

Almanac

\$10 Million from Ken Moelis and Julie Taffet Moelis for Wharton MBA

The Wharton School of the University of Pennsylvania is pleased to announce that Ken Moelis, W'80, WG'81, and Julie Taffet Moelis, W'81, have made a \$10 million gift to establish the Ken Moelis and Julie Taffet Moelis Advance Access Program, a deferred admission opportunity that will provide a pathway to a Wharton MBA for highly-qualified Penn undergraduates whose academic and career interests expand traditional notions of business education.

The program adds to the School's existing Submatriculation Program with a deferred-enrollment plan for the most competitive candidates, enabling them to apply and gain guaranteed admission as undergraduates, work for several years, and return to Wharton for their MBA. It opens access to all Penn undergraduate students who aspire to set the stage early for their advanced education and highly successful careers. Ultimately, the program will expand to allow applications from the best undergraduate institutions across the United States and around the world.

"We strive to adapt and continue to draw the best and the brightest to Wharton, preparing them to become leaders and trendsetters in today's rapidly changing environment," said Wharton Dean Geoffrey Garrett. "Ken and Julie are helping us do just that—reimagining the Wharton Submatriculation Program so that it provides a new route to the Wharton MBA for outstanding undergraduates from all academic backgrounds, one that nurtures exploration, strategic risk-taking, and discovery, and enables our students to use their business education to change the world."

In the Moelis Advance Access Program, under-



Ken Moelis and Julie Taffet Moelis

graduates may apply to the MBA Program during their senior year and, for those admitted, enter the workforce for two to four years before returning to Wharton for graduate school. During this time, students will be empowered to pursue job opportunities in a range of fields, including those that capture their greatest interest and extend beyond the conventional definitions of business. They will also engage in the program and with their future classmates through professional development, mentoring opportunities, and social events.

"In my personal experience as a submatric student, and now as CEO of a firm that recruits top MBAs from across the country, it is clear that ambitious students with unique aspirations do not

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\$3 Million Gift to Establish the Ralph L. Brinster President's Distinguished Professorship in Honor of National Medal of Science Laureate

Through the generosity of Henrietta Alexander, Penn Vet will establish the Ralph L. Brinster President's Distinguished Professorship in honor of Ralph Brinster, renowned faculty member, scientist and National Medal of Science laure-

ate. The Professorship will allow Penn Vet to recruit a faculty member who will contribute to the preeminence of the School and University.

The \$3 million gift exemplifies Henrietta Alexander's ongoing commitment to animal and human health, and further extends her family's rich history at the University of Pennsylvania, dating back to the late 19th century, when Ms. Alexander's great-grandfather, John B. Deaver, graduated from Penn's School of Medicine.

"I wanted to make a gift that would have lasting impact, and Penn Vet was an obvious choice given my long-standing relationship with Dr. Brinster through the Kleberg Foundation, and my family's long legacy at Penn Medicine," said Ms. Alexander. "It is an expression of both my ongoing confidence in Penn Vet and my admiration for Dr. Brinster. His transformational work has set global standards in research and innovation in animal and human health."

The Professorship is named for Ralph Brinster, the Richard King Mellon Professor of Reproductive Physiology at Penn Vet and a trailblazer in the development of techniques for manipulating the cellular and genetic composi-



Ralph Brinster and Henrietta Alexander

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Penn Medicine AIDS Researcher: \$16.3 Million from NIH to Accelerate HIV Vaccine Development Research

Building on earlier work in designing chimeric human-simian immunodeficiency viruses (SHIVs) that serve as a model of HIV infection in humans, George M. Shaw, a professor of hematology/oncology and microbiology in the Perelman School of Medicine at the University of Pennsylvania, has received \$16.3 million over five years from the National Institute of Allergy and Infectious Diseases (NIAID) to develop a long-sought-after HIV vaccine. The research is premised on the human body's capacity, in rare individuals, to produce broadly neutralizing antibodies against HIV in the course of natural infection, and the hypothesis that SHIV infection of monkeys could do the same.

Despite decades of research, there are still no HIV vaccines for humans that can induce the body to make the broadly neutralizing antibodies viewed as capable of conferring protective immunity against the virus. Antibodies defend cells by blocking the invasion of foreign pathogens. Similar to other vaccines, an HIV vaccine would introduce non-infectious components or a weakened form of the microbe to a person's immune cells, readying them for a possible future attack against a microbe they have already been exposed to.

A major reason for the elusiveness of an HIV vaccine—despite a number of promising candidates—is the virus's ability to rapidly mutate or otherwise conceal its outer coat proteins, known as the envelope. The envelope fuses with the host cell, allowing viral genes to enter the host cell and replicate, eventually leading to cell death. Another problem is that the envelope is coated with sugars derived from the body, which a person's immune system does not recognize as foreign and hence won't readily attack. But envelopes can elicit, albeit in the case of HIV only after several years of infection and only in a subset of people, the antibodies that could ultimately lead to their very demise. It is this capacity that serves as a foundation in the search for an HIV vaccine.

In an effort to overcome these envelope-
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Deaths

John Ethel (May) Dunn, Dining

John Ethel (May) Dunn, a retired Penn Dining employee, died on March 20. She was 72.

Ms. Dunn worked for more than 40 years at Penn Dining, most of those years in Stouffer Dining, before retiring in 2006. She joined the 25 Year Club in 1989 (*Almanac* October 31, 1989).

Ms. Dunn was recognized in a 1997 *Daily Pennsylvanian* article for her dedication to the position as a unit leader and supervisor. The article detailed the pride Ms. Dunn took in her work, in everything from carving fruits and vegetables into intricate shapes, to inspiring other employees (http://www.thedp.com/index.php/article/1997/01/stouffer_worker_turns_foods_into_culinary_art).

She is survived by her son, Tyrone; daughter, Carol; granddaughter, Tyeisha and grandson, Rafael.

Eric C. Schneider, History and Urban Studies

Eric C. Schneider, assistant dean and associate director for academic affairs and adjunct professor of history in the School of Arts & Sciences at the University of Pennsylvania, died on March 22 after a struggle with cancer. He was 66 years old.

Dr. Schneider earned a BA in history from Fordham University in 1972, an MA in American history from Boston University in 1974 and a PhD in American history from Boston University in 1980.

