

# Almanac

UNIVERSITY OF PENNSYLVANIA

Tuesday  
November 23, 2010  
Volume 57 Number 13  
[www.upenn.edu/almanac](http://www.upenn.edu/almanac)

## ICIDR Grant for Penn Vet to Study Leishmaniasis in Brazil



Phillip Scott

Dr. Phillip Scott, associate dean for research and professor of microbiology and immunology at the University of Pennsylvania School of Veterinary Medicine, was recently awarded an International Collaborations in Infectious Disease Research (ICIDR) grant. The grant for Myeloid-lineage cells and immunopathology in

*Leishmania braziliensis*, is from the National Institute of Allergy and Infectious Disease (NIAID), one of the 27 institutes and centers comprising the National Institutes of Health (NIH).

The 5-year grant will commence on December 1, 2010 with a total budget of more than \$2.75 million. It is the first ICIDR grant awarded to the University of Pennsylvania since the inception of the ICIDR grant more than 30 years ago, and is one of only 12 awarded in 2010.

With these funds, researchers will gather fundamental information about myeloid-lineage cells (specifically monocytes and dendritic cells) present in people infected with *Leishmania braziliensis*, the species of *Leishmania* that

causes a major zoonotic public health problem in Brazil. Leishmaniasis is a chronic protozoal infection, causing severe morbidity throughout the world in people and animals. According to the World Health Organization (WHO), the disease threatens 350 million people in 88 countries worldwide with an estimated 2 million new cases of leishmaniasis per year. Currently, WHO estimates that 12 million people are currently infected with the disease worldwide.

Researchers will aim to use their findings in order to develop new treatments for leishmaniasis, as well as other inflammatory diseases. In addition, the study will determine if the relative frequency of certain monocyte subsets and/or their secreted products can serve as early predictive biomarkers of treatment success in leishmaniasis patients. If successful, such biomarkers will allow clinicians to rapidly move to more aggressive forms of treatment when needed.

The project involves collaborations between Penn (Dr. Scott), the University of Maryland (Dr. David Mosser) and the Federal University of Bahia in Brazil (Dr. Edgar Carvalho). The field site for these studies is Corte de Pedra, Brazil, where leishmaniasis is endemic.

Penn Vet researchers currently have the most NIH grants of all vet schools in the country, attesting to the School's strong basic and clinical research programs in infectious diseases, immunology, neuroscience, cancer, and stem cell biology.

## An Arboretum Dream Come True



Morris Arboretum Director Paul Meyer with Dorrance Hamilton at the dedication ceremony.

On October 5, the Morris Arboretum celebrated the dedication of its new \$13 million Horticulture Center Complex, a project that has been in the planning for more than 25 years.

Advisory Board Chair Ann Reed remarked, "The Morris Arboretum makes planning a priority. It may take us 25 years, but we get the job done." Despite the intrepid weather, David Cohen, chairman of the Board of Trustees of the University of Pennsylvania, felt that the rain was a fitting backdrop to the dedication of a complex that is an exhibit in green design and sustainability. The event also included remarks by President Amy Gutmann, who commented that, "More than 75 years after becoming a public garden, we continue to be guided by founders John and Lydia Morris's steadfast sense of stewardship. Penn's commitment to educating new generations, to adopting sustainable practices, and to leading by example is evergreen." She concluded by saying, "For an outstanding example of what can be achieved when respect for nature, love of education, and dedication to the future are combined, one can do no better than to visit the Morris Arboretum."

Dr. Gutmann introduced philanthropist Dorrance 'Dodo' Hamilton, who has been instrumental in the funding for the Horticulture Center. Mrs. Hamilton applauded the arboretum's perseverance in making the Horticulture Center a reality. "25 years is a long time to dream. I didn't know if we'd all still be here. But here we are and isn't it wonderful!"

See page 9 for more on the Morris Arboretum's new Horticultural Center.

### IN THIS ISSUE

- 2 SEC Actions; Speaking Out; Deaths: Mr. Bass, Dr. Chance, Dr. Gewirtz, Dr. Isard
- 4 Ben's Attic; Public Safety's Director of Finance; Abramson Cancer Center Grants; PennCERT Grant
- 5 Holiday Happenings at Penn
- 6 Fabulous Finds for Those Fond of Fact or Fiction
- 8 Gifts of Involvement
- 9 Morris Arboretum's New Horticulture Center Complex
- 10 HR: Upcoming Programs; Winter Vacation Reminder Save More on Healthcare; Workplace Mentoring Program; PennRec Faculty/Staff Open House
- 11 Update; Penn's Way; Traffic Advisory; CrimeStats; Classified Ad
- 12 A Summary of the Climate Action Plan Progress Report  
Pullout: December AT PENN

## Penn Engineering Team Places Second at MAGIC 2010

The University of Pennsylvania finished in second place at the worldwide Multi Autonomous Ground-Robotic International Challenge (MAGIC) 2010 competition, earning the Penn team a research award of \$250,000. To compete, the team travelled to Brisbane, Australia, where the event was held in conjunction with the Australian Land Warfare Conference.

The Penn team, consisting of General Robotics, Automation, Sensing and Perception (GRASP) Laboratory members Jon Butzke, Alex Kushleyev, Cody Phillips and Mike Phillips, spent the past few weeks constructing, programming, shipping, and reassembling a team of heterogeneous robots to map, navigate, search, and neutralize objects of interest in a large area using minimal human supervision. The team is led by Daniel Lee, Evan C Thompson Term Associate Professor and Raymon S. Markowitz Faculty Fellow in the department of Electrical and Systems Engineering, in SEAS. (See photo of the Penn team and their robots on Almanac's website).

The actual competition consisted of the Penn team searching and mapping a 250,000 square-meter area of the Adelaide Fairgrounds in under three-and-a-half hours, using five sensor robots and two disrupter robots. The team was able to find and "neutralize" eight different items, including both static and mobile objects, during the different phases of the competition.

In a separate challenge competition for members of the media, the Penn team successfully mapped a large 50x150m shed filled with hay mazes and miscellaneous objects in 30 minutes. The team's effort in this phase of the competition netted the winning trophy as well as much interest from the military observers in attendance.

MAGIC 2010, jointly sponsored by the Australian and US Departments of Defense, was organized to attract innovative proposals from worldwide research organizations to develop next-generation fully autonomous ground vehicle systems that can be deployed effectively in military operations and civilian emergency situations. The challenge required competitors to submit proposals demonstrating the use of multi-vehicle robotic teams that can execute an intelligence, surveillance and reconnaissance mission in a dynamic urban environment. Last fall they were chosen to compete in this year's challenge (*Almanac* November 24, 2009).



# SENATE From the Senate Office

The following is published in accordance with the Faculty Senate Rules. Among other purposes, the publication of SEC actions is intended to stimulate discussion among the constituencies and their representatives. Please communicate your comments to Sue White, executive assistant to the Senate Office, either by telephone at (215) 898-6943, or by e-mail at senate@pobox.upenn.edu.

## Faculty Senate Executive Committee Actions

Wednesday, November 17, 2010

**Chair's Report:** Faculty Senate Chair Bob Hornik reported that the Senate Committee on Faculty and the Academic Mission (SCOF) now has three new members. He explained that the Faculty Senate Tri-Chairs recently met with the "5B" student group to discuss their ideas for increasing faculty diversity. He noted that the Minority Equity Report is due for publication next month. He announced that at the December meeting, SEC will be asked to nominate faculty members for the newly revised Patent Policy Appeals Board and SEC member Jonathan Smith offered to be a candidate for the Appeals Board. Dr. Hornik reported that the Faculty Senate Tri-Chairs have been in consultation with Vice Provost for Faculty Lynn Lees to improve the Faculty Income Allowance Plan (FIAP) template letters which are being revised to clarify FIAP procedures.

**Past Chair's Report:** Faculty Senate Past-Chair Harvey Rubin reported that the Academic Planning and Budget Committee had a robust discussion on the draft Minority Equity Report and the work of the Faculty Advisory Council for Access and Academic Support Initiatives.

**Ballots for the 2010-2011 Nominating Committee Chair:** SEC members voted for the 2010-2011 Nominating Committee Chair.

**Penn's Research Enterprise Pathways to Discovery:** Senior Vice Provost for Research Steve Fluharty updated SEC on Penn's research enterprise, research compliance, postdoctoral fellowships for academic diversity, and the work of Penn's Public Access Committee. He explained that Penn is a tier-one research university and reported that 1 billion dollars in total grants and contracts were awarded in FY2010, which included American Recovery and Reinvestment Act (ARRA) awards. He stated that Penn has an integrated campus with 160 research centers and multidisciplinary institutes and his office is charged with direct oversight of Penn's research enterprise. He outlined the major functions of his office including: oversight of the research infrastructure and support of research compliance, oversight and management of intellectual property and tech transfer, identification of strategic research directions, distribution of grants and awards, management of submission of large institutional grants, collaboration with the Office of Government Relations to facilitate state and federal funding, and collaboration with the Office of Development to build corporate and foundation partnerships. Dr. Fluharty reviewed research compliance activity administered by the Office of Regulatory Affairs (ORA) noting that Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC) submissions are moving through the review process much faster. He reviewed use of the Penn Profiler, new requirements for Responsible Conduct of Research, upcoming changes in Research Conflict of Interest, and Penn's management of Export Control Laws. Dr. Fluharty updated SEC on the progress of the Postdoctoral Fellowship Program which was announced in April 2010. He explained "public access" which is defined as the development of digital online resources that are free of most copyright or licensing restrictions, and reported on a sampling of other institutional responses to this initiative. He reported that Penn formed a Public Access Committee and outlined specific recommendations from the committee. He noted that the level of demands for accountability were growing, and in particular, that coming new rules around conflict of interest reporting were of great concern, both for the burden they would represent and the risks of violation of privacy associated with the reporting requirements.

SEC discussion focused on the difficulty navigating the IRB submission process, irrelevant questions on the IRB form for some departments, export control regulations which are difficult to interpret and understand, and the details of the Penn Public Access Committee recommendations. Members expressed concerns about the ever increasing burden for administration of research, taking faculty away from actually doing research. Dr. Fluharty recognized this concern and indicated that Penn was engaged with other universities in the effort to convince Congress and NIH of the cost of unfunded mandates for research administration. He indicated that he believed that Penn was doing as much as it could to minimize the burden, but that most of the burden reflected federally imposed requirements.

## Speaking Out

### Staying Safe on South Street

I wanted to take a moment to pass on my observations concerning the traffic signals at South Street and I-76. These modern signals have sensors and are "smart," meaning that the time and pattern can vary depending on the amount of traffic. This keeps traffic moving, but also means that the pattern is not always consistent. Therefore, it's very important to obey the traffic signals and wait for the appropriate signal. *Pedestrians must press the signal button in order to get*

*a walk signal in the sequence; the ones for East-West crossings are located on the angled curve.*

The vehicular speed limit on the entire length of the bridge is 25 mph with *no turn on red*. Slow down. The new bridge is a vast improvement over the old bridge, but common sense and traffic laws still apply for motorists, bicyclists and pedestrians.

