

Pitt Gets \$4.7 Million Grant to Reduce Hospital-acquired Infections

By Clare Collins

The University of Pittsburgh School of Medicine has received a four-year, \$4.7 million grant from the Pennsylvania Department of Health to find new ways to stop deadly hospital-acquired infections that often are resistant to treatment. The grant, funded by Pennsylvania's share of the national 2008-09 tobacco settlement, will focus on *C. difficile*, *A. baumannii*, and the drug-resistant bacteria known as MRSA, which cause tens of thousands of deaths in the U.S. every year.

"Infections that are resistant to antibiotics are becoming increasingly problematic not only in the United States, but around the world," said Lee Harrison, principal investigator of the grant and professor of medicine and epidemiology, University of Pittsburgh. "We not only need to develop new drugs, but also to improve infection surveillance and focus on targeted interventions."

The grant will enable investigators to establish a Center of Excellence in Prevention and Control of Antibiotic-Resistant Bacterial Infections at Pitt, and it will include partnerships with several UPMC hospitals, Carnegie Mellon University, and Kane Regional Centers of Allegheny County.

The project will assess the medical and economic impacts of new strategies

to prevent and control hospital-acquired infections, which were diagnosed in 27,000 patients in Pennsylvania in 2007. Patients with these infections were hospitalized three times longer, and their admissions were four times as expensive as those of noninfected patients.

Most bacterial infections can be effectively controlled with existing antibiotic drugs, but microbial pathogens like *C. difficile*, *A. baumannii*, and MRSA have an inherent ability to develop drug resistance through many genetic mechanisms, making them particularly difficult to treat.

Pitt School of Medicine coinvestigators on the grant include Scott Curry, clinical assistant professor in the Division of Infectious Diseases; Jo-Anne Salangsang, a fellow in the Department of Infectious Diseases; Yohei Doi, an assistant professor of medicine; Bruce Lee, an assistant professor of medicine; and Paula Davis, assistant vice chancellor for diversity, schools of the health sciences.

The grant was awarded as part of the Commonwealth Universal Research Enhancement Program, which supports clinical, health services, and biomedical research, and was one of only four awarded to address the Pennsylvania 2008-09 Health Research Advisory Committee's priorities.



Lee Harrison

Thomas E. Starzl Selected for Prestigious National Award

By Megan Grote Quatrini

University of Pittsburgh transplant pioneer Thomas E. Starzl, known as the father of transplantation, has been selected by Castle Connolly Medical Ltd. to receive a Physician of the Year Award for Lifetime Achievement. The prestigious award honors a select group of physicians who have made notable contributions to the field of medicine. Honorees are selected from more than 600,000 physicians currently practicing medicine in the United States. An award ceremony will be held in New York City on March 23.

Starzl is a Distinguished Service Professor of Surgery in the University of Pittsburgh School of Medicine and director emeritus of the Thomas E. Starzl Transplantation Institute at the University of Pittsburgh Medical Center (UPMC). He achieved international acclaim by laying the groundwork for the transplantation field of medicine. Today, the Thomas E. Starzl Transplantation Institute remains the world leader in transplantation experience, with more than 10,000 patients treated to date.

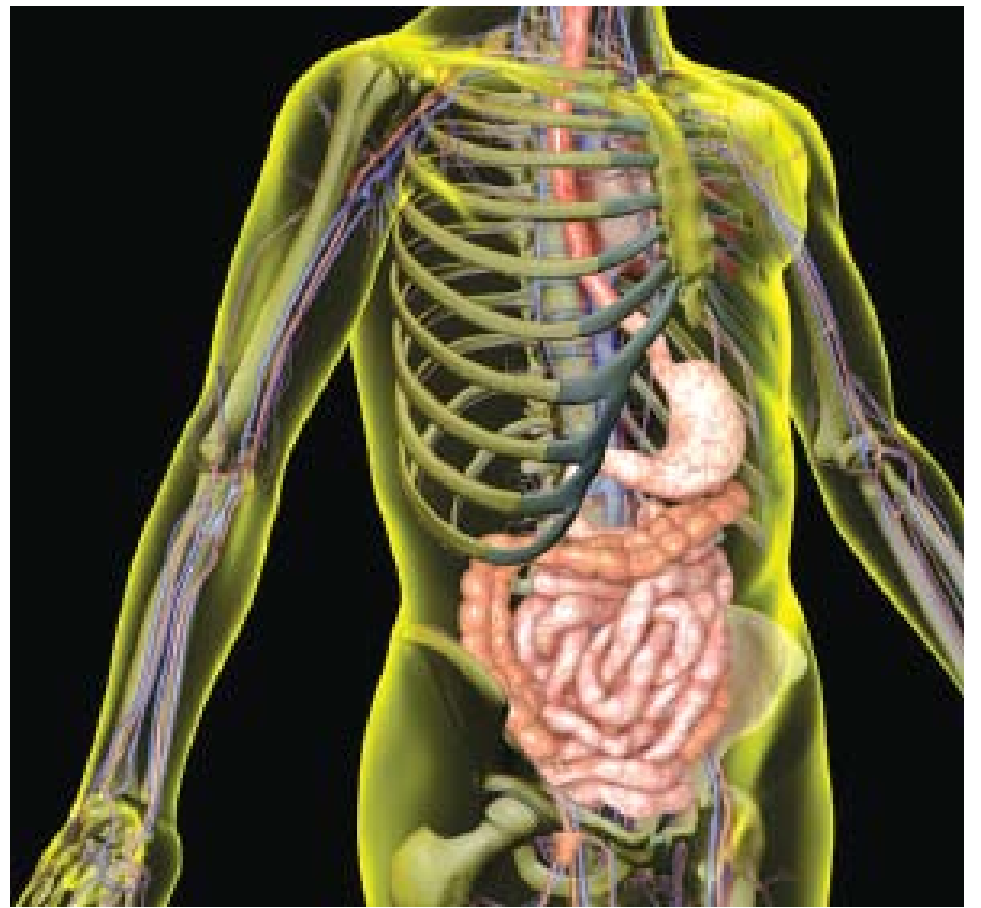


Thomas E. Starzl

"I am deeply honored to receive this award, not as an individual, but rather as a representative of the outstanding transplantation team," said Starzl. "From the beginning, our team included all components of the University of Pittsburgh, from the schools of the health sciences to the consortium of affiliated UPMC hospitals. I'm proud to have been a part of this team, which has worked tirelessly to advance the field of organ transplantation and provide hope to countless patients who otherwise had none."

Retired from clinical and surgical service since 1991, Starzl still remains active in research, mapping the relationship between donor and recipient cells and developing new therapeutic strategies to achieve immune tolerance after transplantation.

Castle Connolly Medical Ltd. is a national health care research and information company established in 1991 by a former medical college board chair and president. The company publishes the annual guide *America's Top Doctors*.



Pitt Tests Vaccine to Prevent Colon Cancer

By Anita Srikameswaran

Researchers at the University of Pittsburgh School of Medicine have begun testing a vaccine that might be able to prevent colon cancer in people at high risk for developing the disease. If shown to be effective, it might spare patients the risk and inconvenience of repeated invasive surveillance tests, such as colonoscopy, that are now necessary to spot and remove precancerous polyps.

Colon cancer takes years to develop and typically starts with a polyp, which is a benign but abnormal growth in the intestinal lining, explained principal investigator Robert E. Schoen, professor of medicine and epidemiology in the University of Pittsburgh School of Medicine and Graduate School of Public Health, respectively. Polyps that could become cancerous are called adenomas.

