

Pitt United Way Day of Caring to Focus on 15 Community Projects

University teaming with TIAA-CREF at Lemington Community Services and South Oakland Greenway project Sept. 28



University of Pittsburgh staff and faculty participating in one of the 2006 Day of Caring projects

By Patricia Lomando White

Borrowing the phrase “for the greater good” from its partner TIAA-CREF, Pitt will be promoting “the greater good” in 15 community projects during its United Way Day of Caring Sept. 28, including the TIAA-CREF-sponsored work at Lemington Community Services Senior Center and the South Oakland Greenway project.

Steve Zupic of Pitt’s Office of Community Relations coordinates the Day of Caring event. Community Relations, in cooperation with Pitt’s Equipose, the association of African American staff and faculty, will assist Lemington in transferring previously donated office dividers and furniture.

TIAA-CREF, a retirement planning and investment manager for University faculty and staff, is funding the upgrade of Lemington’s computer system as well as the transformation of a piece of South Oakland property into a green space and park.

“The need to care for the frail elderly identified by our founder, Mary Peck

Bond, more than 100 years ago continues today—particularly as our aging population grows and seeks services that enable them to remain independent and in their own homes,” said Joy Starzl, executive director of Lemington Community Services Senior Center.

Other Pitt Day of Caring volunteer services at Lemington will include:

- Telephoning homebound seniors to check on them and offer the services of Lemington;
- Assisting with the Silver Sneakers sessions for both active and frail seniors;
- Assisting with serving meals to both frail and active seniors;
- Conducting interviews with seniors over age 90 for oral history documentation; and

- Conducting art classes with seniors.

Among Pitt’s Day of Caring projects will be reading aloud at the Urban League Charter School in East Liberty, working on the Schenley Park restoration, participating

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—Joy Starzl

in Family House Fix-it Day, doing interior improvements at Gwen’s Girls, freshening up the Roselia Center, and packaging medical supplies at Global Links. For a complete list of projects, visit www.pitt.edu/~united/projects.html.

The Lemington Community Services heritage dates back to 1882, when founder Mary Peck Bond began caring for “the poorest of poor.” Lemington Community Services continues this long tradition of providing high-quality home care services to frail elderly clients who rely on Lemington to manage in their own homes and communities. Pittsburgh’s East End residents look to Lemington for a variety of services, including meals, service coordination, socialization and recreation, outreach, information and referral, educational classes, and health enhancement programs.

“We are honored to sponsor this Day of Caring at the University of Pittsburgh, as our employees have a long tradition of contributing to those efforts that help support the greater good,” said Scott Evans, executive vice president of Asset Management for TIAA-CREF. “Managing our clients’ financial security to and through retirement has been our only mission for nearly 90 years,” Evans added.

Thornburgh Lecturer Is Disabilities Law Scholar Ruth Colker

By Patricia Lomando White

Ruth Colker, the Heck Faust Memorial Chair in Constitutional Law at Ohio State University’s Michael E. Moritz College of Law, will be the featured speaker at Pitt School of Law’s Thornburgh Family Lecture Series in Disability Law and Policy for 2007.

She will give her free talk titled “Why I Only Give Take-Home Exams: A Disability Perspective,” from 1 to 2:30 p.m. Sept. 27 in the Barco Law Building’s Teplitz Memorial Courtroom. A reception will follow.

A former Pitt professor and one of the leading scholars in the country in constitutional law and disability discrimination, Colker also has taught at the University of Toronto and George Washington and Tulane universities. She also spent four years as a trial attorney in the Civil Rights Division of the U.S. Department of Justice, where she received two awards for outstanding performance.

Colker is a frequent guest on National Public Radio and is the author of several books, including *The Disability Pendulum: The First Decade of the Americans with Disabilities Act* (New York University Press, 2005) and *Everyday Law for Individuals with Disabilities* (Paradigm Publishers, 2006). She has published more than 50 articles in such law journals as the *Harvard Law Review*, *Yale Law Journal*, *Columbia Law Journal*, and *Pennsylvania Law Review*. Her honors include Ohio State University’s Distinguished Lecturer Award (2001), Distinguished Diversity Enhancement Award (2002), and Distinguished Scholar Award (2003).

The Thornburgh Family Lecture Series was created by a gift from former Pennsylvania Governor and U.S. Attorney General Dick Thornburgh and his wife, Ginny, vice president and director of the National Organization on Disability, Religion, and Disability Program.

A Pitt trustee, Dick Thornburgh is a 1957 graduate of the University’s law school.

Recipients of the 2003 Henry B. Betts Award from the American Association of People with Disabilities, the Thornburghs donated the \$50,000 Betts Award funds to the University to establish The Thornburgh Family Lecture Series in Disability Law and Policy through Pitt’s School of Law and School of Health and Rehabilitation Sciences (SHRS). The fund has been supplemented by grants from the Office of the Chancellor, the law school, and SHRS.

This lecture has been approved by the Pennsylvania Continuing Legal Education (CLE) Board for 1.5 hours of CLE credit. Register at the door. For details, visit www.law.pitt.edu/alumni/cle/index.php.

For more information on the lecture series, call 412-648-1373.



Ruth Colker

Briefly Noted

Seminar to Celebrate 10th Anniversary of County's Human Services Department

Pitt's Graduate School of Public and International Affairs (GSPIA) will join Allegheny County's Department of Human Services (DHS) in celebrating the department's 10th anniversary.

"Organizational Strategies for Community Services: Looking Back 10 Years, Looking Forward to the Next 50" is part of a series of seminars examining the design, delivery, and evaluation of performance of services for Allegheny County residents. It will include two panel discussions on the theme Continuity in Community Service Through Changing Times. The free public seminar will be held from 3:30 to 6 p.m. Sept. 28 in the Lower Lounge of the William Pitt Union. A reception will follow.

The seminar will focus on three issues that challenge DHS: designing effective services for an aging population; developing more effective practices for the transition of incarcerated residents back into constructive lives; and utilizing information technology in the design, monitoring, evaluation, and redesign of all services.

The first panel discussion, titled "Looking Back 10 Years," will feature speakers from DHS. The second, titled "Looking Forward to the Next 50," will feature GSPIA scholars whose work focuses on key issues confronting DHS.

For more information, contact Joyce Valiquette at 412-624-6614 or vali@pitt.edu.

—Amanda Leff

Contemporary Writers Series Will Open With Reading by Author George Saunders

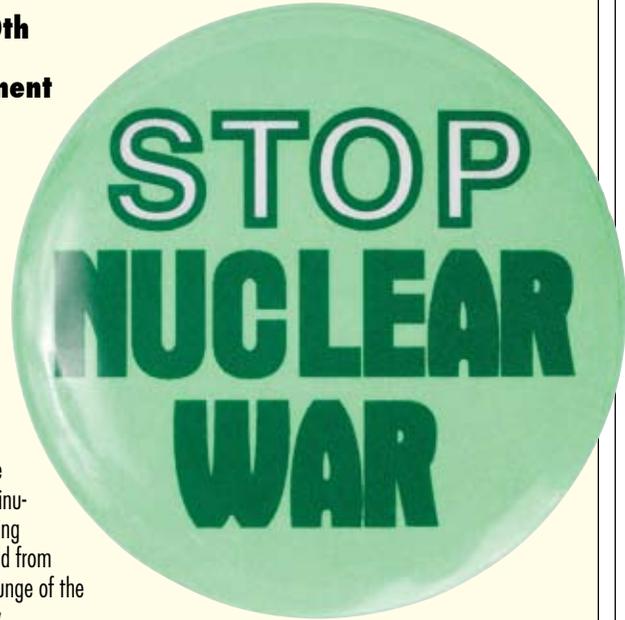
Author George Saunders will open the 2007-08 Pittsburgh Contemporary Writers Series season with a reading at 8:30 p.m. Oct. 1 in Pitt's Frick Fine Arts Auditorium.