—Nikola Sizgorich, IT Support Specialist  
School of Medicine

*Speaking Out welcomes reader contributions. Short, timely letters on University issues will be accepted by Thursday at noon for the following Tuesday's issue, subject to right-of-reply guidelines. Advance notice of intention to submit is appreciated.—Eds.*

## Deaths

### Mr. Bass, Wharton

Myles Bass, longtime lecturer at the Wharton School, died October 1 of lung cancer. He was 71.

Born in Camden, NJ, Mr. Bass graduated from the former Bordentown Military Academy in 1956. He attended Dickinson College before transferring to Rutgers University, where he earned a bachelor's degree in social science.

Since 1962, he ran his own tutoring company, MLB Tutoring, Co., where he helped students prepare for the SATs, LSATS and medical board exams. He continued to teach until two weeks before his death.

Mr. Bass taught courses in management and entrepreneurship at the Wharton School from 1977-2001.

He was the recipient of the William G. Whitney Award for Distinguished Undergraduate Teaching in the Affiliated Faculty in the years 1999, 2000 and 2001.

Mr. Bass is survived by his wife, Marianne; son, Michael and daughter, Rachel.

Contributions in his memory may be made to the American Cancer Society, 1851 Old Cuthbert Road, Cherry Hill, NJ 08034.

### Dr. Gewirtz, Hematology-Oncology



Alan Gewirtz

Dr. Alan Gewirtz, the C. Willard Robinson Professor of Hematology-Oncology at the School of Medicine, passed away November 17; he was 61.

Dr. Gewirtz earned his AB in marine biology from Colgate University in 1971 and his MD and MA in microbiology from State University of New York at Buffalo in 1976.

Dr. Gewirtz came to Penn following his tenure at Temple University from 1984-90.

A distinguished scientist, physician and author, Dr. Gewirtz's research focused on the cell biology of normal and malignant human hematopoiesis and his goal was to advance the development of more effective, and less toxic therapies for human leukemia. He was the recipient of the Doris Duke Distinguished Clinical Scientist Award and *Philadelphia Magazine* included him in their 2010 listing of "Top Docs." Dr. Gewirtz served on a number of editorial boards and reviewed manuscripts for numerous scientific journals. In addition, he was a member of the Medical/Scientific Advisory Committee of the Leukemia Society of America and was a National Trustee of the organization. He was elected to the American Society of Clinical Investigation in 1990.

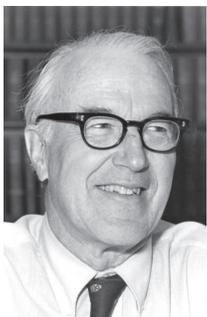
Dr. Gewirtz is survived by his children, Jamie Gewirtz and Emily Stiebel; brothers, Elliot, Henry and David; and granddaughter, Jane.

Donations may be made to the Alan Gewirtz Leukemia Research Fund, c/o the Trustees of the University of Pennsylvania, 3535 Market St. Suite 750, Philadelphia, PA 19104.

### To Report A Death

*Almanac* appreciates being informed of the deaths of current and former faculty and staff members, students, and other members of the University community. Call (215) 898-5274 or e-mail [almanac@upenn.edu](mailto:almanac@upenn.edu).

## Dr. Chance, Biochemistry & Biophysics



Britton Chance

Dr. Britton Chance, for more than 50 years one of the giants of biochemistry and biophysics and a world leader in transforming theoretical science into useful biomedical and clinical applications, died on November 16, at age 97. Dr. Chance, The Eldridge Reeves Johnson Emeritus Professor of Biophysics, Physical Chemistry, and Radiologic Physics, had the rare distinction of being the recipient of a National Medal of Science (1974), and a Gold Medal in the Olympics (1952, Sailing, Men's 5½ Meter Class), and a Certificate of Merit for his sensitive work during World War II. He also was rare in being elected not only to the U.S. National Academy of Science but also to foreign academies such as The Royal Society of London and the Royal Swedish Academy of Sciences. England and Sweden were countries where he did seminal and formative research.

Dr. Chance was known for his amazingly broad range of interests, his long history of fruitful collaboration with scientists, here at Penn and all around the globe, and his unflagging energy. Even in his late 80s and early 90s, Dr. Chance could be spotted riding his bicycle on campus, arriving at his laboratory in the early morning. For him, "emeritus" certainly did not mean inactive or inattentive. As he once told *The Philadelphia Inquirer's* Art Carey, "Retire? Why would I do that? I enjoy research and I work with a wonderful crew. I like the excitement of new discoveries, moving ahead, finding out new things." In 2001, still in pursuit of new things, Dr. Chance unveiled a detection technique, developed with collaborators at Penn and Harvard, that uses fluorescent molecules to track and illuminate malignant cells in the breast. Even more recently, he was part of a team that proposed developing a portable, real-time system for monitoring and imaging brain function.

Dr. Chance was born in Wilkes-Barre, PA. When he was a teenager, his family moved to Haverford. Growing up, he developed a passion for sailing and early on displayed an uncanny knack for invention. These interests came together early; when as a teenager he invented and patented a novel automatic ship steering device that he later was contracted by the British General Electric Company to test in a 20,000 ton freighter between England and Australia. His passion for sailing never waned. "I wouldn't be without sailing," he told *The Scientist*. "That would be unendurable for me." In the same way, his skills with electro-optical devices would serve the instrumentation and the biomedical research communities and his country to the end of his long working life.

In 1935, Dr. Chance earned his bachelor's degree in chemistry from the University of Pennsylvania. As a graduate student at Penn, he developed a microflow version of a stop-flow apparatus to study enzyme mechanisms, observing their changing compositions in the millisecond times. Back in England, Dr. Chance worked with the originators of the flow apparatus technique at Cambridge University. With these unique instruments he made important research contribu-

tions, fundamental and applied: he demonstrated the long-predicted but never-seen enzyme-substrate complex, which explains why he named his yachts Complex I and so on. He discovered that biological electron transfer—vital to respiration, photosynthesis, and oxidative metabolism—was quantum-mechanical tunneling, an understanding that now underpins engineering of nanoscale electronic devices. Dr. Chance played a pivotal role in determining bioenergetic activities in cells. These discoveries culminated in the 1980s in his pioneering work in magnetic resonance spectroscopy imaging in humans, and in the 1990s in his initiating the application of near-infrared optics for the clinical diagnosis of breast cancer, muscle dynamics, and cognition. His pioneering research transformed the field of biomedical optics.

Upon his return to the United States from Cambridge University, Dr. Chance became a fellow in Penn's Eldridge Reeves Johnson Foundation for Research in Medical Physics, where he completed his first study on enzyme kinetics. He earned his PhD degree in physical chemistry in 1940. Two years later, he received a second doctorate—in biology and physiology—from Cambridge. When the United States entered World War II, Dr. Chance was recruited to MIT to work in its Radiation Laboratory, as part of a secret team focused on developing and enhancing radar. Despite his relative youth, he became a group leader and, later, a member of the steering committee; by the time he left the laboratory, he was supervising some 300 people. During that time, he also invented a "ground position indicator" for more accurate bombing. For his work in this field, Dr. Chance was awarded the President's Certificate of Merit in 1950.

As the recipient of a Guggenheim Foundation fellowship, Dr. Chance spent two years at Sweden's Nobel Institute and at Cambridge studying enzymes. In 1949, back at Penn as professor of biophysics and physical biochemistry, Dr. Chance was appointed to director of the Johnson Foundation. Under Dr. Chance, the foundation was widely recognized as a stimulating research environment. He held the position until 1983. For part of that time, he also served as chair of the department of biophysics and physical biochemistry. In 1964, he was named the Eldridge Reeves Johnson Professor. In the 1990s, Dr. Chance was director of the Institute for Biophysical and Biomedical Research, part of the University City Science Center; and in 1998, he became president of the Medical Diagnostic Research Foundation.

Dr. Chance's earlier work on enzymes was fundamental to the understanding of how oxygen is used in the body to provide energy and to a broader knowledge of the diseases that result from a lack of energy. He also invented the dual-wavelength spectrophotometer, and his other discoveries formed the basis for the glucosometers in use today. More recently, turning his attention to optical diagnostics, he remained very active. Dr. Mark Lemmon, Penn's chair of biophysics and biochemistry, notes that Dr. Chance was continuously funded for 70 years and several papers were published in 2010. Over his career, Dr. Chance had six papers that reached more than 1,000 citations.

These contributions did not go unnoticed. Apart from foreign membership in the academies of many countries, Dr. Chance has received honorary degrees from Penn and several

other international universities. Other honors included the Franklin Medal from Philadelphia's Franklin Institute; the Heineken Prize for Biochemistry and Biophysics from the Netherlands Academy of Science and Letters; the Benjamin Franklin Medal for Distinguished Achievement in the Sciences, given by the American Philosophical Society (for which he served as vice president); and the Christopher Columbus Discovery Award in Biomedical Research, from the National Institutes of Health. In 1995, the University of Pennsylvania named the Stellar-Chance Laboratories partly in his honor (*Almanac* May 2, 1995).

Dr. Chance married Dr. Shoko Nioka, a long-time research associate in biochemistry and biophysics, in February, 2010, in a traditional Chinese ceremony in the Taiwanese city of Tainan. In addition to Dr. Nioka, he is survived by two former wives and 16 children and step-children, 27 grandchildren and 5 great-grandchildren.

Gifts in Dr. Chance's memory may be made to the Johnson Research Foundation, payable to the Trustees of the University of Pennsylvania, Penn Medicine Development, Suite 750, 3535 Market Street, Philadelphia, PA 19104-3309.

A memorial service to honor Dr. Chance and his accomplishments is being planned for early in the new year.

## Dr. Isard, Regional Science



Walter Isard

Dr. Walter Isard, former professor of regional science in the School of Arts and Sciences, died November 6 at age 91.

Born in Philadelphia, Dr. Isard earned his bachelor's degree in mathematics from Temple University and then a doctoral degree in econom-

ics from Harvard University.

Credited for establishing the field of regional science, Dr. Isard came to Penn in 1956 after serving on the faculty at MIT. While at Penn, he formed the graduate group in regional science and then the department of regional science in 1959. He also founded the *Journal of Regional Science*.

His additional research included conflict management and resolution, disarmament and peace science. He founded the Peace Research Society, later renamed the Peace Science Society, and founded the Graduate Group in Peace Science at Penn.

Dr. Isard left Penn in 1979 and went to Cornell University, where he continued to teach until this past summer. Penn's regional science department was closed in the mid-1990s.