In a novel approach to cancer prevention, the Pitt vaccine is directed against an abnormal variant of a self-made cell protein called MUC1, which is altered and produced in excess in advanced adenomas and cancer. Vaccines currently in use to prevent cancer

work via a different mechanism, specifically by blocking infection with viruses that are linked with cancer. For example, Gardasil protects against human papilloma virus associated with cervical cancer, and hepatitis B vaccine protects against liver cancer.

"By stimulating an immune response against the MUC1 protein in these precancerous growths, we may be able to draw the immune system's fire to attack the abnormal cells," Schoen said. "That might not only prevent progression to cancer, but even polyp recurrence."

According to coinvestigator Olivera Finn, professor and chair in the Department of Immunology in Pitt's School of Medicine, MUC1 vaccines have been tested for safety and immunogenicity in patients with late-stage colon cancer and pancreatic cancer.

"Patients were able to generate an immune response despite their cancer-weakened immune systems," she noted. "Patients with advanced adenomas are oth-



Robert E. Schoen

Colorectal cancer is the third-leading cause of cancer death in the United States. In 2008, the American Cancer Society estimated that there were more than 108,000 new cases of colon cancer, nearly 41,000 cases of rectal cancer, and almost 50,000 deaths owing to both diseases.

Continued on page 2

BrieflyNoted

Pitt's University Club to Hold Open Houses for Faculty, Staff

The University of Pittsburgh's University Club will offer Pitt faculty and staff a sneak preview of the club's newly renovated facilities through a series of open house tours. The time and dates of the tours, which will showcase the publicly accessible banquet and conference centers, as well as the members-only faculty and staff club, follow:

Wednesday, March 25, 9 a.m.-1 p.m.;
Friday, March 27, noon-4 p.m.; and
Monday, March 30, 3-6 p.m.

In addition to more than 18,000 square feet of conference and banquet space, the club will also offer such amenities as first-class dining facilities, a state-of-the-art fitness center, a College Room lounge, a library with wireless Internet, and special events on the Rooftop Terrace, which provides a view of Oakland.

The University Club, located in a historic building at 123 University Place that was designed by architect Henry Hornbostel, originally opened as a private club in 1923. Acquired by Pitt in 2005, the club has undergone \$20 million in renovations in preparation for its grand reopening April 1.

—Anthony M. Moore

GSPIA to Honor Gen. Roscoe Robinson Jr.

The University of Pittsburgh's Graduate School of Public and International Affairs (GSPIA) will recognize the achievements of the late

General Roscoe Robinson Jr. (1928-93), a Pitt alumnus and the first African American four-star general in the U.S. Army, with the dedication of a classroom in his honor and the inaugural Gen. Roscoe Robinson Jr. Lecture on Public Service and Diversity. The event, which will be held at 1:30 p.m. March 27 in 3800 Posvar Hall, is free and open to the public.

During the dedication, GSPIA Dean John T. S. Keeler will comment on Robinson's impact on diversity in public service and the U.S. military, as well as GSPIA's efforts to advance discussion and awareness of diversity in public service. Immediately following the dedication of 3800 Posvar Hall, Major General Edward B. Atkeson, a West Point classmate and personal friend of Robinson's, will deliver the inaugural lecture. Atkeson (U.S. Army, Retired) is a senior fellow at the Institute of Land Warfare, Association of the U.S. Army, and an *ARMY Magazine* contributing editor. A brief question-and-answer session will follow Atkeson's lecture.

Robinson graduated from the U.S. Military Academy at West Point in 1951 and thereafter earned the Bronze Star Medal for his service as a rifle company commander in the Korean War. He attended the Command and General Staff College at Fort Leavenworth, Kan., in 1963 and earned his MPA degree at Pitt in 1964.

—Amanda Leff

Pitt Dance Ensemble to Perform in "Disengaged"

The University of Pittsburgh Dance Ensemble will present "Disengaged"—a formal dance concert with choreography by students and professional guests featuring ballet, jazz, tap, and modern styles of dance—at 8:15 p.m. March 26, 27, and 28 in the Trees Hall Dance Studio.

This year's guest choreographers include Michelle Hall Dawson, a former dancer with the Dance Alloy Theater in Pittsburgh, and Greer Reed-Jones, the education director for the Dance Alloy Theater.

Dawson's piece, titled "In the Station," is set to Beethoven's "Moonlight" Sonata and features seven of the ensemble's dancers. According to Dawson, "In the Station" depicts "the passing of love and time and the eternity of waiting, knowing that personal loss and grief can arrive in some unexpected ways." This work also was performed earlier this month at the American College Dance Festival at Pennsylvania State University.

In a strikingly different dance style, Reed-Jones' piece for the ensemble, titled "Hot Jambalaya," showcases

18 ensemble members. The work celebrates the spirit of New Orleans and the strength of that community following the devastation of Hurricane Katrina.

Pitt student choreographers for "Disengaged" include Lauren Brune, who choreographed a ballet; Greg McCummings, who choreographed a hip-hop piece; and Christiana Thurton, Leah Dowdy, Kelli Gabriel, Liz Chebra, Lauren MacLaughlin, and Kaitlin Weaver, who choreographed modern dance works. Kristin Haughney's tap dance, "Unified

Discordance," will feature 15 students dancing to the music of Janet Jackson.

General seating tickets for "Disengaged" are \$6 for the public and \$3 for students and may be purchased at the door. For more information, contact Susan Gillis-Kruman at 412-648-8262 or gillis@pitt.edu.

—Patricia Lomando White



Alan Hall

Cell Biologist Alan Hall to Launch Medical School Lecture Series

Alan Hall, chair of the Cell Biology Program in New York's Memorial Sloan-Kettering Cancer Center, will be the first speaker in the 2009 Senior Vice Chancellor's Laureate Lecture Series. The yearlong series in the University of Pittsburgh's School of Medicine spotlights some of the top biomedical researchers in their fields. Hall will speak at noon on Thursday, March 26, in the University of Pittsburgh School of Medicine, Scaife Hall, Auditorium 6. The lecture is free and open to the public.

Hall's lecture will deal with the family of proteins known as Rho GTPases that constitutes a primary focus of his research. By exploring how these proteins regulate cell migration and tissue organization and the biochemical pathways through which they act, Hall's work has significantly advanced the understanding of the metastatic process by which cancer cells migrate throughout the body.

Before joining Memorial Sloan-Kettering, where he holds an Alfred P. Sloan Chair, Hall served in the Institute for Cancer Research and in University College in London. He earned his doctorate in chemistry at Harvard University and is a graduate of the University of Oxford. He is a fellow of the U.K.'s Royal Society.

Arthur S. Levine is the senior vice chancellor for the health sciences and dean of the School of Medicine at Pitt.

—Kristin Beaver

Pitt Tests Vaccine To Prevent Colon Cancer

Continued from page 1

About a dozen people have received the experimental vaccine so far, and the researchers intend to enroll another 50 or so in the study.

erwise healthy, so they would be expected to generate a stronger immune response. That may be able to stop precancerous lesions from transforming into malignant tumors."

About a dozen people have received the experimental vaccine so far, and the researchers intend to enroll another 50 or so in the study. Participants must be between 40 and 70 years old and have a history of developing adenomas that are deemed advanced, meaning they are greater than or equal to 1 centimeter in size, are typed as villous or tubulovillous, or contain severely dysplastic, or abnormal, cells. After an initial dose of vaccine, the participants will get shots again two and 10 weeks later. Blood samples will be drawn to measure immune response at those time points as well as 12 weeks, 28 weeks, and one year later.