He joined Penn in 1987 as assistant dean of the College of Arts & Sciences. He also taught as a lecturer in the urban studies program in 1989; as adjunct assistant professor in the American civilization department from 1990-1994; and then became an adjunct assistant professor in the department of history in 1994.

In 1998 he also became associate director for academic affairs in the College of Arts & Sciences.

He previously held administrative positions with the Delaware Humanities Forum in Wilmington and the American History Workshop in Brooklyn, New York; and teaching positions at Rutgers University, University of Delaware and Boston University.

Dr. Schneider was the author of several books, and received the Kenneth Jackson Award for Best Book in North American History from the Urban History Association for *Smack: Heroin and the American City* (*Almanac* December 8, 2009).

He is survived by his wife, Janet Golden, and sons, Alex and Ben.

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 email almanac@upenn.edu

However, notices of alumni deaths should be directed to the Alumni Records Office at Room 517, Franklin Building, (215) 898-8136 or email record@ben.dev.upenn.edu

From the Office of the University Secretary

University Council Meeting Agenda

Wednesday, April 19, 2017 4 p.m.
Bodek Lounge, Houston Hall

- I. Approval of the minutes of March 22, 2017. 1 minute
- II. Follow up comments or questions on Status Reports. 10 minutes
- III. Summary reports by Council Committee Chairs. 40 minutes
- IV. Report of the University Committee on Committees. 10 minutes
- V. Discussion of possible Focus Issues for next year. 10 minutes
- VI. New Business. 5 minutes
- VII. Adjournment.

McCabe Fund Awards for FY 2018

Perelman School of Medicine

Call for Applications: May 15

The McCabe Fund Advisory Committee is calling for applications from junior faculty in the Perelman School of Medicine (PSOM) and the School of Veterinary Medicine for the annual Thomas B. and Jeannette E. Laws McCabe Fund Fellow and Pilot Awards. The McCabe awards were established in 1969 by a generous gift from Thomas B. and Jeannette E. Laws McCabe to the Perelman School of Medicine. The purpose of this gift is to support junior faculty who initiate fresh and innovative biomedical, clinical, and surgical research projects. Eligible faculty are those who have received either limited or no external research funding while in their first through third years on the faculty at the PSOM or the School of Veterinary Medicine at Penn. Junior faculty in these schools should contact their department chair for information and application forms. The guidelines and instructions to determine eligibility are also available on the PSOM website: <http://www.med.upenn.edu/evdresearch/mccabefundawardprogram.html>

The deadline for submission is *Monday, May 15*. The McCabe Fund Advisory Committee will select the winners at its annual meeting in June.

McCabe Fund Awards for 2017

Last year there were three winners of Fellow Awards of \$40,000 each:

Rumelia Chakrabarti, biomedical sciences, School of Veterinary Medicine;

Sandra Maday, neuroscience, PSOM
Panteleimon Rompolas, dermatology, PSOM

There were 20 Pilot Award winners, all from PSOM, who received \$20,428 each:

Zarina S. Ali, neurosurgery
Alexander F. Arriaga, anesthesiology & critical care

Josh R. Baxter, orthopaedic surgery
Abigail T. Berman, radiation oncology

Sandhitsu R. Das, neurology
Helge D. Hartung, pediatrics

Michael W. Hast, orthopaedic surgery
Daniel S. Herman, pathology & laboratory medicine

Victoria E. Johnson, neurosurgery
Vivek Narayan, medicine

Kavindra Nath, radiology
Desmond J. Oathes, psychiatry

Mark O'Hara, medicine
Ali Kemal Ozturk, neurosurgery

Jeffrey D. Roizen, pediatrics
Kira L. Ryskina, medicine

Haochang Shou, biostatistics & epidemiology
Raymond Soccio, medicine

Samuel Swisher-McClure, radiation oncology
Eric Williamson, neurology

Excellence through Diversity Fund: Call for Proposals: May 12

Penn is pleased to call for proposals for the Excellence through Diversity Fund. The Fund, announced in the Penn Action Plan for Faculty Diversity and Excellence (*Almanac* September 6, 2011), will provide resources for interdisciplinary projects of Penn faculty on topics relating to equity, inclusion and diversity, with the goal of strengthening the Penn curriculum in these areas and recognizing excellence in these important fields of inquiry. Funds will be awarded to the Schools competitively, on a matching basis, to provide needed term resources to launch new efforts or strengthen existing ones, beginning July 1, 2017. Proposals should include a description of efforts to obtain funding from other sources.

The Fund may support:

- Implementation of Schools' strategic plans to diversify faculty and student populations;
- Research on equity, inclusion and diversity in higher education;
- Projects that foster and support diversity on the campus;
- Faculty work on projects aimed at advancing the ideals of the Penn Compact as they relate to increased access of students and faculty.

Criteria for Review

Evaluation will be based on the following criteria:

- Relationship to the aims of the Fund as described above;
- For projects aimed at diversifying the campus environment, clarity of goals and procedures and presence of an evaluation plan;
- Potential for sustainability and/or impact over time with school, center, or extramural funding, particularly as demonstrated by matching funds;
- Likelihood of generating new insights about diversity in higher education;
- Presence of a realistic and sufficiently detailed budget;
- Potential for sustainable partnerships among schools, departments, or university programs.

Review Process

The Fund will be administered by the Office of the Vice Provost for Faculty. Proposals will be reviewed for scholarly merit and significance for diversity research, teaching and service. Priority will be given to innovative designs and to plans that involve multiple Schools.

Proposals are due by *May 12, 2017*.

Applications must include:

- A completed ETDF Budget Form, available with PennKey at: <https://upenn.box.com/s/0jrsrp2qnddyuhyztkgpeu7w09p3>
- A completed ETDF Cover Sheet (with all signatures) and Proposal Form; available with PennKey at <https://upenn.box.com/s/0sd05jxh0mzdneik59xxvzxpkp7nkq64>, including: background; work to be undertaken; ability to enhance Penn's teaching, research and engagement on issues relating to equity inclusion, and diversity; and demonstrated interdisciplinary linkages;
- Brief biographies of faculty members involved in the project. Limit to key faculty; CVs are not required;
- Evidence of additional funding from institutional or external sources;
- Outlook for the future of the project (continued activity and external funding);
- For conference support: a description of the purpose of the meeting; a proposed program agenda and list of presenters; the names of Penn faculty organizing the meeting; the number of Penn students and faculty expected to attend; an explanation of the benefit to Penn students and faculty; an explanation of the benefit to scholarly or research programs at Penn; an explanation of the relationship of the meeting to department, institute, or center programs.

