverty Is Topic of Jan. 25 CRSP Lecture

The University of Pittsburgh Center on Race and Social Problems (CRSP) launches its Reed Smith Spring 2012 Speaker Series Jan. 25 with a noon lecture by Kathleen Short, research economist with the U.S. Census Bureau.

Short's talk, titled "The Supplemental Poverty Measure: Taking Account of Taxes and Transfers," will take place in the School of Social Work Conference Center on the 20th floor of the Cathedral of Learning. It is free and open to the public, and registration is not required; lunch will be provided. For more information, call 412-624-7382.

Short's work with the Census Bureau made news last fall when the bureau released its first supplemental poverty measure, which took into account the impact of many forms of noncash public assistance, such as food stamps, housing subsidies, and energy assistance. Under the new measure, the poverty threshold for a family with two adults and two children in 2010 was \$24,343, more than \$2,000 higher than the official threshold of \$22,113.

After earning a PhD in economics from the University of Michigan, Short joined the Census Bureau in 1984. She has worked primarily in the area of measuring economic well-being and developing an international database on children's well-being. -Sharon S. Blake

## Poets Wayne Koestenbaum, Myung Mi Kim to Give Reading Jan. 26

Noted poets Wayne Koestenbaum, Distinguished Professor of English at The Graduate Center of the City University of New York, and Myung Mi Kim, professor of English at the University at Buffalo, State University of New York, will read from their works as part of the Pittsburgh Contemporary Writers Series at 8:30 p.m. Jan. 26 in the University of Pittsburgh's Frick Fine Arts Auditorium. The event is free and open to the public.

The reading will be followed by a conversation about life, work, and literary friendship moderated by poet Dawn Lundy Martin, assistant professor of English in Pitt's Kenneth P. Dietrich School of Arts and Sciences.

The 2011-12 Pittsburgh Contemporary Writers Series season is sponsored by Pitt's Writing Program and The Book Center.

A celebrated poet and cultural critic, Koestenbaum is the author of five books of poetry, five works of criticism, a novel, and two mixed-genre works. His work of criticism The Queen's Throat was nominated for a National Book Critics Circle Award and Koestenbaum received a Whiting Writers' Award in 1994.

Kim is an avant-garde poet who often employs fragmentary language in her work to explore issues of dislocation, colonization, immigration, loss of her first language, and the fallout of history. Among her recent honors are a residency at the University of Minnesota as Edelstein-Keller Writer in Residence and an award from the Fund for Poetry.

For more information about the Pittsburgh Contemporary Writers Series, call 412-624-6508 or visit www.pghwriterseries. wordpress.com. · Baindu Saidu

Call for 2012

## **Baranger Teaching Award Nominations**

The University of Pittsburgh's Arts and Sciences Graduate Student Organization is accepting nominations for the 2012 Elizabeth Baranger Excellence in Teaching Award.

The award, named after Elizabeth Baranger, a professor emeritus in Pitt's Department of Physics and Astronomy and a former vice provost for graduate studies, honors outstanding teaching by graduate students in the Kenneth P. Dietrich School of Arts and Sciences.

The deadline for submissions is Feb. 1. Nominations may be submitted by Pitt faculty, teaching assistants, and teaching fellows, as well as by graduate and undergraduate students. To be eligible for the \$250 award, an instructor must have been enrolled as a graduate student in the Dietrich School and have taught a class in any semester of the previous calendar year, 2011. Winners will be notified on April 2.

Nomination forms are available at http://asgso. pitt.edu/teachingAwardNomination.html. Questions may be directed to Katherine Martin (kim20@pitt. edu) or Michael Lipschultz (lipschultz@cs.pitt.edu). —Baindu Saidu

## Pitt Ranked a Best Value in **Public Higher Education**

The University of Pittsburgh ranks as the top value in Pennsylvania for in-state students, the nation's 15th-best value for out-of-state students, and the country's 29th-best value for in-state students in The Kiplinger 100: Best Values in Public Colleges, 2011-12, published in the February 2012 issue of Kiplinger's Personal Finance, currently available on newsstands. The rankings can be accessed online at www.kiplinger. com/links/college.

Kiplinger's, which has been producing its Best Values in Public Colleges rankings since 1998, has called the top 100 institutions in its listing "four-year institutions that deliver a stellar education at an affordable price."

According to Kiplinger's, its editors start with data from more than 500 public four-year schools and then narrow the list to about 120 schools "based on measures of academic auality, including SAT or ACT scores. admissions and retention rates, student-faculty ratios, and four- and six-year graduation rates. The editors then rank each school based on cost and financial aid. Academic quality carries more weight than costs." This year, Kiplinger's states that it "revamped the rankings" to give additional weight "to academic value, such as the percentage of students who return for sophomore year and the four-year graduation rate. Cost criteria include low sticker prices, abundant financial aid, and low average debt at graduation."

"As states cut funding for higher education and tuition continues to climb, the word 'value' becomes more significant than ever," says Jane Bennett Clark, senior editor at Kiplinger's Personal Finance. "This

year's top 100 public schools deliver strong academics at reasonable prices. We applaud these institutions for tightening their belts without compromising quality."

-John Harvith

## Sock-a-Thon Launched to Help Those in Need

Pitt's Office of Community and Governmental Relations has begun a sock drive to provide several shelters, day-care/afterschool centers, and the homeless with new socks for use during this cold season.

Socks of all sizes can be dropped off in Room 710 Alumni Hall until March 30.

A campus flyer advertising the campaign asks the Pitt family, in recognition of the University's 225th anniversary celebration, to "please recruit your coworkers, family, and friends to join Community Relations in one of its many 'Acts of Kindness' projects by supplying socks (new, of course) to those less fortunate."

Questions may be addressed to Gwen Watkins, community activities coordinator for Pitt's Office of Community and Governmental Relations, 412-624-7702, Watkins@pitt.edu.