Saunders is the author of *Civil War Land in Bad Decline* (Riverhead Books, 1996), *Pastoralia* (Riverhead Books, 2000), *The Very Persistent Gappers of Frip* (Villard, 2000), *The Brief and Frightening Reign of Phil* (Riverhead Books, 2005), *In Persuasion Nation* (Riverhead Books, 2006), and *The Braindead Megaphone* (Riverhead Books, 2007). His short fiction has appeared in such publications as *The New Yorker*, *Harper's*, and *Esquire*. Saunders won the National Magazine Award for fiction in 1994, 1996, 2000, and 2004. In 2006, he was awarded a \$500,000 MacArthur Foundation Fellowship, commonly called a "genius grant."

Born in Amarillo, Texas, in 1958, Saunders spent most of his childhood on the south side of Chicago. In 1981, he received a Bachelor of Science degree in geophysical engineering from the Colorado School of Mines in Golden, Colo. In 1988, he received a master's degree in creative writing from Syracuse University. From 1989 to 1996, he worked for Radian International, an environmental engineering firm in Rochester, N.Y., as a technical writer and geophysical engineer. Saunders is currently an assistant professor of creative writing at Syracuse.

Pitt's Book Center, Women's Studies Program, and University of Pittsburgh Press cosponsor the Pittsburgh Contemporary Writers Series, which this season runs through April 2, 2008. All events in the series are free and open to the public.

—Anthony Moore



Threats of Nuclear Weapons And Global Warming to Be Subjects of Pitt Conference

The University's Matthew B. Ridgway Center for International Security Studies will host a conference titled "Securing Our Survival—Meeting the Threats of Nuclear Weapons and Global Warming," at 9 a.m. Oct. 12 and 13 in the Barco Law Building's Teplitz Courtroom.

The free public event will bring together internationally prominent scholars and policy analysts as well as community members.

"This conference joins two issues that could conceivably end life on this planet as we know it," said Ridgway Center Director William W. Keller. "It is gratifying to see so many schools within the University joining with community organizations to address global warming and nuclear proliferation."

Conference speakers will include Thomas Graham, former special representative of the president of the United States for arms control, nonproliferation, and disarmament; Joseph Cirincione, senior fellow and director for nuclear policy at the Center for American Progress; William Hartung, director of the Arms and Security Initiative at the New America Foundation; and Lisa Schirch, professor of peace building at Eastern Mennonite University and program director of the 3-D Security Initiative.

Activities will consist of the following six sessions of lectures and discussions: Understanding the Nuclear Threat and Climate Crisis; U.S. Nuclear Weapons Policy—Impact on Proliferation; Nuclear Disarmament: Bridging the Political Divide; The Role of Diplomacy and Conflict Prevention; Global Elimination of Nuclear Weapons; and Global Warming and Energy Solutions. A planning session will focus on local actions to confront global warming and eliminate nuclear weapons.

This conference is being sponsored by Pitt's Ridgway Center, Graduate School of Public and International Affairs, Graduate School of Public Health, University Honors College, Joseph M. Katz Graduate School of Business, School of Law, School of Arts and Sciences, and University Center for International Studies, as well as The Stanley Foundation and Physicians for Social Responsibility.

The first 300 registrants for the conference will receive tickets for a free lunch. To sign up for the conference, visit the Ridgway Center's Web site at www.ridgway.pitt.edu.

For more information, contact Patricia Hermenault at 412-624-7396 or hermenault@gspia.pitt.edu.

—Anthony Moore

University Expanding Its Computer Storage Capacity



By Morgan Kelly

Pitt will expand its computer storage capacity this year with a centralized IBM high-end disk storage system designed to hold more than 325 terabytes of data—or more than 162 billion pages of text. The system is expected to meet the University's storage needs for the next several years.

With more than 33,000 full- and part-time students and more than 12,000 faculty

and staff at its five campuses, Pitt needs to accommodate torrents of information—student records, archives, school records, employee information, financial data, and millions of e-mail messages per month.

"The University of Pittsburgh supports large enterprise systems, and the number and complexity of new systems continue to grow," said Jinx Walton, director of Computing Services and Systems Development, which will house the new system in its RIDC facility. "To effectively manage these systems, it was necessary to identify an enterprise storage solution that would leverage our existing investments in storage, make allocation of storage flexible and responsive to project needs, provide centralized management, and offer the reliability and stability we require. The integrated IBM storage solution met these requirements."

Pitt's storage system will consist of the IBM SAN Volume Controller storage virtualization solution spread across two IBM System Storage DS8300 systems utilizing CISCO SAN switches, which will be used for Tier 1 and Tier 2 storage needs. An IBM System Storage DS4800 will be used for Tier 3 and backup, while IBM Tivoli Productivity Center will manage the entire environment.

Chronicling

An ongoing series highlighting University of Pittsburgh history



Sept. 24, 1959—During a luncheon address in Pitt's Schenley Hall ballroom, Soviet leader Nikita Khrushchev declares that his country will surpass the United States in production within a few years. He also calls for peaceful U.S.-Soviet competition. "Under conditions of tension, the cold war may easily turn into a hot war, into a very hot one, a nuclear war which could not only burn but incinerate. The surest way to avoid this unenviable position is to destroy the means of war," says Khrushchev, chairman of the Council of Ministers of the Union of Soviet Socialist Republics.

Pitt Chancellor Edward Litchfield replies by suggesting that the world's two most powerful nations "compete in establishing societies in which all men find opportunity to develop their knowledge and their abilities in accordance with their capacities. Societies, both of ours, in which men's minds are free to explore the universe with no limits imposed upon them beyond those of their own abilities. . . . I suggest, sir, that the winner in such a competition will not be your country, or ours, but all mankind."

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STAFF WRITERS Sharon S. Blake
 John Fedele
 Morgan Kelly
 Amanda Leff
 Stephanie Lilavois
 Patricia Lomando White
CONTRIBUTING WRITERS Michele D. Baum
 Anthony Moore

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Dick Thornburgh

Inaugural Dick Thornburgh Prize for Public Service Awarded to Graduating Law Student

By Patricia Lomando White

In April, Pitt dedicated the Dick Thornburgh Room in the Hillman Library and created the Dick Thornburgh Forum for Law and Public Policy to honor the former governor of Pennsylvania for his years of public service. As an additional tribute, the Dick Thornburgh Prize for Public Service also was established to recognize Thornburgh (LAW '57), who donated his archives to the University in 1998.

Thornburgh was governor of Pennsylvania from 1979 to 1986, attorney general of the United States from 1988 to 1991, and under secretary general of the United Nations from 1992 to 1993.

Graduating Pitt law student Richard J. Fuschino Jr. was named recipient of the inaugural prize, awarded to an outstanding graduating law student whose goal is to pursue a career in public service. Fuschino began working in the Philadelphia District Attorney's Office Aug. 10.

Campaign cochair and former Thornburgh aide Gail Balph and an independent group of Dick and Ginny Thornburgh's

friends and former colleagues—including Sam Zacharias (CAS '64), a Pitt alumni trustee and principal of Gateway Financial Group—initiated the Dick Thornburgh Legacy Project, a two-year campaign with Pitt's Office of Institutional Advancement, to raise \$2 million to supplement the University's efforts to establish the forum. The campaign for the Dick Thornburgh Legacy Project and Forum for Law & Public Policy is nearing fruition.

During fundraising efforts, the idea to recognize Thornburgh's public service in a special way took shape. This year, \$4,000 was allocated to establish the Thornburgh Prize. Of the money raised to date, \$100,000 has been earmarked to fund the award annually.