Submission

Email a complete PDF, including signed ETDF Cover Sheet, Proposal Form, and Budget Form, to provost-fac@upenn.edu no later than *May 12*. The name of the PDF must be the last name of the PI. At the conclusion of a project, the PI is expected to submit a DIP Assessment form to report the use of the funding.

Moelis Gift for Wharton MBA (continued from page 1)

always benefit from the one-size-fits-all track for MBAs," said Mr. Moelis. "Julie and I are excited to unlock the potential of these students—to help them consider an expanded view of the fields that need their leadership and gain valuable, practical experience after completing their undergraduate degree and before starting their MBA."

Mr. and Mrs. Moelis' generosity will also provide financial assistance for selected students in this program. Students in the program will be considered for a \$10,000 fellowship each year during the two-year full-time MBA program in addition to other financial aid awards.

The Moelis Advance Access Program helps Penn retain exceptional students from across the University—the College of Arts and Sciences, the School of Engineering and Applied Science, the School of Nursing, the Wharton School, and coordinated dual-degree programs—to continue their graduate degree at Penn through the MBA program. In the future, adding to the Penn students in the program, it will grow to provide an amazing and elite opportunity for outstanding students from other undergraduate institutions as well.

"Increasing access to a Penn education is a pillar of the Penn Compact 2020, and I am so grateful to Ken and Julie for creating innovative ways to expand educational opportunity through their amazing commitment," said Penn President Amy Gutmann. "Ken and Julie are encouraging students to think early about their graduate

degree, venture into diverse fields after graduation, and bring these robust, interdisciplinary experiences to their Wharton MBA journey."

The results lie in the future generations of Moelis Fellows, the proud graduates who promise to shape a range of important and emerging industries—from analytics, to health care and beyond. Students who participate in the new deferred-enrollment plan as well as those who complete their BS/MBA in five years as part of the existing Submatriculation Program will share the title, support and distinction of being Moelis Fellows.

Mr. Moelis is founder, chairman and CEO of Moelis & Company, a global independent investment bank. He is a member of Wharton's Board of Overseers—a board he has served on for over a decade—and a Trustee of the University of Pennsylvania. A graduate of Wharton's existing Submatriculation Program, Mr. Moelis earned his undergraduate degree in 1980 and his MBA in 1981. Mrs. Moelis is also a Wharton graduate, earning her undergraduate degree in 1981. She and Mr. Moelis are proud Wharton parents.

For more information about the Ken Moelis and Julie Taffet Moelis Advance Access Program see <https://mba.wharton.upenn.edu/moe-lis-advance-access-program/>

An information session will be held for Penn undergrads interested in learning about this program; April 19, 5:30-7:30 p.m., rm. F85, JMH.

\$16.3 Million for Penn Medicine AIDS Researcher (continued from page 1)

based obstacles, the NIAID grant will allow the researchers, for the first time, to model the development of broadly neutralizing antibodies in SHIV-infected rhesus macaque monkeys. The investigators expect such antibodies to occur more commonly in the monkeys than they do in human HIV infection and at an accelerated pace. The basis for this speculation is preliminary data by the Penn team that showed that HIV envelopes that elicited broadly neutralizing antibodies in humans did the same in monkeys. If these findings are generalized in the newly funded work, it should be possible using molecular cloning approaches to isolate unique combinations of rhesus and human antibody precursors and HIV envelopes that bind them with high affinity. And this could serve as a basis of a new HIV vaccine development strategy.

In the proposed new work, Dr. Shaw and his team will seek to induce broadly neutralizing antibodies in rhesus monkeys via laboratory-created simian-human immunodeficiency viruses. SHIVs, which contain HIV envelopes from humans that elicited broadly neutralizing antibodies or were found to bind to precursors of these antibodies, will be used to infect monkeys. Then, the maturation or evolution of these antibody precursors will be characterized genetically along with sequences of the HIV envelope as they co-evolve throughout infection. Such a strategy, the investigators believe, will allow them to decipher the critical molecular events responsible for eliciting broadly neutralizing antibodies. This, in turn, can serve as a "molecular guide" for designing vaccine immunogens that reproduce the antibody-eliciting behavior of SHIV or HIV infections.

The new funding comes in the wake of a study from the Shaw lab published in the *Proceedings of the National Academy of Sciences* last year that may become a signal event in the HIV/AIDS vaccine effort. It addressed a major

problem with SHIVs: the only HIV envelopes that would allow SHIVs to infect rhesus monkeys were artificially adapted to bind to the rhesus CD4 molecule, the primary receptor for the virus. Unfortunately, as a side-effect, the SHIV envelopes lost their natural defenses to antibodies, effectively erasing their potential value for HIV vaccine research. To surmount this problem, the Shaw team found that changing a single amino acid in what is called the "CD4 binding pocket"—out of about 850 that comprise the viral envelope—led to a much greater ability of SHIVs to infect rhesus monkeys, while at the same time retaining the basic features of the normal HIV envelope and its interaction with the human immune system.

Building on these findings, the Shaw team will test a large panel of novel SHIVs that each carry an envelope known to bind broadly neutralizing antibodies. SHIVs will be down-selected to a manageable number based on their ability to elicit strong antibody responses, which in turn will be assessed for breadth of reactivity against hundreds of different HIV strains that circulate globally. Those SHIVs that elicit the most potent and broadly reactive antibodies will then be subjected to intensive analysis in larger numbers of animals where patterns of antibody-envelope coevolution will be assessed.

Finally, recombinant-DNA-generated protein immunogens that mimic the structure and antigenicity of envelopes from immunogenic SHIVs will be tested for their ability to elicit broadly neutralizing antibodies in rhesus macaques. If successful in the monkeys, analogous immunogens could be advanced to human trials.

Other members of the team are Hui Li and Beatrice Hahn from Penn; Barton Haynes and Garnett Kelsoe from Duke University; Steve Harrison from Harvard University; and Bette Korber from the Los Alamos National Laboratories.