The author of 300 published papers and well over a dozen books, Dr. Isard received numerous honorary degrees and the Regional Science Association's Founder's Medal is named in his honor.

Dr. Isard is survived by his wife, Caroline; sons, Peter, Michael, Arthur and Scott; daughters, Toni Yagoda and Anni; a sister; 12 grandchildren; and four great-grandchildren.

Memorial donations may be made to the American Friends Service Committee, 1501 Cherry Street, Philadelphia, PA 19102-1403.

## Ben's Attic: Penn's New Web-based Surplus Property Exchange Site



Wondering what to do with those old office chairs? Have promotional items left over from an event, or laboratory equipment gathering dust? List them in Ben's Attic—a new website developed by Purchasing Services that allows Penn faculty and staff to exchange and purchase surplus University owned property.

All faculty and staff are able to browse the site to see if there are any items they may need. However, to post items or make purchases, you must be a TAC (Transaction Authorization Card) holder (or a TAC holder's designee). Items are listed by category and can be sold or given away at no cost. You can also request an email notification of items by category as they become available.

All policies defining disposition of University property are defined on the site and must be adhered to when listing an item for purchase or bid. All items are centrally reviewed by

the Ben's Attic system administrator and then approved for posting on the site.

As Ben's Attic is just being launched, there is a great need for items to be listed on the site. It's the perfect opportunity to get rid of unwanted stuff in an easy and sustainable manner!

Ben's Attic is strictly for repurposing of University owned property and can be accessed from the Purchasing Services website: [www.upenn.edu/purchasing](http://www.upenn.edu/purchasing) or you may bookmark: <https://upenn.unl.edu/>.

If you have any questions regarding the usage of Ben's Attic or want to set up an account, please email [benattic@exchange.upenn.edu](mailto:benattic@exchange.upenn.edu).

If you have personal items that you wish to repurpose you may access the West Philly Freecycle™ site at [www.freecycle.org](http://www.freecycle.org) for your personal transactions. The Freecycle Network is made up of groups with members across the globe. It's a grass roots and entirely nonprofit movement of people who are giving (and getting) stuff for free in their own towns and thus keeping good stuff out of landfills.

## Public Safety's Director of Finance

Vice President Maureen S. Rush announced the appointment of Sharon P. Bryan to director of finance and administration within the Division of Public Safety.

Ms. Bryan has an extensive background in finance and administration, both within health care and since 2006 as manager of Financial Reporting and Analysis within Penn's Office of the Comptroller.

Ms. Bryan earned her BS in accounting and business, with a concentration in management from Chestnut Hill College. She earned her MBA with a concentration in finance, from Holy Family University. Since 1998 she has taught accounting and business at Chestnut Hill College as an adjunct faculty member.



Sharon Bryan

## PennCERT Small Grant Program: January 1

The Penn Center for Education and Research on Therapeutics (CERT), funded by a grant from the Agency for Healthcare Research and Quality (AHRQ), is housed within the Center for Clinical Epidemiology and Biostatistics (CCEB).

The primary aim of the PennCERT is to examine patterns of antimicrobial drug use and patterns of antimicrobial drug resistance across a series of medical settings of increasing complexity and size.

Ultimately, the goals of the PennCERT are to identify optimal patterns of antimicrobial drug use, develop methods for achieving improved patterns of use and examine the effectiveness of these interventions.

These objectives are advanced through linking investigators with diverse training to develop studies examining the risks and benefits of real world patterns of antimicrobial drug use and determinants of these patterns of prescribing, as well as interventions to modify that prescribing. The PennCERT program also includes education and dissemination of evidence-based information to the healthcare community.

### Application Procedures:

The full announcement is at the PennCERT website: [www.med.upenn.edu/penncert/](http://www.med.upenn.edu/penncert/)

Applications should focus on the PennCERT mission. Projects likely to have an impact, directly or indirectly, on reducing the use of antibiotics will be favored.

Applicants can request access to CERT data, data programmer support, biostatistical support, publications costs, travel costs to present the research and other research costs (up to \$20,000 in additional direct costs or to \$40,000 for well justified projects). Investigator salary support is not available.

Applications are due *January 1, 2011*.

Send an electronic copy of all applications to Brian L. Strom, [bstrom@mail.med.upenn.edu](mailto:bstrom@mail.med.upenn.edu). Another electronic copy and a hard copy original should be submitted to Dena Carbonari at [dcarmo@mail.med.upenn.edu](mailto:dcarmo@mail.med.upenn.edu) and 734 Blockley Hall, Philadelphia, PA 19104-6021.

Address any questions to Dena Carbonari at (215) 898-9411 or [dcarmo@mail.med.upenn.edu](mailto:dcarmo@mail.med.upenn.edu).

## Abramson Cancer Center Seed Money Grants: December 17

The Abramson Cancer Center of the University of Pennsylvania announces the availability of two types of seed money grants for faculty to conduct cancer-related research projects:

- American Cancer Society Institutional Research Grant (ACS IRG)
- Cancer Center Pilot Projects Program

Application materials are available at [www.pennccancer.org/grants](http://www.pennccancer.org/grants). The deadline is *December 17*.

Questions concerning application submission can be directed to: Aprille McCoy, scientific coordinator, Abramson Cancer Center, (215) 662-3912, or [admccoy@exchange.upenn.edu](mailto:admccoy@exchange.upenn.edu).

### American Cancer Society Institutional Research Grants

Through an Institutional Research Grant from the American Cancer Society (ACS IRG), the Abramson Cancer Center will provide seed money grants to junior faculty members (e.g., assistant professor within six years of their appointment) to initiate promising new cancer research projects with the object to obtain preliminary data enabling them to compete successfully for national peer-reviewed research grants. Hence, investigators who have a peer-reviewed national research grant are not eligible for this award.

NEW: Investigators who have previously received support from the Cancer Center ACS IRG are now eligible to apply for a second year of funding. Seed money grants from \$5,000 to \$30,000 will be awarded for the exploration of new developments in basic, translational clinical and cancer control research. Behavioral sciences or health services research related to cancer are eligible for these awards.

Covered costs include laboratory personnel costs (non-faculty), data manager or research nursing support, laboratory supplies, animals and small equipment; no travel or patient costs are allowed. Projects must have all necessary certifications to be eligible.

The award period for the ACS IRG grant is for one year, February 1 to December 31, 2011.

### Cancer Center Pilot Project Grants

The Abramson Cancer Center will provide seed money grants up to \$25,000 to University faculty members at any faculty level for innovative cancer research projects that have the potential for national peer-reviewed grant funding. Investigators who have already received peer-reviewed funding for their proposed projects will not be eligible for this award. However, investigators with new grants submitted to the NCI requiring a second submission (A1) are encouraged to apply for a pilot award. Investigators whose projects use Abramson Cancer Center Cores, involve significant new collaborations and/or relate to the strategic priorities of the ACC are also encouraged to apply.

The Scientific Strategic Priorities are:

- Identification of factors in the tumor microenvironment that promote carcinogenesis and tumor growth.
- Identification and characterization of cancer stem cells in solid tumors, and/or of understanding their interactions with the tumor microenvironment.
- Evaluation of novel compounds that target pathways required for tumor maintenance in investigator-initiated human trials that validate target effects.
- Identification of host genetic signatures and gene-environment interactions that predict cancer susceptibility and cancer outcomes.
- Elucidation of the mechanisms underlying key behavioral cancer risk factors (e.g. obesity, tobacco, and physical inactivity) and/or development of novel interventions to modify these factors and prevent cancer.
- Translation of evidence-based strategies for personalized risk assessment, prevention, and early detection into improved population health.

Covered costs include faculty salaries, laboratory personnel costs, data management or research nursing support, laboratory supplies, animals and small equipment; no travel or patient costs are allowed. Projects must have all necessary human subject or animal certifications to be eligible.

The award period for the Pilot Projects grant is from February 1 to November 30, 2011.

# Holiday Happenings at Penn

FESTIVITIES AT THE PENN MUSEUM

PERFORMANCES

## Discount Days at the Museum Shops: December 4-5

At the Penn Museum, The Museum Shop and the Pyramid Shop for Children offer an international shopping experience, featuring holiday gifts that are fair trade and globally responsible, ecologically sustainable and “green,” or, in this difficult economy, just plain affordable. The shops feature jewelry, clothing, accessories and crafts from around the world. *Saturday, December 4 and Sunday, December 5*, are Holiday Shopping Savings Days when PennCard holders receive 15% off and Penn Museum members, 20% off all purchases.

Fair trade practices are an important criteria in stocking the Museum shops. Store Director Kevin Freitag handpicks merchandise that directly benefits low-income artisans and their communities around the globe. This year, fair trade “green” offerings abound, including:

Recycled, paper-beaded jewelry (*at right*) from Acacia Creation is an elegant and unique fair trade gift starting at \$5. Each bead is individually hand-rolled from recycled magazine paper by women in Uganda and Western Kenya.

From India, produced under the Fair Trade system by Handmade Expressions, are handbags from recycled textile patches. Prices range from \$20 to \$60.



Necklace and earrings handmade by women—from recycled magazine paper.

## Annual Peace Around the World: Passport to Culture: December 5

Penn Museum will celebrate its 15th annual Peace Around the World family-oriented holiday afternoon *Sunday, December 5*, 1-4 p.m. Visitors receive a “Passport to Cultures” with an itinerary to visit galleries where Penn Museum International Classroom speakers share holiday traditions of their home countries through music, stories, arts, crafts, games and more. The afternoon also features international music and dancing, children’s choirs, exotic face painting, balloon art, international family crafts and free treats for children! Free with regular admission donation.

## ACTIVITIES

### Toys for Tots Holiday Skate

The Penn Ice Rink hosts a Holiday Skate at the Class of 1923 Arena on *Saturday, December 18* at 5:45 p.m. and *Sunday, December 19* at 1:30 p.m., free public skating admission with a donation to Toys for Tots.



### Holiday Garden Railway Display

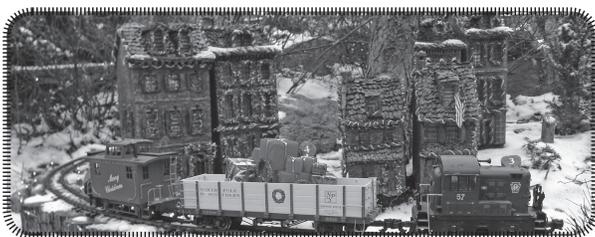
The Morris Arboretum’s popular *Holiday Garden Railway Display* returns *Friday, November 26* and is open daily 10 a.m.-4 p.m. through January 2 (closed December 24, 25 and January 1). The display includes model trains decked out for the holidays running along a quarter mile track outdoors in the Morris Arboretum’s winter garden, surrounded by a miniature village adorned with thousands of twinkling lights for the holidays.