People who develop advanced adenomas undergo regular surveillance with colonoscopy so that recurrent polyps, which are common, can be removed before matters get worse, Schoen said.

"Immunotherapy might be a good alternative to colonoscopy because it is noninvasive and nontoxic," he noted. "And, it could provide long-term protection."

Colorectal cancer is the third leading cause of cancer death in the United States. In 2008, the American Cancer Society estimated that there were more than 108,000 new cases of colon cancer, nearly 41,000 cases of rectal cancer, and almost 50,000 deaths owing to both diseases.

Pitt's colon cancer vaccine is sponsored by the National Cancer Institute and The Nathan S. Arenson Fund for Pancreatic Cancer Research. Its adjuvant component, which enhances the immune system's ability to respond to the target protein, was developed and provided by Washington, D.C.-based Oncovir, Inc.



Gen. Roscoe Robinson Jr.



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PhenomenalPittWomen

**Pitt Magazine's
Phenomenal Women**

Pitt Magazine, in its Winter 2009 issue, highlighted the successes and contributions of 12 University of Pittsburgh women. In honor of the nationally celebrated Women's History Month in March, the magazine's editors and publisher assembled a contemporary cross-section of women from the Pittsburgh campus, representing students, faculty, staff, alumni, and trustees. The editors wrote profiles of these 12 "Phenomenal Women" and the *Pitt Chronicle* is reprinting them as a series in the March 16, 23, and 30 issues.



Angela M. Gronenborn
UPMC Rosalind Franklin Professor and Chair
Department of Structural Biology
School of Medicine
University of Pittsburgh
Member, National Academy of Sciences
Fellow, American Association
for the Advancement of Science

German-born Angela Gronenborn loves to walk. For her, walking is a way to stimulate thinking and stay fit. As a graduate student at the University of Cologne, she walked the city. As a postdoctoral fellow and scientist in London, she walked to her research lab in Mill Hill. She enjoyed hiking the Alps and exploring Munich in her time at the Max Planck Institute. And she combined Metro rides with urban strolls during her years as chief of structural biology at the National Institutes of Health (NIH) near Washington, D.C.

As a leading structural biologist and expert in nuclear magnetic resonance (NMR) spectroscopy, Gronenborn has a lot to think about. In her work, she uses massive magnets to decipher the structure of proteins and other biomolecules at the atomic level. Today, Gronenborn is the UPMC Rosalind Franklin Professor and Chair in the Pitt School of Medicine's Department of Structural Biology.

"If you want to know how proteins interact with one another, you need to know their shapes and the location of their binding sites," she says. This knowledge aids in understanding cellular processes and suggests structure-based avenues for drug development and treatment approaches. While at NIH, Gronenborn detected a way to inhibit the AIDS virus. Using magnetic fields, she unmasked the structure of a particular protein that binds to certain sugars on the virus, blocking the virus from infecting human cells. This led to a new strategy for inactivating HIV. Her group also pioneered three- and four-dimensional NMR methods that reveal enormous structural detail. Gronenborn—who was elected a member of the elite National Academy of Sciences in 2007 and a fellow of the prestigious American Association for the Advancement of Science in 2003—continues to decipher proteins, looking for other potential pathways to prevent and treat diseases.

Wherever she goes, she pursues life with European flair. Research, she says, requires as many adventurous minds as possible.



Yuan Chang
Professor of Pathology
Department of Pathology
School of Medicine
University of Pittsburgh
Covinner, 2003 Charles S. Mott Prize

Professor Yuan Chang lives in a hilly, wooded section of Pittsburgh, not far from campus. Although the surroundings are urban, her family's yard gets visits from deer, raccoons, and even wild turkeys. She shares this setting with her scientist husband, Patrick Moore, and the two "collaborate" to bring up their son, Jackson. They also work together in a University lab, looking for viruses that cause cancers. "To develop effective therapies and to gain a basic understanding of cancer, we need to know why some viruses evolve to cause cancers while others cause nothing worse than the common cold," says Chang, a neuropathologist.

Many scientists have searched for such links, with few outright successes. Only seven viruses are known to cause human cancers—and two of them were found by Chang and Moore, who is a Pitt professor of microbiology and molecular genetics. In 2003, they shared the prestigious Charles S. Mott Prize for pegging KSHV, a herpes virus, as the cause of Kaposi's sarcoma, the leading AIDS malignancy. In 2008, the Chang-Moore lab discovered that Merkel cell polyomavirus causes an aggressive skin cancer.

Chang is one of only a few scientists, and the lone woman, to have such phenomenal success in the virus-cancer field. One reason is that she and Moore developed a technique called digital transcript subtraction (DTS), which allows them to cross-compare tumor versus healthy gene sequences in the national Human Genome Project database. With DTS, they can quickly eliminate healthy genetic strands from errant strands. On very good days, they may even be able to match an errant strand with a known virus strand, a telltale breakthrough.

Chang serves on editorial boards and has received numerous awards, including the Meyenburg Foundation Award for Cancer Research, the Robert Koch Prize, and the New York Academy of Sciences' Mayor's Award for Excellence in Science and Technology.

Although Chang is passionate about searching for the links between viruses and cancers, she also loves the broader wonders in her life—home, garden, family, and a yard full of wildlife.



Eleanor Ott
Class of '09
2008 Truman Scholar
Senior, School of Arts and Sciences
and Honors College
University of Pittsburgh

Between classes, Pitt senior Eleanor Ott walks to a nearby high school every week to tutor refugees who've come to the United States seeking better lives. Patiently, she repeats English words and rules of grammar, helping students to learn the tongue of their new country.

As president of the student organization FORGEPitt, she also leads other Pitt students in tutoring refugees. Ott was one of the first members of Pitt's chapter of Facilitating Opportunities for Refugee Growth and Empowerment, a national refugee advocacy organization. Through the group, Ott—a triple major in chemistry, history, and French—also has spent summers working at a refugee camp in Zambia.

Ott's academic accomplishments, community service, and leadership won her a Harry S. Truman Scholarship, a highly competitive, merit-based federal award named after President Harry S. Truman. She was one of only 65 students nationwide to receive the honor in 2008. The award provides support for the nation's top undergraduates to attend graduate school in preparation for public service careers.

After graduate school, Ott aspires to be a United Nations protection officer in a refugee camp—a job that will allow her to use both her intellect and her compassion.

"I've talked with refugees who feel like the world has turned its back on them," says Ott. "I try to give them hope and help them improve their lives. Change can only happen with resources and the belief that it is possible. It is my life's passion to see that through."

Pitt Honors 283 Scholar-Athletes

25 Panthers earned Perfect 4.0 GPA Awards



PHOTOS BY PETE MADIA

Pitt's scholar-athletes with perfect 4.0 grade point averages (GPAs) gathered during the University's March 4 Scholar-Athlete Awards Breakfast in Alumni Hall. The two women kneeling in front are Lauren Zammerilla (left) and Chrissy Colalillo. Second row, beginning from left with student in blue shirt, Zachary Mueller, Sarah Looney, Erin Meehan, Jonathan Buchanan, Philip Konieczny, Victoria Toso, and Justin Boehm. Back row, beginning with Provost and Senior Vice Chancellor James V. Maher on far left, Aaron Hassett, Meagan Dooley, Lauren Hartman, William (B.J.) Conklyn, Scott McKillop, Mycaiah Clemons, Heather Lezanic, Andrew Kalas, Pitt Athletic Director Steve Pederson, and Pitt Alumni Association President-elect Jack Smith.