Since the award was a surprise to Thornburgh on the occasion of the April dedication, a committee of people from Pitt's School of Law chose the Thornburgh Prize winner this year. In future years, a committee including the dean of the law school in consultation with Thornburgh will select the recipient.

1957 Pitt Law School Graduates Thornburgh, Bell, and Rubash to Give Presentation During Law Alumni Reunion Weekend Sept. 28-29

Program titled "Ethical Challenges Facing Attorneys and Law Schools: The View from 50 Years in the Legal Profession"

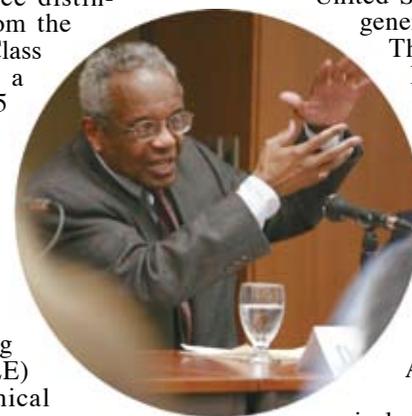
By Patricia Lomando White

Dick Thornburgh, Derrick Bell, and Norman Rubash, three distinguished graduates from the Pitt School of Law's Class of 1957, will present a program from 3 to 5 p.m. Sept. 28 in the Barco Law Building's Teplitz Memorial Courtroom as part of the Law Alumni Reunion Weekend, to be held Sept. 28-29.

The program, eligible for two Continuing Legal Education (CLE) credits, is titled "Ethical Challenges Facing Attorneys and Law Schools: The view from 50 years in the legal profession." The speakers, whose paths led to careers in legal education, politics, and business, will offer perspectives on this topic informed by their combined 150 years in the legal profession.

The program is free; for those seeking CLE credit but not attending the reunion, there is a \$25 fee, payable at the door. Preregister for CLE credit at 412-648-1305.

A former governor



Derrick Bell

Bell and U.S. Senator Orrin G. Hatch (LAW '62) will be honored with Distinguished Alumni Awards at the dinner to be held at 6:30 p.m. in Alumni Hall's Connelly Ballroom.

of Pennsylvania, attorney general of the United States, and under secretary general of the United Nations, Thornburgh is of counsel at Kirkpatrick & Lockhart Preston Gates Ellis. Bell is a lawyer, teacher, activist, scholar, and author of several books, including *Ethical Ambition: Living a Life of Meaning and Worth* (Bloomsbury Books, 2002). Rubash is the retired international executive vice president of Amoco Corporation.

Other reunion events include a Friday evening reception, Saturday luncheon, afternoon outing at Phipps Conservatory and Botanical Gardens, and the evening reunion dinner. Bell and U.S. Senator Orrin G. Hatch (LAW '62) will be honored with Distinguished Alumni Awards at the dinner to be held at 6:30 p.m. in Alumni Hall's Connelly Ballroom.

For a complete list of events and times, visit www.law.pitt.edu/alumni/reunions/invitation2007.php.

CHANCELLOR'S AWARD FOR STAFF FOR EXCELLENCE IN SERVICE TO THE COMMUNITY 2008

Help Reward Staff Excellence in Service to the Community

Nominations are being solicited for this University-wide award to recognize staff members whose dedication and effort have made their community a better place to live and improved the quality of life for others. This award is given annually to part-time or full-time staff members who have been employed at the University for a minimum of five years. Nominations can be made by individuals, groups, students, or alumni. Self-nominations are allowed. **If you know of a staff member whose work in the community surpasses the expectations of the organizations she or he serves and whose commitment and effort have made a significant impact on the community, while also demonstrating a consistent pattern of dedication to the University,** please submit a nomination form to Jane W. Thompson, Chairperson of the Selection Committee, University of Pittsburgh, 1817 Cathedral of Learning, 4200 Fifth Avenue, Pittsburgh, PA 15260. **The nomination deadline is Friday, September 28, 2007.** Please use the nomination form that has been mailed to all University faculty and staff and is available online at www.hr.pitt.edu/awards.htm. The nomination form will be reviewed to confirm that the nominee is eligible, after which the nominee, nominee's supervisor, and nominator will receive notice of the nomination, along with a request for additional information.

A committee appointed by the chancellor will review the nominations and materials submitted and will select up to five persons to be honored. For more information, call 412-624-6576.



University of Pittsburgh

CHANCELLOR'S AWARD FOR STAFF FOR EXCELLENCE IN SERVICE TO THE UNIVERSITY 2008

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University of Pittsburgh

Science & Technology

Genetic Secrets of Devastating Human Parasite May Yield Plethora of New Drug Targets

By Michele D. Baum

An international team of researchers led by a Pitt professor has revealed the genetic secrets of one of the world's most debilitating human parasites, *Brugia malayi* (*B. malayi*), which the World Health Organization estimates has seriously incapacitated and disfigured more than 40 million people.

The study, published in the Sept. 21 issue of the journal *Science*, reveals dozens of potential new targets for drugs or vaccines and should provide new opportunities for understanding, treating, and preventing elephantiasis, the disfiguring disease caused by the *B. malayi* parasite.

In addition, understanding how this particular parasite has adapted to humans may help organ transplant research, according to the authors, because parasitic worms are a lot like foreign tissue that has been transplanted into the human body. But unlike baboon hearts or pig kidneys, which the immune system quickly recognizes as foreign and rejects, worms can survive for years in the body. Discovering how they do so may benefit transplant surgery.

More than 150 million people worldwide are infected with filarial parasites—long, thread-like, microscopic worms that can live for years inside the human body and cause severe, debilitating diseases. The female *B. malayi* worms can live up to eight years in the human body, eventually leading to the ghastly, disfiguring disease elephantiasis, which is characterized by excessive buildup of lymphatic fluid in the body and extreme swelling in limbs, trunk, or head. People can contract the worms when bitten by infected insects or spiders.

The longevity of this parasite complicates treatment because existing drugs target the larvae and, thus, do not completely kill the worms. The drugs often must be taken periodically for years, and the worm can cause a massive immune reaction when it dies and releases foreign molecules in the body.

According to first author Elodie Ghedin, assistant professor of infectious diseases in Pitt's School of Medicine, having a complete genetic blueprint of the organism will lead to the development of much better therapies. "The genomic information gives us a better understanding of what genes

are important for different processes in the parasite's life cycle. So, it will now be possible to target these genes more specifically and interrupt its life cycle," explained Ghedin, who led the sequencing project while at The Institute for Genome Research, which is now part of the J. Craig Venter Institute, a not-for-profit research organization in Bethesda, Md.

Ghedin led a team of scientists from research institutions around the world in analyzing the 90 million base pair genome of *B. malayi*.

From the sequence analysis, they predicted approximately 14,500 to 17,800 protein-coding regions, or genes, in the *B. malayi* genome, which was in agreement with previous estimates. Comparative analysis of the *B. malayi* genome with that of another nematode, *Caenorhabditis elegans*, revealed that more than 20 percent of the predicted proteins in *B. malayi* are specific to the parasite.

Based on this finding, Ghedin and her colleagues suggested that these *B. malayi*-specific genes—almost 2,000 in all—constitute an "interesting list" of initial candidates for functional studies of the gene products. In addition, from the genome sequence, Ghedin and her coinvestigators identified several metabolic pathways containing dozens of gene products that they believe are likely to be helpful for the discovery of more targeted and effective drug therapies. These include pathways involved in molting, nuclear receptor responses, collagen processing, neuronal signaling, protein phosphorylation (i.e., protein kinases), and host and endosymbiont metabolism.

