

Pitt Planet Hunters Track Long, Strange Voyage of Distant Planet as Part of International Collaboration

By Morgan Kelly

University of Pittsburgh planet hunters based at the Allegheny Observatory were one of nine teams around the world that tracked a planet 190 light-years from Earth making its rare 12-hour passage in front of its star. The project resulted in the first ground-based observation of the entire unusually drawn-out transit and established a practical technique for recording the movement of other exoplanets, or planets outside of Earth's solar system, the teams reported in *The Astrophysical Journal*.

The Pitt team, led by Melanie Good, a physics and astronomy graduate student in Pitt's School of Arts and Sciences, observed the planet HD 80606b for more than 11 hours on Jan. 10, 2010, as it passed in front of its star, HD 80606, located more than 1.14 quadrillion miles from Earth in the constellation Ursa Major. The Pitt group included Michael Wood-Vasey, a professor of physics and astronomy; Louis Coban of the Allegheny Observatory; and physics and astronomy undergraduate students Shane Cerutti, Korena Costello, Maya Hunt, Gary Lander Jr., Eric Roebuck, Chelsea Vincent, and Gwendolyn Weaver, all part of Good's research group, Survey of Transiting Extrasolar Planets at the University of Pittsburgh, or STEPUP.

HD 80606b is among the strangest of the 500 exoplanets yet discovered, Good said. Approximately four times the size of Jupiter, the gaseous planet is scorchingly close to its star and follows an oblong orbit similar to that of Halley's Comet. At its farthest, the planet is almost as far from its star as the Earth is from the Sun, while at its closest, it is just 3 percent of that distance, so that the planet's temperature jumps thou-



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sands of degrees as it nears HD 80606. And while most exoplanets complete their transits within a few hours, HD 80606b traipses along for nearly 12—and only makes the trip every 16 weeks.

Both characteristics of HD 80606b's

transit make it difficult for a single observatory to observe all of it, according to the article in *The Astrophysical Journal*. Coordinated by the Massachusetts Institute

Continued on page 6

Pitt No. 8 Among All U.S. Public Universities In Federally Financed R&D Expenditures

By John Harvith

The University of Pittsburgh is ranked No. 8 among all U.S. public universities and 13th among all U.S. universities, public and private, in federally financed R&D expenditures for fiscal year 2009, according to a Sept. 28 *Chronicle of Higher Education* listing based upon a National Science Foundation report issued on Sept. 27.

The other top-ranked public universities in the listing are Michigan, the University of Washington, UC-San Diego, Wisconsin, Colorado, UC-San Francisco, and UCLA. The top-ranked private universities in the listing are Johns Hopkins, MIT, Penn, Columbia, and Stanford. Pitt outranks, among many others, Caltech, Chicago, Cornell, Duke, Harvard, Minnesota, North Carolina, Northwestern, Ohio State, Penn State, USC, Washington University in St. Louis, and Yale.

The listing also highlights universities' 2009 rankings vs. their rankings in 2004. Here, Pitt advanced by one slot, displacing Harvard, which fell from No. 13 to No. 19 among all universities.

According to *The Chronicle of Higher Education*, the list "is a leading indicator of research quality because, unlike other financing sources, the federal government awards most of its academic-research dollars through national, open competitions."

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Pitt Researchers Report African American Seniors at Twice the Risk for Mental Abuse, Five Times for Financial Exploitation



By Morgan Kelly

In the first population-based survey to indicate a racial disparity in the psychological abuse of senior citizens, University of

Pittsburgh researchers found that African American seniors could be twice as likely to be mistreated than elders of other races. The survey also revealed that African American elders could be up to five times more susceptible to being swindled. Reporting the survey results in *The Gerontologist*, the researchers urged that health care and social service workers be especially vigilant for the possible mistreatment of African American seniors.

Lead author Scott Beach, assistant director of Pitt's University Center for Social and Urban Research (UCSUR) and director of the center's Survey Research Program, said the study is important to the developing field of elder-abuse research. Beach worked with coauthors Richard Schulz, director of UCSUR and the center's gerontology program; Nicholas Castle, a professor of health policy and management in Pitt's Graduate School of Public Health; and Jules

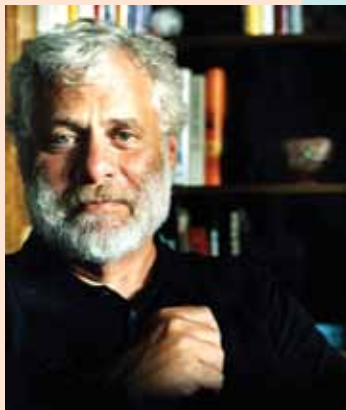
Rosen, a professor of psychiatry in Pitt's School of Medicine.

The Pitt survey is among only a few that focus on race as a specific factor in elder mistreatment, Beach said. In addition, the population-based survey collected information directly from senior citizens through face-to-face and telephone interviews, the most effective way to document unreported abuse, he explained; typically, elder-mistreatment data are gathered from complaints filed with Adult Protective Services. In this way, the Pitt study helps fill a noted gap in elder-mistreatment research: The National Research Council, in its 2003 report, *Elder Mistreatment*, described existing elder-abuse research as having "a number of weaknesses," including a lack of clear, consistent definitions and an absence of population-based data.

The team interviewed 903 adults—a statistically large sample—aged 60 and older living in Pennsylvania's Allegheny County about instances of psychological

Continued on page 6

Briefly Noted



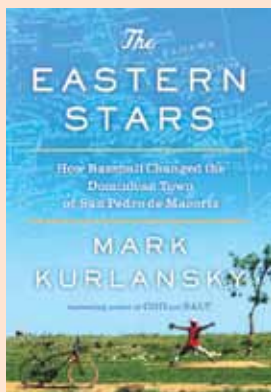
Mark Kurlansky

Author Mark Kurlansky To Speak at Pitt Oct. 5

Mark Kurlansky, nonfiction author and journalist, will speak about his work at the University of Pittsburgh at 8:30 p.m. Oct. 5 in the Frick Fine Arts Auditorium. Part of the Pittsburgh Contemporary Writers Series, the event is free and open to the public.

Kurlansky is the author of a number of bestselling books, including *Salt* (Penguin, 2002), *Cod* (Vintage, 1997), and *1968* (Random House Trade, 2003), which earned him an American Library Association Notable Book Award.