The Pitt Alumni Association honored 283 student-athletes who earned grade-point averages (GPAs) of 3.0 or higher during the Spring 2008 and Fall 2009 semesters. The athletes were recognized at the Alumni Association's annual University of Pittsburgh Scholar-Athlete Awards Breakfast on March 4 in Alumni Hall.

The women's volleyball team received the Top Women's Team Award and the Overall Top GPA Award for the third consecutive year. Four team members—Meagan Dooley, Lauren Hartman, Jessica Moses, and Stephanie Ross—were among the 25 scholar-athletes honored during the breakfast for perfect 4.0 GPAs. An additional eight team members received Gold Awards for GPAs ranging from 3.5 to 3.9.

The men's swimming and diving team was honored as the Top Men's Team. Two team members, Jon Buchanan and William Conklyn, earned perfect 4.0 GPAs and an additional five team members earned Gold Awards.

The men's basketball team was named the Most Improved GPA Team.

A list of the award winners follows.

PERFECT 4.0 GPA AWARDS

Men's Soccer

Justin Boehm and Andrew Kalas

Women's Track and Field

Rachel Botham, Alexandra Briggs, Mycaiah Clemons, Kari Hedderick, Heather Lezanic, Victoria Toso, and Anna Yoney

Football

Lucas Briggs, Aaron Hassett,



William (B.J.) Conklyn

and Scott McKillop

Men's Swimming and Diving

Jonathan Buchanan and William Conklyn

Cheer and Dance

Chrissy Colalillo and Lauren Zammerilla

Volleyball

Meagan Dooley, Lauren Hartman, Jessica Moses, and Stephanie Ross

Baseball

Philip Konieczny

Women's Swimming and Diving

Sarah Looney and Erin Meehan

Men's Track and Field

Zachary Mueller

Softball

Kayla Zinger

GOLD AWARDS (3.5-3.99 GPA)

Baseball

Raymond Black, Brian Chrisman, Sean Conley, Christopher Harner, David Kaye, Philip Konieczny, and Nicholas Mullins

Men's Basketball

Ryan Tiesi

Women's Basketball

Kate Popovec and Sylvie Tafen

Cheer and Dance Team

Beth Abbott, Megan Barna, Christie Blondek, Christie Bonk, Tracy Clinton, Chrissy Colalillo, Casey Crudden,

Sara Fabanich,

Cathryn Hoel,

Lauren Hunt,

Brittany Jackson, Katelynn

Jackson, Nicole

Jackson, Gina Klemz,

Kyle Loftus, Lauren

McCormick, Aimee Moore,

Erica Nickels, Nick Passe, Maddie

Rendulich, Kelly Scanlon,

Samantha Schenk, Brooke

Slemons, Kristen Weir, Kayla

Younge, and Lauren Zammerilla

Football

Lucas Briggs, Myles Caragein,

Patrick Costello, Mark Estermyer,

Adam Gunn, Aaron Hassett,

Andrew Janocko, Scott McKillop,

John Pelusi, Scott Shrake, Kevan

Smith, Tyler Tkach, Dustin Walters,

and Caleb Wilson

Gymnastics

Anya Chayka, Alix Croop,

Samantha DeBone, Andrea

Konesky, Nicole Kujawski,

Jennifer Liberato, Shannon

McConnell, Krista Rubini,

and Lisa Taylor

Men's Soccer

Justin Boehm, Morgan Faust Jr., Andrew Kalas, Patrick Kerr, Zachary Mathews, and Marshall Stula

Women's Soccer

A'idah Clinton, Shannon Cody, Ashley Habel, Morie Kephart, Brittany Pfaff, and Kylie Veverka

Softball

Alicia Broudy, Valerie Mihalik, Rebecca Stottlemeyer, and Kayla Zinger

Men's Swimming and Diving

Jonathan Buchanan, William Conklyn, Charles Hauser, Stephen Jackson, Patrick Mansfield, Jared Martin, and Geoffrey Morgan

Women's Swimming and Diving

Hanna Bratton, Allison Horvath, Tamara Lelli, Sarah Looney, Erin Meehan, Cookie McIntyre, Kristen McMullan, Beth Newell, Kelly O'Hara, Erika Rodriguez, Megan Sculley, Megan Sisko, and Sara Sullivan

Men's Track and Field/Cross Country

Anthony Casciano, Johnny Dogun, William Grinstead, Curtis Larimer, Zachary Mueller, Matthew Raquet, and Samson Weiser

Women's Track and Field/Cross Country

Janelle Adams, Patricia Anyanwu, Monica Bhattacharjee, Nicole Bielick, Rachel Botham, Alexandra Briggs, Elizabeth Calabrese, Mycaiah Clemons, Caitlin Cocilova, Kaitlyn Flynn, Prachi Gupta, Kari Hedderick, Kristin Johnson, Lindsay Kramer, Heather Lezanic, Alicia Lichvar, Carrie Mavrikis, Aurielle McCauley, Virginia Thistle, Victoria Toso, Leah Ulizio, and Alexis Wilder

Women's Tennis

Adela Aprodu, Kristy Borz, Anna Broverman, Marie Eanes-Fennelly, Minh Evans, Fran Liebenguth, and Sabrina Visram

Volleyball

Kelly Campbell, Meagan Dooley, Melissa Ferguson, Lauren Hartman, Allyson Hodnik, Rachel Kalberer, Monica Macellari, Jessica Moses, TaraRohall, Stephanie Ross, Nicole Taurence, and Amy Town

Wrestling

Joseph Ciampoli, Matthew Darnell, Christian Fagan, Mark Generalovich, Ethan Headlee, David Kapetanovich Jr., Nicholas Orio, Jacob Pelletier, Zachary Sheaffer, and Ryan Tomei

BLUE AWARDS (3.0-3.49 GPA)

Baseball

Ricky Breymier, Zachary Duggan, Ryan Fairbrother, Hugh Henry, Joseph Leonard, Matthew Litzinger, Daniel Pfister, Nathan Reed, John Schultz, Joshua Smith, Brian Trymbiski, and Michael Wood

Men's Basketball

Gilbert Brown Jr., Ashton Gibbs, and Bradley Wanamaker

Women's Basketball

Chelsea Cole., Karlyle Lim, Selena Nwude, Sarah Ogoke, and Shayla Scott

Cheer and Dance Team

Joe Bickel, Megan Cunningham, Michael Degenhart, Amanda Eggert, Tiffany Golonka, Thomas Gresko, Caylen Harris, Erin Kenny,



Erin Lageman, Alyssa Miller, Kayla Missigman, Michael Nuzzo, Teresa Pipak, Ashley Rader, Caitlin Timoney, Amanda Tomich, and Megan Worbs

Football

John Bachman, Patrick Bostick, Christopher Bova, Steven Dell, Justin Hargrove, Kevin Harper, Shariff Harris, Robert Houser, Henry Hynoski Jr., Brian Kaiser, Frank Kochin, Zachary Latimore, Conor Lee, LeSean McCoy, Marco Pecora, Austin Ransom, Cody Sawhill, Justin Virbitsky, and Spencer Whipple

Gymnastics

Mallory Brewer, Danielle Bryan, Jessica Catalano, Kaitlin Harrison, Victoria McGuigan-Carl, Molly Moyer, Alicia Talucci, Sarah Thompson, and Shannon Vafiadou

Men's Soccer

Samuli Ahola, Wils Alpern, Matthew Baker, Eric Barnes, Orane Gordon, Matthew Langton, Connor Malone, Jordan Marks, Erin McCormick, Adam Monteverde, Joseph Prince-Wright, and Christopher Wilcox

