Penn Medicine: 25 Years of Integration, Innovation and Ideals

After 25 years, the combined mission of patient care, medical education and research that defines Penn Medicine is a proven principle. As Penn Medicine’s model has evolved over this quarter century, it has continually demonstrated itself to be visionary, collaborative, resilient and pioneering, all while maintaining Frank-lin’s core, altruistic values of serving the greater good and advancing knowledge.

Penn Medicine’s reach and impact would impress the lifelong teacher and inventor as well. One of the first integrated academic health systems in the nation, the University of Pennsylvania Health System (UPHS) grew from a medical school with one owned teaching hospital and a network of physician practices in the early years to a sprawling $8 billion enterprise with six acute-care hospitals and hundreds of outpatient practices that serves a diverse group of patients across the continuum of care and across the region, from Center City Philadelphia to central New Jersey to the western reaches of Lancaster County, Pennsylvania. Alongside its clinical care, Penn Medicine—as it is known today, encompassing both UPHS and the Perelman School of Medicine—boasts one of the nation’s top-regarded education and training programs for 21st century physicians within mere steps of a small city of cutting-edge research facilities producing translational discoveries that have elevated the institution into the higher levels of advanced medicine.

“We serve the region with the most advanced medical procedures as well as conven-tionally and geographically distributed primary care,” said Ralph W. Muller, chief executive officer of UPHS. “Our innovations in patient care are models for the nation, as we both anticipate and shape what patients need.”

In the early 1990s, under then-CEO and Dean William N. Kelley, transforming Penn’s traditional academic center—a teaching hospital, medical school and research facilities—into an integrated system was viewed as a bold but necessary move. Penn’s medical leaders saw integration as a path to greater patient reach in a changing health-care market. Combining that with stronger cultural integration among the pil-lars of the academic center and heavy invest-ments in research infrastructure, Penn could leverage that integration to cement its place as a national leader in medicine.

But there were bumps in the road. In the late 1990s, a few years after its establishment, UPHS was one of many health-care organizations in a precarious financial situation. While some acade-mic centers questioned holding onto their hospital counterparts, Penn ultimately managed itself out of its difficulties through governmental and financial restructuring, heightened integra-tion with the University, and fresh leadership, which put it on a more sustainable and success-ful path (Almanac April 4, 2000). Staff loyalty persisted, and patient care, research and educa-

University of Pennsylvania Professor Charles Bernstein has been named the winner of the 2019 Bollingen Prize for American Poetry; it is among the most prestigious prizes given to American writers.

The Bollingen Prize is awarded biennially to an American poet for the best book published during the previous two years, or for lifetime achievement in poetry, by the Yale University Library through the Beinecke Rare Book and Manuscript Library. The Prize was originally conferred by the Library of Congress with funds established in 1948 by the philanthropist Paul Mellon. An admirer of the psychoanalyst Carl Jung, Mellon named the prize after the Swiss town where Jung spent his summers. In 1949 the first award was made to Ezra Pound, for The Pisan Cantos. He had studied at Penn as an under-graduate and got his masters here as well. In 1950 the award was transferred to the Yale University Library, through the Beinecke Rare Book and Manuscript Library under the auspices of which it has since been administered. Originally annual, it became biennial in 1964. The prize includes a cash award of $165,000.

Mr. Bernstein is the author of numerous books of poetry, including Near/Miss, published last year, Recalculating, and All the Whiskey in Heaven: Selected Poems, among many others. His collections of essays include Pitch of Poetry, Attack of the Difficult Poems: Essays and Inventions and A Poetics.

“The Bollingen is the ultimate American poetry prize, and the honor of this award turns to pure delight when I acknowledge the award committee,” Mr. Bernstein said. “I am over-whelmed at being in the company of my fellow Bollingen winners, who include so many poets whom I read with supreme astonishment. How great that Near/Miss has been so warmly wel-comed into the world.”