"Insights into the gene activation pathways of *B. malayi* will undoubtedly speed the pace of discovery of new treatments. And any new interventions to reduce the burden of disfiguring elephantiasis around the world will indeed be welcome," said Donald Burke, dean of Pitt's Graduate School of Public Health.



Elodie Ghedin

Pathway to Cell Death Redefined in Study Led by Pitt's Silverman, Luke

School of Medicine findings hold promise in fight against cancer, stroke, heart disease, and other life-threatening illnesses



Cliff J. Luke (left) and Gary A. Silverman

By Michele D. Baum

A new study led by investigators in Pitt's School of Medicine demonstrates that the process of necrosis, long thought to be a chaotic, irreversible pathway to cell death, may actually be triggered as part of a regulated response to stress by a powerful protein, SRP-6, that can potentially halt necrosis in its path.

Further, the research team realized that this protein might be harnessed to direct some cells—those in cancerous tumors, for instance—to die, while saving others, such as degenerating neural cells responsible for Alzheimer's and Parkinson's diseases. The work appeared on the Sept. 21 cover of the journal *Cell*.

This remarkable molecular trigger, SRP-6, is a serine protease inhibitor or serpin, and it targets the cell's digestive center, the lysosome. The authors report that the family of intracellular serpins may help cells survive in the face of stressors by protecting against lysosomal injury and its cellular consequences.

"For years, we believed that cell death related to a catastrophic insult such as a stroke or heart attack that deprives tissue of oxygen couldn't really be treated, so we focused on strategies to prevent further damage by restoring blood flow as quickly as possible with clot busters and surgery," said Gary A. Silverman, chief of newborn medicine and professor in the Pitt medical school's Department of Pediatrics and the study's senior author. "But our research indicates that necrosis can be interrupted and possibly repaired, even after the injury process is well under way. This insight has exciting implications for the management of heart disease, stroke, and neurological illnesses."

Representing more than five years of study, the *Cell* publication is the result of a chance observation made by primary author

Cliff J. Luke, a Pitt assistant professor of pediatrics and an investigator at the University-affiliated Magee-Womens Research Institute.

Luke, Silverman, and their colleagues have been studying how a certain class of proteins called proteases, when uncontrolled, can kill cells. In the process, they discovered that another group of proteins, the serpins, might block, or inhibit, these destructive proteases and protect cells from injury. SRP-6 is among a vast family of pro-survival serpins, which are key regulatory molecules in many complex biologic processes, including blood cell coagulation, inflammation, tumor growth and cell death.

Although previous research has shown that bloodstream serpins, including anti-thrombin and alpha-1 antitrypsin, control protein degradation, little is known about the role of serpins that function within cells, especially in a living organism.

Enter serendipity. When collecting specimens of a microscopic worm called *Caenorhabditis elegans* in water, rather than in a saline solution as is more common, Luke noticed that an extraordinarily large number of the animals were dying. "My worm yield was way down," he said. When he examined the dying worms, he determined that they were genetic "knock-outs" that had been modified to be deficient in SRP-6. The normal worms were just fine.

A frequently studied animal model because of its 1,000-cell structure, transparency, and easily visible development, *C. elegans* is a primitive organism whose complete genetic code has been sequenced and is well known to scientists. The worm typically lives in soil, flourishes in water, and exists to eat bacteria and reproduce. The investigators were using a "reverse genetic" approach in which they hoped, by studying the relatively limited intracellular serpin repertoire of *C. elegans*, they could gain insights that might be applicable to serpin function in higher organisms, including humans.

“Serpins are critical,” said Silverman, a neonatologist and a senior investigator at the Magee-Womens Research Institute. “For example, we know that in patients who have a certain type of skin cancer, those whose tumors express a lot of intracellular serpins don’t do as well. Now we know that SRP-6 is a crucial prosurvival mechanism that can protect cells from injury, initiate repair after injury, or, if absent, lead to a cascade of cell death.”

With further investigation, it may be possible to use this knowledge to deprive cancer cells of their serpin protectors and target them for death. Alternatively, physicians might be able to boost serpin activity to stop cells from dying—for example, intestinal cells affected by the bacterial infection necrotizing enterocolitis (NEC), a major cause of death and illness in fragile, premature infants.

“We still treat NEC the same way we did 30 years ago, with supportive care, antibiotics, and surgery to remove dead portions of intestine,” Silverman said. “We can’t stop the mucosal lining from dying. But with these worms as models, we can do drug screens to search for compounds that can block necrosis.”

Silverman, Luke, and colleagues have dramatically illustrated the devastating consequences of cellular stress in *C. elegans* when the crucial protector SRP-6 is missing. A cascade of cell necrosis begins in SRP-6-deficient animals exposed to a number of different stressors, including water, heat, and lack of oxygen. In the case of water exposure, the SRP-6 knockouts move a bit but soon become immobile. Finally, the worms’ organs are violently expelled through their bodily openings, resulting in what the authors refer to as a “grim fate.”

“Animals with normal genetic sequences are fine in water, but the knockout animals usually die rapidly,” said Luke, explaining that this observation led him to realize the importance of SRP-6 in protecting the lysosome, an internal cell structure enclosed in its own protective membrane that acts as the cell’s garbage disposal. Powerful enzymes within the lysosome digest old, worn-out proteins, carbohydrates, lipids, DNA, RNA, other damaged cell structures, and even invading bacteria and viruses. But if the lysosome becomes damaged and leaky, these enzymes can turn against the cell and possibly overcome the serpin defense—useful if the cell is part of a cancerous tumor.

The investigators determined that SRP-6 staves off necrosis by protecting the lysosome membrane from damage caused by the calpain family of cysteine proteases and by neutralizing other cysteine proteases released from injured cellular structures called organelles as they are being digested by the lysosome. As part of their study, Silverman, Luke, and colleagues labeled enzymes within the lysosomes of SRP-6-deficient animals with a fluorescent biomarker to observe how these enzymes reacted after an injury to the critical structure.

“The lysosomes popped, released their contents into the cell; and these digestive enzymes began to activate, making the whole animal fluoresce,” Silverman said. “Again, this experiment showed the importance of SRP-6 in management of the necrosis pathway.”

“There are a lot of diseases associated with cell necrosis, such as stroke, neurodegenerative diseases, and NEC, and now we know that the pathway to necrosis is much more systematic than we once thought it was,” Luke said. “With further study, we may be able to identify targets of intervention to halt the necrotic progression in some of these diseases and possibly even prevent them.”

The study was funded by the National Cancer Institute, the National Human Genome Research Institute, the Mario Lemieux Foundation, and the Twenty-Five Club of Magee-Womens Hospital of the University of Pittsburgh Medical Center.

Low Vitamin D Linked to Higher Risk of Hip Fracture



By Michele D. Baum

Women with low levels of vitamin D have an increased risk of hip fracture, according to a study led by Pitt’s Graduate School of Public Health and presented last week during the 29th annual meeting of the American Society for Bone and Mineral Research, in Honolulu.

Pitt Professor of Epidemiology Jane A. Cauley and colleagues evaluated patient data on 400 women enrolled in the Women’s Health Initiative Observational Study Cohort who had experienced hip fracture,

confirmed by their medical records, over a median of 7.1 years.

Levels of 25 hydroxyvitamin D, an indicator of vitamin D status, in the bloodstream were measured for these patients and compared with those of a control group matched for age, race, ethnicity, and the date of relevant blood work. As vitamin D concentrations decreased, the risk of hip fractures climbed.

“The risk of hip fractures was 77 percent higher among women whose 25

hydroxyvitamin D levels were at the lowest concentrations,” said Cauley, who has spent much of the past 15 years investigating the physical changes that take place in postmenopausal women. “This effect persisted even when we adjusted for other risk factors such as body mass index, family history of hip fracture, smoking, alcohol use, and calcium and vitamin D intake.”