The Eastern Stars (Riverhead Books, 2010), Kurlansky's latest book, is a portrait of a



small, impoverished area in the Dominican Republic that has produced 79 major league baseball players. In the book, Kurlansky examines the history, culture, and impact of baseball on this struggling Caribbean town.

A native of Hartford, Conn., Kurlansky received a BA degree in theater in 1970 from Butler University in Indianapolis, Ind. He began his career in New York City working as a playwright and as a playwright-in-residence at Brooklyn College. As a journalist, he has worked as a foreign correspondent for the *International Herald Tribune*, the *Chicago Tribune*, the *Miami Herald*, and the *Philadelphia Inquirer*, based in Paris and Mexico. His articles also

have appeared in the *Los Angeles Times*, *The New York Times*, and *Time* magazine.

The 2010-11 Pittsburgh Contemporary Writers Series season is sponsored by the University of Pittsburgh Book Center and the University of Pittsburgh Press. For more information, call 412-624-6508 or visit www.creativewriting.pitt.edu.

—By Jessica Myers

"The Inside Track to a Top-Notch Internship" Panel Discussion Set for Oct. 14

The University of Pittsburgh's Department of English and *The Pitt News*, Pitt's daily student newspaper, will cosponsor a panel discussion titled "The Inside Track to a Top-Notch Internship" at 7:30 p.m. Oct. 14 in the William Pitt Union Ballroom.

In addition to the panel discussion, the winner of the annual McDowell Award In Nonfiction, named in honor of late Pittsburgh broadcasting pioneer Al McDowell (A&S '52), will be announced. A dessert reception will follow the event.

David Shribman, executive editor of the *Pittsburgh Post-Gazette*, will serve as moderator of the panel discussion. Panelists include Mike Leary, managing editor of the *Philadelphia Inquirer*; Paul Steiger, editor-in-chief, president, and chief executive officer of ProPublica; Anne Linberger, KDKA-TV news director; Terry Foxx, program director for Pittsburgh Sportsradio 93.7 The Fan; Cynthia Sterling, executive publisher of SterlingHouse Publisher, Inc.; Tom Meinert, partner at Meinert Mashek Communications; and Katelyn Polantz (A&S '09), reporter for Virginia's *Roanoke Times*.



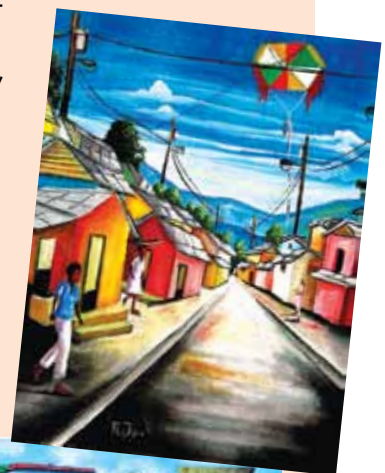
David Shribman

For brief biographies of the panelists or more information about the panel discussion, contact Pitt Writing Internship Coordinator Caren Marcus at 412-624-1737 or caren@pitt.edu.

—By Sierra L. Starks

Haiti Rising Exhibition Comes to Pitt Oct. 14-17

The Haitian Art Society of Pittsburgh will present an exhibition titled *Haiti Rising* in the William Pitt Union's (WPU) Kimbo Gallery Oct. 14-17. The exhibition will feature Haitian art collected by the Pittsburgh community and a lecture by Marcus Rediker, Pitt Department of History's Distinguished Professor of Atlantic History, at 1 p.m. Oct. 15 in the WPU Ballroom. More information is available by calling WPU at 412-648-7815.



REEMERGENCE OF NUCLEAR POWER



U.S. Nuclear Regulatory Commission (NRC) member and Pitt alumnus William D. Magwood IV (A&S '91) made a Sept. 30 visit to Pitt to discuss the recent reemergence of nuclear power as a global energy option and to encourage students to study science and engineering. One of the five NRC commissioners responsible for ensuring the safety of U.S. commercial nuclear power plants, Magwood addressed current and prospective Pitt nuclear engineering students during Pitt's Nuclear Engineering Night in the Lower Lounge of the William Pitt Union.

PittChronicle

Newspaper of the University of Pittsburgh

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The *Pitt Chronicle* is published throughout the year by University News and Magazines, University of Pittsburgh, 400 Craig Hall, Pittsburgh, PA 15260, Phone: 412-624-1033, Fax: 412-624-4895, E-mail: chron@pitt.edu Web: www.chronicle.pitt.edu

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Sept. 10 Ceremony Welcomes Returning Pitt Honorees for ODK Walkway Rededication

By Patricia Lomando White

On this walk Omicron Delta Kappa honors those persons who, through intelligent leadership, personal integrity and intellectual honesty, have served their University well.

This inscription at the beginning of a walkway between Pitt's Cathedral of Learning and the Heinz Chapel welcomes visitors to follow the Omicron Delta Kappa (ODK) walkway and peruse the engraved-in-stone names of those University of Pittsburgh alumni who, during their time at Pitt, earned the honor of ODK Senior of the Year.

Through the decades, some stones had cracked, some had settled, and some of the names had faded, prompting the University of Pittsburgh to restore the walkway. Led by Pitt's Office of Facilities Management and the Cost Company, which cleaned and restored the Cathedral of Learning several years ago, the walkway restoration was completed last fall.

A dedication and ribbon-cutting ceremony for the newly restored ODK walkway was held Sept. 10, with 27 of Pitt's 70 living ODK Seniors of the Year present. The walkway commemorates student leadership and celebrates ODK, a prestigious national honorary leadership society. It is the only walkway of its kind in the nation.

"While scholarship has always been a strong requirement for ODK membership, character and achievement in university-

life leadership are the primary membership prerequisites," said Pitt Chancellor Mark A. Nordenberg at the dedication ceremony. "Pitt's ODK walk captures the promise of student leadership, which sits at the very heart of the noble work that is done on all five of our campuses each and every day. Our ODK awardees, whose names are memorialized in stone, are linked to Pitt in perpetuity."

ODK was the first college honor society of national scope to recognize and honor meritorious leadership and service in extracurricular activities and to encourage the development of campus citizenship.

Pitt established the Gamma Circle in 1916 as the third ODK chapter in the nation. The Gamma Circle sponsors Pitt's Senior of the Year Award, given to students who possess and exhibit outstanding leadership qualities in service to the University. The first ODK Senior of the Year was L.I. Klinefelter, in 1922.