Establishing Brinster Professorship

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tion of early mouse embryos. These techniques have made the mouse the major genetic model for understanding the basis of animal biology and disease. He began his work by showing how mouse embryos could be cultured in a Petri dish and then showing how non-embryo cells could be added to such cultured embryos to make animals of mixed cell origin, or chimeras, which first demonstrated a method to modify the germline. He is often referred to as the founder of the field of mammalian transgenesis, with its applications to human disease models and biotechnology. In recent years, he has developed new models of germline manipulation using sperm progenitor cell transplants. His findings have served as the foundation for genetic engineering, embryonic stem cell research, in vitro fertilization, knockout technology and cloning. His range of contributions is unmatched in the field.

For his groundbreaking work, Dr. Brinster was awarded the National Medal of Science in 2010, making him the first and only veterinarian to receive the prestigious award, and one of only eight scientists at the University of Pennsylvania to receive this distinction in the last 50 years.

"We are incredibly grateful to Henrietta Alexander for her commitment to innovative research in the veterinary field and for this generous gift, which honors Ralph's pioneering work while allowing us to recruit a faculty member who will continue this legacy of excellence," said Joan C. Hendricks, the Gilbert S. Kahn Dean of Veterinary Medicine. "Ralph is extraordinarily humble, but was persuaded to accept this gift in his name because it will continue to support scholarship of the caliber and in the field that he established. Since Ralph also established the VMD-PhD program that gave me my start, I am personally gratified to see a permanent professorship in his name established at the school we both love."

Ms. Alexander, who grew up on a farm near Penn Vet's New Bolton Center and joined the Penn Vet Board of Overseers in 1986, learned of Dr. Brinster's work while serving as director of the Robert J. Kleberg, Jr. and Helen C. Kleberg Foundation. The Foundation has supported Dr. Brinster's research program for nearly 25 years, stemming from the family's interest in breeding quality livestock. Ms. Alexander's grandfather, Bob Kleberg, created the Santa Gertrudis breed of cattle, and bred numerous champion quarter horses and thoroughbred racehorses as well as bird dogs. In addition, he was a pioneer for wildlife conservation and provided the impetus and funds for agricultural and scientific research in various fields worldwide.

"Henrietta has been a valued friend and a strong advocate for our research and for science for many years and shows extraordinary insight into scientific goals and their fundamental importance to animal health and human advancement," said Dr. Brinster. "I am enormously honored and extremely grateful to have our research recognized in this distinctive manner, particularly by such a close and knowledgeable friend. I received my medical and research training at Penn Vet, which provided a strong and unique foundation for our contributions. I am grateful for the support and interactions that have come from many students, colleagues, and collaborators within the School, University and scientific community that facilitated our research. It is their talent and hard work that made our accomplishments possible."

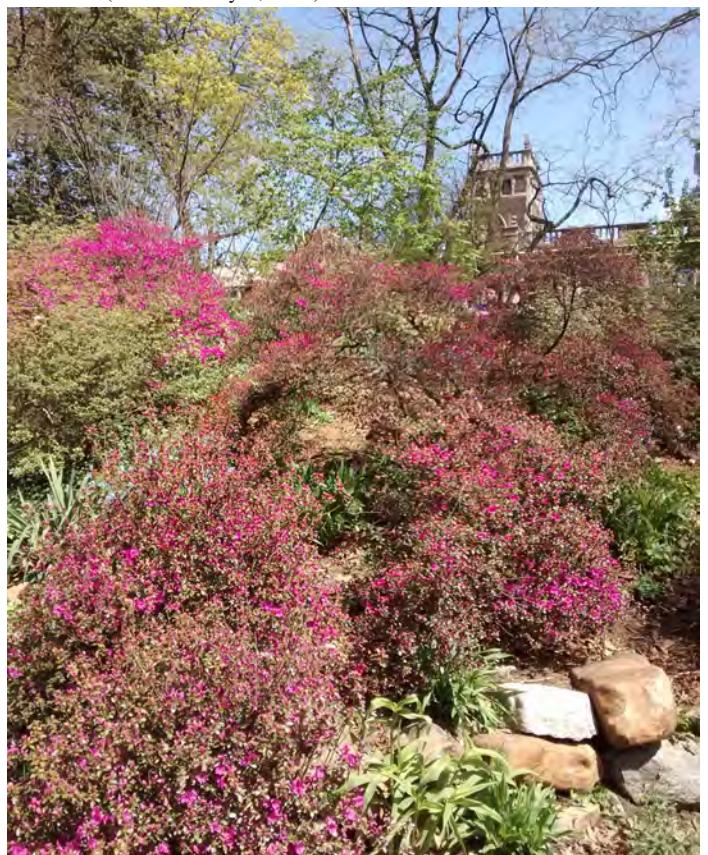
Penn's Urban Campus: Now An Arboretum

The University of Pennsylvania's urban campus is now officially recognized as an arboretum, with level 1 accreditation. Since moving into West Philadelphia in 1872, Penn has incorporated a number of parks, gardens and other outdoor oases into the bustling campus which now consists of nearly 300 acres. There are more than 6,500 trees and over 240 species of trees and shrubs. From the Botanical Gardens (Bio Pond), which opened in the late 19th century, to the 24-acre Penn Park, which opened in 2013 (Almanac September 20, 2011), Penn has numerous outdoor open spaces that are part of the landscape including 10 specialty gardens and five urban parks. During this year's Architecture Week, Almanac's focus is on Penn's landscape architecture. In addition to the large, well-known areas like College Green, Penn Park, the Penn Museum's gardens and Shoemaker Green as well as the Morris Arboretum, the University also has several green roofs, various gardens and some smaller parks.



Singh Center for Nanotechnology (above)— Among the many features of the Center (Almanac February 22, 2011) are two green roofs that offer a dramatic overlook of Walnut Street. They are equipped with several plants and shrubs as well as benches and tables.

James G. Kaskey Memorial Park (below)— Penn's oldest green space remains a peaceful, secluded campus landmark which opened as a research garden in 1897. In 2000, Richard, W'43, and Jeanne Kaskey donated funds to renovate the Bio Pond, which was dredged, relined and its edges redefined. A waterfall and weeping water walls were added to provide drinking spots for birds. The Kaskeys subsequently endowed the Memorial Park, to continue its care (Almanac May 1, 2012).