Women's Soccer

Laura Berbert, Elizabeth Carroll, Kathleen Caslin, Maura Caslin, Alison Finch, Janean Gardner, Molly Griganavicius, Molly McGeehin, Kaitlyn Kacsuta, Christina Nicassio, Renee Pilch, Samantha Regney, Katelyn Ruhe, Rachel Vecchio, and Katherine Weiler

Softball

Ashley Amistade, Cory Berliner, Nicole Cognigni, Ciera Damon, Mollie Illenberger, Kelly Murphy, Alyssa O'Connell, and Kaitlyn Schuster

Men's Swimming and Diving

Eric Becker, Christoph Berger, Andrzej Dubiel, Jason Erdeljac, Collin Forner, Rousseau Kluever, George Krakowski, Andrew Kyrejko, Zane McLain, David McLaren, Jeremy Stultz, Aleksandr Volovetski, and Charles Zettel

Women's Swimming and Diving

Sophie Cross, Caitlyn Harrington,

Sabrina Jennings, Ryann Kishbaugh, Agnes Mago, Tiffany Malatesta, Danielle Scott, Ruth Seiffert, Elena Spak, Morgan Speece, and Brittany Stevens

Women's Tennis

Elizabeth Adams, Shannon Benic, Leah Friedman, Stephanie Scheinoff, and Carlie Smith

Volleyball

Melissa Stadelman

Men's Track and Field/Cross Country

Samuel Bair III, Joshua Christopher, Antony Hobwana, Kelvin Isomlan Johnson, Eric Jones, Kyle Kaminski, Garrett Larkin, Jermaine Lowery, Nicholas Malenka, Edward Miller, and John Morrow

Women's Track and Field/Cross Country

Melissa Alauzen, Kathryn Bannantine, Alycia Brown, Brianna Broyles, Shanea Calhoun, Heather Calisto-Marsden, Omowunmi Fapohunda, June Farley, Martina Hallman, Rachel Hess, Jazmin Hunt, Anita James, Miya Johnson, Da'Lynn Mills, Janessa Murphy, Selena Sappleton, Stephanie Stambaugh, Melissa Vignetti, Kelsey Voltz, and Kari Wimerskirch

Wrestling

Ryan Bosso, Adam Counterman, Joseph Ecklof, Brad Gentzle, Alan Hunte, Victor Konno, Daniel Mahoney, Brock Mantella, Mark Powell, and Sean Richmond



ALUMNI ASSOCIATION

Newsmakers

HOMER S. BROWN LAW ASSOCIATION



MARY JANE BENTY/CIDE

The Homer S. Brown Law Association honored Chancellor Mark A. Nordenberg with the 2009 Spirit Award during a Feb. 26 dinner at the Rivers Club, Downtown. Presenting the glass award is Nicole King (A&S '02, LAW '05), association president and a staff attorney and assistant corporate secretary for EQT Corporation. The Homer S. Brown Law Association, an affiliate of the National Bar Association, is a professional organization with 200 African American attorneys and jurists.

BIG IDEAS ON MICROFINANCE



JOE KAPLEWSKI/CIDE

Jonathan Morduch was the keynote speaker for a Feb. 13 Microfinance and the Law conference in the Barco Law Building that was sponsored by Pitt's School of Law, *Journal of Law and Commerce*, and Law and Entrepreneurship Program. Morduch is a professor of public policy and economics in New York University's (NYU) Robert F. Wagner Graduate School of Public Service. He also is managing director of the Financial Access Initiative, a consortium of researchers at NYU, Harvard University, Yale University, and Innovations for Poverty Action that focuses on expanding access to quality financial services for low-income individuals.

RORY COOPER SPORTS CARDS

Rory Cooper

GIBSONIA, PENNSYLVANIA
This outstanding wheelchair athlete not only excels in sports, he is also a Ph.D. researcher and published author in the field of assistive technology design at the University of Pittsburgh, School of Health and Rehabilitation Sciences. A 25-year participant in the NVWG, Rory has attended and medaled nearly every year since 1983. "The Games are one of the best things that VA and PVA have ever created," he says. "This event serves as a critical mechanism for rehabilitation and healing."

General Mills

COURTESY OF GENERAL MILLS

A picture of Rory Cooper, director of the Human Engineering Research Laboratories—a partnership among the University of Pittsburgh, UPMC, and the VA Pittsburgh Healthcare System—is featured on a special edition Cheerios box and "sports hero cards," produced by General Mills. The box and cards are part of a national campaign organized by the U.S. Veterans Administration, VA Canteen Services, and General Mills to honor 12 gold medal winners of the 28th National Veterans Wheelchair Games. Cooper, who won four gold medals for swimming during those games, is the FISA/PVA Endowed Chair and a Distinguished Professor in the Department of Rehabilitation Science and Technology, Pitt's School of Health and Rehabilitation Science. The special-edition Cheerios box and sports hero cards are sold exclusively in military markets and VA Canteen Services retail stores.

Awards & More



Two Pitt faculty members have been selected as 2009 Alfred P. Sloan Research Fellows. **Brent Doiron**, an assistant professor in the Department of Mathematics, and **Michael Grabe**, an assistant professor in the Department of Biological Sciences, will receive two-year, \$50,000 awards from the New York-based Alfred P. Sloan Foundation. The Sloan fellowships are presented to young science researchers.

Doiron's research focuses on the creation and study of mathematical models of neural processing, an important step in understanding brain function.

Grabe, in his research, develops computer models that help explain biological phenomena, and his Sloan fellowship research could enable a better understanding of how proteins interact with cellular membranes.

Doiron and Grabe are among the 118 junior professors from 61 universities in the United States and Canada who received 2009 Sloan fellowships, including faculty members at Cornell University, Duke University, Harvard University, the Massachusetts Institute of Technology, and the University of California at Berkeley.

Among Pennsylvania institutions,

Carnegie Mellon University and the University of Pennsylvania also received two fellowships and Pennsylvania State University received one.

University Professor of Chemistry **Peter Wipf** has been awarded the 2009 Ernest Guenther Award in the Chemistry of Natural Products. The honor will be awarded March 24 during the American Chemical Society's Spring 2009 National Meeting and Exposition in Salt Lake City. Wipf, who also is a professor of pharmaceutical studies in Pitt's School of Pharmacy, serves as director of Pitt's Center for Chemical Methodologies and Library Development as well as its Combinatorial Chemistry Center and codirector of Pitt's Drug Discovery Institute. He has been a fellow of the American Association for the Advancement of Science, the United Kingdom's Royal Society of Chemistry, and the Japan Society for the Promotion of Science.



Lynn Emanuel

Lynn Emanuel, University of Pittsburgh professor of English, poet, and author, has been named the 2009 Elliston Distinguished Poet-in-Residence at the University of Cincinnati. The position carries an award of \$20,000. As poet-in-residence, Emanuel will teach an intensive five-week course for graduate

students in Cincinnati's McMicken College of Arts and Sciences and will give a poetry reading and two public presentations. Supported by the George Elliston Poetry Fund and the University of Cincinnati Department of English and Comparative Literature, this position has been offered to one poet annually for more than 50 years. The Elliston poet-in-residence position has an illustrious history and includes such poets as Robert Frost, Randall Jarrell, and Robert Lowell.

Director of Pitt's Writing Program, Emanuel is the author of four collections of poetry: *Hotel Fiesta* (University of Georgia Press, 1984); *The Dig* (University of Illinois Press, 1992), a National Poetry Series Award winner; *Then, Suddenly*—(University of Pittsburgh Press, 1999), a selection of the Academy of American Poets' Poetry Book Club and Eric Matthieu King Award; and, forthcoming, *Mob and Torch*.