Among Pitt's 70 ODK awardees is University Trustee Michael A. Bryson, the 1968 ODK winner, who spoke at the dedication. Bryson has served as a Pitt trustee since 2002. A 2008 Pitt Legacy Laureate, Bryson graduated from the University summa cum

"While scholarship has always been a strong requirement for ODK membership, character and achievement in university-life leadership are the primary membership prerequisites. Pitt's ODK walk captures the promise of student leadership, which sits at the very heart of the noble work that is done on all five of our campuses each and every day. Our ODK awardees, whose names are memorialized in stone, are linked to Pitt in perpetuity."

—Mark A. Nordenberg



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laude with a BS degree in mathematics and physics. He also was elected to Phi Beta Kappa and received the M.M. Culver Award in Mathematics. He is a past director of Pitt's Alumni Association.

Among the 26 ODK honorees attending the dedication were a 15-term Republican representative for the 9th Congressional District of Pennsylvania; a regional administrator for the U.S. General Services Administration Mid-Atlantic Region, appointed by President Barack Obama; a director of Business Process Excellence at Ashland, Inc.; a Pitt Rhodes Scholar who is now an assistant professor in the Department of Biological Sciences at Carnegie Mellon University; a national account executive from Kellogg Company in Pittsburgh; and a president and CEO of Terradime, LLC, a real estate and research enterprise. (A listing of all the attendees accompanies this article.)

Founded in 1914 at Washington and Lee University in Lexington, Va., ODK is an honorary society that recognizes students who maintain a high standard of leadership in collegiate activities. The founders—15 student and faculty leaders—established the organization with the idea that "leadership of exceptional quality and versatility in college should be recognized, that representatives in all phases of college life should cooperate in worthwhile endeavors, and that outstanding students, faculty, and administrators should meet on a basis of mutual interest, understanding, and helpfulness."



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1. Pitt's ODK honorees, along with several Pitt administrators, stand on the rededicated ODK walkway between Heinz Chapel and the Cathedral of Learning.

2. Chancellor Mark A. Nordenberg addresses the honorees and their families. 3 and 4. Carol Simko Christobek (ENGR '77), an ODK awardee, receives her ribbon-cutting scissors for the ceremony. The ODK honor had been given exclusively to male seniors at Pitt for 52 years—becoming known as the "Man of the Year" award—until Christobek won it and received the certificate (pictured) in 1977. But, alas, the finer text of the award certificate was left unchanged and

refers to her "as the senior man of the class of 1977." Christobek said she still chuckles about the wording, adding that some things never change: When she attended last month's event with her husband, Mark Christobek (ENGR '77), some participants incorrectly assumed that he, not she, was the ODK alumnus. 5. From left, University Trustee Michael Bryson (A&S '68), former Pennsylvania Congressman The Hon. Bud Shuster (A&S '54), and Pitt Trustee J. Roger Glunt (KGSB '60) pose for a photo after the rededication.

ODK Attendees at Rededication Ceremony

- | | | |
|---|---|---------------------------------------|
| Franklin Blackstone
—Class of 1949 | Carol Simko Christobek
—Class of 1977 | Kelly Coffield
—Class of 1999 |
| Ludwig Lippert
—Class of 1953 | Joseph Heim
—Class of 1980 | George Mongell
—Class of 2000 |
| The Honorable Bud Shuster
—Class of 1954 | Guy Molinari
—Class of 1983 | Michael Unangst
—Class of 2001 |
| Robert Muzik
—Class of 1958 | Patrick McElhinny
—Class of 1985 | Andy Hutelmyer
—Class of 2003 |
| Carl Templin
—Class of 1961 | Sharon Metzker
—Class of 1988 | Elizabeth Blasi
—Class of 2005 |
| Michael Bryson
—Class of 1968 | Monica Perz-Waddington
—Class of 1989 | Tyler Gourley
—Class of 2005 |
| David Ehrenwerth
—Class of 1969 | Nathan Urban
—Class of 1991 | Joseph Pasqualichio
—Class of 2007 |
| David Guydan
—Class of 1970 | Christine Bienkowski Dockey
—Class of 1994 | Andrea Youngo
—Class of 2007 |
| David Blandino
—Class of 1974 | Julie Crowell Varghese
—Class of 1996 | Max Greenwald
—Class of 2010 |

Science & Technology



Study Led by Feghali-Bostwick Finds Potential Target for Fibrosis Treatment

By Amy Dugas Rose

Researchers in the University of Pittsburgh School of Medicine have discovered that a molecule that regulates gene expression plays a central role in the development of fibrosis, a condition in which organ-supporting connective tissues become thick, hard, and rigid, restricting normal function. The findings are available in the *American Journal of Pathology*.

Early Growth Receptor-1 (EGR-1) orchestrates the response to certain growth factors and influences the activity of numerous genes, said Carol Feghali-Bostwick, principal investigator and a professor of medicine and pathology in the University of Pittsburgh School of Medicine.

"Our study shows that abnormally high levels of EGR-1 are associated with the development of fibrosis," Feghali-Bostwick said. "Therefore, controlling EGR-1 could be a potential therapy for disorders such as scleroderma and pulmonary fibrosis."

Researchers induced fibrosis in animal and human fibroblasts, which are cells that give rise to connective tissue by utilizing a secreted protein called IGFBP-5 (insulin-like growth factor binding protein 5), made by a gene that is overexpressed in fibrotic lung and skin tissues. They found that the experimentally induced fibrosis was associated with abnormally elevated EGR-1 activity. More impor-

"Our study shows that abnormally high levels of EGR-1 are associated with the development of fibrosis. Therefore, controlling EGR-1 could be a potential therapy for disorders such as scleroderma and pulmonary fibrosis."

—Carol Feghali-Bostwick



Carol Feghali-Bostwick

tantly, when fibrosis was produced in cells and animals lacking EGR-1, the amount of fibrosis was dramatically reduced.

"We also found that compared to healthy individuals, people who have pulmonary fibrosis had higher levels of EGR-1 in samples of their lung tissue and in their fibroblasts," Feghali-Bostwick said. The findings suggest that targeting EGR-1 provides a potential therapeutic approach for organ fibrosis.