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outside the Martin Luther King Jr. Reading and Cultural Center on Herron Avenue, also in the Hill District, and Mosley's Three Rivers Bench, carved in black walnut, is on the second floor of Pittsburgh's David L. Lawrence Convention Center.

"Thad Mosley carves," comments Arm-strong in the film. "He takes away excess and, like Michelangelo, he reveals.

According to the film, Mosley finds inspiration for his works in poetry, jazz, and dance, and his artistic explorations in materials, form, and rhythm overlap with his other roles as father, teacher, mentor, and friend.

We showed that for Thad, art is more than something he does. It is the way he lives his life," said Love.

Among Mosley's honors are the 1999 Governor's Award for Artist of the Year in Pennsylvania Visual Arts, the PCA 2000 Cultural Award, and the PCA Service to the Arts Award and Exhibition.

Support for Thaddeus Mosley: Sculptor was provided by the University of Pittsburgh, The Pittsburgh Foundation, the Gruber Foundation, The Fine Foundation, and the Heinz Endowments.

## **About the Filmmaker**

Kenneth Love started his career as a documentary filmmaker in 1971.

Love's documentary Newspaper of Record: The Pittsburgh Courier (2009), which premiered as Pitt's 2010 K. Leroy Irvis Black History Month Program, will be aired on WQED-TV Feb. 2, 2012. Love has worked on more than 30 award-winning National Geographic television specials and garnered Emmy Awards for Serengeti Diary (1989) and Realm of the Alligator (1986). He earned an MFA degree in film and television from Carnegie Mellon University.

## About Pitt's K. Leroy Irvis Black History Month Program

Pitt began its annual Black History Month program in 2004 with the world premiere of the documentary K. Leroy Irvis: The Lion of Pennsylvania and renamed the observance in 2008 the K. Leroy Irvis Black History Month Program to honor

the memory of the legendary Pennsylvania legislative leader and Pitt alumnus (LAW '54) and trustee. Irvis, who in 1977 became the first African American speaker of the House of Representatives in Pennsylvania and the first Black speaker of any state house since Reconstruction, sponsored in 1966 the bill that made Pitt a state-related institution of higher education.

#### **About Black History Month**

Carter G. Woodson (1875-1950)-who earned a Harvard University PhD

and was a celebrated American author, educator, and historian-initiated what he called "Negro History Week" in 1926. At the heart of the annual February observance, which in 1976 became Black History Month,

is honoring African Americans who have struggled and achieved in their effort to advance in all walks of American life.

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while he was a senior at the University of Pittsburgh. His recent documentary, Fallingwater: Frank Lloyd Wright's Masterwork, premiered at the Guggenheim Museum in Fall 2011. His first independent film, Fallingwater: A Conversation with Edgar Kaufmann Jr., premiered in 1994 at the Museum of Modern Art in New York City and was recently shown at the Louvre in Paris. Other Love films include Samuel Rosenberg: Pittsburgh's Painter Laureate (2008), Clyde Hare's Pitts-burgh (2005), Brilliant Fever: W. Eugene Smith and Pitts-

burgh (2001), and One Shot: The Life and Work of Teenie

## Renowned Author Toi Derricotte Named to the Academy Of American Poets Board of Chancellors

By Patricia Lomando White

Toi Derricotte, an English professor in the University of Pittsburgh's Kenneth P. Dietrich School of Arts and Sciences, has been elected to the Academy of American Poets Board of Chancellors, the academy's advisory board of distinguished poets. Derricotte was elected along with poets Jane Hirshfield and Arthur Sze.

A renowned poet, Derricotte has had more than a thousand poems published in anthologies, journals, and magazines. She is the cofounder of the Cave Canem Foundation, which has been offering workshops and retreats for African American poets since 1996.

In discussing Derricotte and her poetry, Pitt alumnus and Academy Chancellor Gerald Stern (A&S '47), who served as the inaugural poet laureate of New Jersey from 2000 to 2002, said: "She is a deeply courageous, open and wise poet, a master of the lyric, but only as it combines with the narrative and moves—through pain—into the visionary. Her true subject is redemption, but the journey towards that is always earned, as she spares nothing, including herself. To read through her poetry is to discover not just a void, but a person-and a world."

Established in 1946, the Academy of American Poets' Board of Chancellors elects the recipients of the Wallace Stevens Award and the Academy of American Poets Fellowship. They also act as consultants to the organization on matters of artistic direction and programming and serve as ambassadors of poetry in the world at large. Previous Chancellors of the Academy have included Marianne Moore, W. H. Auden, Robert Lowell, Elizabeth Bishop, John Berryman, Robert Penn Warren, among others.

Derricotte is the author of five books of poetry—*The Undertaker's Daughter* (University of Pittsburgh Press, 2011), *Tender* (University of Pittsburgh Press, 1997), *Captivity* (University of Pittsburgh Press, 1989), *Natural Birth* (Crossing Press, 1983), *The Empress of the Death House* (Lotus Press, 1978)—and the memoir *The Black Notebooks: An Interior Journey* (W.W. Norton & Co., 1997). In 1997, *The Black Notebooks* was included in *The New York Times* Book Review's "Notable Books of the Year" listing and won the 1998 Anisfield-Wolf Book Award for Non-Fiction.

## Pitt's Middle States Reaccreditation Self-Study Report Completed

The final Self-Study

report, "Using a Uni-

versitywide Culture of

tinuous Improvement"

is available as a down-

loadable pdf on the

my.pitt.edu portal.

Assessment for Con-

#### By John Fedele

The steering committee overseeing Pitt's 2012 reaccreditation process by the Middle States Commission on Higher Education has completed its report.

Every 10 years, Pitt undergoes a detailed reaccreditation process by the Middle States Commission on Higher Education, a voluntary membership association that accredits degree-granting colleges and universities.