English House Green Roof (above)— On top of English House sits the first retrofitted green roof on campus, completed in spring 2008 (Almanac September 30, 2008). The roof features a unique multi-tiered design that supports plant life and improves drainage.

Golkin Hall Rooftop Gardens (below)— Penn's historic law school complex was expanded in 2012 with Golkin Hall, which features several rooftop gardens. The green roof installations not only provide attractive areas for student and faculty collaboration but also reduce the amount of storm water entering the city's combined sewer/waste water system, and counteract the heat-island effect caused by conventional dark roofs.



Fagin Hall Atrium Garden (above)— The second green roof on campus opened in 2009 (Almanac October 13, 2009), the gift of alumna Mary Anne Spolar Gamba and the Gamba Family Foundation. This rooftop garden on the fourth floor features a fountain assembled from 5,000 stones as well as a wide variety of flora.



James G. Kaskey Memorial Park (below)— Penn's oldest green space remains a peaceful, secluded campus landmark which opened as a research garden in 1897. In 2000, Richard, W'43, and Jeanne Kaskey donated funds to renovate the Bio Pond, which was dredged, relined and its edges redefined. A waterfall and weeping water walls were added to provide drinking spots for birds. The Kaskeys subsequently endowed the Memorial Park, to continue its care (Almanac May 1, 2012).



Fonseca Garden (above)— This lawn area next to Penn Dental's Robert Schattner Center was funded by a gift from Robert and Kay Schattner in honor of the School's former dean. The garden features a variety of plant life, but also plenty of open space, making it an ideal location for events (Almanac November 23, 2004).



Kane Park (above)— Located at the busy intersection of 33rd, 34th, Spruce, and South Streets, this garden, a former parking lot, opened in 2013, supported by a \$1 million gift from its namesake Edward W. Kane (Almanac July 16, 2013). It serves as a welcome green space amidst the Penn Museum, Franklin Field and Penn's Health System.

Fels Garden (at right)— At 39th and Walnut Streets, the Fels Center for Government occupies a Colonial Revival home built for Samuel Fels in the early 20th century. The adjoining terrace and garden have been used for outdoor classrooms, receptions and Alumni events for years. The recent garden restoration project in 2010, of the stone terrace, brick walls, seating and fencing was designed by Robert Lundgren, University Landscape Architect. The project also included native perennial plantings, with American Beech, Holly and Cherry trees.

Geology Garden (below)— Created by the Class of '57, this garden, with John Harrison, Penn chemist, standing amidst the garden extends along the diagonal walkway from Smith Walk to 33d Street. It contains 10 boulders which represent Philadelphia from 1 billion to 25,000 years ago.



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Class of 1942 Garden at Kelly Writers House (above)— In 2002, members of Penn's class of 1942 pledged to renovate the garden in front of Kelly Writers House during their 60th reunion. The garden, which opened a year later (Almanac September 23, 2003), provides a peaceful green space along the busy Locust Walk.



Shakespeare Garden (below)— In front of the Duhring Wing of the Fisher Fine Arts Building is a tranquil spot designed by Beatrice Fenton in 1938. It has been renovated several times over the years, most notably in 1977 (Almanac April 19, 1977).



2,770 Years Old and Counting: Penn Museum's Celebration of Rome's Birthday Saturday, April 22

Felix natalis dies! Roughly translated, that is “happy birthday” in Latin—a great phrase to use at the royal celebration of *Rome's Birthday: Saturday, April 22*, 11 a.m. to 4 p.m., at the Penn Museum. Guests will be treated to thrilling gladiator fights and interactive tactical demonstrations of Roman militia, tours in the *Worlds Intertwined: Etruscans, Greeks and Romans* suite of galleries, Roman paper mosaic-making craft tables, talks and minute “pop-up” presentations on ancient Roman history and life in the galleries—and a chance to discover authentic Italian gelato, the perfect birthday treat!

Ciao Philadelphia, a region-wide celebration of Italian culture organized by the Italian Consulate in Philadelphia, and Capogiro Gelato Artisans, a locally based, internationally acclaimed company, are partners for the celebration.

It's all free with Museum admission donation (\$15 general admission; \$12 for seniors [65+]; \$10 for full-time students [with ID] and children [6-17]; free for Museum members, children under 6, active US military and PennCard holders). Attendees are encouraged to get in the spirit of the day; those daring enough to wear a toga, legionnaire, or gladiator attire receive half-off the price of admission!

A Great City is Born: As legend has it, Rome was founded April 21, 753 BCE on the banks of the Tiber River by Romulus and Remus, twin brothers abandoned after birth and raised by a she-wolf. When a fierce argument erupted between them, Romulus killed Remus and gave his own name to the tiny settlement that would grow into a great empire.

Gladiatorial Bouts: Gladiators from *Ludus Magnus Gladiatores* (The Great School of the Gladiators) vie to “win the crowd” with battles at 11:30 a.m. and again at 3 p.m. Sword-wielding fights take place in the Museum's outdoor courtyard (indoors in event of rain) with reenactors hailing from Philadelphia, New York, New Jersey and as far as Maine. Visitors can see a roster of gladiators, dressed in a range of armor with weapons that match their fighting styles. In between risking life and limb, *Ludus Magnus Gladiatores* demonstrates fighting techniques and tells the history of pitting and pairing gladiators in combat.

Roman legion soldier reenactors are a powerful presence at the event as well, serving as arena guards and fight presenters. Guests of all ages can learn more about Rome's powerful militia, discovering what it would take to enlist, and trying on some reproduction helmets and other gear, at an ongoing presentation offered by Penn Museum docent Joe Balmos.

New Discoveries about the Ancient Roman Empire: Guests interested in learning more about contemporary research on the ancient past can attend a short lecture. At 2 p.m., Penn Museum's Brian Rose, curator-in-charge of the Mediterranean section and past president of the Archaeological Institute of America, takes armchair archaeologists on a whirlwind tour with *New Discoveries in Ancient Rome*, a lecture co-sponsored by the America-Italy Society of Philadelphia.