Researchers received funding for the study from the National Institute of Arthritis and Musculoskeletal and Skin Diseases; the National Heart, Lung, and Blood Institute; the American Lung Association; the American Heart Association Pennsylvania/Delaware affiliate; and the Uehara Memorial Foundation.

Perlmutter-Led Study Finds Common Seizure Drug Might Reverse, Prevent Severe Genetic Liver Disease

By Anita Srikameswaran

The liver scarring of α 1-antitrypsin (AT) deficiency, the most common genetic cause for which children undergo liver transplantation, might be reversed or prevented with a medication that has long been used to treat seizures, according to findings from the University of Pittsburgh School of Medicine and Children's Hospital of Pittsburgh of UPMC.

Because the anti-seizure drug is familiar to doctors and has a well-understood safety profile, clinical trials could begin immediately to see whether it can help patients with AT deficiency, said senior author David H. Perlmutter, the Vira I. Heinz Professor and Chair of the Department of Pediatrics, Pitt School of Medicine, and physician-in-chief and scientific director of Children's Hospital.

In the classic form of the disease, which affects one in 3,000 live births, a gene mutation leads to an abnormal protein, dubbed ATZ, which, unlike its normal counterpart, is prone to aggregation.

"These aggregates of ATZ accumulate in the liver cells and eventually lead to scarring, or fibrosis, of the organ and set the stage for tumor development," said Perlmutter, who was elected to the Institute of Medicine in 2008. "The disease sometimes doesn't show itself until adulthood, when the liver starts to fail due to cirrhosis or cancer."

For the study, he and his colleagues treated an ATZ cell line with carbamazepine, or Tegretol. Although this drug has been used primarily to treat seizure disorders, some recent work has suggested that it could enhance a natural cellular pathway called autophagy, or self-digestion. The Pitt researchers reasoned that Tegretol might be able to rid the cells of the toxic aggregated ATZ.

They found that carbamazepine did, indeed, cause a marked decrease in ATZ because the abnormal proteins were degraded more quickly via autophagy. The researchers then did another experiment in a mouse model of AT deficiency.

"The amount of ATZ decreased in the livers of the mice treated with carbamazepine," Perlmutter said. "The most amazing finding was that the drug reversed the fibrosis in the livers of the mice and, after two weeks of treatment, the liver tissue resembled that of a healthy mouse."

The ability of carbamazepine and drugs like it to "soup up" the cell's autophagy machinery might have value in other disorders—such as Alzheimer's disease, Huntington's disease and Parkinsonism—that are thought to be caused by toxic effects of protein clumping in the brain. Perlmutter and his colleagues are now exploring these possibilities in preclinical studies.

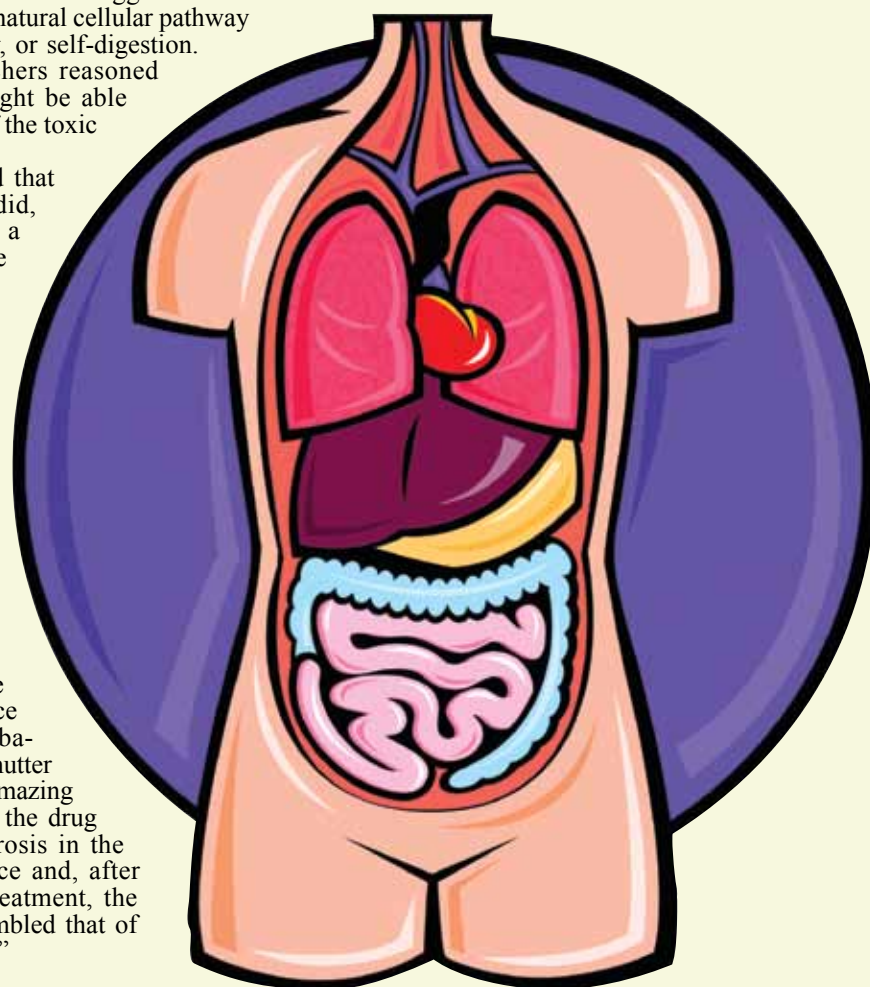


David H. Perlmutter

The team included lead author Tunda Hidvegi, a Pitt research assistant professor in the Department of Pediatrics at Children's Hospital; Simon C. Watkins, a professor in the Pitt School of Medicine's Department of Cell Biology and Physiology; George Michalopoulos, chair and professor in the School of Medicine's Department of Pathology; and other researchers from the Pitt School of Medicine.

The study, which appeared in the July 9, 2010, issue of *Science*, was funded by the National Institutes of Health, Children's Hospital, and UPMC.

In the classic form of the disease, which affects one in 3,000 live births, a gene mutation leads to an abnormal protein, dubbed ATZ, which, unlike its normal counterpart, is prone to aggregation.





Reduced Activity in Key Brain Areas Seen in Women With Postpartum Depression, Pitt Study Finds

By Megan Grote Quatrini

Certain brain areas of women with postpartum depression react less to images of scared or angry faces than those of women who are well, according to a study by University of Pittsburgh School of Medicine researchers that was published in a recent issue of the *American Journal of Psychiatry*. The researchers also found a reduction in brain activity that was associated with greater impairment of maternal attachment processes.