Mr. Bernstein is the 51st poet to be hon-ored with the award and joins a list of past win-ners that also includes W.H. Auden, Marianne Moore, Wallace Stevens, Louise Bogan, Léonie Adams, Robert Frost and Robert Penn Warren, as well as contemporary poets Susan Howe, Charles Wright, Louise Glück, Nathaniel Mack-e y and Jean Valentine.

“As poet, editor, critic, translator and educa-tor, Charles Bernstein’s decades-long commit-ment to the community of arts and letters reflects a profound understanding of the importance of language in the business of culture-making,” the three-member prize judging committee said.

His extraordinary new collection of poems, Near/Miss, finds Bernstein deploying his char-acteristically incisive satire and sharp wit to dis-mantle the cliches of driving public speech. Yet, in moments treading close to heartbreak, the work sounds the depths where the public poet must find the words for private grief. Bernstein’s work interrogates, restlessly, seemingly word by word, language and its performative nature.

On Penn’s faculty since 2003, Mr. Bernstein is the Donald T. Regan Professor of English and Comparative Literature in the School of Arts and Sciences (Almanac February 8, 2005). He is also known for his translations and collaborations with artists and libretti. With Al Filreis, Penn’s Kelly Family Professor of English, Mr. Bernstein is the co-founder of PennSound, an extensive archive of recorded poetry, which features a robust library of Mr. Bernstein’s poetry readings as well as poetry by Penn alumni Ezra Pound and William Carlos Williams.

“Penn has provided the ideal place for me to write and teach poetry and poetics. Conversa-tions with fellow writers, researchers, teachers and especially students—graduate and under-graduate—have so deeply enriched my thinking and work that I can’t imagine that I could have won the Bollingen without them. The English and Comparative Literature departments, and the astounding Kelly Writers House, along with PennSound, have been my intellectual home. Part of this prize surely goes to them,” Mr. Bernstein said.

“We are thrilled that the 2019 Bollingen Prize judges have honored Charles Bernstein, a poet whose creative and critical work has for decades enlivened American poetry and poetics,” said Bollingen Prize director Nancy Kuhl, cura-tor of poetry for the Yale Collection of Ameri-can Literature at the Beinecke Library. “The po-ems in his latest book, Near/Miss, explore the very nature of poetry.”

Mr. Bernstein was elected a Fellow of the American Academy of Arts & Sciences in 2006. Other awards and honors include Janus Pan-nonius Grand Prize for Poetry (Almanac September 8, 2005), the Münster Prize for Interna-tional Poetry, a John Simon Guggenheim Memorial Fellowship and a National Endow-ment for the Arts Creative Writing Fellowship. He also received a Lindback Award in 2009 (Almanac April 21, 2009).

The three-judge panel included poet Anne (continued on page 3)
**Uncovering the Unsung Heroes of Philadelphia Theater History through People-Powered Scholarship at the Penn Libraries**

People-powered scholarship projects liberate information locked away from easy public access. Laura Aydelotte, researcher in the Penn Libraries' Kislak Center for Special Collections, Rare Books and Manuscripts, was awarded a National Endowment for the Humanities grant to lead The Philadelphia Playbills Project in collaboration with the New York Public Library and free the information within an important archive to anyone who is interested. The project takes historical playbills from the archives of the Penn Libraries collections at the Kislak Center and turns them into data everyone can use to learn about the history of performance in the United States' oldest theaters.

The sample set of 700 digitized playbills document the history of works performed, from adaptations of *Uncle Tom's Cabin* to an evening advertised as a combination of *Mozart's Marriage of Figaro* and the appearance of a "Living Elephant." They also document the people who performed these plays, such as Edwin Booth, brother of Lincoln's assassin (though a loyal supporter of Lincoln himself), and Laura Keene, the first woman to become an influential theater manager in New York and Philadelphia, who was performing the night of that assassination and held the dying Lincoln in her arms. For Ms. Aydelotte, the most rewarding part of the process has been discovering the unsung heroes, the firsts and the new windows into approaching this history.