Vitamin D deficiency early in life is associated with rickets—a disorder characterized by soft bones and thought to have been eradicated in the United States more than 50 years ago.

Though the exact daily requirement of vitamin D has not been determined, most experts think that people need at least 800 to 1,000 international units a day. Many experts believe the current recommended levels of 400 IUs daily should be increased.

The vitamin is manufactured in the skin after sun exposure, and is not available naturally in many foods other than fish liver oils. Some foods are fortified with the vitamin.

Cauley’s work also focuses on use of estrogen, risks of hip fractures, bone density, and cholesterol levels of women who are going through menopause. As a coprincipal investigator for Pitt’s site of the Women’s Health Initiative, a National Institutes of Health-sponsored study, Cauley and her colleagues continue to examine the effects of calcium and vitamin D on osteoporosis.

Jane A. Cauley

Weekly Dose of Osteoporosis Drug Prevents Bone Loss Associated With Breast Cancer, Pitt Research Finds

By Michele D. Baum

Breast cancer survivors who took a weekly dose of risedronate, sold as Actonel, lost significantly less bone than those who did not take the drug, according to a two-year study by researchers in Pitt’s School of Medicine.

Pitt Professor of Medicine Susan Greenspan, director of the Osteoporosis Prevention and Treatment Center and Bone Health program at the University of Pittsburgh Medical Center, and colleagues evaluated 87 women (mean age: 50) enrolled in the Prevention of Osteoporosis in Postmenopausal Women with Breast Cancer Following Chemotherapy study.

All participants in the randomized, double-blind trial received calcium and vitamin D supplements. However, half took 35 milligrams of risedronate once a week while others took a placebo.

“Chemotherapy drugs and other medical treatments for breast cancer are known to induce menopause, which can kick-start bone loss, putting survivors at risk for osteoporotic fractures,” said Greenspan, an internationally renowned osteoporosis researcher. “This study also looked at changes in spine and hip bone mineral density, as well as evidence of bone breakdown.”

Ninety-seven percent of study participants had normal or low bone mass at enrollment. At baseline, many were taking tamoxifen, a breast cancer drug aimed at estrogen-sensitive tumors. Tamoxifen also is sometimes used as a preventive therapy for women at high risk for breast cancer.

While tamoxifen can have a positive



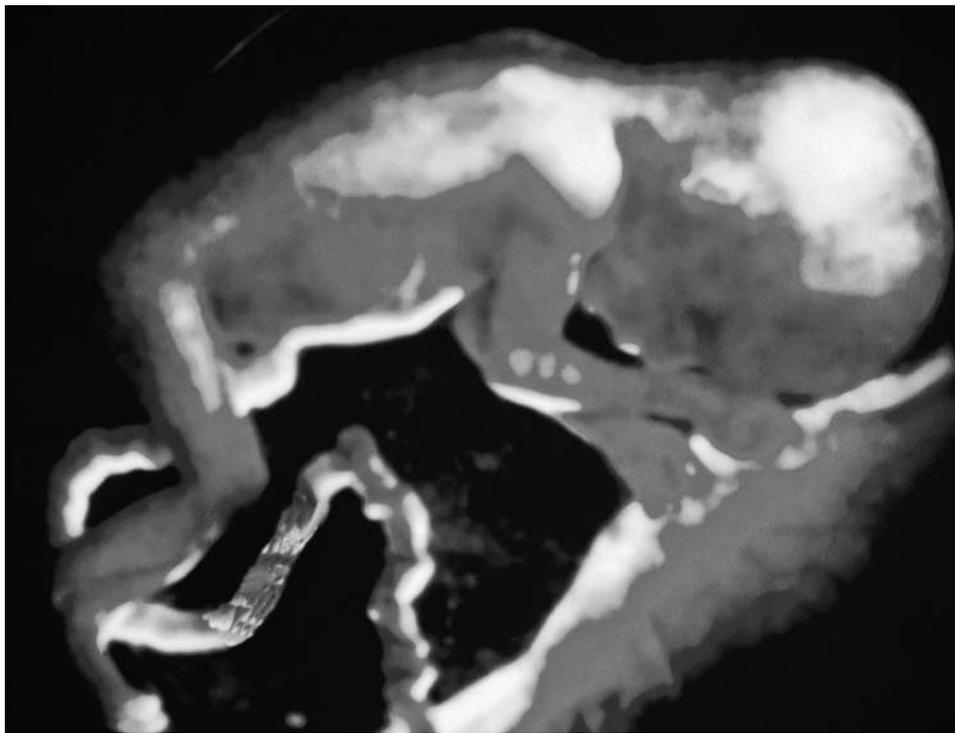
impact on bone in postmenopausal women, a small percentage of women were taking aromatase inhibitors (also used for prevention), which can have a negative effect on bone. During the second year of the study, about half the women began taking aromatase inhibitors and stopped taking tamoxifen.

“After 24 months, women in the placebo group had significant bone loss in the spine and hip that we didn’t see in women taking risedronate,” Greenspan noted. “In fact, women taking risedronate had a bone density much higher in the spine and hip than women

in the placebo group.” The researchers also observed that the greatest bone loss was found in women on aromatase inhibitors. Even so, risedronate continued to be successful in preventing bone loss.

Weekly doses of risedronate improve bone density and prevent excess bone loss in breast cancer survivors, the researchers concluded.

The Pitt research was presented last week during the 29th annual meeting of the American Society for Bone and Mineral Research, held in Honolulu.



Despite Danger, Many Women of Childbearing Age Not Getting Contraceptive Advice Before Taking Medicines Linked to Birth Defects

Study led by Pitt Professor Eleanor Bimla Schwarz calls for more awareness among physicians, women who may become pregnant

By Michele D. Baum

Although prescription medications that may increase the risk of birth defects are commonly used by women in their childbearing years, only about half receive contraceptive counseling from their health care providers, according to a large-scale study by Pitt's School of Medicine reported in the Sept. 18 issue of the *Annals of Internal Medicine*.

"We found that over the course of a year, one in six women of reproductive age filled a prescription for a medication labeled by the Food and Drug Administration as increasing the risk of fetal abnormalities," said Eleanor Bimla Schwarz, an assistant professor in the Pitt medical school and the study's first author. "Unfortunately, many women filling prescriptions that can increase risk of birth defects remain at risk of pregnancy."

Half of pregnancies in the United States are unintended, according to national estimates. While regular use of contraception can prevent unplanned pregnancies, women filling prescriptions that can increase the risk of birth defects are no more likely to use contraception than other women, the study authors noted.

For Pitt's investigation, Schwarz and her colleagues studied patient data related to all prescriptions filled by 488,175 reproductive-age women enrolled with a large managed health care plan during 2001. Prescriptions involved drugs considered safe for use in pregnancy and those labeled as posing a fetal risk.

The researchers examined use of contraception and results of pregnancy tests. When they compared medications labeled as increasing the risk of birth defects with safer medications, the researchers found little difference in rates of contraceptive counseling, use of contraception, or subsequent pregnancy test results.

"Many women—and perhaps their

physicians—may be unaware of the risks associated with the use of some medications, the chance that women may become pregnant, or both," said Schwarz, who also is an assistant investigator at the Pitt-affiliated Magee-Womens Research Institute. "The scary thing is that we know women in other primary care health care settings are even less likely to get information about birth control."

While about half of the women in this study had received contraceptive counseling, other studies have shown that, nationwide, only about 20 percent of women are advised to use birth control when they receive potentially dangerous medications.