"The birth of a child is a greatly anticipated and desired life event, but it is paradoxically accompanied by maternal depression in 15 percent of new moms," said Eydie L. Moses-Kolko, lead author of the study and an assistant professor of psychiatry at Pitt.

"With our research, we are hoping to gain greater mechanistic understanding of postpartum depression, namely what is going on in the brains of depressed mothers."

For the study, researchers compared 14 depressed and 16 healthy mothers, all of whom delivered a healthy term infant in the preceding 12 weeks, were medication-free, and had previously given birth to another child. Mothers were assessed using functional MRI to look at brain activity in relationship to prenatal depression, anxiety, and function, as well as with a questionnaire to determine attachment quality, hostility, and pleasure in interaction with their infants.

To fully engage the brain regions involved in emotion processing, the researchers used a well-known face-matching test: The mothers were shown images of angry

and scared faces, and the researchers examined the mothers' neural reactions to the images. Researchers found that negative emotional faces activated the left dorsomedial prefrontal cortex, which is a social cognition region of the brain, significantly less in depressed mothers than in healthy mothers. Deficits in this region, therefore, might represent diminished awareness of the emotions of others and less empathy for them. The researchers also found that while negative images were viewed, communication between the left dorsomedial prefrontal cortex and the left amygdala was present in healthy moms but not in depressed ones, suggesting that this might be an important neural circuit that regulates emotional responses to unpleasant stimuli, such as a crying baby.

"We also discovered that greater infant-related hostility and more severe depression were associated with reduced face-related amygdala activity, which may be a mechanism for the reduced attunement and empathic responses in some depressed moms that is described in the literature," noted Moses-Kolko. "We need studies whereby brain responses can be directly related to live mother-infant behavior in order to definitely clarify brain mechanisms of mother-infant attachment. Ultimately, this information has the potential to guide the development of more effective treatments for postpartum depression."

The study was supported in part by funding from the National Institute of Mental Health and the National Alliance for Research on Schizophrenia and Depression.

"With our research, we are hoping to gain greater mechanistic understanding of postpartum depression, namely what is going on in the brains of depressed mothers."

—Eydie L. Moses-Kolko

Blocking DNA Repair Protein Could Lead to Targeted, Safer Cancer Therapy, Pitt, UPCI Find

By Anita Srikameswaran

Researchers in Pitt's School of Medicine and the University of Pittsburgh Cancer Institute (UPCI) have discovered that inhibiting a key molecule in a DNA repair pathway could provide the means to make cancer cells more sensitive to radiation therapy while protecting healthy cells.

The findings are published in *Science Signaling* and provide new insights into mechanisms of how the body fixes environmentally induced DNA damage and into the deadly neurological disease ataxia-telangiectasia (A-T), said senior author Christopher Bakkenist, assistant professor of radiation oncology, pharmacology, and chemical biology at Pitt and UPCI.

"A characteristic symptom of A-T is heightened sensitivity to ionizing radiation, such as X-rays and gamma rays," Bakkenist said. "If we understand why that happens, then we might be able to reproduce it to make tumor cells vulnerable to radiation treatments while sparing healthy cells, which would make therapy more effective while minimizing side effects."

In A-T, brain areas that control movement progressively degenerate, causing walking and balance problems. Patients carry a gene mutation that stops production of a protein called ATM kinase, which spurs other proteins involved in normal cell division, DNA repair, and cell death.

Radiation causes DNA mutations during the process of cell division, when genetic material is copied for a new cell to form. The cell has repair pathways that include checkpoints to look for errors as well as methods to repair them, but if enough mutations accumulate, the cell could become cancerous or self-destruct. A-T patients, who lack the kinase, have a higher risk for developing cancer, Bakkenist said.

Bakkenist and his colleagues tested what would happen if they blocked the activity of ATM kinase in cells that make the protein. They had already determined that administering an ATM kinase inhibitor from 15 minutes to 75 minutes after radiation exposure was sufficient to make normal cells more sensitive to the effects of radiation.

To their surprise, they found that inactivation of ATM kinase prevented a type of DNA repair that is essential for proper duplication of genetic material during replication. However, A-T cells did not have



this problem despite lacking the kinase; they presumably use another method to check for and correct those errors.

The discovery revealed a new approach to target cancer.

"A characteristic of tumor cells is that they rapidly replicate, possibly because they have mutations that encourage cell division or that thwart repair pathways," Bakkenist explained.

"But ATM kinase remains present in the vast majority of human cancers, so that suggests it is needed by those diseased cells during replication."

Cells that, unlike cancer cells, are not going through what's known as replication stress, would not be affected by an ATM inhibitor and, like A-T cells, likely have another way of repairing certain radiation-induced mutations, Bakkenist said, "so that would make cancer cells particularly vulnerable to an ATM inhibitor, while healthy cells should be unaffected."