Peter Brusilovsky, a professor in Pitt's School of Information Sciences, was recently nominated by the Association for Computing Machinery (ACM) as a senior member. The senior member grade recognizes those ACM members with at least 10 years of professional experience and five years of continuous professional membership who have demonstrated performance that sets them apart from their peers. ACM is the largest international educational and scientific computing society for computing educators, researchers, and professionals.

Brusilovsky is known for his research in several areas, including adaptive Web-based systems, adaptive hypermedia, adaptive interfaces, intelligent tutoring systems, and artificial intelligence.

The University of Pittsburgh **School of Law** has been selected as one of two host institutions for the Council on Legal Education Opportunity (CLEO) 2009 Summer Regional Institutes. This is the eighth time since 1993 that the CLEO Institute has been held at Pitt. Pitt's law faculty will challenge 40 CLEO Fellows with an intensive six-week law school curriculum as the students immerse themselves in the world of legal analysis.

Southern Illinois University Law School also will welcome 40 students for an intensive prelaw program at its summer institute. CLEO, created in 1968, is a federally funded program to enhance diversity in legal education. More than 7,500 economically disadvantaged students have participated in CLEO since it began.



Richard K. Verma

UPJ Advisory Board Member Nominated By Obama to Serve In State Department

University of Pittsburgh-Johnstown Advisory Board Member Richard K. Verma has been nominated by President Barack Obama to serve as assistant secretary for legislative affairs in the U.S. State Department. In his new role, Verma will work closely with Secretary of State Hilary Clinton.

"This is a most impressive accomplishment for Rich, who has been a true friend to Pitt-Johnstown and an exemplary member of our Advisory Board," said Pitt-Johnstown President Jem Spectar.

A partner at the international law firm of Steptoe & Johnson LLP, Verma served for several years as senior national security advisor to Senate Majority Leader Harry Reid. In 2008, he was appointed to serve on the U.S. Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism. Verma is a veteran of the U.S. Air Force and a former country director for the National Democratic Institute for International Affairs. He also served as a member of the Obama/Biden Defense Department Transition Team.

Verma holds degrees from the Georgetown University Law Center, American University's Washington College of Law, and Lehigh University. He is a member of the Council on Foreign Relations and was formerly one of the council's International Affairs Fellows. Verma also has served on the National Academy of Sciences' Panel on Critical Infrastructure Protection and the Law.

—Robert Knipple

Pitt's School of Information Sciences Honors Alumni

The University of Pittsburgh's School of Information Sciences will honor three alumni at the 2009 Distinguished Alumni and Professional Achievement Awards at 6 p.m. March 26 in the William Pitt Union Ballroom. The event will feature a reception followed by an awards ceremony at 7 p.m.

The Distinguished Alumni and Professional Achievement Awards were established in 1967 to recognize the outstanding achievements made by Pitt's School of Information Sciences graduates. The 2009 honorees are Distinguished Alumni Award winner **Christine Borgman** ('74G), a professor and presidential chair in information studies at the University of California at Los Angeles (UCLA), and Professional Achievement Award winners **Edward Mandell** ('65G), a founding member of the Allegheny County Library Association, and **Thomas Reinsel** ('90, '91G), an executive-in-residence at Sewickley Oak Capital.

Brief biographies of the honorees follow.

Borgman is the author of *Scholarship in the Digital Age: Information, Infrastructure, and the Internet* (MIT Press, 2007) and *From Gutenberg to the Global Information Infrastructure: Access to Information in a Networked World* (MIT Press, 2000), both of which have won the Best Information Science Book Award from the American Society for Information Science and Technology. She has authored more than 180 journal articles, conference papers, and books in the fields of information studies, computer science, and communications. In addition, Borgman is a fellow of the American Association for the Advancement of Science and a member of the U.S. National Academies' Board on Research Data and Information.

Mandell has more than 40 years of experience promoting public libraries as community centers. He has served as branch manager and director in community libraries in Ohio, Texas, and Michigan. In 1992, he became director of the Penn Hills Library, where he established the Penn Hills Library Foundation to raise funding for construction

of a new facility. His efforts came to fruition with the October 2007 opening of the William A. Anderson Library of Penn Hills. Mandell also is a member of

the American Library Association, as well as the Pennsylvania Library Association.

Reinsel has been a strategist and visionary in the information-technology (IT) management industry for more than 17 years. From 1997 through 2007, Reinsel founded, grew, and then sold

Pepperweed Consulting, a technology consulting firm based in Sewickley, Pa. He also worked for Eli Lilly and Company in various analyst roles and team-leader positions focusing on process alignment and IT infrastructure management decisions. He also was a founding member of the HP worldwide users group in 1993 and has hosted numerous software user conferences.

—Anthony M. Moore



Christine Borgman

Happenings



Free at Last? Slavery in Pittsburgh in the 18th and 19th Centuries, Senator John Heinz History Center, through April 5

losis Institute, 412-624-1895, to register visit www.pamaaetc.org/events.asp.

"Ethical Leadership: The 'Tipping Point' in a Financial Crisis," Barbara Porco, accounting professor and director of program development at Fordham University's College of Business Administration, 7 p.m. **March 24**, Ferguson Theater, Pitt-Greensburg, free, 4th Annual Dr. Bernard Cobetto Lecture Series, 724-836-7497, www.upg.pitt.edu.

"Imaging Dance at the Bauhaus," Susan Funkenstein, Pitt visiting professor of the history of art and architecture, noon **March 25**, 203 Frick Fine Arts Auditorium, Department of the History of Art and Architecture, 412-648-2400, www.haa.pitt.edu.

"Las Luchas Feministas y La Nueva Constitucion Politica en Bolivia," Julieta Paredes, Aymara/Bolivian feminist, lesbian activist, and poet addresses the challenge of a radical feminist agenda under Bolivian President Juan Evo Morales Ayma, 3 p.m. **March 25**, 232 Cathedral of Learning, delivered in Spanish with an English translation, Pitt Center for Latin American Studies, 412-648-7392, www.ucis.pitt.edu/main.

"The Empire of French Soccer," Laurent DuBois, Duke University professor of French and history, 4 p.m. **March 25**, 3703 Posvar Hall, Pitt's Graduate Program Speaker Series, 412-648-7451, www.pitt.edu/~pittthist.

Jane Goodall, wildlife activist and conservationist, 8 p.m. **March 25**, Heinz Hall, 600 Penn Ave., Downtown, Robert Morris University's Pittsburgh Speakers Series, 412-392-4900, www.pittsburghspeakers-series.org.

"How to Hide a Religion: Dissimulation as a Transformative Process in the History of a Modern Secretive Shin Buddhist Association," Clark Chilson, Pitt assistant professor of religious studies, noon **March 26**, 4130 Posvar Hall, Asia Over Lunch Lecture Series, 412-383-3062, www.ucis.pitt.edu/main.

"The Death of Empire: British Cemeteries in Alexandria, Egypt, 1827-1972," Shane Minkin, New York University doctoral candidate in history and Middle Eastern and Islamic studies, 1:30 p.m. **March 26**, 4130 Posvar Hall, Pitt Global Studies Program, 412-624-2918, www.ucis.pitt.edu/main.

"An Overview and New Results Describing the Tectonics and Development of the Caribbean Plate Region," Edward Lidiak, Pitt emeritus professor of geology and planetary science, 4 p.m. **March 26**, Room 11 Thaw Hall, Colloquium Speakers Series, Department of Geology and Planetary Science, 412-624-8780, www.geology.pitt.edu/colloquium.html.