The accreditation process, which began in March 2010, involved documenting competency in 14 institutional standards, in addition to completing a self-study. The commission offers institutions one of three models for the self-study, and

Pitt's steering committee chose the "selected topics" option, and focused on how Pitt uses assessment as a vehicle for continuous improvement.

"The selected topics model provides an excellent opportunity for us to reflect upon a culture of assessment at the University of Pittsburgh; to evaluate its contributions to the institution's emergence in recent years as a leading public research university; to identify its strengths, challenges, and effectiveness in identifying opportunities for improvement or change, and to consider how it might best be used to further our ambitions," the committee wrote in submitting its topic to Middle States.

The 20-person steering committee,

chaired by Provost and Senior Vice Chancellor Patricia E. Beeson and Vice Provost Juan Manfredi, comprised faculty, staff, and students. The steering committee

delegated much of the project to three working groups:

• Using Assessment to Improve the Student Experience, cochaired by Manfredi and M. Kathleen Kelly, an assistant professor and vice chair in the Department of Physical Therapy, School of Health and Rehabilitation Sciences, who also serves as cochair of the Senate Educational Policies Committee; • Using Assessment

to Improve Institutional Effectiveness, cochaired by Richard Schulz, professor of psychiatry and director of the University Center for Social and Urban Research, and Jane Thompson, associate vice chancellor for management information and analysis; and

• Demonstrating Compliance through Document Review, chaired by Vice Provost for Faculty Affairs Andrew Blair.

The final self-study report, "Using a Universitywide Culture of Assessment for Continuous Improvement" is available as a downloadable pdf on the my.pitt.edu portal. Vice Provost Manfredi is accepting comments on the document through Jan. 31st via email at manfredi@pitt.edu.

## Strickland Receives 2011 Goi Peace Award

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Others to Dream Bigger and Achieve the Extraordinary (Currency, 2007).

Established in Tokyo in 1999, the Goi Peace Foundation describes itself as an organization for the benefit of the public whose mission is supporting the evolution of humanity toward a peaceful and harmonious new civilization. Its various educational and outreach programs strive to promote the creation of peace and build cooperation between individuals and organizations across diverse fields, including education, science, culture, and the arts. The foundation is an NGO enjoying special consultative status with the Economic and Social Council of the United Nations.

# Nancy Condee Wins MLA's Scaglione Prize for Studies in Slavic Languages and Literatures

#### By Patricia Lomando White

Nancy Condee, Pitt professor and director of Graduate Studies in the Department of Slavic Languages and Literatures in the Kenneth P. Dietrich School of Arts and Sciences and director of Pitt's Global Studies Center, received the Modern Language Associa-

tion's (MLA) ninth Aldo and Jeanne Scaglione Prize for Studies in Slavic Languages and Literatures for her book *The Imperial Trace: Recent Russian Cinema* (Oxford University Press, 2009). The prize—awarded biennially for an outstanding scholarly work on the linguistics or literatures of the Slavic languages—was presented Jan. 7 at the MLA's annual convention in Seattle.

MLA's citation for *The Imperial Traces* reads: "Condee brilliantly accomplishes two pressing goals at

once. The book is an insightful guide to six major post-Soviet filmmakers whose work it explores aesthetically as a function of cinematic style and cultural ideology and historically as an imaginative response to the decay and collapse of the Soviet Union and to the turbulent post-Soviet aftermath. If the debate on Russia's imperial and national identities has been dominated by historians and social scientists, then *The Imperial Trace* insists on the pertinence of cultural production even as it engages in a dialogue across disciplines. Condee succeeds in her goal, not by dissolving each filmmaker into his or her context, but by exploring the more oblique tricks of the imaginative trade by which a work of art ponders, disavows, or transfigures its own time."

The Imperial Trace also won the 2010 Katherine Singer Kovács Book Award from the Society for Cinema and Media Studies. Condee's most recent work is the coedited volume The Cinema of Alexander Sokurov, with Birgit Beumers (I.B. Tauris, 2011).

Director of Pitt's graduate program for cultural studies from 1995 to 2006, Condee is a specialist in contemporary Russian culture and cultural politics, Soviet cultural politics, late-Soviet and post-Soviet cinema, impe-

rial and postcolonial theory, and Soviet and post-Soviet popular culture. She also is a Pitt Film Studies Program faculty member.

The MLA, the largest and one of the oldest American learned societies in the humanities, promotes the advancement of literary and linguistic studies. The more than 30,000 members of the association come from all 50 states and the District of Columbia, as well as from Canada, Latin America, Europe, Asia, and Africa.

Awards&more

Betina González-Azcárate

**Betina González-Azcárate,** who in 2011 earned her PhD in Hispanic languages and literatures in Pitt's Kenneth P. Dietrich School of Arts and Sciences, received the 2010-11 Eduardo Lozano Memorial Dissertation

Prize, sponsored by Pitt's Center for Latin American Studies and Department of Hispanic Languages and Literatures in the Dietrich School. González-Azcárate was awarded the prize for the dissertation "Plotting Slaves, Talking Animals: The Politics of Morals in Nineteenth-Century Latin American Literature." The Pitt dissertation prize

honors internationally renowned librarian Eduardo Lozano, who developed and directed the Latin American Collection at the University's Hillman Library from 1967 until his death in August 2006.

**Maureen Porter,** a professor in the Pitt School of Education's Department of Administrative and Policy Studies, and Pitt School of Education doctoral students **Heather Cunningham** and **Linda Deafenbaugh** were selected as panelists at the annual American Folklore Society (AFS) meeting in Bloomington, Ind., in October. Their panel was titled "The Pennsylvania Standards for Folklife Education in Practice: Three Perspectives in Viability."