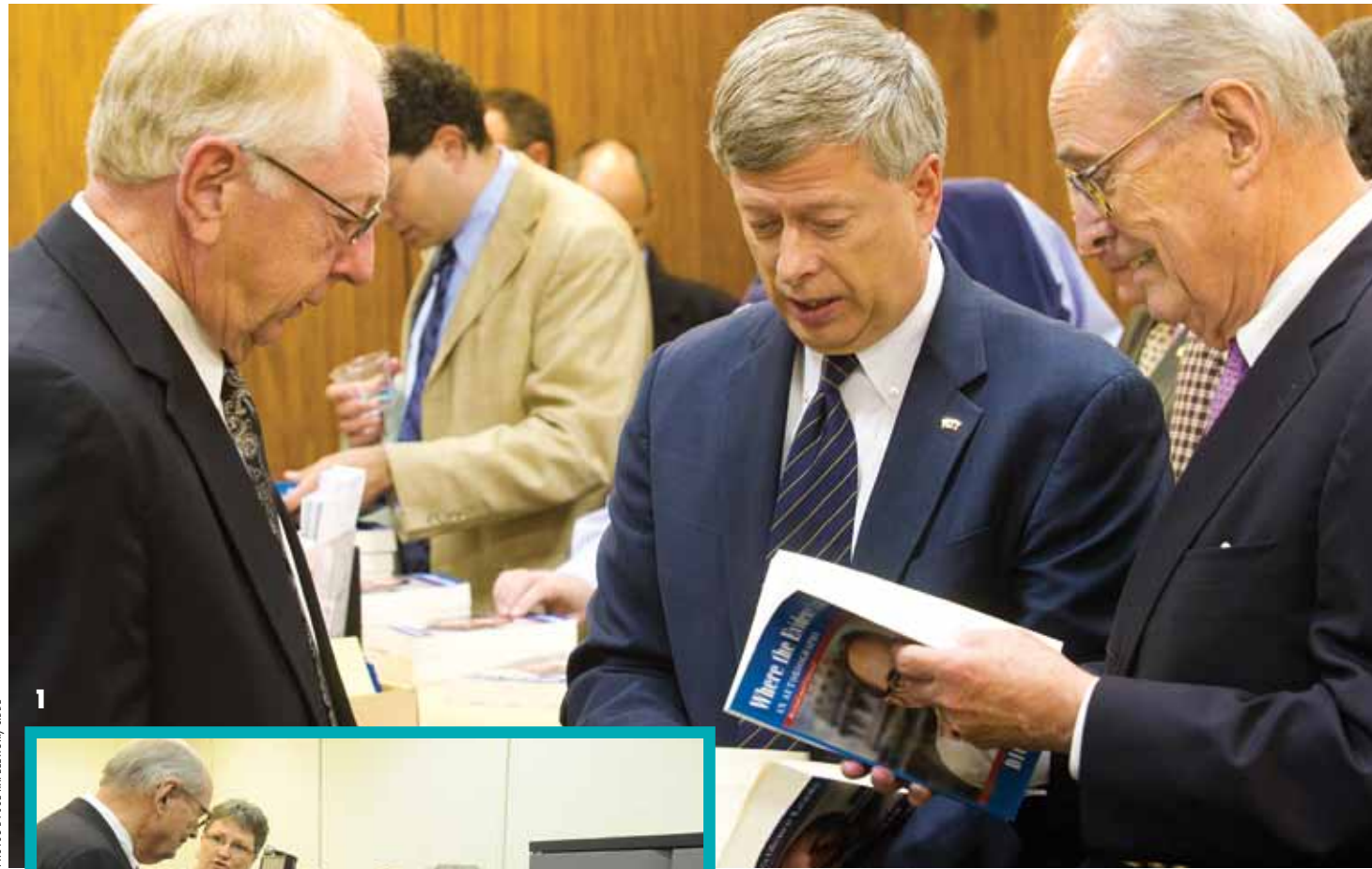
Bakkenist and his team are now studying the effects of such inhibitors on pancreatic, lung, and breast cancer cells.

The work was supported by a National Cancer Institute Lung Cancer SPORE grant; the Lung Cancer Research Foundation; the Breast Cancer Research Foundation; and the Frieda G. and Saul F. Shapira BRCA Cancer Research Program.

Bakkenist and his team are now studying the effects of such inhibitors on pancreatic, lung, and breast cancer cells.

Sip 'n Read

University Library System's Espresso Book Machine Prints Books on Demand

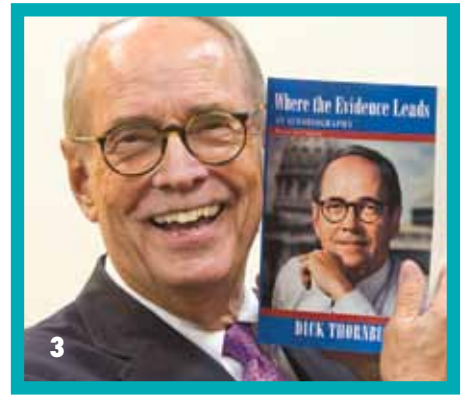


PHOTOS BY JOE KAPLEWSKI/CUDE

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The massive EBM database, called **EspressNet**, includes nearly a million book titles, including textbooks, thousands of titles in the ULS D-Scribe online collections, and most University of Pittsburgh Press titles.

the University Book Center, and its ability to print books on demand is expected to reduce the cost of select student textbooks. Pitt is one of only 30 universities worldwide to have an EBM.

Photos: **1.** From left, University Library System (ULS) Director Rush Miller, Pitt Chancellor Mark A. Nordenberg, and Thornburgh inspect Thornburgh's book, *Where the Evidence Leads*, which was printed in about seven minutes from a digital file. **2.** Patricia Duff, head of ULS's Department of Document Delivery and Interlibrary Loans, explains the EBM's internal workings to Thornburgh. **3.** Thornburgh displays the final product after his autobiography emerges from the machine.

A group of Pitt dignitaries, faculty, and librarians and other staff members gathered at Hillman Library Sept. 27 for a demonstration of Pitt's new Espresso Book Machine (EBM), which can print, glue, and bind a paperback book in a matter of minutes.

The first book "hot off the press" was an updated version of *Where the Evidence Leads* (University of Pittsburgh Press, 2003) by former Pennsylvania Governor, former U.S. Attorney General, and Pitt alumnus and trustee Dick Thornburgh (LAW '57).

The massive EBM database, called **EspressNet**, includes nearly a million book titles, including textbooks, thousands of titles in the ULS D-Scribe online collections, and most University of Pittsburgh Press titles. The machine soon will be housed in

African American Seniors at Twice the Risk For Mental Abuse, Five Times for Financial Exploitation

Continued from page 1

abuse and financial exploitation occurring within the past six months and since the adults had turned 60. The sample contained 210 African Americans, or 23.2 percent of respondents, which is nearly twice the proportion of African Americans living in Allegheny County, Beach said.

Psychological mistreatment included being yelled at or insulted, having personal property destroyed, and receiving threats of injury, stoppage of care, or being sent to a nursing home. Among African Americans, 24.4 percent reported being abused since turning 60, and 16.1 percent reported psychological mistreatment within the past six months. Around half as many non-Black seniors reported abuse, with 13.2 percent claiming psychological abuse since turning 60 and 7.2 percent saying it happened within the previous half year. Interestingly, African Americans were usually less upset by aggressive behavior, yet more African Americans reported being "extremely upset" when deliberately insulted or when their belongings were destroyed.