The Philadelphia Playbills Project tests three different approaches to gathering data from archival materials. Project team members will produce the data for the project from a combination of community crowdsourced transcriptions on the Zooniverse platform, Optical Character Recognition technology, and in-house transcriptions. A final dataset formed from a combination of these methods will be converted to Linked Open Data, a format that will allow the playbills data to connect more readily with other data across the internet, which will aid users in the discovery process.

According to Ms. Aydelotte, this research is groundbreaking. "The Philadelphia Playbills Project will produce a previously unavailable data set that will support new research about the American theater and develop and refine methodologies for generating such data on a larger scale with other playbill collections in the future," she said.

To find out more about how you can lend your time and talent to this project, visit: [https://philadelphiaplaybills.com/](https://philadelphiaplaybills.com/)

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**Deaths**

Wendy Ashmore, Anthropology and Penn Museum

Wendy Ashmore, former associate professor in Penn’s department of anthropology and emeritus fellow of the Museum’s Kolb Society, died January 8 in Riverside, California, after a long battle with two auto-immune diseases. She was 70.

Ashmore was a Dr. Carol Matthews and Elizabeth Gould.

Wendy Ashmore, Anthropology and Penn Museum

She earned her PhD in 1981 from Penn, where her dissertation, *Precolumbian Occupation at Quirigua, Guatemala: Settlement Patterns in a Classic Maya Center*, brought a deeper understanding of the complexity of Maya settlement patterns to the archaeological community.

She joined the Penn faculty in 1992 as an associate professor of anthropology; she also served as associate curator of the American Section of the Penn Museum. While here, she earned multiple Research Foundation Awards and was selected to be a Kolb Society Senior Fellow in 1997. In 1998 she received the Elizabeth Bingham Award from the Association for Women in Science (AWIS), Philadelphia.

She left Penn in 2000 for UC Riverside, where she became a Distinguished Professor Emeritus of Anthropology. She received the Kidder Award from the American Anthropological Association; she was the 24th recipient and the third woman. She also won the 2002 President’s Service Award from the American Anthropological Association.

She was a pioneer in the areas of settlement patterns, landscape and household archaeology, pushing the field to consider the importance of symbolic behavior and more humanistic archaeological narratives before such approaches were considered standard. Her consideration of the social and symbolic aspects of spatial organization has been expressed in the archaeology of households, the analysis of civil engineering in cities and towns and the study of ancient landscapes. She turned her attention to how gender affects, and is affected, by architecture and other kinds of spatial order.

Dr. Ashmore wrote, edited, or co-edited several books, including *Settlement Patterns, Household and Community in the Mesoamerican Past* and *Archaeologies of Landscape: Contemporary Perspectives*. She and co-author, Robert Sharer, the late Penn museum curator emeritus and Shoemaker Professor of Anthropology (*Almanac* Octboer 23, 2012) published multiple editions of two popular archaeology textbooks that have been adopted for introductory courses to archaeology in numerous universities, *Archaeology—Discovering Our Past* (third edition in 2002) and the related *Discovering Our Past: An Introduction to Archaeology* (the 5th edition was published in 2013 and the 6th in 2014).

Dr. Ashmore is survived by her husband, Thomas Patterson; and siblings Patrick Matthews, Carol Matthews and Elizabeth Gould.

**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
Melissa Eastman, Admissions

Melissa Anne Eastman, a former regional director of admissions in Undergraduate Admissions at Penn, died January 15. She was 63.

Ms. Eastman was born in Lawton, Oklahoma, and graduated from the College of William and Mary in 1977 with a B.A. in English and psychology. She earned her MEd in guidance and counseling from William and Mary in 1978.

Ms. Eastman joined Undergraduate Admissions at Penn in 1985 as an admission’s officer. She served here as a regional director of admissions until 1988.

She then served as a college counselor at the Episcopal Academy from 1993 until 2000. After that she worked at the American Reading Company, where she was a director of product development.

Ms. Eastman is survived by her daughters, Kate and Emma Fox.

Penn Medicine

(continued from page 1)

Mlinko, Yale professor of poetry Claudia Rankine, and Rutgers English professor Evie Shockley. “Throughout his career, Bernstein has facilitated a vibrant dialogue between lyric and anti-lyric tendencies in the poetic traditions we have inherited; in so doing, he has shaped and questioned, defined and dismantled ideas and assumptions in order to reveal poetry’s widest and most profound capabilities,” they said.