In addition to collaborating on the panel, both Cunningham and Deafenbaugh were honored with merit awards at the conference. Cunningham, a PhD student in language, literacy,



in folklore, ethnography or cultural heritage, and K-12 education. Deafenbaugh, a PhD student in the social and comparative analysis of education and a native of Chippewa Township in Beaver County, received the Archie Green Student Travel Award, sponsored by the Public Programs Section of AFS. This award, which helps

defray travel costs to the annual AFS meeting, honors students who conduct research in an area of public folklore.

Sanford Asher, Distinguished Professor of Chemistry in Pitt's Kenneth P. Dietrich School of Arts and Sciences, received the fourth annual Charles E. Kaufman Award of \$50,000 for his developments in chemistry. The award is given annually by the Pittsburgh Foundation to an honoree who demonstrates "substantial contributions to science for both the betterment and understanding of human life." Asher was chosen for his work in the chemistry of new materials and spectroscopic techniques for the study of molecules. He pioneered the development of Ultraviolet (UV) Raman spectroscopy, a technique used to study vibrational models in a system. He is currently working with the U.S. Department of Homeland Security to develop a scanner that detects explosive materials at a distance.



# Science&Technology

## University of Pittsburgh Astronomers Determine Color of the Milky Way



Jeffrey Newman

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To circumvent this problem, Newman and Licquia set out to determine the Milky Way's color by using images from other, more distant galaxies that can be viewed more clearly. These galaxies were observed by the Sloan Digital Sky Survey (SDSS), a project in which Pitt had an instrumental role that measured the detailed properties of nearly a million galaxies and has obtained color images

of roughly a quarter of the sky. Without the large set of galaxies studied by SDSS to compare to, an accurate color determination was not possible. The new color measurement is allowing Pitt researchers to better understand the development of the Milky Way Galaxy and how it is related to other objects astronomers observe.

"The problem we faced

was similar to determining the outside climate when you are in a room with no windows." said Newman. "You can't see what's happening, but you can look online and find current weather conditions someplace where they should be about the same—the local airport, for example."

The Pitt team identified galaxies similar to the Milky Way in properties that were able to be determined specifically, their total amount of stars and the rate at which they are creating new stars, which are both related to the brightness and color of a galaxy. The Milky Way Galaxy, the Pitt researchers realized, should then fall somewhere within the range of colors of these matching objects.

"Thanks to SDSS, the large,

uniform sample needed to select Milky Way analogs already existed. We just needed to think of the idea for the project, and it was possible," said Newman. "Although it is a relatively small telescope, only 2.5 meters (100 inches) in diameter, SDSS has been one of the most scientifically productive in history, enabling thousands of new projects like this one."

Newman described the overall spectrum of light from the Milky Way as being very close to the light seen when

looking at spring snow in the early morning, shortly after dawn. Michael Ramsey, a Pitt professor of geology, notes that new spring snow is the whitest (natural) thing on Earth. Many cultures around the world have given the Milky Way names associated with milk—human vision is not sensitive to colors seen in faint light, so the diffuse glow of the Galaxy at night appears white. That association

has proven to be very appropriate, given the Milky Way's true color.

Astronomers divide most galaxies into two broad categories based on their colors- relatively red galaxies that rarely form new stars and blue galaxies where stars are still being born. (The brightest stars are generally blue, but they are very short-lived on cosmic scales and die out quickly.) The new measurements place the Milky Way near the division between the two classes. This adds to the evidence that although the Milky Way is still producing stars, it is "on its way out," according to Newman. "A few billion years from now, our Galaxy will be a much more boring place, full of middle-aged stars slowly using up their fuel and dying off, but without any new ones to take their place. It will be less interesting for astronomers in other galaxies to look at, too: The Milky Way's spiral arms will fade into obscurity when there are no more blue stars left."

The Milky Way's color is exceedingly close to the "cosmic color" measured by Ivan Baldry, a professor of astrophysics at Liverpool John Moores University in England, and his collaborators in 2002; these researchers measured the average color of galaxies in the local universe.

"This close match shows that in many ways the Milky Way is a pretty typical galaxy," said Newman. "This also agrees well with the 'Copernican Principle' embraced by the field of cosmology—that, just as the Earth is not in a special place in the solar system, we should not expect to live in an unusual place in the Universe."

The light from the Milky Way closely

matches the light from a D48.4 standard illuminant, or a light bulb with a color temperature of 4700-5000K. "It is well within the range our eye can perceive as white—roughly halfway between the light from old-style incandescent light bulbs and the standard spectrum of white on a television," said Newman. A full-color view of the Milky Way,

A full-color view of the Milky Way, with gas and dust obscuration, is available at http://home.arcor.de/AXEL.MELLINGER/.

Funding for this project was provided by the National Science Foundation. For more information on the SDSS project, visit www.sdss.org.

To read the technical notes, visit http://www.news.pitt.edu/news/technical-notes.

processed differently in an adolescent brain,

but also it can affect brain regions directly

responsible for decision-making and action

symptoms of most mental illnesses—such as schizophrenia and bipolar and eating

"Adolescence is a time when the

disorders—are first manifested, so we believe that this is a critical period for preventing these illnesses," Moghaddam said.

"A better understanding of how the adolescent brain processes

reward and decision-making is critical for understanding the basis of these vulnerabilities and

## Teen Brains Have Increased Vulnerability to Addiction, Other Disorders, Moghaddam-Led Study Finds

selection.

## By B. Rose Huber

Teenagers are more susceptible to developing disorders like addiction and depression, according to a paper published by Pitt researchers Jan. 16 in the *Proceedings of the National Academy of Science*.