African Americans reported even higher instances of financial exploitation, which was defined as having checks

stolen, having money tampered with, and being made to sign documents they did not understand. Only 8.4 percent of non-African American elders reported being cheated since turning 60, and a mere 2.4 percent said it happened within the past six months. On the other hand, 23 percent of African Americans claimed that someone meddled with their money since they turned 60, and 12.9 percent said it occurred recently.

Most striking about the team's findings was that the racial disparity in mental abuse or financial exploitation was not explained by additional factors such as education, health, age, or socioeconomic status, Beach said. On average, African Americans in the survey tended to be slightly younger, less educated, and more likely to be single, divorced, or widowed. Nonetheless, non-African Americans of similar means, years, schooling, and marital status were still less likely to report mistreatment or financial deceit, Beach said.

Beach plans to follow up on the survey by including seniors from other parts of the country, interviewing the perpetrators, and developing more standardized definitions of the various types of psychological mistreat-

Among African Americans, 24.4 percent reported being abused since turning 60, and 16.1 percent reported psychological mistreatment within the past six months.

Pitt Planet Hunters Track Long, Strange Voyage of Distant Planet as Part of International Collaboration

Continued from page 1

of Technology and the University of California at Santa Barbara, the nine-team project demonstrated that multiple observatories working together can capture such long transits in their entirety.

As HD 80606b moved, the research groups recorded the transit from their respective vantage points. The data was then combined to reveal unknown information about the planet, such as its mid-transit point and the precise transit duration. The effort included teams working from the Wise Observatory in Israel; the Gran Telescopio Canarias in the Canary Islands; Observatoire de Haute Provence in France; Rosemary Hill Observatory in Florida; the Fred Lawrence Whipple Observatory in Arizona; the Table Mountain Observatory in California; the George R. Wallace Jr. Astrophysical Observatory in Massachusetts; and the



Pitt students working in the University's Allegheny Observatory on the North Side.

Faulkes Telescope North in Hawaii.

Pitt's STEPUP team has tracked, in addition to the HD 80606 project, the transits of approximately half a dozen extrasolar planets in the past six months, Good said. Group members also are helping make upgrades to the Allegheny Observatory that will allow them to use and control the Observatory's 30-inch Thaw telescope from Pitt's Oakland campus.

Happenings



Vatican Splendors: A Journey Through Faith and Art, Senator John Heinz History Center, through January 9

Concerts

Rakugo, Japanese sit-down comedy performance, 6 p.m. **Oct. 5**, Classroom A, Carnegie Library of Pittsburgh, 4400 Forbes Ave., Oakland, 412-622-3151, newandfeatured@carnegielibrary.org.

Howie Alexander Trio, eclectic mix of traditional and contemporary jazz, noon **Oct. 6**, Nordy's Place, Lower Level, William Pitt Union, PITT ARTS' Artful Wednesdays, 412-624-4498, www.pittarts.pitt.edu.

Diamanda Galas in Concert, avant-garde vocalist, pianist, composer, and performance artist, 8 p.m. **Oct. 6**, New Hazlett Theater, Allegheny Square East, North Side, 412-320-4610, www.newhazletttheater.org.

The Fabulous '50s With Marvin Hamlisch & Sha Na Na, featuring popular tunes from the '50s, **Oct. 7-10**, Heinz Hall, 600 Penn Ave., Downtown, Pittsburgh Symphony Orchestra, PNC Pops! 412-392-4900, www.pittsburghsymphony.org, PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt.edu.

The Fabulous '50s With Marvin Hamlisch & Sha Na Na, Heinz Hall October 7-10



Puerto Flamenco, Spanish music with choreography and spontaneous improvisation, 7 and 9 p.m. **Oct. 8**, Pittsburgh Center for the Arts, 6300 Fifth Ave., Shadyside, Guitar Society of Fine Art, 412-612-0499, www.gsfapittsburgh.org, PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt.edu.

A Golden Age: Music of Tudor & Jacobean England, featuring a cappella ensemble Stile Antico, 8 p.m. **Oct. 9**, Calvary Episcopal Church, 315 Shady Ave., Shadyside, Renaissance & Baroque Society in association with Calvary Episcopal Church, 412-361-2048, www.rbsp.org.

Joy Ike, singer/songwriter, 2 p.m. **Oct. 10**, Quiet Reading Room, First Floor, Carnegie Library of Pittsburgh, 4400 Forbes Ave., Oakland, 412-622-3151, newandfeatured@carnegielibrary.org.

Heinz Chapel Choir Fall Concert, musical performance, 3 p.m. **Oct. 10**, Heinz Memorial Chapel, Pitt Department of Music, 412-624-4125, www.music.pitt.edu.

DBR: Woodbox Beats & Balladry, featuring composer, violinist, and bandleader Daniel Bernard Roumain, 6 p.m. **Oct. 11**, August Wilson Center for African American Culture, 980 Liberty Ave., Downtown, Pittsburgh Cultural Trust, 412-456-6666, www.pgharts.org.

Exhibitions

Carnegie Museum of Art, The Art of Structure, through Jan. 17; Past Meets Present: Decorative Arts and Design at Carnegie Museum of Art, ongoing, 4400 Forbes Ave., Oakland, 412-622-3131, www.cmoa.org.

709 Penn Gallery, Nature in Glass, exhibition of Gary Guydosh's flowers and other nature-inspired pieces, **through Oct. 24**, Pittsburgh Cultural Trust's Department of Education and Community Engagement, 412-456-6666.



Young Women Picking Fruit, 1891, Pittsburgher Mary Cassatt, Permanent Collection, Carnegie Museum of Art

August Wilson Center for African American Culture, In My Father's House, mixed-media exhibition about how African Americans collect and preserve their culture, **ongoing**, 980 Liberty Ave., Downtown, Pittsburgh Cultural Trust, 412-456-6666, www.pgharts.org.

Hunt Institute for Botanical Documentation, 13th International Exhibition of Botanical Art & Illustration, features 110 watercolors, drawings, and prints, **through Dec. 17**, 5th floor, Hunt Library, Carnegie Mellon University, 4909 Frew St., Oakland, 412-268-2434, http://huntbot.andrew.cmu.edu.

Senator John Heinz History Center, Vatican Splendors: A Journey Through Faith and Art, one of largest Vatican collections to tour North America, **through Jan. 9; Beat 'Em Bucs: The Story of the 1960 Pirates**, exhibition **through January**, 1212 Smallman St., Strip District, 412-454-6000, www.heinzhistorycenter.org.