The grand opening celebration will be held *Friday, November 26*, 1-3 p.m. and will include the sounds of carolers. Kids and adults will also have the opportunity to make an ornament or decoration from natural materials to take home. Free with regular garden admission. See [www.morrisarboretum.org](http://www.morrisarboretum.org)

## SHOPPING

### Holiday Book Sale

The Walnut Street West Branch of the Free Library of Philadelphia will hold a *book sale* on *Saturday, December 4*, 11 a.m.-3 p.m. The proceeds will go towards after school programs for youth the and acquisition of new books.



The Holiday Garden Railway, opening *November 26* at the Morris Arboretum features displays and buildings made of all natural materials to form a miniature landscape. Philadelphia-area landmarks such as a replica of Independence Hall are made using pinecone seeds for shingles, and acorns, finials and twigs as downspouts.

### Penn Bookstore Annual Holiday Sale

The Penn Bookstore’s Annual Holiday Sale on *Thursday, December 9* and *Friday, December 10* features 20% off merchandise storewide! Enjoy live musical/vocal performances by student groups.

### UCAL Craft Show and Sale

The University City Arts League is having its annual arts craft show and sale starting *Friday, December 10* with a special preview for members then *Saturday, December 11* with an opening reception for the general public. Both evenings: 6-9 p.m. The show is in the gallery of the Arts League at 4226 Spruce St. Some 30 local artists will show and sell their art and crafts including jewelry, silk scarves, hand made purses, clay pieces and an array of other original and hand made items. The show runs until *December 23*. Refreshments will be served on both opening nights. Memberships can be secured at the door.

## SPECIAL EVENTS

### Kwanzaa Celebration

The Makuu Black Cultural Center is hosting a *Kwanzaa Celebration Dinner Thursday, December 9*, 6 p.m. in Bodek Lounge, Houston Hall. The Penn community is invited to join Makuu in this annual festive affair with music, good food, and fellowship.

### CA Christmas Party

The Christian Association’s annual *Christmas Party* will take place on *Friday, December 10* at 5:30 p.m. There will be food, fellowship and good cheer for students, faculty and staff.

## Annenberg Center Holiday Performances

For ticket prices see [www.annenbergcenter.org/](http://www.annenbergcenter.org/)  
*Preservation Hall Jazz Band—December 10*. New Orleans Creole Christmas celebration featuring Christmas classics and beloved standards with a twist of ragtime, blues and jazz; 8 p.m.; Zellerbach Theatre; \$20-\$50.

*Slide (Ireland)—December 11*. Celebrate the yuletide with Slide, straight from the Emerald Isle Featuring festive fiddling, traditional Irish tunes and holiday favorites; 8 p.m.; Zellerbach Theatre; \$20-\$50.

*Mummerschantz—December 16-18*. A unique alternative to *The Nutcracker* or *A Christmas Carol*, this Swiss company tells stories using ordinary materials such as toilet paper, white sheets, foam and recycled junk that morph into giant balloons, huge slinkies and gargantuan potato heads; Zellerbach Theatre; various times; \$24-\$48.

### A Christmas Carol Performance

*Charles Dickens’ “A Christmas Carol”* will be performed by Jared Reed of the Curio Theatre, *Saturday, December 18*, 7:30 p.m. at St. Mary’s Church. This performance is a benefit of St. Mary’s Church, Hamilton Village. Suggested donation: \$10 adults, \$5 children aged 5-12. Call (215) 386-3916 for more information.

### Holiday Performances at World Cafe Live

Info/Tickets: [www.worldcafelive.com](http://www.worldcafelive.com)

*HighKixMas Celebration—Tuesday, December 21*. *High Kick* will perform their new holiday musical, “High on Christmas;” 8 p.m.; \$18.

*Rock to the Future Christmas Benefit—Thursday, December 23*. Rock to the Future is a new, free afterschool music education and youth development program; 8 p.m.; \$12.

*New Years Eve with Trombone Shorty & Orleans Avenue—Friday, December 31*. A mix of rock, funk, jazz, hip-hop and soul; 10 p.m.; Downstairs Live; \$115/reserved seating/free appetizers & champagne toast, \$80/reserved seating, \$40 standing room.

*New Year’s Eve with Slo-Mo and Steph Hayes & the Good Problems—Friday, December 31*. Steel driven grooves with hip-hop poetry; 10 p.m.; Upstairs Live; \$28, \$25/advance.

## DINING

### Pepper Mill Cafe Holiday Tea Party



The Pepper Mill Cafe at the Penn Museum will host a *Holiday Tea Party, Saturday, December 4*, 3-4:30 p.m. Enjoy traditional tea fare along with an assortment of holiday treats, teas and lemonade; \$17.95.

### University Club’s Holiday Reception

The *University Club’s* annual *holiday reception dinner* will be held on *Tuesday, December 7*, from 5:30-7:30 p.m. The event is open to Club members and their guests. The evening will include butlered hors d’oeuvres, a carving station and seasonal desserts display. The cost is \$28 per person plus service charge and tax. Reservations are required by phone (215) 898-4618 or e-mail [universityclub@pobox.upenn.edu](mailto:universityclub@pobox.upenn.edu).

### Holiday Beer Tasting at World Cafe Live

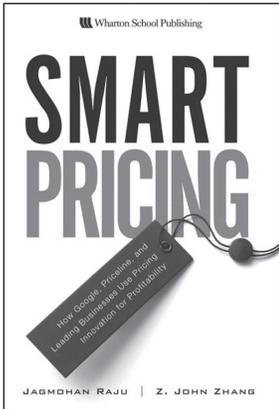
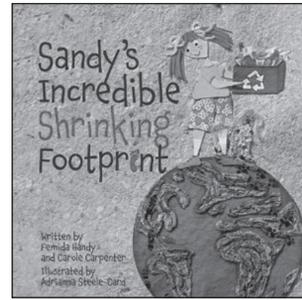
*Winterfest ’10: Stouts, Porters, Winter Seasonals and Special Holiday Brews—Sunday, December 26*. Sample winter seasonal brews from local and national craft breweries. Finger foods are included and the Eagles game will be on; noon-4 p.m.; \$45 (ages 21 and over), \$20 designated driver.

# Fabulous Finds for Those Fond of Facts or Fiction

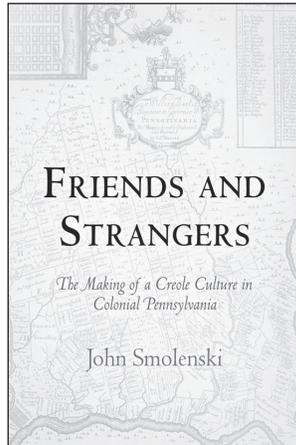
Want a special gift for the book-lovers on your holiday gift list? Well, there are numerous new books hot off the press again this year.

The Penn Bookstore has many to choose from—factual and fictional, personal and pictorial, historical and innovative. These are some of the many new books by Penn authors—faculty, staff and alumni. Not only are there books from Penn Press, but there are options from the Penn Museum and Wharton School Publishing as well. For shoppers who want to preview the collections by both Penn Press and the Penn Museum visit [www.upenn.edu/pennpress](http://www.upenn.edu/pennpress) before visiting the Bookstore.

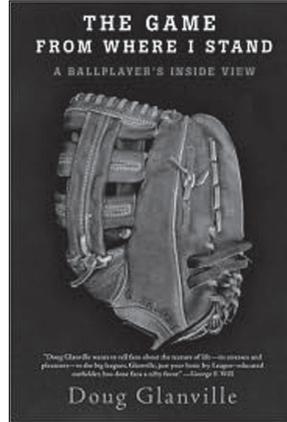
*Sandy's Incredible Shrinking Footprint*; Femida Handy, professor in SP2 along with Carol Carpenter and illustrations by Adrianna Steele-Card; Encourages kids to be crusaders in caring for the earth. Hardcover \$15.95.



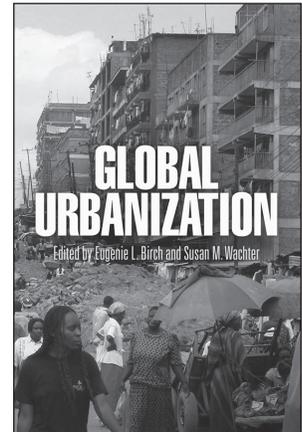
*Smart Pricing: How Google, Priceline, and Leading Businesses Use Pricing Innovation for Profitability*; Jagmohan Raju, Joseph J. Aresty Professor; professor of marketing, Wharton and John Zhang, Murrel J. Ades Professor; professor of marketing, Wharton, introduce innovative approaches to pricing, as well as the research and insights that went into their creation; Wharton School Publishing. Hardcover \$34.99.



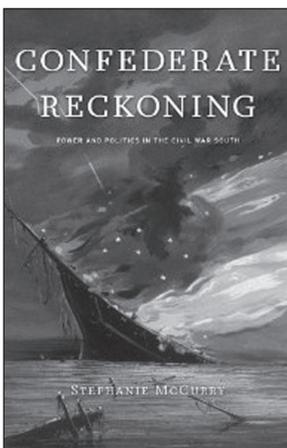
*Friends and Strangers: The Making of a Creole Culture in Colonial Pennsylvania*; John Smolenski, C'99, Gr'01, argues that Pennsylvania's early history can best be understood through the lens of creolization—the process by which Old World habits, values, and practices were transformed in a New World setting; Penn Press. Hardcover \$45.



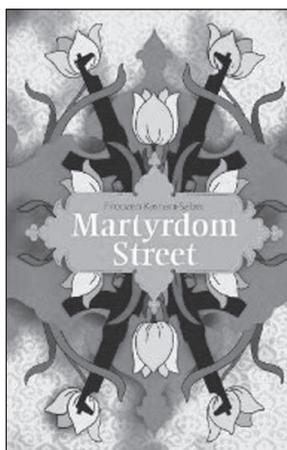
*The Game from Where I Stand: A Ballplayer's Inside View*; Doug Glanville, EAS'93; provides an inside look at the hidden world of major league baseball. Hardcover \$25.



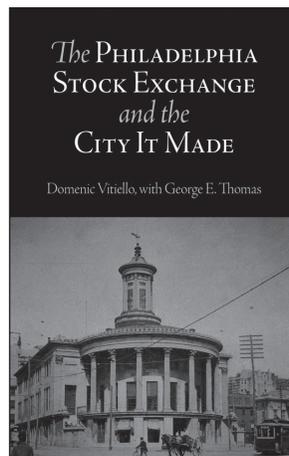
*Global Urbanization*; edited by Eugenie L. Birch, Lawrence C. Nussdorf Professor of Urban Research and Education in the School of Design, and Susan M. Wachter, Richard B. Worley Professor of Financial Management and professor of real estate and finance at the Wharton School; the book surveys essential dimensions of this growth and begins to formulate a global urban agenda for the next half century; Penn Press. Hardcover \$75.