The study was led by Bita Moghaddam, coauthor of the paper and a professor of

neuroscience in Pitt's Kenneth P. Dietrich School of Arts and Sciences. She and coauthor David Sturman, an MD/PhD student in Pitt's Medical Scientist Training Program, compared the brain activity of adolescents and adults in rats involved in a task in which they anticipated a reward. The researchers found increased brain-cell activity in the adolescent

rats' brains in an unusual area: the dorsal striatum (DS)—a site commonly associated with habit formation, decision-making, and motivated learning. The adult rats' DS areas, on the other hand, did not become activated by an anticipated reward.

"The brain region traditionally associated with reward and motivation, called the nucleus accumbens, was activated similarly in adults and adolescents," said Moghaddam. "But the unique sensitivity of adolescent DS to reward anticipation indicates that, in this age group, reward can tap directly into a brain region that is critical for learning and habit formation."

Typically, researchers study the correlation between different behaviors of adolescents and adults. The Pitt team, however, used a method they call "behavioral clamping" to study whether the brains of adolescents process the same behavior differently. To that end, the researchers implanted electrodes into different regions of rat adolescent and adult brains, allowing the researchers to study the reactions of both individual neurons and the sum of the neurons', or "population's" activity.

The researchers' predictions proved accurate. Even though the behavior was the same for both adult and adolescent rats, the researchers observed agerelated neural response differences that were especially dramatic in the DS during reward anticipation. This shows that not only is reward expectancy



Bita Moghaddam

designing prevention strategies." The Pitt team will continue to compare adolescent and adult

behavior, especially as it relates to stimulants—such as amphetamines—and their influence on brain activity.

The National Institute of Mental Health funded this project.



## Blue, Gold, and Green: Sustainability at Pitt

## Pitt Green Fund Sponsors Multiple Sustainability Projects on Campus

By B. Rose Huber

With almost a dozen sustainable projects on the docket and a small budget, members of the Green Fund Advisory Board (GFAB) have learned the importance of pennypinching.

"We want to work on the projects that students want to see, and although we don't have a large amount of financial resources, we have the capability to do all of them," said Seth Bush, coordinator of the Pitt Green Fund and a Pitt senior majoring in electrical and computer engineering in the Swanson School of Engineering.

After a review in October, the nine-person GFAB determined that all project proposals submitted by students to the Pitt Green Fund were possible, with many of the ideas possibly reaching fruition this spring.

Among the projects completed in 2011—the Green Fund's first year—were a *Sustainable Pittsburgh Handbook* for new students, Go Green signs featuring facts about water and energy consumption in residence halls (with expansion to academic buildings in the future), and a water-bottle refill station located within the William Pitt Union.

"This hydration station was so popular that the Pitt Union has taken on the cost and maintenance of the machine," Bush said. "Two more hydration stations will be installed in the Hillman Library [sponsored by Facilities Management] and one in Sutherland Hall [sponsored by the Department of Housing] as early as this spring."

The Green Fund has an annual budget of \$5,000, which is provided by the Student Government Board from Pitt's Student Activity Fund. Several projects will be undertaken during 2012:

• "GreenUp Move In" —On move-in day in late August, first-year students will receive a reusable tote with a water bottle and the Sustainable Pittsburgh Handbook;

• Energy Reduction Competition—Students living in campus residence halls can participate in this event, which will monitor the consumption of electricity, gas, and water. The competition, envisioned to occur annually, is currently planned for October 2012 during Energy Awareness Month. Prizes will be awarded; • Compost Tea—Green matter (nitrogen-rich composted material from food scraps) will be collected from Sodexo, which handles food services at Pitt, and mixed with brown matter (dead leaves, paper towels) and a catalyst to create a liquid fertilizer. The resulting fertilizer is safer than chemical fertilizers because it does not contaminate water and reduces waste;

Among the projects completed in 2011—the Green Fund's first year—were a Sustainable Pittsburgh Handbook for new students, Go Green signs featuring facts about water and energy consumption in residence halls (with expansion to academic buildings in the future), and a water-bottle refill station located within the William Pitt Union. • Java Farm— Coffee grounds will be collected from Sodexo and taken to the student-run urban garden on Oakland Avenue. Plant to Plate, a Pitt student organization, will use the grounds to grow oyster mushrooms, which will be donated to Sodexo; and

donated to Sodexo; and • E - C y c l i n g Drive—On move-out day in the spring, students will be able to donate unwanted electronics, appliances, and devices to eLoop, a local electronics recycling group that helps organizations manage "hard to recycle" waste. GFAB also hopes to partner with Pitt's Surplus Property department in managing the electronic waste. This

project is being merged with Pitt's clothing bin project to create a program tentatively called Clutter With a Cause. Each residence hall will have one or more collection sites set up during the last two weeks of class for the donation of unwanted clothing to Goodwill, electronics or responsible recycling to eLoop, and unwanted nonperishable food items for donation to a food pantry. The GFAB said its seeks to heighten sustainability awareness across campus. Bush said the fund not only helps the campus save resources and money, but it also breeds a new generation of sustainablefriendly students.

"Our projects empower students to practice sustainability whenever they can, all over campus," said Bush. In addition, participating students can receive hands-on experience with project management and build their interpersonal skills through their work with other students, organizations, and administrators.

For more information on the Pitt Green Fund, visit www.pittgreenfund. com.



## Pitt PACC Researchers Play Role in Higgs Boson Search

#### By B. Rose Huber

Researchers around the world, including those at the University of Pittsburgh, have long been playing a game of hide and seek with the existence of the Higgs boson—a never-before-seen particle that is thought by many to be the "fundamental building block of the universe." Researchers at the Large Hadron Collider particle accelerator in Geneva, Switzerland, reported in December that they may have seen hints of the Higgs boson.