"While efforts are needed to ensure that women get information about birth control and the risk of medication-induced birth defects, it also is important to realize that different birth control methods are not equally effective," Schwarz said. "Women who were using the most effective methods of contraception, such as the intrauterine device, or IUD, were least likely to have a positive pregnancy test after filling a prescription for a potentially dangerous medication."

Pitt researchers found that internists and family practitioners prescribed the largest proportion (48 percent) of riskier medications to women of childbearing age. Psychiatrists prescribed 15 percent of these drugs; dermatologists, 12 percent; obstetrician/gynecologists, 6 percent; and pediatricians, 3 percent, according to the study.

"Women should not avoid using prescription medications, but clinicians need to remember that sometimes birth control is needed until a woman is ready to have a healthy pregnancy and a healthy baby," Schwarz added.

Pitt's study was funded by the National Institute of Child Health and Human Development and an unrestricted grant from Duramed Pharmaceuticals.



Eleanor B. Schwarz

"We found that over the course of a year, one in six women of reproductive age filled a prescription for a medication labeled by the Food and Drug Administration as increasing the risk of fetal abnormalities."

—Eleanor B. Schwarz

Pitt International Week Continues Through Sept. 30



By Amanda Leff

Pitt's International Week 2007, "Your World, Your Health"—celebrating the diversity of the University, Oakland, and the greater Pittsburgh community—will continue through Sept. 30. The event is sponsored by the University Center for International Studies' Global Studies Program and Student Affairs' Office of Cross-Cultural and Leadership Development, in collaboration with a number of campus, student, and community organizations.

International Week aims to expand the awareness of and interest in global learning opportunities by celebrating the intercultural diversity of campus life. It also supports and complements Pitt's academic and public service missions.

Following are International Week highlights. For more information and a complete calendar of events, visit www.ucis.pitt.edu/global/internationalweek.

Sept. 24

Lecture, "The Debt Can Go to 'Hell-th': The Effects of the Global Debt Crisis on the Public Health Crisis in Africa."
8 p.m., Bellefield Presbyterian Church (Fellowship Hall, basement), 4001 Fifth Ave., Oakland.

Sept. 25

Lecture, "Human Rights, Human Security, and Health."
4-5:30 p.m., 3911 Posvar Hall.

Oakland International Restaurant Tour.
6-9 p.m., various Oakland restaurants.

Film Screening, *Blood Diamond*, directed by Edward Zwick.

6:30-9 p.m., William Pitt Union (WPU) Assembly Room.

Film Screening, *Rx for Survival: A Global Health Challenge*, (the first of a three-part series), directed by Mike Beckham, Richard Dale, Sarah Holt, Tabitha Jackson, Rob Whittlesey, Gail Willumsen, and Andrew Young.
7-9 p.m., 4130 Posvar Hall.

Film Screening, *Ha-Buah (The Bubble)*, directed by Eytan Fox
8:30 p.m., G-24 Cathedral of Learning.

Sept. 26

Lecture, "Contemporary Slavery: Implications for Global Health and Policy."
Noon, 4130 Posvar Hall.

Cultural Event, "African Cultural Workshop."
5-9 p.m., WPU Ballroom.

Film Screening, *Rx for Survival: A Global Health Challenge*, (the second of a three-part series).

7-9 p.m., 4130 Posvar Hall.

Performance, "The Damask Drum."
8 p.m., Studio Theatre, located in the Cathedral of Learning basement.

Performances run through Sept. 29 at 8 p.m. with 2:30 p.m. matinees on Sept. 29 and 30.

Cultural Event, "Salsa Lessons."
9:15-10:15 p.m., Posvar Hall's first floor Galleria.

Sept. 27

Lecture, "Emergency USA."
10-11 a.m. and 1:30-2:30 p.m., 4130 Posvar Hall.

Lecture, "Human Trafficking in Asia Linked With International Migration to Japan and South Korea."
Noon, 4130 Posvar Hall.

Lecture, "UAE-U.S.: Common Interests; Shared Vision."
Noon, WPU Kurtzman Room.

Cultural Event, "Global Health and Rehabilitation."
2:30-5:30 p.m., Forbes Tower.

Lecture, "Cross-Cultural Communication."
4-6 p.m., WPU Dining Room A.

Cultural Event, "Asia and Friends: Karaoke Night"
4:30 p.m.-midnight, WPU Kurtzman Room and Ballroom.

Panel Discussion, "Bridging the Gap Between Africans and Africans in the Diaspora."
6-8:30 p.m., 324 Cathedral of Learning.

Film Screening, *Rx for Survival: A Global Health Challenge*, (the third of a three-part series).

7-9 p.m., 4130 Posvar Hall.

Film Screening, *Dangerous Living: Coming Out in the Developing World*, directed by John Scagliotti.
8:45-10:30 p.m., 630 WPU.

Sept. 28

International Fair.
11 a.m.-3 p.m., WPU Lawn.

Cultural Event, African Festival 2007.
3-8 p.m., WPU Lower Lounge.

Sept. 29

Pitt's 28th-Annual Latin American and Caribbean Festival.
10 a.m.-midnight, WPU.

Panel Discussion, Cross Cultural Forum.
6-7:30 p.m., 630 WPU.

Happenings



Chihuly Glass Exhibition/Phipps Conservatory through Nov. 11

Concerts

Namoli Brennet, musical performance, noon **Sept. 26**. William Pitt Union, PITT ARTS' Artful Wednesday Series, 412-648-7815, www.namolibrennet.com.

Gene Ludwig, blues pianist, 6 p.m. **Sept. 26**, Backstage Bar at Theater Square, 655 Penn Ave., downtown, 412-325-6769, www.pgharts.org.

University of Pittsburgh Symphony Orchestra, conducted by Roger Zahab, performing works by Edvard Grieg and John Cage, 8 p.m. **Sept. 26**, Bellefield Hall Auditorium, 412-624-4125, www.music.pitt.edu.

Saxophonist/Flutist James Moody with Vocalist Jimmy Scott, **Sept. 27-30**, 1815 Metropolitan St., North Side, MCG Jazz series, 412-322-0800, www.mcgjazz.org.

Direct From the Algonquin: Karen Akers, 7:30 and 9:30 p.m. **Sept. 28**, Pittsburgh Renaissance Hotel, 107 Sixth St., downtown, Cabaret Pittsburgh Riverview series, 412-394-3353, www.cabaretppgh.org.

Toradze Plays Tchaikovsky, Pittsburgh Symphony Orchestra conducted by Yan Pascal Tortelier, featuring pianist Alexander Toradze, 8 p.m. **Sept. 28** and 2:30 p.m. **Sept. 30**, Heinz Hall, 600 Penn Ave., downtown, Pittsburgh Symphony Orchestra's Mellon Grand Classic Series, 412-392-4900, www.pittsburghsymphony.org.

Amish Burlesque 2007-08, musical comedy performance, 10:30 p.m. **Sept. 28**, Theater Square Cabaret, 655 Penn Ave., downtown, 412-325-6769, www.clocabaret.com.

Italian Baroque Bonanza, Spiritus Collective performing music by Girolamo Fantini, 8 p.m. **Sept. 29**, Synod Hall, 125 N. Craig St., Oakland, Renaissance and Baroque Society of Pittsburgh, 412-361-2048, www.rbsp.org.

Powerhouse Pianists Festival, Part II: Stephen Gosling and Margaret Kampmeier, 8 p.m. **Sept. 29**, Bellefield Hall Auditorium, Pitt's Music on the Edge series, 412-624-4125, www.music.pitt.edu.

A Tribute to Art Blakey, featuring the Winard Harper Sextet, 8 p.m. **Sept. 29**, Kelly Strayhorn Theater, 5941 Penn Ave., East Liberty, 412-394-3353, www.proartstickets.org.