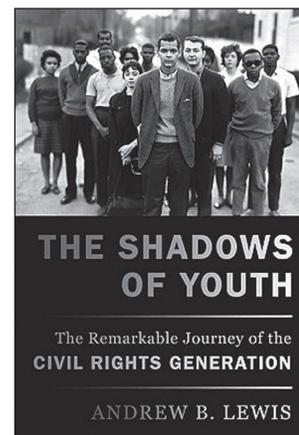
*Confederate Reckoning: Power and Politics in the Civil War South*; Stephanie McCurry, professor of history; tells how women and slaves became a force in the Confederacy. Hardcover \$35.



*Martyrdom Street*; Firoozeh Kashani-Sabet, associate professor of history; set during the Iranian Revolution of 1979 and the ensuing Iran-Iraq War of 1980-89, the novel chronicles the lives of three Iranian women. Paperback \$17.95.



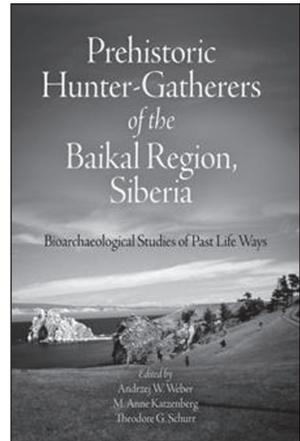
*The Philadelphia Stock Exchange and the City It Made*; Domenic Vitiello, assistant professor in the department of city and regional planning in the School of Design, with George E. Thomas, lecturer in department of urban studies, SAS. This study offers a long-term history of the public-private partnerships and private sector-led urban development popular today; Penn Press. Hardcover \$45.



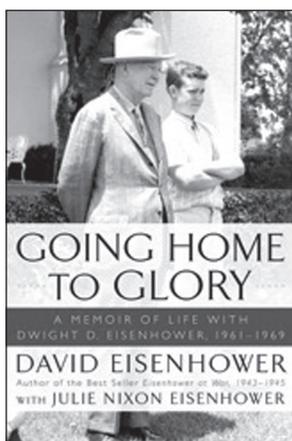
*The Shadows of Youth: The Remarkable Journey of the Civil Rights Generation*; Andrew Lewis, C'89, examines the movement's success by focusing on the young activists in the Student Nonviolent Coordinating Committee. Paperback \$17.95.



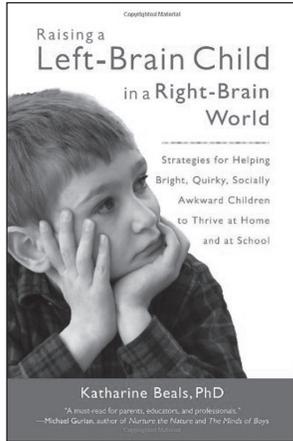
*Probat...*  
cino, C  
is part  
and pa  
follows  
ter stru  
tance, t  
love. P



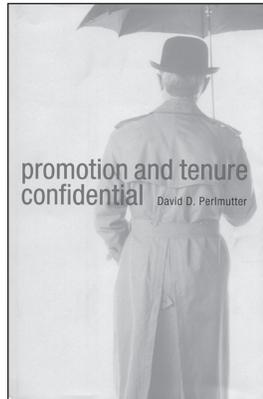
**Prehistoric Hunter-Gatherers of the Baikal Region, Siberia** *Bioarchaeological Studies of Past Life Ways*; edited by Andrzej Weber, M. Anne Katzenberg, and Theodore G. Schurr, associate professor of anthropology; this book presents the current team's research findings on questions about long-term patterns of hunter-gatherer adaptive strategies; Penn Museum. Hardcover \$59.95.



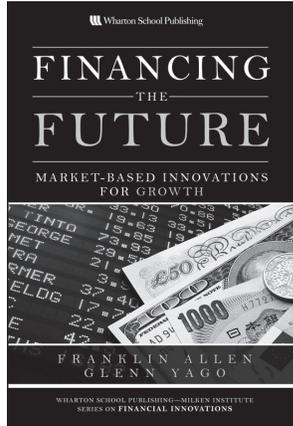
**Going Home to Glory: A Memoir of Life with Dwight D. Eisenhower, 1961-1969**; David Eisenhower, director of the Institute for Public Service at the Annenberg School for Communication. A professional view of the author's grandfather's post-presidential life. Hardcover \$28.



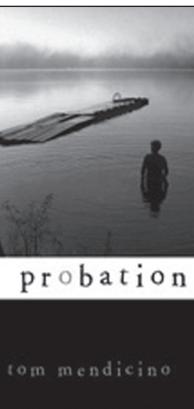
**Raising a Left-Brain Child in a Right-Brain World: Strategies for Helping Bright, Quirky, Socially Awkward Children to Thrive at Home and at School**; Katharine Beals, PhD. "A must-read for parents, educators, and professionals." —Michael Gurian, author of *Nurture the Nature* and *The Minds of Boys*. Hardcover \$28. Paperback \$16.95.



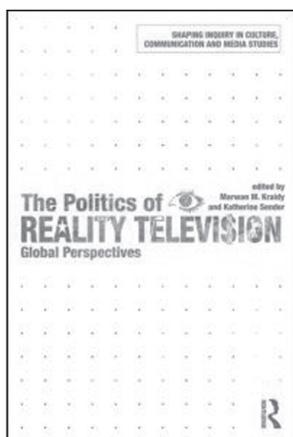
**Promotion and Tenure Confidential**; David Perlmutter, C'85, ASC'91; the book delves into every aspect of building an academic career including academic advisors, search committees, family/personal issues, and the "honeymoon" phase. Hardcover \$24.95.



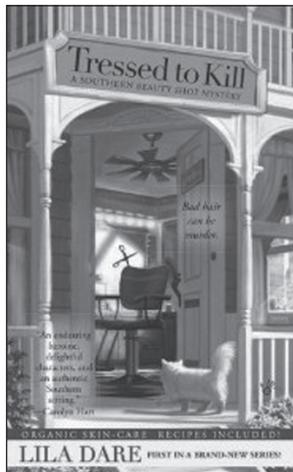
**Financing the Future: Market-Based Innovations for Growth**; Franklin Allen, Nippon Life Professor of Finance, professor of economics, Wharton, and Glenn Yago, Milken Institute; explain how sophisticated capital structures can enable companies and individuals to raise funding in larger amounts for longer terms and at lower cost; Wharton School Publishing. Hardcover \$29.99.



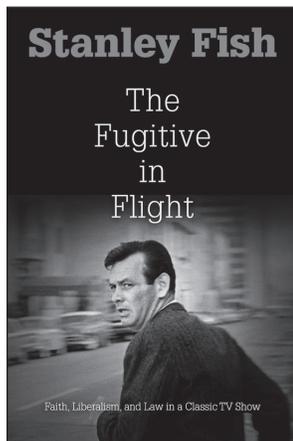
**Probation**; Tom Mendicino, C'76. A novel that tells a coming-out story as a main character struggles to find acceptance and redemption and true love. Hardcover \$15.



**The Politics of Reality Television: Global Perspectives**; Marwan Kraidi and Katherine Sender, associate professors of communication in the Annenberg School for Communication. This book is the outcome of a December 2008 symposium at the Annenberg School. Paperback \$24.99.

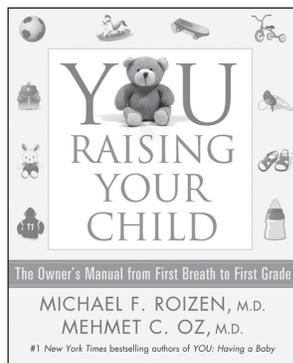


**Tressed to Kill (Southern Beauty Shop)**; Lila Dare, G'90. First in the brand-new Southern Beauty Shop mystery series, hairdresser Grace Terhune must clear her name after being accused of murder. Paperback \$7.99.



**The Fugitive in Flight: Faith, Liberalism, and Law in a Classic TV Show**; Stanley Fish, C'59. Examination of the long-running, award-winning TV show *The Fugitive*; Penn Press. Hardcover \$24.95.

**Higher Education and the American Dream: Success and its Discontents**; Marvin Lazerson, emeritus professor in GSE. The author discusses the problems and accomplishments of American universities in the twenty-first century. Hardcover \$40.



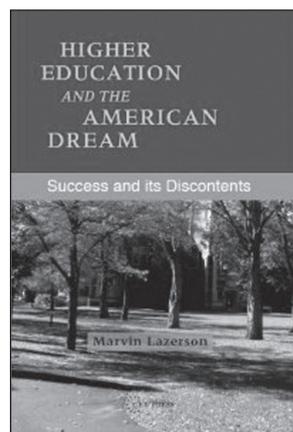
**YOU: Raising Your Child: The Owner's Manual from First Breath to First Grade**; Michael Roizen and Mehmet Oz, M.D., WG'86, M'86. Authors help parents understand the biology and psychology of raising a child from birth to school age. Hardcover \$24.99.



**The Spirit of the Law: Religious Voices and the Constitution in Modern America**; Sarah Barringer Gordon, Arlin M. Adams Professor of Constitutional Law and professor of history, tells the story from the ground up, she recovers religious practices and traditions that have generated compelling claims while transforming the law of religion. Hardcover \$29.95.



**Puppies: A Complete Guide to Raising a Happy Puppy in a Positive Environment**; Joan Capuzzi, V'98, addresses practicalities such as health care and behavior, cost and nutrition. Paperback \$19.95.



## Gifts of Involvement

An array appropriate for ardent aficionados and advocates of anthropology/archaeology, art, arboreta, and academia. . . .



**... Keepsakes:** Own a piece of The Palestra! Business Services and Penn Athletics joined together to produce several finely crafted products made from the original floor boards of The Palestra. The items include a traditional hardwood bottle opener, inset cufflinks, photo frames and pens. Products include a certificate of authenticity along with a brief history of The Palestra. Shown above is a traditional bottle opener with netting from the basketball hoops and hardwood crafted from the wooden floor of The Palestra. Visit [www.upenn.edu/palestrawoodcraft](http://www.upenn.edu/palestrawoodcraft).

**... Stage Spectacular:** The *Annenberg Center* will stage numerous shows including classical, gospel and jazz music; ballet and modern dance; and world discovery performances now through May. Get a jump on your holiday shopping with a unique gift for friends and family. Annenberg Center gift certificates are available in any amount, and are redeemable for all Annenberg Center performances. Donations are welcome to help the Annenberg Center maintain its programming. Subscribers benefit from discounts, priority seating and more. For information: (215) 898-3900 or [www.annenbergcenter.org](http://www.annenbergcenter.org).