Graduate students in the University of Pennsylvania's art and archaeology in the Mediterranean world and classics departments get in the act with 60-second “pop-up” presentations about Rome—guests can look for them to “pop up” in the *Worlds Intertwined: Etruscans, Greeks, and Romans* galleries throughout the day.



Visitors of all ages can learn about life in ancient Rome, from the household to the battlefield, from modern Legionnaires in the Legio XX Valeria Victrix, a historical reenactment group from Laurel, Maryland.

The Conestoga High School Latin Club, part of the Pennsylvania Junior Classical League, joins in the day, offering a wide-ranging, ongoing drop-in presentation. Guests can learn about names in ancient Rome, ancient Roman architecture, Latin—a language the group says is alive and well—and ancient graffiti. The purpose of the Junior Classical League “is to encourage an interest and an appreciation of the language, literature and culture of ancient Greece and Rome.”

At 11 a.m. and again at 1 p.m., the artistry of Roman mosaics will be explored at a hands-on workshop for all ages. Guests work in groups to help create one giant mosaic comprised of over 4,000 tesserae! In addition, everyone can make a smaller paper mosaic at a day-long mosaic craft station.

A Sweet Celebration: At 12:30 p.m., guests are invited to meet Stephanie Reitano, co-founder and chef of Capogiro Gelato Artisans, a locally owned company that operates out of a dairy and has five retail locations. She has developed proprietary and protected recipes that allow for over 350 gelato and sorbet flavors to be produced on-site at each retail location. Her gelato has received widespread media acclaim, including in the *National Geographic Traveler*, which called it “The creamiest gelato you'll taste this side of Capri.”

Ms. Reitano offers a short talk about authentic Italian gelato, before providing samples of classic Italian flavors that, she explains, “must be in any respected gelateria in Rome”: pistachio, bacio, amarena and zabaglione. Following her talk, samples will be available while supplies last!

For Italian food enthusiasts, the Museum's Pepper Mill Café joins in the celebration with Italian-inspired luncheon options for purchase.

Exploring the Ancient Mediterranean World: Penn Museum's suite of galleries, *Worlds Intertwined: Etruscans, Greeks, and Romans*, features more than 1,400 ancient artifacts, including marble and bronze sculptures, jewelry, metalwork, mosaics, glass vessels, gold and silver coins and pottery of exceptional artistic and historical renown, all drawn from the Museum's Mediterranean collections, dating from 3000 BCE to the 5th century CE. A large-scale interactive map of the region helps visitors visualize how these ancient civilizations overlapped and co-existed thousands of years ago.

Rome's Birthday is the final program in the Penn Museum's World Culture Days 2016-2017 fall-through-spring lineup. The series is designed to introduce visitors of all ages to the rich cultural traditions found throughout the Museum's galleries and, indeed, throughout the world.

About Ciao Philadelphia: Greater Philadelphia boasts one of the largest and most accomplished Italian-American communities in the United States. The birthplace of the United States of America, Philadelphia is a city deeply connected to Italian values and the Italian way of life, exemplified by the rich universities, museums, art centers and neighborhoods and contributions of Italian heritage. *Ciao Philadelphia* began with a month of celebration in 2014, organized by the Italian Consul in Philadelphia via a partnership with area civic, academic, cultural and business leaders. 2017 marks the fourth edition of *Ciao Philadelphia*, growing from a month-long celebration to a yearly celebration, with a continued special focus in October.

Schedule for the Celebration of *Rome's Birthday*: 11 a.m.-4 p.m.

All Day Activities—

Legionnaires Station: Get Ready to Enlist!

Family Craft Station: Make a Roman Paper Mosaic

Latin Club Presents: Presentation on Language, Architecture & Graffiti

Timed Activities—

11 a.m. and 1 p.m. Help Assemble a Mosaic

11:30 a.m. and 3 p.m. *Ludus Magnus Gladiatores* Reenacting Group

12:30 p.m. Gelato Presentation by Capogiro Gelato Artisans

1:30 p.m. *Rome* Gallery Tour

2 p.m. Brian Rose's talk, *New Discoveries in Ancient Rome*

Penn Museum can be found on the web at www.penn.museum

For general information call (215) 898-4000.



Gelato



A carved marble statue from the 2nd century BCE, which likely depicts the goddess Diana, at the Penn Museum.

Your Total Rewards in Focus

Penn supports you in being your best at work and at home through an array of benefits, services, and programs. In addition to your base pay, this package includes retirement and tuition benefits, healthcare and other insurance coverage, and other compensation. Together, this makes up your total compensation and reflects Penn's total investment in you.

How does this investment add up for you? Look for your personalized Total Compensation Summary for the 2016 calendar year arriving at your home soon. You will also be able to download a version from the secure Total Compensation Summary website at <https://www.hr.upenn.edu/myhr/payandperform/totalcomp>

The Total Compensation Summary is also a tool to identify other programs and benefits that can help you as your goals change over time. Penn encourages you to make the most of the available retirement savings plans, award-winning work-life programs, wellness services, and professional development opportunities. Don't miss the list of cultural activities and special discounts available to members of the Penn community.

Visit the U@Penn Portal at www.upenn.edu/u@penn to access your 2016 Total Compensation Summary.

—Division of Human Resources

SP2 Penn Top 10 Talks: A Series on Social Impact

On Thursday, April 20 from 12:30 to 2 p.m., the School of Social Policy & Practice (SP2) and the University Club at Penn will convene a panel of researchers and practitioners to examine mass incarceration and what's at stake, as well as broad solutions and policy implementation. Panelists include Judge Benjamin Lerner, deputy managing director for Criminal Justice; Ram Cnaan, faculty director of the Goldring Reentry Initiative; and Nancy Franke, director of the Goldring Reentry Initiative. The event—*SP2 Penn Top 10 Talk: A Speaker Series on Social Impact*—will take place at the University Club at Penn. It will be moderated by SP2 associate professor TJ Ghose, founder and CEO of The Center for Carceral Communities, and will also feature a Q&A session.