Tao Han, a Pitt professor of physics and astronomy in the Kenneth P. Dietrich School

of Arts and Sciences, began his work at Pitt in Fall 2011, bringing with him a center that is focused on the study of the Higgs boson, among other phenomena within physics. The Pittsburgh Particle Physics, Astrophysics, and Cosmology Center (Pitt PACC) comprises researchers from Pitt and Carnegie Mellon University who are exploring one fundamental idea: how nature works—from different aspects of

cosmology. "Most of what we're searching for, especially in relation to the Higgs, has no real-life application yet. But eventually, when it's found, it will have the potential to explain many of the universe's mysteries," said Han, director of Pitt PACC.

Other professors in the Department of Physics and Astronomy are involved with ATLAS, a particle detector that is part of the Large Hadron Collider and is used to recreate conditions just after the Big Bang. This device helps researchers better understand the interactions between elementary particles at the world's highest energies, which were prevalent for a fraction of a second after the Big Bang. Joseph Boudreau, James Mueller, and Vladimir Savinov, all professors in Pitt's Department of Physics and Astronomy, contributed to the construction of the experiment's instrumentation and software; some of the images distributed through national media in December

> were the product of scientific visualization programs originating in the Pittsburgh group, which is active in the search for exotic phenomena and the determination of heavy quark properties. "The range where the

"The range where the Higgs is hiding has now been narrowed," said Boudreau. I predict a conclusive discovery could come in summer [2012]."

In addition to pursuing research, Pitt PACC organizes a series of joint seminars and workshops on "hot topics" within physics. It also hosts an annual lectureship as well as short-term and long-term visiting researchers. The center provides support for postdoctoral positions, and it involves graduate students in its projects.

For more information on Pitt PACC, visit www.physicsandastronomy.pitt. edu/pittpacc.



Tao Han ects of In

## Newsmakers

## ADDRESSING THE STATE OF THE HONORS COLLEGE

# THE

Edward M. Stricker, a renowned neuroscience scholar who took the helm as dean of the University Honors College (UHC) last July, laid out his vision for the college during his Jan. 11 Inaugural Dean's Lecture in the Frick Fine Arts Auditorium. Stricker, who also is Distinguished University Professor of Neuroscience at Pitt, asked the audience to keep in mind three general UHC principles: First, he said, the UHC is not a membership organization-no student is admitted and no student is excluded; second, the UHC's primary goal is to help the University provide to undergraduates the best quality education imaginable; and, third, the UHC can certify by conferring the Bachelor of Philosophy degree that students have obtained a uniquely outstanding undergraduate education. In closing, Stricker said, "I believe our job at the University is to educate students so they can become excellent citizens of the United States and of the world—not only informed, but responsible and caring, with the intelligence to know what has to be done and the character to get it done honorably and respectfully. In pursuing that goal, I intend to build on the outstanding work that was done by Alec Stewart, the founding dean of the UHC, and to maintain and expand the programs that have worked so well in the past while introducing new programs that will make the UHC even more effective in the future."

## **CENTER ON RACE** AND SOCIAL PROBLEMS



Elizabeth Anderson, John Rawls Collegiate Professor of Philosophy and Women's Studies and Arthur F. Thurnau Professor at the University of Michigan, delivered a lecture Dec. 9 as part of the Pitt Center on Race and Social Problems' Buchanan Ingersoll & Rooney PC Fall 2011 Speaker Series. The talk, "The Imperative of Integration: Race and Education," was held in the School of Social Work's conference center in the Cathedral of Learning.

## **2012 STUDENT GOVERNMENT BOARD**



Pitt's 2012 Student Government Board (SGB) was sworn in during a Jan. 5 ceremony in the William Pitt Union's lower lounge. SGB President James Landreneau (back row, fourth from left) and eight other newly elected board members' many responsibilities include oversight of the Student Activities Fund, to which all students except those in the College of General Studies contribute. Front row, from left: 2011 SGB elections chair Kari Rosenkaimer and 2012 SGB board members Megan McGrath, Zoe Samudzi, and Julie Hallinan. Back row, from left: Pitt Chancellor Mark A. Nordenberg; 2012 board members Halim Genus and Alex Murdoch; Landreneau; 2012 board members Olivia Armstrong, Gordon Louderback, and Natalie Rothenberger; and 2011 SGB President Molly Stieber.

#### **HONORING EMPLOYEE LOYALTY**



During a Dec. 6 reception in the William Pitt Union Assembly Room, Pitt Chancellor Mark A. Nordenberg honored staff members who had reached 20, 30, 40, 40-plus, and 50-plus years of employment at Pitt in 2011. Among the honorees was Madalyn Turner-Dickerson (A&S '70, EDUC '75G '97G, GSPIA '85), assistant University registrar, who began working at Pitt in 1971 and went on to earn master's degrees in education and in public administration, as well as a doctorate in education. Pictured, from left, are Chancellor Nordenberg, Turner-Dickerson, Provost and Senior Vice Chancellor Patricia E. Beeson, and University Registrar Ralph Hertel.

#### **GREEKS HELP IN FIGHT AGAINST CANCER**

Pitt fraternity and sorority members presented a \$500,000 check to the University of Pittsburgh Cancer Institute during a Dec. 8 reception at the O'Hara Student Center. The Greek organizations pledged in 2005 to raise the funds and held a variety of fundraising events, including the Pitt Dance Marathon, to reach their half-million-dollar goal. "I am so proud of our fraternities and sororities for their dedication to this cause," said Pitt Vice Provost and Dean of Students Kathy W. Humphrey. "Each one of our organizations contributed to achieving this very ambitious goal." In the front row, from left, are Pitt students Ashley Hazeltine, Christina Monaco, Kari Rosenkaimer, Megan McGrath, and Alexandra Conlon (wearing teal blouse). In the second row, from left, are Shannon Krohe; Summer Rothrock, the coordinator of Fraternity and Sorority Life at Pitt; Lauren Jentleson; Pitt Provost and Senior Vice Chancellor Patricia E. Beeson; and Humphrey. In the back row, from left, are Andrew Hansen, Keaton Macut, Nick Reffuge, Christopher Fetter, and Pitt Chancellor Mark A. Nordenberg.