**... Sweet Sounds:** *WXPN 88.5 FM*, Penn's member-supported radio station offers several membership choices for those who enjoy discovering emerging artists and re-discovering some old favorites. Benefits include ticket discounts, first notice of Free at Noon concerts and a behind the scenes look at what is going on at XPN. Gift certificates are also available. More membership options and benefits can be found at [www.xpn.org](http://www.xpn.org).

*World Cafe Live* provides a year-round musical venue of live performances as well as a restaurant serving lunch and dinner. Gift certificates are available for purchase. For information see [www.worldcafelive.com](http://www.worldcafelive.com).



**... Literary Lovers:** *Friends of the Kelly Writers House* help sustain seminars, readings and webcasts. Friends will be acknowledged in the *Writers House Annual*, which is available on their website and in print. Membership levels: \$40, \$100, \$250, \$500, William Carlos Williams Circle: \$1,000, and Emily Dickinson Circle: \$2,500 or more. Information: <http://writing.upenn.edu/wh/support>.



*Library Friends* can be a part of the continual replenishment of the Library resources, supporting collection development and growth for scholars of today and tomorrow. A \$1,000 gift in support of the Penn Library annual fund entitles you to membership in Penn's Red and Blue Society. \$2,500+ gifts entitle you to membership in the Benjamin Franklin Society. For information see [www.library.upenn.edu/portal/opportunities/friend.html](http://www.library.upenn.edu/portal/opportunities/friend.html).

**... What a Wonderful World:** Membership at *International House Philadelphia* supports programming that promotes cross-cultural awareness and diversity. Celebrating its 100th anniversary, the International House offers international



arts and humanities programs to its residents and the broader community. Membership benefits include reduced prices or free admission for select events, invitations to members-only events, and discounts to local restaurants. For the various membership levels, see <http://ihousephilly.org/give/membership/>.

**... Marvelous Museum:** Those who treasure the past will be delighted with a full year's membership to the *University of Pennsylvania Museum of Archaeology and Anthropology*. Members enjoy free admission to exhibits including *Secrets of the Silk Road*, the Penn Museum's first-ever separately ticketed exhibition, 10% discounts at the Museum Shops, 10% discounts at the new Restaurant Associates' Pepper Mill Cafe, invitations to openings and other members-only events, and a subscription to the members-only newsletter. Members are kept up-to-date on the latest discoveries from the Museum's worldwide fieldwork and research. In addition, members can receive discounts on select performances at the Annenberg Center for the Performing Arts. For \$35 participate in the Adopt an Artifact program which includes an adoption certificate, a color photo, and detailed information about the chosen artifact. Adoptions support the proper care for the artifacts housed in the Museum. For information, call (215) 898-5093 or visit [www.penn.museum/become-a-member.html](http://www.penn.museum/become-a-member.html).



**... Alluring Art:** Members of the *Institute of Contemporary Art* receive free admission to selected events, invitations to free members-only exhibition walkthroughs with artists and curators, pre-invite announcement cards for all exhibitions, access to ICA's library, discounts on selected Annenberg Center performing arts programs and special discounts at area restaurants and businesses. Membership levels range from \$40-\$2,500. Information: (215) 898-7108 or [www.ICAphila.org/support](http://www.ICAphila.org/support).

*Arthur Ross Gallery* offers those who contribute \$50 or more invitations to preview opening receptions and special events, and the schedule of upcoming exhibitions, in addition to free admission to exhibitions, lectures and programs. Young Friends/Students membership is \$25. Receive the same benefits as other donors. For more information call (215) 898-2803 or visit [www.upenn.edu/ARG/friend.html](http://www.upenn.edu/ARG/friend.html).

**... Botanical Beauty:** Members of the *Morris Arboretum*, Pennsylvania's official arboretum, receive free admission, 10% discount in the gift shop, 20% discount on educational classes and excursions, the quarterly newsletter, plant sale members only day, plus 1 free bonus plant, Morris Arboretum automobile decal, admission



privileges to over 200 gardens and arboreta through the American Horticulture Society, discounts for local garden centers and invitations to events and lectures. For your favorite gardener, the Arboretum Gift Shop has a full line of garden-inspired home items, toys and the latest horticulture publications for the professional and amateur. Members receive a one-time 20% discount all month long in December. The membership form is online at [www.morrisarboretum.org](http://www.morrisarboretum.org). Call the Morris Arboretum gift shop: (215) 247-5777 x136.

**... Delectable Delights:** *All You Can Eat Lunch Voucher* for purchase, \$11.25. Valid in any Bon Appétit at Penn Dining residential dining café.

A gift of a *University Club* at Penn membership is something unique and useful, continuing to give all year. Membership is open to faculty, staff, alumni, graduate students, emeritus and retired faculty and staff! Privileges include complimentary morning refreshments, special event dinners, 10% discounts at Penne Restaurant and Wine Bar and the University Living Room at the Inn at Penn, and access to 100+ Faculty Clubs in the United States and around the world. A gift certificate for special mid-year membership is only \$35 for all membership categories. Also available are gift certificates for the Harrison Room buffet lunch, only \$11.25 each. Information: (215) 898-4618 or e-mail [universityclub@pobox.upenn.edu](mailto:universityclub@pobox.upenn.edu)



**... Feeling Fit:** *The Class of 1923 Arena* offers a discount book of 10 admission passes to any public skating session for \$45 with a PennCard or \$55 for the public. Why not stuff a stocking with skating lessons? Five weeks of group lessons, beginning the week of January 10, are available for ages 6 through adult in a variety of skill levels. The deadline for registering for



lessons is one week before the first session. Cost: \$115, \$10 discount for registering and paying two weeks in advance. Information: (215) 898-1923 or [www.business-services.upenn.edu/icerink/](http://www.business-services.upenn.edu/icerink/).

*Levy Tennis Pavilion* memberships are \$15 students and spouses; \$40 faculty, staff and spouses; \$60 alumni; \$75 public; \$40 senior citizens; \$6 guest fee. Information: (215) 898-4741.

The *Department of Recreation* offers gift certificates for massage therapy and the juice bar, Energy Zone. Information: (215) 898-6100 or visit [www.upenn.edu/recreation](http://www.upenn.edu/recreation).

# Morris Arboretum's New Horticulture Center Complex: A Regional Model of Sustainability

The Morris Arboretum's new \$13 million Horticulture Center at Bloomfield Farm, across the street from the Arboretum's public garden, marks the first new building to be built on the property since the founding of the Morris Arboretum in the early 1900s.

University of Pennsylvania President Amy Gutmann spoke at the dedication ceremony as did Dorrance Hamilton, who has been a key supporter of the Horticulture Center (*see page 1*).

The completion of the new Horticulture Center Complex at Bloomfield signifies a time of great excitement and achievement for the Morris Arboretum. The complex utilizes modern sustainable energy and water management technologies, reflecting the stewardship and teaching intentions of its founders, John and Lydia Morris. Designed and built to achieve LEED Platinum standards, the highest rating of the US Green Building Council, the Horticulture Center is a demonstration of best land-use practices of our time.

The Horticulture Complex was designed and built to achieve Platinum Level LEED Certification. If attained, it will be the first Penn building to achieve that status. The new complex has the following sustainable features:

- An efficient ground-source heat pump that provides heating and air conditioning for the building, using only about one-fourth the energy of a typical boiler/air conditioning system.
- Photovoltaic panels that provide on-site generation of renewable energy, with peak electricity production during the hot summer months when the demand for electrical power is highest.
- The building is well insulated to eliminate infiltration of outside air and reduce the energy lost through the walls.
- Fresh air is maximized for ventilation inside the building.
- Solar hot water heaters provide much of the building's hot water.
- Storm water is collected in cisterns and used to flush toilets and provide water for irrigation.
- The building's lighting system is designed to take full advantage of natural daylight and minimize energy use by using skylights and roof monitors to supplement artificial lighting. Photocell sensors automatically dim the electric lights in use on bright days to reduce energy use.
- Rain gardens and other collection systems were built to mitigate storm water run off.
- The green roofs on the equipment storage garages capture and absorb rain, slowing the surge of stormwater to the site drainage system. A green roof also helps reduce the ambient summer temperature by providing a cool roof surface instead of the "heat island" associated with most asphalt or rubber roofs. The two green roofs on the garages are very visible examples of sustainability. The 4-bay garage has a four inch deep planting area with various types of sedum. The 6-bay garage green roof is eight inches deep and was planted by hand with an experimental mix of plant species including north American species and other plants that are native to this region.

The newly created Horticulture Center will provide flexible work space for the Arboretum's horticulture, education, maintenance, and facilities staff, providing important infrastructure for staff and equipment. The 20,840-square-foot facility will provide space for staff to manage their extensive responsibilities for the Morris Arboretum's 167-acre property in the most efficient and cost-effective manner possible. It contains:

- 24 office spaces
- Two conference rooms
- Kitchen
- Break room
- Men's and women's locker rooms
- Mechanic and arborists shop
- Storage for Arboretum vehicles including trucks, garden carts, lawn mowers and other large equipment

The added space enhances research opportunities, providing additional room for preserving and studying the Arboretum's plant collection. It also provides suitable storage and maintenance areas for the variety of equipment needed to care for the property. The new complex is not open to casual visitors to the Morris Arboretum, but will be open for scheduled tours and special events.

The Horticulture Center was designed by architects from Overland Partners of San Antonio, TX, Muscoe Martin of Philadelphia's M2 Architecture, and Adropogon Associates, Morris Arboretum's Philadelphia based landscape planning partner since 1977.

The overarching goals for the Arboretum's new Horticulture Center include creating a "forward looking" building of national significance that incorporates the highest standards in sustainable principles. It is a structure that is respectful of its site and surroundings, and a facility that meets programmatic needs for the Morris Arboretum. It presents a vision whose time has come.

John and Lydia Morris, wealthy Quaker siblings and plant collectors, purchased the Bloomfield Farm property in 1913, establishing a working farm with rich soils and a working

mill with water rights. The farm provided fresh food for the household, and supplied animal feed, vegetables, poultry and dairy products for the community. They had purchased the property that became the arboretum in 1887.

The Morris Arboretum of the University of Pennsylvania is located at 100 East Northwestern Avenue in the Chestnut Hill section of Philadelphia. The 92-acre horticulture display garden features a spectacular collection of mature trees in a beautiful and colorful landscape. The Arboretum features numerous picturesque spots such as a formal rose garden, Japanese gardens, swan pond, an elegant fernery and the 2010 Best of Philly Award Winning Out-on-a-Limb canopy walk that transports visitors 50 feet above the ground. The Arboretum is listed on the National Register of Historic Places and is the official arboretum of the Commonwealth of Pennsylvania. For more information, please visit [www.morrisarboretum.org](http://www.morrisarboretum.org).