Admission for the event is currently limited to University Club members, but the discussion will be live-streamed and accessible to the public. To register to attend live or to watch online and submit questions, visit <https://tinyurl.com/k9o5uqt>

Penn's Creating Canopy Tree Giveaway Program: Register Now

In alignment with the goals of Penn's Climate Action Plan, the University promotes the importance of trees and the creation of public open spaces. To encourage the continual 'greening' of our communities in the Greater Philadelphia area, Penn Sustainability and Division of Facilities and Real Estate Services are again this spring partnering with Philadelphia Parks and Recreation for the Creating Canopy tree giveaway.

Quick Facts:

- All University of Pennsylvania and Health System Employees are eligible for one free tree.
- You will need your PennCard to pick up your tree.
- You can live in the City of Philadelphia or in the suburbs of Pennsylvania, Delaware and New Jersey.
- You must register in advance online and select a tree species.
- Registration is through the online system only, at: <http://bit.ly/creatingcanopy>
- Registration is open through April 20 or whenever the tree inventory is fully reserved.
- Tree species are available on a first-come, first-served basis. They often "run out" of a specific tree.
- There is one pick up day, Thursday, May 4, between 2 and 6 p.m. at Penn Park, 31st and Walnut.
- You are responsible for getting your new tree home.

More information on the Creating Canopy program is available at:

<https://www.sustainability.upenn.edu/get-involved/creating-canopy>

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 **March 27-April 2, 2017**. Also reported were 10 Crimes Against Property (5 Thefts, 2 burglaries, 2 frauds, and 1 disorderly conduct). Full reports are available at: www.upenn.edu/almanac/volumes/v63/n30/creport.html Prior weeks' reports are also online.—Eds.

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 **March 27-April 2, 2017**. 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.

03/31/17	4:45 AM	4000 Spruce St	Male grabbed female
03/31/17	2:44 PM	3400 Spruce St	Confidential sex offense
04/01/17	11:34 PM	51 N 39th St	Offender hit complainant in the eye
04/02/17	4:05 AM	2929 Walnut St	Complainant cut on knee by offender

18th District Report

Below are the Crimes Against Persons from the 18th District: 8 incidents with 0 arrests (6 assaults, 1 aggravated assault, 1 rape) were reported between **March 27-April 2, 2017** by the 18th District covering the Schuylkill River to 49th Street & Market Street to Woodland Avenue.

03/27/17	2:29 PM	4231 Osage Ave	Assault
03/27/17	5:01 PM	4828 Cedar Ave	Assault
03/29/17	4:23 PM	236 S 48th St	Assault
03/29/17	4:48 PM	40th and Ludlow Sts	Assault
03/29/17	6:22 PM	515 Osler Cir	Assault
03/30/17	1:36 PM	48th and Market Sts	Assault
03/30/17	2:44 PM	3400 Spruce St	Rape
04/02/17	4:05 AM	2929 Walnut St	Aggravated Assault

Update

April AT PENN

CHILDREN'S ACTIVITIES

15 Peanut Butter & Jams: A Very Special Easter Celebration with the Rainbow Rock Band; doors: 10:30 a.m., show: 11 a.m.; upstairs, World Café Live; tickets: \$10.05, info: www.worldcafelive.com (WCL).

MEETING

19 WXPN Board Policy Meeting; open to the public; noon; WXPN, 3025 Walnut St; info: (215) 898-0628.

TALKS

12 Art Reset: Discussion on the Willie Cole Exhibit; Rebecca Tennenbaum, fine arts; 2 p.m.; ARG (ARG).

The Origins and Dynamics of Crony Capitalism in China: Insights from 260 Cases of Collusive Corruption; Minxin Pei, Claremont McKenna College; 4:30-6 p.m.; B26, Stiteler Hall (CSCC).

A Banker's Perspective On M&A; Greg Weingerber, Credit Suisse Securities LLC; 4:30 p.m.; rm. S245A, Penn Law School; info: njannett@law.upenn.edu (Penn Law).

13 Department of Biology Lecture; Andy Clark, Cornell; 4 p.m.; Tedori Family Auditorium, Levin Building (Biology).

Colloquium: Assessing and Understanding Aristophanic Politics; Ralph Rosen, classical studies; 4:30-6 p.m.; 402, Claudia Cohen Hall (Classical Studies).

18 Do Facts Still Matter? Media, Politics, and Education in a Post-Truth Era; Howard Fineman, John L. Jackson, Charles Sykes, Penn; 5 p.m.; rm. 109, Annenberg School; RSV: <http://asc.upenn.edu/truth> (Faculty Senate).

AT PENN Deadlines

The April AT PENN calendar is now online at www.upenn.edu/almanac The deadline for the May AT PENN is today, April 11.

Almanac

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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 Penn website) include HTML, Acrobat and mobile 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.

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Impact of Social Media on American Political Discourse

A study of Twitter debates about Common Core educational standards has broad implications for American politics and methods of debate.

Researchers from the Consortium for Policy Research in Education at the University of Pennsylvania's Graduate School of Education (GSE) analyzed about one million tweets over a 32-month period and documented the tools and strategies used to leverage online relationships and spread messages. They found that the increased use of Twitter in combination with the decreased influence of "professional" media has led to an increase in both broad reporting and in the spread of unsubstantiated, exaggerated or fake news stories. In addition, people have become more segregated by beliefs and their opinions have become more polarized. Jonathan Supovitz is a professor of education policy and leadership at GSE and co-director of the Consortium for Policy Research in Education (CPRE). Dr. Supovitz led the team that also included Alan J. Daly (University of California, San Diego), Christian Kolouch (GSE) and Miguel del Fresno (Universidad Nacional de Educación a Distancia in Madrid, Spain).

They uncovered patterns including:

- The Common Core debate on Twitter reveals how social media is transforming political discourse in America.
- The combination of social and technological advocacy strategies have ratcheted up the power of external political pressure groups.
- The consumers of political content are becoming increasingly segmented, reducing vital opportunities for engagement with ideas.
- Fake News is not news. It is a longstanding problem, and the education sector is not immune.
- Differences in the ways we process information may lead to misunderstanding rather than genuine disagreement.
- Twitter is a uniquely powerful tool for disseminating information, but its structure lends itself to manipulation.
- Paradoxically, even as we have more information available to us, we are less informed.