**Jane Goodall
Heinz Hall
March 25**

"Scholarship in the Digital Age: Information, Infrastructure, and the Internet," Christine L. Borgman, professor and Presidential Chair in Information Studies at UCLA, 4 p.m. **March 26**, Kurtzman Room, William Pitt Union, iSchool Colloquium Series, Pitt's School of Information Sciences, 412-624-2677, www.ischool.pitt.edu.

"L'Arme and Gli Amori: Gendered Identity in Titian's Portraits for the Este Court of Ferrara," Joanna Woods-Marsden, UCLA professor of art history, 4:30 p.m. **March 26**, 202 Frick Fine Arts Auditorium, Pitt Women's Studies Program, 412-624-6485, www.wstudies.pitt.edu.

"Portraying War and Its Aftermath: A Personal Perspective," Ed Robbins, documentarian, writer, and videographer, 6 p.m. **March 26**, 113 Barco Law Building, Pitt's Global Issues Lecture Series, 412-624-2918, www.ucis.pitt.edu/main.

Fourth Annual Springboard 2009: A Monthlong Celebration of Undergraduate Research and Creativity, event encompassing undergraduate research fairs, poster sessions, mini-conferences, art exhibitions, and creative performances occurring across the University during April, 412-624-7674, www.pitt.edu/~provost/undergrad_research.html.

"Building on Darwin's Insight in Uncovering the Origins of Horse Domestication," Sandra Olsen, curator of anthropology for Carnegie Museum of Natural History, 3 p.m. **March 27**, Bayer Learning Center, Pappert Lecture Hall, Duquesne University, 600 Forbes Ave., Uptown; also 1 p.m. **March 28**, Carnegie Museum of Art Theater, 4400 Forbes Ave., Oakland, Evidence for Evolution: A Celebration of Charles Darwin's 200th Birthday Lecture Series, www.sepa.duq.edu/darwin/talks.html.

Spike Lee, director, actor, producer, and author, 8:30 p.m. **March 31**, doors open at 7:00 p.m., Room 120, David A. Lawrence Hall, free, Pitt Black Action Society, 412-648-7880, programming, bas@gmail.com.

Opera/Theater/ Dance

Willy Wonka Junior, musical, **March 26-29**, New Hazlett Theater, Allegheny Square East, North Side, Pittsburgh Musical Theater, 412-539-0900, www.pittsburghmusicals.com.

Let Them Eat Cake, Lewis Black, stand-up comedian, 8 p.m. **March 28**, Heinz Hall, 600 Penn Ave., Downtown, 412-392-4900, www.pittsburghsymphony.org.

**Willy Wonka Junior,
New Hazlett Theater,
March 26-29**

**Sivan Magen,
Duquesne University,
March 28**

La Bohème, by Giacomo Puccini, sung in Italian with English supertitles, **March 28, 31; April 3, 5**, Benedum Center, 719 Liberty Ave., Downtown, Pittsburgh Opera, 412-281-0912, www.pittsburghopera.org.

Mary's Wedding, by Stephen Massicotte, directed by Stuart Carden, **through April 5**, City Theatre, 1300 Bingham and 13th streets, South Side, 412-431-CITY, www.citytheatrecompany.org.

The World Goes 'Round, songs by John Kander and Fred Ebb, **through April 5**, O'Reilly Theatre, 621 Penn Ave., Downtown, Pittsburgh Public Theatre, 412-316-1600, www.ppt.org.

My Way: A Musical Tribute to Frank Sinatra, **through May 10**, 719 Liberty Ave., Downtown, CLO Cabaret Theater, 412-281-3973, www.pittsburghclo.org.

Pitt PhD Dissertation Defenses

Jennifer Collinger, Swanson School of Engineering's Department of Bioengineering, "Acute Biceps and Supraspinatus Tendon Changes Associated With Wheelchair Propulsion," 3 p.m. **March 23**, Room 6014 Biomedical Science Tower 3.

Janet A. Cipkala-Gaffin, Graduate School of Public Health's Department of Epidemiology, "An Evaluation of Psychosocial and Socio-demographic Factors Associated with Metabolic Syndrome and Cardiovascular Risk in Polycystic Ovary Syndrome Cases and Controls," 1 p.m. **March 24**, Room 523 Crabtree Hall.

Daniel J. Grimminger, School of Arts and Sciences' Department of Music, "Pennsylvania Tune and Chorale Books in the Early Republic: Sung Culture and the Musical Means of Cultural Assimilation," 1 p.m. **March 25**, Room 302 Music Building.

Bonnie (Pang-ning) Teng, Swanson School of Engineering's Department of Bioengineering, "Mineralized Tissue Engineering, Stem Cell Therapies, and Proteomics Approaches," 10 a.m. **March 26**, Room 501 Salk Hall.

Howie Lim, Graduate School of Public Health's Department of Epidemiology, "Trajectories of Health Behaviors Among a Cohort of Middle-aged and Older Men in the Pitt Men's Study," 2 p.m. **March 26**, Stoner Conference Room, 3520 Fifth Ave.

Katherine M. Stone, School of Arts and Sciences' Department of Chemistry, "Structural Insights of Oligomeric Protein Complexes by Electron Spin Resonance," 10 a.m. **March 27**, 307 Eberly Hall.

Maeve Eberhardt-Carroll, School of Arts and Sciences' Department of Linguistics, "An Acoustic Analysis of Regional African American English: Identities and Local Speech in Pittsburgh," 10 a.m. **March 27**, Room 2816 Cathedral of Learning.

Joanna Ruth Smolko, School of Arts and Sciences' Department of Music, "Reshaping American Music: The Quotation of Shape-Note Hymns by Twentieth-Century American Composers," 1 p.m. **March 27**, Room 302 Music Building.

Nathan Stansell, School of Arts and Sciences' Department of Geology and Planetary Science, "Rapid Climate Change in the Tropical Americas During the Late-glacial and Holocene," 2 p.m. **March 27**, 214 Space Research Coordination Center.

Concerts

Sivan Magen, internationally acclaimed harpist, featuring pieces by Marcel Grandjany, J.S. Bach, Pierre Sancan, and Chopin, 2 p.m. **March 28**, PNC Recital Hall, Mary Pappert School of Music, Duquesne University, 500 Forbes Ave., Uptown, Pittsburgh Chapter of the American Harp Society, 412-247-3916, www.sivanmagen.com.

University of Pittsburgh Symphony Orchestra, pieces by Gilda Lyons, Schumann, and Dvorak, 8 p.m. **March 25**, Bellefield Hall Auditorium, Pitt Department of Music, 412-624-4126, www.music.pitt.edu.

Noseda & Schubert's "Great," Gianandrea Noseda, conductor; Nikolaj Znaider, violinist; **March 27 and 29**, Heinz Hall, 600 Penn Ave., Downtown, Pittsburgh Symphony Orchestra, BNY Mellon Grand Classics, 412-392-4900, www.pittsburghsymphony.org.

Exhibitions

Free at Last? Slavery in Pittsburgh in the 18th and 19th Centuries, through **April 5**, exhibition by the University of Pittsburgh at the Senator John Heinz History Center, 1212 Smallman St., Strip District, 412-454-6000, www.pghhistory.org.

Mattress Factory, *Pre-drive: After Technology*, through **April 5**, 500 Sampsonia Way, North Side, 412-231-3169, www.mattress.org.

Pittsburgh Center for the Arts, *Casey Reas/Marius Watz: New Generative Form*, curated by Golan Levin; *Zoo. Logic+* by Pat Bellan-Gillen; *Transformations*, exhibition of local and national bead artists; all **through April 15**, 6300 Fifth Ave., Shadyside, Associated Artists of Pittsburgh, 412-361-0873, www.pittsburgharts.org.