*The Arboretum's Horticulture Center is a model for eco-friendly construction, combining natural elements with contemporary design. At top, the interior has 24 work spaces in an open floor plan.*

Photos by Paul Meyer

## Human Resources: Upcoming Programs

### Professional and Personal Development

Improve your skills and get ahead in your career by taking advantage of the many development opportunities provided by Human Resources. You can pre-register for programs by visiting the online course catalog at [www.hr.upenn.edu/coursecatalog](http://www.hr.upenn.edu/coursecatalog) or by contacting Learning and Education at (215) 898-3400.

*Unlocking the Secrets of the Penn Library*; December 6; noon–1:30 p.m.; free. Discover the ways the library can work for you. Learn how to access reference sources, get personalized research assistance, browse the growing collection of videos and DVDs or simply take out the latest *New York Times* bestseller. This session includes a 30-minute walking tour of Van Pelt–Dietrich Library. You're welcome to attend just the informational session.

*Franklin Covey's FOCUS*; December 9; 9 a.m.–5 p.m.; \$75. It's easy to get caught up in life's hectic pace. Every email and ringing phone becomes the priority when you don't have a clear plan for the day. Wouldn't you rather spend more time on the tasks that matter most? If so, we have the workshop for you. Franklin Covey's FOCUS will teach you how to be more focused, better organized and more productive in your personal and professional life.

*Mentors@Penn Information Session*; December 10; noon–1 p.m.; free. Mentoring provides many benefits and opportunities, whether you are a mentor or mentee. Through a mentoring relationship, you can learn and grow, increase your own job satisfaction, and focus on your professional and career goals. At this information session, you'll learn more about the program and find out how to apply.

*Career Focus Brown Bag—All About Networking*; December 14; noon–1 p.m.; free. Ever wonder what networking is and why it's important? Creating and maintaining a strong network can help you advance professionally and personally, but it's not always easy. This workshop will teach you the ABCs of networking. You'll gain a better understanding of what networking is (and isn't), how to network effectively, and how to overcome a reluctance to approach people you don't know.

*Brown Bag Matinee—Time Management: A Productivity Plan*; December 15; noon–1 p.m.; free. Time management is critical to success in the workplace, but it isn't always easy to master. This video will teach you a variety of time-management techniques that can increase productivity and create a less stressful work environment. You'll also learn how to set goals, communicate effectively, and identify and eliminate time-wasting tasks.

### Quality of Worklife Workshops

Dealing with the demands of work and your personal life can be challenging. These free workshops, sponsored by Human Resources

and led by experts from Penn's Employee Assistance Program and Quality of Worklife Department, offer information and support for your personal and professional life challenges. Pre-registration is required. You are welcome to bring a brown bag lunch to the sessions. For more information or to register, visit the online course catalog at [www.hr.upenn.edu/coursecatalog](http://www.hr.upenn.edu/coursecatalog) or contact Human Resources at (215) 573-2471 or [kenne@upenn.edu](mailto:kenne@upenn.edu).

*Tips for Working with Team Members for Better Results*; December 9; noon–1 p.m.; free. In today's fast-paced world, it often feels like there's too little time in the day to meet all your professional goals. But teamwork can be a powerful tool in fostering a positive and productive workplace. This workshop will show you how collaboration can help you meet your professional needs. You'll learn how to initiate team-building activities and identify potential problems that teambuilding can cause.

### Your Body: From Head to Toe

Taking care of your health means being well informed, well prepared and capable of making good choices when it comes to your body. This series of workshops, led by physicians and health experts from the University of Pennsylvania and the Health System, will address various health issues from head to toe and steps you can take to maintain a healthier lifestyle. Pre-registration is required for these workshops, which are sponsored by Human Resources. You are welcome to bring a brown bag lunch to the sessions. For more information and to register, visit the Human Resources online course catalog at [www.hr.upenn.edu/coursecatalog](http://www.hr.upenn.edu/coursecatalog) or contact Human Resources at (215) 898-5116 or [suzsmith@upenn.edu](mailto:suzsmith@upenn.edu).

*Diabetes Management*; December 8; noon–1 p.m.; free. Managing diabetes requires an understanding of what makes blood sugar levels rise and fall. When your blood sugar level is kept within a specific target range, you're better able to live a healthy and fulfilling life. Come to this workshop to learn more about diabetes, how to manage and treat it, and new developments around the disease. It will be led by Serena Cardillo, assistant professor of clinical medicine, Rodebaugh Diabetes Center, University of Pennsylvania School of Medicine.

*PMS and PMDD: What You Need to Know*; December 15; noon–1 p.m.; free. Common signs of Premenstrual Syndrome (PMS) are breast tenderness, irritability, and feeling bloated and tired. However, some women experience more severe emotional and behavioral symptoms known as Premenstrual Dysphoric Disorder (PMDD), which can affect their job performance, relationships or self-image. Come to this workshop to learn about the causes of these conditions and how to recognize and treat them. It will be led by Ellen Freeman, research professor and co-director of the Human Behavior and Reproduction Unit in Obstetrics and Gynecology, University of Pennsylvania.

### Special Winter Vacation Reminder

As you start planning for the upcoming holiday season, don't forget that Penn grants faculty and staff a Special Winter Vacation between Christmas Day and New Year's Day each year. This year, Christmas will be observed on December 24, and the Special Winter Vacation will be December 27, 28, 29, and 30; New Year's will be observed on December 31.

In the event that an employee is needed to report to work to continue departmental operations for part or all of this period, the Special Winter Vacation may be rescheduled for another time. The Special Winter Vacation policy is online at [www.hr.upenn.edu/policy/policies/608.aspx](http://www.hr.upenn.edu/policy/policies/608.aspx).



"Did You Know" is a monthly series that includes valuable tips to help you get the most out of the benefits and services offered by the Division of Human Resources.

### Save More on Your Healthcare

Many of us are looking for ways to spend less and save more these days. But being cost-effective shouldn't keep you from meeting your health goals. That's why Penn's medical plan providers—Aetna and Independence Blue Cross—offer a variety of discounted wellness programs to help you stay healthy without breaking the bank.

Independence Blue Cross Healthy Lifestyles<sup>SM</sup> Programs offer eligible plan members support and guidance to help you live well—at no additional cost. Healthy Lifestyles Programs include reimbursements for fitness center fees and approved weight management programs; up to \$200 back for completing a smoking cessation program; the Baby BluePrints<sup>®</sup> maternity program which provides discounts for childbirth classes and other maternity needs; and the new Blue 365<sup>®</sup> program which offers exclusive discounts on health-related products and services from leading national companies. For more information, visit [www.ibx.com/members/health\\_resources/healthy\\_lifestyles.html](http://www.ibx.com/members/health_resources/healthy_lifestyles.html).

Eligible Aetna plan members can also take advantage of discounted wellness products and programs. The Aetna Book<sup>SM</sup> Discount Program offers books and DVDs with recipes for healthy living as well as guidance on fitness and disease management. You can save on gym membership fees and home exercise equipment through the Aetna Fitness<sup>SM</sup> Discount Program, or save on weight loss program memberships that help you reach your ideal weight for less money. You can even save on natural medicine services such as yoga or acupuncture through Aetna's Natural Products and Services<sup>SM</sup> Discount Program. Visit [www.aetna.com/health-wellness](http://www.aetna.com/health-wellness) for more details.

—Division of Human Resources

### Penn VIPS Workplace Mentoring Program

Join us as we mentor students from Mastery Charter School once a month. Help a 7th grade student explore careers and gain exposure to a University setting. Program begins in the month of January. Contact Isabel Mapp at (215) 898-2020 or send an e-mail: [sammapp@pobox.upenn.edu](mailto:sammapp@pobox.upenn.edu) for additional information and/or to volunteer for this program.

—Isabel Mapp, Associate Director, Netter Center for Community Partnerships

### PennRec Faculty/Staff Only Open House at Fox Fitness Center

PennRec invites Penn faculty and staff to the Faculty/Staff Open House on Wednesday, December 8, from 7 a.m. to 7 p.m., at Fox Fitness Center, Gate 2 North Side of Franklin Field. The Robert A. Fox Fitness Center in the George Weiss Pavilion at Franklin Field is Penn's newest state-of-the-art recreational facility available to the entire Penn community including CHOP and HUP employees. Prizes, including a home model foldable treadmill valued at \$2,599, will be raffled. Fitness class demonstrations, chair massages and more will also be available throughout the day. Register online for your chance to win prizes at [www.upenn.edu/recreation](http://www.upenn.edu/recreation) or contact the Membership Office at (215) 898-6100. Memberships and incentives are currently available, so act now to take your fitness to the next level.

# Update

November AT PENN

## EXHIBIT

**Now** *Undressing Race*: Penn Race Dialogue Project's Fall Art Exhibit; Cohen Hall's Fox Art Gallery; *Through December 8*. Closing event, "Redressing Race" on December 8. For more info: contact [racedialogueproject@gmail.com](mailto:racedialogueproject@gmail.com) or visit [www.racedialogueproject.wordpress.com](http://www.racedialogueproject.wordpress.com).

*Machinato Causa*; result of an artist-in-residency project with Marisha Simons, Peter Hanley and Laureen Griffin; Esther Klein Gallery. *Through January 2, 2011* (Breadboard).

## FITNESS/LEARNING

**30** *Chair Yoga with John Wiley*; noon; Room 179, Platt Student Performing Arts House; RSVP to [ppsa@exchange.upenn.edu](mailto:ppsa@exchange.upenn.edu).

## SPECIAL EVENT

**30** *Penn Employee Graduate School of Education Open House*; noon; Terrace Room, Claudia Cohen Hall; RSVP: [www.gse.upenn.edu/node/156#A](http://www.gse.upenn.edu/node/156#A) (GSE).

## AT PENN Deadlines

The November AT PENN calendar is online, at [www.upenn.edu/almanac](http://www.upenn.edu/almanac).

The deadline for the January AT PENN calendar is *December 7*. The deadline for the weekly Update is each Monday for the following week's issue. The weekly Update normally lists events happening Wednesday through Tuesday.

Events are subject to change. Information can be found on the sponsoring department's website. Sponsors are listed in parentheses. For locations, call (215) 898-5000 or see [www.facilities.upenn.edu](http://www.facilities.upenn.edu).

## Traffic Advisory from Penn Public Safety

The Division of Public Safety has been notified that due to necessary construction work, the intersection of Walnut and 33rd Street will be reduced to one lane from 9 a.m.-3 p.m. each day. Please note that due to unforeseen circumstances, the lane closure has been extended until the end of November. Please consider seeking alternative routes during this time.

## The University of Pennsylvania Police Department Community Crime Report

**About the Crime Report:** Below are all Crimes Against Persons and Crimes Against Society from the campus report for **November 8-14 2010**. Also reported were 8 crimes against property (including 7 thefts and 1 case of fraud). Full reports are available at: [www.upenn.edu/almanac/volumes/v57/n13/creport.html](http://www.upenn.edu/almanac/volumes/v57/n13/creport.html). Prior weeks' reports are also online. —Ed.