# Happenings



#### The Overtones, Cup & Chaucer Café, **January 27**

## Concerts

Sean Jones Duets: Generations of Jazz, Benny Benack and Joe Negri join forces to pay homage to old and new tra-ditions, 7 p.m. Jan. 26, August Wilson Center for African American Culture, 980 Liberty Ave., Downtown, 412-392-4900, http://pso.culturaldistrict.org, PITT ARTS Cheap Seats, 412-624-4498, www. pittarts.pitt.edu.

Marvin, Dave Koz, & the Movie, saxophonist Dave Koz joins Marvin Hamlisch and the Pittsburgh Symphony Orchestra in a concert featuring memorable songs from the silver screen, Jan. 26-29, Heinz Hall, 600 Penn Ave., Downtown, PNC Pittsburgh Symphony POPS, 412-392-4900, www.pittsburghsymphony.org, PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt. edu.

The Overtones, a Pitt student a cappella choir, noon Jan. 27; Joy Ike, unique blend of neo-soul with a dash of pop, noon **Feb. 3;** both events are free, Cup & Chaucer Café, ground floor, Hillman Library, The Emerging Legends Series, University of Pittsburgh Library System and Calliope: The Pittsburgh Folk Music Society, www.calliopehouse.org/legends.

Brahms' Requiem, Manfred Honeck, conductor; Thomas Hampson and Chen Reiss, vocal soloists, **Feb. 3-5**, Heinz Hall, 600 Penn Ave., Downtown Pittsburgh Symphony Orchestra, BNY Mellon Grand Classics, 412-392-4900, www.pittsburghsymphony.org, PITT ARTS Cheap Seats, 412-624-4498, www. pittarts.pitt.edu.

## Exhibitions

University Art Gallery, exhibition of work produced by Pitt Department of Studio Arts and Honors College students during Pitt's third-annual Wyoming Field Study at the University's dinosaur-bonerich Cook Ranch, through Feb. 3, Frick Fine Arts Building, 412-648-2400

Westmoreland Museum of American Art, The Art of Seating: 200 Years of American Design, includes The Jacobsen American Chair Collection, a comprehensive private collection of iconic and historic chairs from the mid-1800s to pieces from today's studio move-ment, Feb. 4-April 8, 221 N. Main St., Greensburg, 724-837-1500, www wmuseumaa.org.

Carnegie Museum of Art, Picturing 2010, through March 2; Teenie Harris, Photographer: An American Story, through April 7; 4400 Forbes Ave. Oakland, 412-622-3131, www.cmoa.org.



## Lectures/Seminars/ Readings

org.

TIES Informational Luncheon for Researchers and Research **Assistants,** talk on Text Informa-tion Extraction System (TIES) open to Pitt and UPMC faculty, staff, and students, Rebecca Crowley, director, Department of Biomedical Informatics Graduate Training Program, Pitt School of Medicine, 11 a.m. Jan. 23, Conference Room CR2131, Magee-Womens Hospital, registration required at http://ties.upmc.com/register/index.html. 412-623-4753.

"Pancreatic Derivation, Forma-tion, and Regeneration," George K. Gittes, Benjamin R. Fisher Chair in Pediatric Surgery, Pitt School of Medicine, 4 p.m. Jan. 23, Lecture Room 6, Scaife Hall, Provost Office's Inaugural Lecture Series, www.provost.pitt.edu.

"Newton and Proclus on the Geometry of Absolute Space," Mary Domski, visiting fellow and associate professor of philosophy, University of New Mexico, 12:05 p.m. Jan. 24, 817R Cathedral of Learning, Lunchtime Talk Series, Pitt Center for Philosophy of Science, 412-624-1052, pittentr@pitt.edu.

"Islam and Danger: A Recon-sideration of the Link Between Religiosity, Radicalism, and Rebellion in Central Asia," David Montgomery, visiting assistant professor, Pitt Department of Anthropology, noon Jan. 25, 4217 Posvar Hall, Pitt Center for Russian and East European Studies, 412- 648-7407.

"The Supplemental Poverty Mea-sure: Taking Account of Taxes and Transfers," Kathleen Short, research economist for the U.S. Census Bureau, noon Jan. 25, Pitt Center on Race and Savid Parkhar Could State and State and Social Problems, 20th floor, Cathedral of Learning, Reed Smith Speaker Series, 412-624-7382, www.crsp.pitt. edu. (See page 2)

"Education, Employment, and Protest Participation in the Arab **World,**" M. Najeeb Shafiq, assistant professor, Pitt Department of Administrative and Policy Studies and Department of Economics, 12:15 p.m. Jan. 25, 3911 Posvar Hall, Pitt's Ford Institute for Human Security, 412-648-7434.

Wayne Koestenbaum and Myung **Mi Kim**, award-winning poets and English professors at CUNY Graduate Center and the University at Buffalo, respectively, free and open to the public, 8:30 p.m. **Jan. 26,** Frick Fine Arts Auditorium, Pittsburgh Contemporary Writers Series 2011-12 Season, Pitt Writing Program, The Book Center, 412-624-6508, www. pghwriterseries.wordpress.com.



Phantom Housefrau by Nicole Hall

University Art Gallery, Frick Fine Arts Building, through February 3

"Cooperation and Human Cogni-tion," Michael Tomasello, visiting fellow and codirector of the Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany, 3:30 p.m. Jan. 27, G24 Cathedral of Learning, Annual Leeture Series, Pitt Center for Philosophy of Science, 412-624-1052, pittcntr@pitt.edu.