Aaron David Miller, organist, 4 p.m. **Sept. 30**, Heinz Chapel, Organ Artists Series of Pittsburgh, 412-242-2787, www.heinzchapel.pitt.edu.

Exhibitions

The Framery, *Bush Leaguers: Cartoonists Take on the White House*, through **Sept. 28**, 4735 Butler St., Lawrenceville, 412-687-2102.

Audubon Exhibitions/Hillman Library, *Black and Yellow Warbler*, through today; *Green Black-capt Flycatcher*, **Sept. 25-Oct. 8**; Audubon exhibi-

tion case, Hillman Library's ground floor, 412-648-7715.

Carnegie Museum of Art, *Masters of American Drawings and Watercolors: Foundations of the Collection, 1904-22*, through **Oct. 7**; *Forum 60: Rivane Neuenschwander*, through **Oct. 28**; *Design to Be Lit*, through **Feb. 10**; 4400 Forbes Ave., Oakland, 412-441-9786 ext. 224, www.cmoa.org.

Magee-Womens Hospital, *Oncology on Canvas: Expressions of a Woman's Cancer Journey*, featuring 50 works of art by cancer survivors and their loved ones, through **Oct. 12**, artwork displayed in the main lobby and throughout the hospital, 300 Halket St., Oakland.

Frick Art and Historical Center, *In the Studios of Paris: William Bouguereau and His American Students*, through **Oct. 14**, 7227 Reynolds St., Point Breeze, 412-697-0938, <http://frickart.org>.

Mattress Factory, *India: New Installations Part 1*, through **Oct. 25**, 500 Sampsonia Way, North Side, 412-231-3169, www.mattress.org.

Digging Pitt Gallery, *Conceived Bully*, featuring works by urban art designers Evil Design, ExperiBreed, and Magmo; *Same Frequency*, works by Jon Anderson, Jean McClung, and Sherry Rusinack; both exhibitions through **Oct. 27**; 4417 Butler St., Lawrenceville, 412-605-0450, www.diggingpitt.com.

Tom Museum, *Peace in 2008*, photography exhibition, through **Oct. 28**, 410 Sampsonia Way, North Side, tomuseum.com.

Pittsburgh Center for the Arts, 2007 *Artist of the Year Exhibition: Delanie Jenkins*, professor and chair in Pitt's Department of Studio Arts, through **Nov. 4**, 6300 Fifth Ave., Oakland, 412-361-0873, www.pittsburgharts.org.

Senator John Heinz Pittsburgh Regional History Center, *Soul Soldiers: African Americans and the Vietnam Era*, through **Oct. 31**; *Points in Time*, through **Dec. 31**; *Glass: Shattering Notions*, through **Dec. 31**; and *Discovery Place*, through **Dec. 31**; 1212 Smallman St., Strip District, 412-454-6000, www.pghhistory.org.

Lectures/Seminars/Readings

Reading by Azar Nafisi, author, 7:30 p.m. **Sept. 24**, Carnegie Music Hall, 4400 Forbes Ave., Oakland, Drue Heinz Lecture Series, 412-624-4187, www.pittsburghlectures.org.

"The Causal Chain Problem," Michael Baumgartner, faculty member, University of Bern's Department of Philosophy, 12:05 p.m. **Sept. 25**, 817R Cathedral of Learning, Pitt Center for Philosophy of Science Lunchtime Talks series, 412-624-1052.

"The Self and History," Franziska

Asian Studies Center to Present Asia Over Lunch Lecture Series

The University's Asian Studies Center will present its "Asia Over Lunch" lecture series at noon on Thursdays from Sept. 27 to Nov. 15 in 4130 Posvar Hall.

Pizza will be served, but attendees are asked to bring their own beverages. Asian Studies is part of Pitt's University Center for International Studies.

Information on the lectures follows.

Sept. 27 Minwoo Yun, assistant professor of criminal justice, Wheeling Jesuit University, "Human Trafficking and International Migration into South Korea."

Oct. 4 Mike Roman, Pitt PhD candidate in anthropology, "Youth Perceptions of HIV/AIDS in the Republic of Kiribati and Social Projects to Educate People About the Virus."

Oct. 11 Martha Chaiklin, Pitt assistant professor of history, "Unseasonal Winds of Love: Prostitution in Early Modern Nagasaki."

Oct. 18 Rashmi D. Bhatnagar, Pitt assistant professor of English, "Literary Traditions of Protest for the Girl Child: Brajbha a in Meera's Medieval Poetry, Mahadevi Verma's *Prose Sketches* (1941), and Mrinal Pande's Novel *Daughter's Daughter* (1993)."

Oct. 25 Julia H. Kaufman, postdoctoral research associate, Pitt's Learning Research and Development Center, "Schools in Shanghai."

Nov. 1 Eun-Young Jung, Japan-Korea postdoctoral fellow at Pitt, "Transnational Popular Cultural Traffic Between Japan and Korea."

Nov. 8 Mark Metzler, associate professor of history and Asian Studies, University of Texas at Austin, "Globalization, East Asia, and the First Great Depression, 1873-1896."

Nov. 15 Hao-li Lin, Pitt postdoctoral student in anthropology, "Conservation and Conflict: Ecotourism in a Fijian Village."
For more information, call the Asian Studies Center at 412-648-7370 or visit www.ucis.pitt.edu/asc/news/overlunch.html.
—Amanda Leff



Meier, professor of romance philology, University of Göttingen, Germany, 5 p.m. **Sept. 25**, 149 Cathedral of Learning, Pitt's Department of French and Italian Languages and Literatures, www.frenchanditalian.pitt.edu.

"History of Egypt: East or West?" Christina Michelmore, associate professor of history, Chatham University, 7 p.m. **Sept. 25**, Pitt-Greensburg's Village Hall, Pitt-Greensburg La Cultura lecture series, 724-836-7741.

"Recent Developments in Copper-mediated Atom Transfer Radical Cyclisation," Andrew Clark, professor, University of Warwick, UK, 7:15 p.m., **Sept. 25**, 12B Chevron Science Center, Pitt Department of Chemistry seminar series, www.chem.pitt.edu.

"Current and Future Techniques in Cartilage Imaging: Injury, Degeneration, and Repair," Hollis G. Porter, professor of radiology, Cornell University's Weill Medical College, 7 a.m. **Sept. 26**, Montefiore University Hospital's LHAS Auditorium, Pitt Orthopaedic Surgery Grand Rounds series, www.orthonet.pitt.edu.

"Human Tumor Antigens and a New View of Cancer Immunovigilance," Olivera J. Finn, professor and chair, Pitt Department of Immunology, noon **Sept. 26**, 1104 Scaife Hall, Pitt Department of Pathology seminar series, 412-648-1260, <http://path.upmc.edu>.

"Human Trafficking and International Migration into South Korea," Minwoo Yun, assistant professor of criminal justice, Wheeling Jesuit University, noon **Sept. 27**, Pitt's Asia Over Lunch series, www.ucis.pitt.edu/asc.

"The Student and the Text in the Literature Classroom," Susan Harris Smith, professor, Pitt Department of English, 1 p.m. **Sept. 27**, 501 Cathedral of Learning, English department's Pedagogy and Literature Series, 412-441-0835.

"Why I Only Give Take-Home Exams: A Disability Perspective," Ruth Colker, Ohio State University's Heck Faust Memorial Chair in Constitutional Law, 1 p.m. **Sept. 27**, Barco Law Building's Teplitz Memorial Courtroom, Pitt law school's Thornburgh Family Lecture Series in Disability Law and Policy, 412-648-1373.

"Evidence for Water in Volcanic Rocks Seen by the Mars Exploration Rover Spirit in Gusev Crater," Mariek Schmidt, postdoctoral fellow, Smithsonian Institution, 4 p.m. **Sept. 27**, 11 Thaw Hall, Pitt Department of Geology and Planetary Science Colloquium series, www.geology.pitt.edu.