Lectures/Seminars/Readings

Mary Karr, poet and memoirist, 7:30 p.m. **Oct. 4**, Carnegie Music Hall, 4400 Forbes Ave., Oakland, Drue Heinz Lectures, 412-622-8866, www.pittsburghlectures.org.

"Towards a New Epistemology of Science," Samuel Schindler, visiting fellow, Pitt Center for Philosophy of Science, 12:05 p.m. **Oct. 5**, 817R Cathedral of Learning, Pitt Center for Philosophy of Science, 412-624-1052, pittctr@pitt.edu.

"Magic and Religion in Ancient Corinth," Ronald S. Stroud, professor, University of California at Berkeley, 4:30 p.m. **Oct. 5**, 324 Cathedral of Learning, Pitt Department of Classics, Archaeological Institute of America, www.classics.pitt.edu.

Mark Kurlansky, 2010 Fred R. Brown Literary Award winner, 8:30 p.m. **Oct. 5**, Frick Fine Arts Auditorium, Pittsburgh Contemporary Writers Series, Pitt Department of English, oaks@pitt.edu, www.english.pitt.edu.

"Reproductive Rights in Pennsylvania," Rebecca Cavanaugh, vice president for public affairs, Planned Parenthood of Western Pennsylvania, noon **Oct. 6**, 2201 Posvar Hall, Pitt Women's Studies Program, wstudies@pitt.edu.



Heinz Chapel Choir Fall Concert, Heinz Memorial Chapel, October 10

"An Update of Japanese Databases and Effective Methods to Find Articles," Hiroyuki Good, Japanese bibliographer for Pitt's East Asian Library, noon **Oct. 7**, 4130 Posvar Hall, Asia Over Lunch Lecture Series, Pitt's Asian Studies Center, 412-648-7370, asia@pitt.edu.

"What to Say About Natural Kinds," P.D. Magnus, visiting fellow, Pitt Center for Philosophy of Science, 12:05 p.m. **Oct. 8**, 817 R Cathedral of Learning, Pitt Center for Philosophy of Science, 412-624-1052, pittctr@pitt.edu.

Between Women, a discussion of the book by Sharon Marcus, Orlando Hariman Professor of English, Columbia University, 12:30 p.m. **Oct. 8**, 526 Cathedral of Learning, Pitt's Humanities Center Colloquium Series, humctr@pitt.edu, www.humcenter.pitt.edu.

Miscellaneous

Science 2010—Transformations, Pitt's 10th annual celebration of science and technology, **Oct. 7-8**, Alumni Hall, free and open to public, www.science2010.pitt.edu.

La Ultima Cena, (The Last Supper), film by Tomás Gutiérrez Alea, 1976), 6:30 p.m. **Oct. 7**, Frick Fine Arts Auditorium, **Cuban Eyes/Cubanize: Fifty Years of Cuban Cinema Since the Cuban Revolution Film Series**, Pitt Center for Latin American Studies, Department of Hispanic Languages and Literatures, www.amigocinelatinoamericano@gmail.com.

Opera/Theater/Dance

The Royal Family by George S. Kaufman and Edna Ferber, **through Oct. 31**, O'Reilly Theater, 621 Penn Ave., Downtown, Pittsburgh Public Theater, 412-316-1600, www.ppt.org, PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt.edu.

The Barber of Seville, music by Gioacchino Rossini, libretto by Cesare Sterbini, **Oct. 9, 12, 15, and 17**, Benedum Center, 803 Liberty Ave., Downtown, Pittsburgh Opera, 412-456-6666, www.benedumcenter.org, PITT ARTS' Pitt Night is **Oct. 15**, PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt.edu.

Triple Espresso, story of failure-prone comedy trio trying for its big break, **through Jan. 9**, Cabaret at Theater Square, 101 Sixth St., Downtown, Pittsburgh Cultural Trust, 412-456-6666, www.pgharts.org, PITT ARTS Cheap Seats, 412-624-4498, www.pittarts.pitt.edu.

Pitt PhD Dissertation Defenses

Jennifer Whatley Schwartz, School of Arts and Sciences' Department of English, 8:30 a.m. **Oct. 6**, "Writing With Readers: Written Comments and the Teaching of Composition," 526 Cathedral of Learning.

Kari N. Nejak-Bowen, School of Medicine's Cellular and Molecular Pathology Graduate Program, 10 a.m. **Oct. 6**, "Beta-Catenin in Liver: A Matter of Life and Death," 1103 Scaife Conference Center, Scaife Hall.

Angela Green, School of Medicine's Molecular Virology and Microbiology Graduate Program, 10 a.m. **Oct. 7**, "Effector and Regulatory CD4 T Cells During Mycobacterium Tuberculosis Infection," 1105A Scaife Conference Center, Scaife Hall.



Sharing Skills and Hope During Pitt's 19th Annual United Way Day of Caring

About 350 University of Pittsburgh administrators, faculty, and staff donned blue jeans and work shirts as they traveled to sites in Oakland and beyond to work on 14 different service projects during Pitt's 19th United Way Day of Caring on Sept. 29.

The University partnered on the projects with TIAA-CREF, a retirement planning and investment manager for University faculty and staff.

There was more than enough work to go around, with digging and painting skills being in high demand. Among the service projects were interior painting at the Hazelwood YMCA and Lawrenceville's Stephen Foster Community Center. Volunteers also worked with Hill House Neighborhood Development to plant trees and other greenery in lots adjacent to Cliffside Park, which is a playground on Cliff Street in the Hill District. Crews working at the Greater Pittsburgh Community Food Bank in Duquesne sorted and packed bulk foods for distribution to needy families throughout the region.

The Oakland Food Pantry, meanwhile, received help with interior improvements. Stephen Zupcic, Pitt's assistant director for community relations, said the Oakland pantry, located on Lawn Street in South Oakland, serves 500 families a week.



MIKE DRAZDZINSKI/CIDE



MARY JANE BENT/CIDE

MARY JANE BENT/CIDE

PUBLICATION NOTICE The next edition of *Pitt Chronicle* will be published Oct. 11. Items for publication in the newspaper's *Happenings* calendar (see page 7) should be received at least two weeks before the event date. *Happenings* items should include the following information: title of the event, name and title of speaker(s), date, time, location, sponsor(s), and a phone number and Web site for additional information. Items may be e-mailed to chron@pitt.edu, 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.