Carnegie Museum of Art, *Laboratory of Architecture*, exhibition about works by Mexican architect Fernando Romero, **through May 31**; *Matsubara: A Celebration in Pittsburgh*, woodblock prints by Matsubara Naoko, **through June 7**; 4400 Forbes Ave., Oakland, 412-622-3131, www.cmoa.org.

Film

Does Torture Work? four short films presented on the issue of torture concerning Guantanamo Bay and the Iraq War, 7 p.m. **March 25**, Shadow Lounge, 5972 Baum Blvd., East Liberty, Amnesty International Film Group, www.amnestyipgh.org.

El Exilio de Gardel (1985), directed by Fernando Solanas, 7:30 p.m. **March 25**, Frick Fine Arts Auditorium, Pitt's Center for Latin American Studies, Amigos del Cine Latinoamericano Spring 2009 Series, amigosdelcinelatinoamericano.blogspot.com.

The Great Global Warming Swindle (2007), directed by Martin Durkin, 3 p.m. **March 27**, 4130 Posvar Hall, Pitt's Global Studies Program, 412-624-2918, www.ucis.pitt.edu/main.

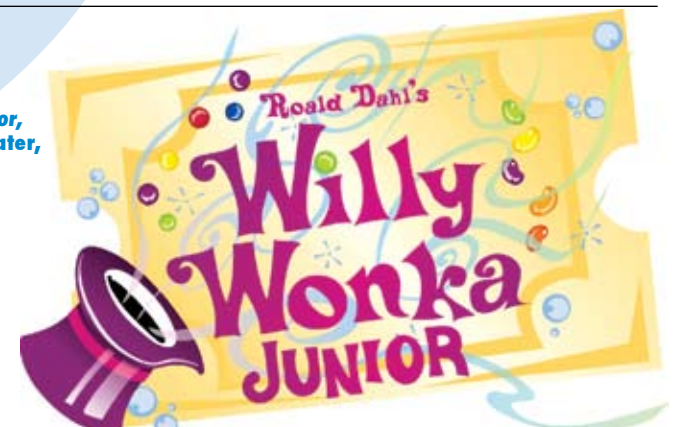
Secret Sunshine (2007), directed by Chang-dong Lee, 6 p.m. **March 27**, 4130 Posvar Hall, Pitt's Korean Film Festival, Asian Studies Center, 412-624-5562, www.ucis.pitt.edu/main.

Lectures/Seminars/ Readings

"Nusantara/Nanyan/Southeast Asia: Public Enactments of Religious Belief," Ricardo D. Trimillos, University of Hawaii at Manoa Asian Studies chair and ethnomusicology professor, 3 p.m. **March 24**, 4130 Posvar Hall, Pitt Asian Studies Center, Department of Music, 412-648-7426, www.ucis.pitt.edu/main.

"My Back Is Killing Me: How Disc Research Could Save Your (Quality of) Life," James Kang, UPMC Endowed Chair in Orthopaedic Spine Surgery, 4:30 p.m. **March 24**, 2500 Posvar Hall, Provost's Inaugural Lecture Series, 412-624-4222, www.provost.pitt.edu.

"Pathogenesis, Treatment & Control of Tuberculosis—A Global Perspective and World TB Day," Alfred Lardizabal, a professor of medicine in the Division of Pulmonology at New Jersey Medical School, 6:30-8:30 p.m. **March 24**, Room G-23 Parran Hall, Pitt Graduate School of Public Health, Public Health Grand Rounds, Pennsylvania/MidAtlantic AIDS Education and Training Center, New Jersey Medical School Global Tubercu-





A Healthy Glow

Pitt-led researchers create quick fluorescent detector for TB, drug-resistant strains



By Morgan Kelly

Researchers from the University of Pittsburgh and the Albert Einstein College of Medicine have developed an onsite method to quickly diagnose tuberculosis (TB) and expose the deadly drug-resistant strains of *Mycobacterium tuberculosis* that can mingle undetected with treatable strains. The researchers engineered bacteriophages—tiny viruses that attack bacteria—to inject TB bacteria with a glowing, fluorescent-green protein. They report their findings in the March 19 edition of *PLoS ONE*, a peer-reviewed online journal from the Public Library of Science.

The method must next undergo clinical trials, but it has potential as a valuable, time-saving tool in rural African areas besieged

by TB, explained the paper's senior author, Graham Hatfull, chair and Eberly Family Professor of Biological Sciences in Pitt's School of Arts and Sciences. Hatfull conducted the research with Professor William Jacobs Jr. of the Department of Microbiology and Immunology in the Albert Einstein College of Medicine of Yeshiva University in New York and Pitt postdoctoral fellow Mariana Piuri.



Graham Hatfull

"A report from South Africa showed that the extensively drug-resistant TB strains can kill within 16 days, on average," Hatfull said. "In rural Africa, it takes too long to collect samples, send them off, do the test, and have the data sent back. Clinicians need rapid, relatively cheap, and simple methods for detecting TB and drug-

resistant strains at the local clinic. This test provides a quick diagnosis so the patient can be isolated and treated."

The group constructed bacteriophages specific to TB that have a green fluorescence protein (GFP) implanted in their genome. Bacteriophages spread by injecting their DNA into bacterial cells—in this case, the GFP gene accompanies the DNA into the TB cell, causing the cell to glow. A clinician can detect the GFP's glow with equipment available at many clinics.

Besides quick diagnosis, the test also could be used to distinguish treatable TB strains from those that are drug resistant, a chore that can normally take months, Hatfull said. Hatfull and his colleagues treated *M. tuberculosis* with antibiotics at the same time the bacteriophages were introduced; the TB strains that were sensitive to antibiotics died, but the drug-resistant cells survived and continued to glow.

The group's research was funded as part of a major new research initiative from Howard Hughes Medical Institute (HHMI). The institute announced March 19 that it will partner with South Africa's University of KwaZulu-Natal to establish an international research center focused on the TB and HIV coepidemics in Africa called KwaZulu-Natal Research Institute for TB-HIV. Jacobs will direct research into developing rapid and effective TB tests, one of the new institute's primary objectives. His work with Hatfull and Piuri was related to that effort. More information about the HHMI initiative is available on the institute's Web site, at

The group constructed bacteriophages specific to TB that have a green fluorescence protein (GFP) implanted in their genome. Bacteriophages spread by injecting their DNA into bacterial cells—in this case, the GFP gene accompanies the DNA into the TB cell, causing the cell to glow.

www.hhmi.org/news/krieth20090319.html

"The development of reporter fluorophages," Jacobs said, "allows us to bypass the existing method of diagnosing TB, which requires cultivating slow-growing bacteria in a biosafety level-3 environment, a time-consuming and costly process. By infecting live *M. tuberculosis* cells with a fluorophage, a quick and highly sensitive visual reading can be done. We are optimistic that we can move the diagnostic process

from several weeks to several days or even hours, which could have a significant impact on treatment."

The *PLoS ONE* paper is available on Pitt's Web site at www.pitt.edu/news2009/Hatfull-paper.pdf

PUBLICATION NOTICE The next edition of *Pitt Chronicle* will be published March 30. Items for publication in the newspaper's *Happenings* calendar (see page 7) should be received six working days prior to the desired publication 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, faxed to 412-624-4895, or sent by campus mail to 422 Craig Hall. For more information, call 412-624-1033 or e-mail robinet@pitt.edu.