"The Second Law of Thermodynam-ics in Quantum Field Theory," David Snoke, professor of physics, Pitt Depart-ment of Physics and Astronomy, 12:05 p.m. Jan. 31, 817R Cathedral of Learning, Lunchtime Talk Series, Pitt Center for Philosophy of Science, 412-624-1052, pittentr@pitt.edu.

## Miscellaneous

**"From Jonny to Jordan, What's Changed?,"** panel discussion and community talkback event looking at changes in police procedure and oversight from the time of the Jonny Gammage case to the recent Jordan Miles case; panelists include David Harris, Pitt professor of law; Elizabeth Pittinger, executive director of Pittsburgh's Citizen Police Review Board; Tim Stevens, chair of the Black Political Empowerment Project; and Wayne Babish, former Brentwood police chief; moderated by Attilio Favorini, author of the upcoming docudrama *The Gammage Project*, 7 p.m. **Jan. 23,** Charity Randall Theatre, 412-624-0933.

## Opera/Theater/ Dance

Spring Awakening, winner of 8 Tony Awards, musical that explores journey from adolescence to adulthood through a fusion of morality, sexuality, and rock 'n' roll, Jan. 26-Feb. 4, Byham Theater, 101 Sixth Ave., Downtown, Pitts-burgh Musical Theater, www.pgharts. org, 412-471-6070, PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt. edu

Billy Elliott The Musical, a celebration of one young boy's triumph against the odds, musical score by Elton John, Jan. 31-Feb. 12, Benedum Center, 803 Liberty Ave., Downtown, PNC Broad-way Across America, www.pgharts.org, 412-624 4498, www.pittats.pitt.edu 412-624-4498, www.pittarts.pitt.edu.

Through the Night by Daniel Beaty, six intersecting stories about what it means to be a Black man in America today, **through Feb. 5**, Pittsburgh City Theatre, 1300 Bingham St., South Side, 412-431-2489, www.citytheatrecom pany.org.

**As You Like It** by William Shakespeare, **through Feb. 19**, O'Reilly Theater, 621 Penn Ave., Downtown, Pittsburgh Public Theater, 412-316-8219, www.ppt.org; PITT ARTS Night is 7 p.m. Jan. 28; PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt.edu.

## Pitt PhD Dissertation Defenses

Ho Leung Chan, Kenneth P. Dietrich School of Arts and Sciences' Depart-ment of Linguistics, "Tense-Aspect Pro-cessing in Language Learners," 11 a.m. Jan. 26, Glaser Auditorium, Learning Descaret and Development Contor Research and Development Center.

Zhongfeng Zuo, Kenneth P. Dietrich School of Arts and Sciences' Depart-ment of Chemistry, "DNA Replication in Archaea: Priming, Transference, and Elongation Activities," 10:30 a.m. Jan. 27, 307 Eberly Hall.

Jason Sanders, Graduate School of Public Health's Department of Epidemiology, "Leukocyte Telomere Length and Lens Transparency as Biomarkers in Population Studies of Human Aging, 10 a.m. **Jan. 27,** 5th-floor conference room. Bellefield Professional Building



From left: House of Representatives Chamber Arm Chair by Thomas Ustick Walter; Sling Seat Lounge Chair by Warren McArthur Jr.; and High Stool by Frank Gehry Westmoreland Museum of American Art, The Art of Seating: 200 Years of American Design, February 4-April 8

Dave Koz Marvin, Dave Koz, & the Movie Heinz Hall January 26-29



## University of Pittsburgh

## PittChronicle

University News and Magazines University of Pittsburgh 400 Craig Hall 200 South Craig Street Pittsburgh, PA 15260

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## **Healing the iPhone's Wounds**

Balazs-led researchers propose "repair-and-go" method for small-scale cracks on digital device surfaces

especially functionality." The Pitt-UMass research team approach was inspired by the ability of white blood cells in the body to heal wounds on-site. Balazs and Pitt colleagues first came up with a theoretical "repairand-go" method: A flexible microcapsule filled with a solution of nanoparticles would be applied to a damaged surface: it would then repair defects by releasing nanoparticles into them. Using nanoparticles and

droplets of oil stabilized with a polymer surfactant—compounds that lower the surface tension of a liquid the UMass team actualized the theory, showing that these microcapsules found the cracks and delivered the nanoparticle contents into them. Balazs proposes that

contents into them. Balazs proposes that manufacturers use this method as a last step in the building process. "The repair-and-go method can extend the lifetime of any system or device." she

the lifetime of any system or device," she said. "Additionally, it could be used as a repair method after a crack has been found." Original research by Balazs and her

team was published in *ACS Nano* and then reported on in *Nature Nanotechnology's* "News and Views" section in September 2010. To read more about the healing process of devices, visit www.nature.com/nnano/ journal/v5/n4/abs/nnano.2010.66.html.

To read the published paper, visit www. nature.com/nnano.

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**PUBLICATION NOTICE** The next edition of *Pitt Chronicle* will be published Feb. 6. Items for publication in the newspaper's *Happenings* calendar (See page 7) 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.

## By B. Rose Huber

Like the human body, a digital device often suffers a few bruises and scratches within a lifetime. As in medicine, these injuries can be easily detected and repaired (or healed). At other times, however, a digital device may sustain hard-to-pinpoint nanoscale scratches, which can cause the device as a whole to malfunction.

In a paper published Jan. 10 in *Nature Nanotechnology*, a team of researchers from the University of Pittsburgh and the University of Massachusetts



Anna Balazs

Amherst (UMass) propose a "repair-and-go" approach to fixing malfunctions caused by small-surface cracks on any digital device or part before it

hits store shelves. "Anything that's a

machine with a surface is affected by these small-scale cracks," said Anna Balazs, Distinguished Professor of Chemical and Petroleum Engineering in Pitt's Swanson School of Engineering and coinvestigator on the project. "These are surfaces that play a role in almost anything,