This summary is prepared by the Division of Public Safety and includes all criminal incidents reported and made known to the University Police Department between the dates of **November 8-14, 2010**. The University Police actively patrol from Market Street to Baltimore Avenue and from the Schuylkill River to 43rd Street in conjunction with the Philadelphia Police. In this effort to provide you with a thorough and accurate report on public safety concerns, we hope that your increased awareness will lessen the opportunity for crime. For any concerns or suggestions regarding this report, please call the Division of Public Safety at (215) 898-4482.

11/09/10	6:19 PM	4000 Walnut St	Operator of vehicle observed on cell phone/Citation
11/10/10	10:31 AM	200 S 38th St	Male wanted on warrant/Arrest

### 18th District Report

3 incidents with 3 arrests (including 3 aggravated assaults) were reported between **November 8-14, 2010** by the 18th District covering the Schuylkill River to 49th Street & Market Street to Woodland Avenue.

11/09/10	10:45 PM	14 S 50th St	Aggravated Assault/Arrest
11/10/10	10:34 AM	4707 Sansom St	Aggravated Assault/Arrest
11/10/10	7:45 PM	4628 Walnut St	Aggravated Assault/Arrest

**Reminder—Special Safety Checks:** Thanksgiving Break 2010 (5 p.m. Wednesday, November 24, 2010, through 7 p.m. Sunday, November 28, 2010) is approaching quickly. In order to reduce the opportunity for crime (criminal mischief, burglaries, etc.), the Division of Public Safety is again offering to conduct Special Checks of Residential Properties during the timeframe 5 p.m. Monday, November 24 to 7 p.m. Sunday, November 28. Students, faculty and staff who live within the following geographical boundaries—Schuylkill River to 43rd Street and Baltimore Avenue to Market Street—may list their residence with the Penn Police Department for Special Checks during the period it will be vacant. To register in person pick up an application at the Penn Police Headquarters, 4040 Chestnut Street; complete and return prior to vacating the premise.

# STRONGERTOGETHER

OCTOBER 4 – NOVEMBER 19, 2010

Center for Responsible Funding • Penn Medicine • United Way



## Penn's Way

A Workplace Charitable Campaign

### Penn's Way Raffle

#### Week Six Prizes

**November 8-12, Drawing November 15:**

*Brenda Driscoll*, CPUP—Fork: Gift Certificate, dinner for two

*David Alkins*, Corporate HUP—Siemens: Two Tickets to Flyers vs. Canadiens, January 25, plus parking

*Cynthia Violet*, Student Financial Services—4 Corners Management: \$50 Dining Gift Certificate

*Sunne Frankel*, Pennsylvania Hospital—Philadelphia Museum of Art: Four Guest Passes  
*Sharon Connelly*, School of Medicine—Ann Taylor Loft: 90-minute session w/personal shopper & 20% off purchase

*Vicki Vitacco*, School of Nursing—Bon Apétit at Penn Dining: Lunch for two

*Tarla Awobaikun*, Presbyterian Medical Center—Business Services: Hilton Inn at Penn: \$50 Gift Certificate for Penne Restaurant

*Ji Kwon-Murphy*, Presbyterian Medical Center—Business Services: Penn Publication Services: Penn Photography Book

*Yisrael Richardson*, Pennsylvania Hospital—Business Services: Penn Ice Rink: 10 Admission Coupon Booklet

See [www.upenn.edu/pennsway](http://www.upenn.edu/pennsway)

## Subscribe to Express Almanac



Sign up to receive e-mail notification when we post breaking news between issues. Send an e-mail to [listserv@lists.upenn.edu](mailto:listserv@lists.upenn.edu) with "subscribe e-almanac <your full-name>" in the body of the message. —Ed.

## CLASSIFIED – UNIVERSITY

### RESEARCH

**How does your brain respond to food?**  
An NIH-funded research study is seeking right-handed women, age 21-45 years, who are at least 50 pounds overweight. Study involves three visits over an 18 month period for MRI brain scans and blood draws. Participants will be compensated for their time. For information, please contact Emily VanderMeer at University of Pennsylvania Center for Weight and Eating Disorders at (215) 746-7342 or at [vemily@mail.med.upenn.edu](mailto:vemily@mail.med.upenn.edu).

For information call (215) 898-5274 or visit [www.upenn.edu/almanac/faqs.html#ad](http://www.upenn.edu/almanac/faqs.html#ad).

Almanac is not responsible for contents of classified ad material.



### Happy Thanksgiving!

Thanksgiving, will be observed by the University of Pennsylvania on Thursday and Friday, November 25 and 26, 2010.

## Almanac

3910 Chestnut Street, 2nd floor  
Philadelphia, PA 19104-3111  
Phone: (215) 898-5274 or 5275 FAX: (215) 898-9137  
E-Mail: [almanac@upenn.edu](mailto:almanac@upenn.edu)  
URL: [www.upenn.edu/almanac](http://www.upenn.edu/almanac)

The University of Pennsylvania's journal of record, opinion and news is published Tuesdays during the academic year, and as needed during summer and holiday breaks. Its electronic editions on the Internet (accessible through the PennWeb) include HTML and Acrobat versions of the print edition, and interim information may be posted in electronic-only form. Guidelines for readers and contributors are available on request and online.

EDITOR	Marguerite F. Miller
ASSOCIATE EDITOR	Natalie S. Woulard
ASSISTANT EDITOR	Andrea Tursi
STUDENT ASSISTANTS	Kelly R. Bannan, Laura E. Crockett, Catherine A. Imms

ALMANAC ADVISORY BOARD: For the Faculty Senate, Martin Pring (chair), Sunday Akintoye, Helen Davies, Al Filreis, Carey Mazer, Devra Moehrer. For the Administration, Lori N. Doyle. For the Staff Assemblies, Nancy McCue, PPSA; Michelle Wells Lockett, WPPSA; Jon Shaw, Librarians Assembly.

The University of Pennsylvania values diversity and seeks talented students, faculty and staff from diverse backgrounds. The University of Pennsylvania does not discriminate on the basis of race, color, sex, sexual orientation, gender identity, religion, creed, national or ethnic origin, citizenship status, age, disability, veteran status or any other legally protected class status in the administration of its admissions, financial aid, educational or athletic programs, or other University-administered programs or in its employment practices. Questions or complaints regarding this policy should be directed to Sam Starks, Executive Director of the Office of Affirmative Action and Equal Opportunity Programs, Sansom Place East, 3600 Chestnut Street, Suite 228, Philadelphia, PA 19104-6106; or (215) 898-6993 (Voice) or (215) 898-7803 (TDD).



# A Summary of the Climate Action Plan 2010 Progress Report

With the launch of the Climate Action Plan in September 2009 the University of Pennsylvania, the first Ivy League signatory of the Presidents' Climate Commitment, has become a leading voice in higher education addressing environmental sustainability. Penn President Amy Gutmann, also a signatory of the Global University Leadership Forum's Sustainable Campus Charter, has consistently championed the University's environmental efforts along with Penn trustees and administrators, providing senior leadership that complements the grassroots efforts of an active and engaged campus community.

Penn has made a serious commitment to reducing its carbon footprint and enhancing overall sustainability practices among faculty, students and staff, and in the first year of activation the Plan has produced the following results:

**Academics:** Penn now offers over 150 classes directly related to sustainability and the environment, with more than 140 students enrolled in all environmental majors and minors. The new Sustainability and Environmental Management minor, open to undergraduate students, has been established and has 19 students enrolled. The Provost's 2010-11 Academic Theme Year of Water will promote lectures, conferences, discussions, tours and exhibits throughout the year, as well as a student grant program for water conservation, education and awareness projects.

**Utilities and Operations:** The carbon footprint of Penn's main campus was calculated to include each of the main forms of energy consumed on campus. In FY 2010 the University achieved an overall 0.43% reduction (-1,259 Metric Tons of Carbon Dioxide Equivalent [MTCDE]) from the FY 2007 baseline of greenhouse gas (GHG) emissions. The 0.43% reduction from the FY 2007 baseline of GHG emis-

sions is a significant achievement in light of the fact that three new structures (approximately 119,000 square feet) and one major laboratory building (approximately 156,000 square feet) were completed during this period. This overall reduction includes measured emissions from purchased energy, steam and heat, commuter and air travel and solid waste disposal.

Compared to 2007 there was a 2.6% decrease (-4,667 MTCDE) in electrical use. However, compared to the 2007 baseline, steam use increased 7.4% (+4,113 MTCDE). While the decrease in electricity more than balanced out the increase in steam in terms of emissions, the management of steam use will be a major focus in the coming year. As the presentation outlines, efforts are already underway, including: installing new meters in 118 buildings (approximately 75% of campus buildings) by 2012; re-commissioning 12 buildings by the end of 2010 (6% of campus buildings); launching the Energy Reduction Fund to provide additional financial support for targeted projects; and insulating steam distribution lines.

**Physical Environment:** Penn constructed the Horticultural Center at the Morris Arboretum to a LEED Platinum standard, as well as the Music Building, Weiss Pavilion and the Perelman Center for Advanced Medicine to a LEED Silver standard. The 14-acre Penn Park is under construction, which will increase campus green space by 20% when it opens in Fall 2011—producing an enormous positive impact on storm water management for the campus and city. In addition to establishing a LEED Certification standard for all new buildings, Facilities and Real Estate Services organized a number of staff training programs to expand knowledge of high performance design and construction standards.



**Transportation:** A more livable campus with easy access to public and alternative transit is being realized via Penn Transit's new bi-fuel transit vehicles, expansion of electric car charging stations, student/faculty/staff car-sharing programs and designing a campus accommodating bicycling and pedestrian commuters.

**Waste and Recycling:** Campus recycling increased to 27% through September 2010 from 17% in 2007, signifying an engagement in this critical issue via ongoing efforts such as RecycleMania, PennMOVES, and new composting initiatives by Bon Appétit at Penn Dining. In 2010-11, the campus will see an increase in more conveniently placed indoor and outdoor recycling bins, recycling of restroom materials, and pilots conducted for desk-side recycling options.

**Communications:** A marketing communications strategy developed the identity of the Penn Green Campus Partnership and raised awareness of the broad range of sustainability efforts and initiatives across the campus via an active website recording close to 100 hits daily, campus-wide e-newsletter, dozens of promotional events and over 340 sustainability stories generated by local, regional and national media outlets.

**Outreach and Engagement:** In building a culture of sustainability at the grassroots level, over 200 Eco-Reps now serve Penn students, faculty, and staff with best green practices; more than 600 staff received 'Sustainability 101' educational training; 18 Green Fund grants were awarded to members of the Penn community to implement innovative ideas for a greener campus; and eight Schools and Centers now have their own Sustainability Coordinators.