"Calculating Engines: Minds, Bodies, Sex, and Machines on the Eve of the Enlightenment," Jonathan Sawday, chair of English Studies, Glasgow's University of Strathclyde, 4:30 p.m. **Sept. 27**, Baker Hall's Adamson Wing, Carnegie Mellon University, Pitt's Program in Medieval and Renaissance Studies, www.pitt.edu/~medren.

"Tragic Theory and Its Consequences: The Case of Sophocles' Antigone," Wolfgang Bernard, faculty member, University of Rostock, 4 p.m. **Sept. 28**, 244A Cathedral of Learning, Pitt's Department of Classics, 412-624-4494.

"Crossing the Road With Margery Kempe," Ruth Evans, head of the English Studies department, Scotland's University of Stirling, 4:30 p.m. **Sept. 28**, 501 Cathedral of Learning, Pitt's Program in Medieval and Renaissance Studies, www.pitt.edu/~medren.

"The Secret History of the War on Cancer," book launch event featuring Devra Davis, epidemiologist, director of the University of Pittsburgh Cancer Institute's Center for Environmental Oncology and author of *The Secret War on Cancer* (Basic Books 2007); 7 p.m. **Oct. 1**, Scaife Hall's Auditorium 6, 412-647-3555.

Reading by George Saunders, short story writer, 8:30 p.m. **Oct. 1**, Frick Fine Arts Auditorium, Pittsburgh Contemporary Writers Series, 412-624-6506, www.english.pitt.edu.

Miscellaneous

Farmers' Market, 3:30-6:30 p.m. every **Friday through Nov. 16**, Sennott Street between Atwood Street and Meyran Avenue, Oakland Business Improvement District, 412-683-6243, www.onlyinoakland.org.

Pitt PhD Dissertation Defenses

Aimee L. Morewood, Department of Instruction and Learning, "The Impact of School-wide Professional Development on Teacher Practices and Student Learning: A Case Study," 1 p.m. **Sept. 25**, 5152 Posvar Hall.

Shyam Visweswaran, Intelligent Systems Program, "Learning Patient-Specific Models from Clinical Data," 2 p.m. **Sept. 25**, 5317 Sennott Square.

Kathleen Oare Lindell, School of Nursing, "End-of-Life Decision Making in Patients with Idiopathic Pulmonary Fibrosis and Their Care Partners," 10:30 a.m. **Sept. 26**, 446 Victoria Building.

Holly Middleton, Department of English, "Literacies of Membership: The Nineteenth-Century Politics of Access," 2 p.m. **Sept. 28**, 526 Cathedral of Learning.

Theater/Opera

A Memory of Two Mondays by Arthur Miller and **The Damask Drum** by Yukio Mishima, 8 p.m. **Sept. 26-28**, Studio Theatre (B72 Cathedral of Learning), Pitt Department of Theatre Arts' Lab Sessions series, 412-624-7529, www.play.pitt.edu.

Off the Record VII: Blogged to Death, satirical performance, 8 p.m. **Sept. 27**, Byham Theater, 101 Sixth St., downtown, 412-456-1350, www.pgharts.org.

The Marriage of Figaro by Wolfgang Amadeus Mozart, 7 p.m., through **Sept. 30**, Byham Theater, 101 Sixth St., downtown, Opera Theater of Pittsburgh, 412-456-1350, www.operatheaterpittsburgh.org.

Therese Raquin by Emile Zola, **Sept. 27-Oct. 14**, Braddock Carnegie Library swimming pool, 419 Library St., Braddock, Quantum Theatre, 412-697-2929, www.quantumtheatre.com.

University Special Events/Meetings

Pitt Health, Safety, and Security Day, information on fire safety, security, and healthy living; featuring guest speaker Pitt Police Officer Ronald Bennett and other police officers, firefighters, and EMS responders; 10 a.m.-2 p.m. **Sept. 25**, William Pitt Union's Assembly Room and Bigelow patio and lawn, sponsored by Pitt's Staff Association Council and Department of Environmental Health and Safety.

PACWC/Women's Studies Reception for New Women Faculty, 3:30 p.m. **Sept. 25**, 2501 Posvar Hall, 412-624-6485, www.pitt.edu/~wstudies.

Postdoc Night, a new forum for postdoctoral fellows to practice scientific presentation skills before an audience of fellow postdocs, 5-7 p.m. **Sept. 26**, S120 Starzl Biomedical Science Tower, University of Pittsburgh Postdoctoral Association, www.uppda.pitt.edu.

Allegheny Observatory Open House, including opportunities to peer into the night sky through the observatory's 30-inch Thaw Refractor telescope, 7-10 p.m. **Sept. 28**, 159 Riverview Ave., Riverview Park; reservations required, 412-321-2400.

Workshop

"The Second Step: Business Planning Workshop," 7:30-10 a.m. **Sept. 28**, Mervis Hall, Pitt's Small Business Development Center; to register, 412-648-1542.



Good Metals If You Can Find 'Em: Valuable, Scarce Palladium and Platinum Easier to Find With Pitt Researcher's Detection Method

Multipurpose metal used in cars, medicine, and alternative energy production detectable in one hour, Kazumori Koide explains in the *Journal of the American Chemical Society*



By Morgan Kelly

Finding uses for palladium and platinum—rare precious metals coveted by the automobile, chemical, and pharmaceutical industries as catalysts in chemical reactions—proves easier than finding the scarce materials themselves.

Detection involves expensive instruments operated by highly trained chemists that take days to return results. But chemists at Pitt have unearthed a fast, easy, and inexpensive method that could help in the discovery of palladium/platinum deposits and streamline the production of pharmaceuticals. The research was published online Sept. 21 in the *Journal of the American Chemical Society*.

The new method was developed in the laboratory of Kazumori Koide, a chemistry professor in Pitt's School of Arts and Sciences. It relies on a colorless fluorescein-based solution (similar to that used to find blood residue at crime scenes) that—under a simple hand-held ultraviolet lamp—glows green when it comes in contact with even minute amounts of palladium and platinum, which coexist in nature.

The process takes approximately one hour as opposed to the effective but complex and days-long analysis currently employed in the mining and pharmaceutical industries, Koide explained. Moreover, the Pitt team's method can accommodate hundreds of samples at once, whereas current technology analyzes samples only one at a time, Koide said.

Kazumori Koide

“Our method can be used on the mining site,” he said. “And you don't need a doctorate in chemistry—anyone can do this.”

A major pharmaceutical company is evaluating Koide's method in detecting trace amounts of palladium in drug samples, Koide said. Although crucial in drug development, residual palladium in pharmaceuticals can be toxic, which means stringent chemical analysis is required to find this metal. Shortening the analysis to an hour will help get drugs to market faster and, in mining, find viable quantities of these essential metals.

Palladium and platinum are practically unmatched as catalysts and thus important to the chemical, pharmaceutical, and automobile industries (both are popular as jewelry, too). Palladium is most used in the catalytic converters that render car exhaust less toxic. But known palladium/platinum deposits dot only a few countries—including the United States and Canada—which makes the prices and supply unstable.

The paper can be found on the *Journal of the American Chemical Society* Web site at www.pubs.acs.org/journals/jacsat/.

PUBLICATION NOTICE The next edition of the *Pitt Chronicle* will be published Oct. 1. The deadline for submitting information is 5 p.m. Sept. 26. Items for publication in the newspaper's *Happenings* events calendar (see page 7) should be submitted to chron@pitt.edu. *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 also may be faxed to 412-624-4895 or sent by campus mail to 422 Craig Hall. For more information, call 412-624-1033.