Instead of a traditional academic study, the #commoncore project is an interactive website that allows users to experience how the Twitter conversation evolved, see www.hashtagcommoncore.com

Songbirds Adapt Self-Teaching Styles When Learning to Sing

A new study at University of Pennsylvania took a different look at the way songbirds learn to sing. The study, "Rules and mechanisms for efficient two-stage learning in neural circuits," in the journal *eLife*, focused on the way one part of a zebra finch's brain teaches another part of the brain and adapts its teaching style to the way the brain learns.

The song learning process for zebra finches is similar to that of a musician learning to play a piece on an instrument: the bird hears the song, remembers it, sings it back and continues to adjust its performance of the song until it sounds right. While singing, the bird learns to control its vocal organ, the syrinx, and its respiratory muscles.

"They start out babbling, and then eventually this congeals into trills and phrases and sounds like a song," said Vijay Balasubramanian, a physics professor in Penn's School of Arts & Sciences and a lead researcher of the study.

The researchers labeled the two parts of the brain the "tutor" and the "student." They found that the tutor part of the brain tells the student part of the brain whether the song it produced was good or bad and instructs it on how to improve. Based on the synaptic plasticity rules—the learning rules used by neurons—different types of teaching can be more or less effective.

"Depending on how the neuron changes its strength of connections," Dr. Balasubramanian said, "the teaching signal coming from another place should be adapted to the area of the brain that's trying to learn, in such a manner as to help it learn well. In this paper, we worked out good teaching rules, or how the teacher should adapt to the student to teach it well, and used them to try to make some predictions about how learning would work in the song-learning system of the bird."

The researchers used data compiled by Bence Ölveczky, a professor of organismic and evolutionary biology at Harvard University, from recordings of neurons in different areas of the birds' brains to create a mathematical framework. They hope their findings can be applied to mammalian brains and cortical networks, which allow learning of motor function.

"Over eons, structures in the brain have adapted to each other to produce function," Dr. Balasubramanian said. "I suspect it's just the case that brain areas are adapted to send messages to each other in ways that make themselves work well. I think it's a new handle or lever for investigation to think about that: How a tutor area of the brain should structure its signals so that a student area can profit from the signal as best as possible given its constraints and its learning rule."

New Imaging Test Targets Enzymes for Ovarian Cancer Treatment

Researchers from the Perelman School of Medicine at the University of Pennsylvania have discovered a way to better identify candidates for an emerging ovarian cancer treatment. A new imaging test helps the researchers determine patient enzyme levels, a key factor in candidacy for the treatment.

The treatment blocks the enzyme Poly (ADP-ribose) Polymerase 1 (PARP-1), which helps damaged cancer cells repair their DNA and survive. Currently, epithelial ovarian cancer patients with BRCA1 mutations are considered candidates for PARP inhibitor treatment; thanks to the imaging, patients without the BRCA mutation also can be considered.

"Research exists that shows PARP inhibitors can be effective in the treatment of BRCA1 mutated cancer, but there are no good existing methods to explore how mutations within BRCA genes effect PARP-1 expression," said the study's lead author Mehran Makvandi, instructor of radiology. "We wanted to validate our radiotracer technology as a quantitative biomarker for PARP-1 with the goal of selecting patients who could benefit from PARP inhibitor therapy."

The researchers used genetic editing to compare the effects on cancer cells of losing PARP-1 against the effects of gaining BRCA1.

"For a lot of the PARP inhibitors, losing PARP-1 led to as much or even more resistance to the treatment as the restoration of BRCA1 function," said Dr. Makvandi. "Furthermore, sensitivity to PARP inhibitors was reflected in the measures of PARP-1 expression provided by our new radiotracer method."

The researchers then used clinical PET scans to measure PARP-1 in a series of patients with epithelial ovarian cancer, becoming the first team to do so. They used FluorThanatrace (FTT), a PET imaging agent developed by the study's co-author Robert Mach, the Britton Chance Professor of Radiology at Penn. FTT allows for non-invasive clinical assessment of PARP-1.

In addition, "We can quantify PARP-1 at baseline, and then use serial imaging studies to directly measure the effects of PARP inhibitors," Dr. Makvandi said.

Prediction Polls More Accurate Than Prediction Markets

Economists tend to favor prediction markets—in which people bet against each other to predict an outcome—over prediction polls—in which guessers essentially bet against themselves. But a new study from the University of Pennsylvania found prediction polls actually tend to fare better.

"According to the theory, prediction markets should 'always win' because markets are the most efficient mechanisms for aggregating the wisdom of a crowd. That process should converge on a true prediction," said Philip Tetlock, a Penn Integrates Knowledge professor. "But our findings published in *Management Science* suggest that you can actually get just as much out of a forecasting tournament using prediction surveys."

The study found that team polls, in which groups of up to 15 people collaborated to make forecasts, produced the most accurate predictions when combined with a statistical algorithm.

"We used each person's prior track record and behavioral patterns to come up with a weighting scheme that amplified those who were more skilled and lowered the voices of the less skilled," said Pavel Atanasov, a former Penn doctoral student and the study's lead author, who currently works on decision science and prediction at a startup called Pytho. "Accounting for skill improved the overall results."

Funding for the work came from the Department of Interior's Intelligence Advanced Research Projects Activity, Carnegie Corporation and Open Philanthropy Network.

Emotion Regulation Could Help Prevent HIV/STI in Black Adolescents with Mental Illness

A new University of Pennsylvania School of Nursing (Penn Nursing) study suggests that regulation of the link between emotion and behavior could help reduce HIV/STI risk among heterosexually active black youth with mental illnesses. The study, "Feelings Matter: Depression Severity and Emotion Regulation in HIV/STI Risk-Related Sexual Behaviors," was published in the *Journal of Child and Family Studies*.

Researchers examined the contextual factors related to HIV/STI risk among the demographic, focusing on depression and emotional regulation and the influence of those factors on decision making.

"Blacks, adolescents, and people with mental illnesses are all disproportionately affected by HIV/STIs," said the study's lead author Bridgette M. Brawner, assistant professor of nursing in the department of family and community health. "We know that the unique psychopathology of mental illness, including impulsivity and engaging in unprotected sex to alleviate depressed mood, may heighten one's HIV/STI risk. Our study indicates we need to better understand unique HIV/STI prevention needs among black adolescents with mental illnesses and that improving coping mechanisms to help regulate emotion should be addressed in HIV/STI prevention research."