“Contemporary American poetry thrives through its small scale and radical differences of form,” Mr. Bernstein said. “Its freedom is grounded in the diverse approaches of its practitioners and in its resistance to market-driven popularity. Poetic invention is as fundamental to our democracy as the bill of rights—something to celebrate with exuberance and pleasure.”

Bollingen Prize for Poetry

(continued from page 1)

Melissa Eastman, Admissions

Dear Friends and Colleagues:

Each year Penn’s Way calls upon the strength of the Penn community to respond to the needs of those less fortunate. For this year’s Giving is Penn’s Way campaign you answered our call and then some! On behalf of the University and Health System leadership and our charitable partners from Penn Medicine, Philadelphia Alliance for Change, and The United Way, we would like to say Thanks a Million! Thanks a million for your commitment to sending a message of hope and support to the vulnerable populations these agencies serve.

Because of your generosity and compassion, the Penn’s Way Campaign met and exceeded its goal of $1,650,000! Our final total was $1,799,878.

We especially applaud the hard work and enthusiasm of the many individual volunteers who served as Penn’s Way Volunteer Coordinators.

Our deepest thanks to them and to you for making the Penn’s Way Workplace Giving Campaign another remarkable success! Thank You.

Maureen S. Rush

Vice President for Public Safety

University of Pennsylvania

Penn’s Way Co-Chair

Patricia G. Sullivan

Chief Quality Officer

University of Pennsylvania Health System

Penn’s Way Co-Chair

Steven Kimbrough

Professor, Wharton School

Chair-elect Faculty Senate

University of Pennsylvania

Penn’s Way Faculty Advisor

Peter D. Quinn

Vice Dean for Professional Services

Senior Vice President

University of Pennsylvania Health System

Penn’s Way Faculty Advisor

Section IV.3(c) of the Council Bylaws provides that a University Council meeting “shall incorporate an open forum to which all members of the University community are invited and during which any member of the University community can direct questions to the Council.”

All members of the University community are invited to bring issues for discussion to the

University Council Open Forum

Wednesday, February 20, 2019 at 4:40 p.m.

Bodek Lounge, Houston Hall

Individuals who want to be assured of speaking at Council must inform the Office of the University Secretary (ucouncil@pobox.upenn.edu) by 10 a.m. on Monday, February 11, 2019. Please indicate the topic you would like to discuss. Those who have not so informed the Office of the University Secretary will be permitted to speak only at the discretion of the Moderator of University Council and in the event that time remains after the scheduled speakers.

Please see the format given below. Questions may be directed to the Office of the University Secretary at (215) 898-7452 or ucouncil@pobox.upenn.edu

Format for University Council’s Open Forum

February 20, 2019

The University Council will devote a substantial portion of its February 20, 2019, meeting to a public forum. The purpose of the Open Forum is to inform Council of issues important to the University’s general welfare and of the range of views held by members of the University. The forum is open to all members of the University community under the conditions set by the Bylaws, following guidelines established by the Steering Committee of Council:

1. Any member of the University community who wishes to do so may attend the Council meeting. Individuals who want to be assured of speaking at Council, however, must inform the Office of the University Secretary (ucouncil@pobox.upenn.edu) by 10 a.m. on Monday, February 11, 2019, indicating briefly the subject of their remarks. Those who have not so informed the Office of the University Secretary will be permitted to speak only at the discretion of the Moderator of University Council and in the event that time remains after the scheduled speakers.

2. Speakers should expect to be limited to three minutes with the possibility of additional time in cases where members of Council engage the speakers with follow-up questions or remarks. The Moderator may restrict repetition of views.

3. Following the deadline for speakers to sign up with the Office of the University Secretary, the Chair of Steering and the Moderator of Council will structure the subject matter themes, speakers and times for the Open Forum session. In the event that there is not enough time available at the meeting to provide for all those who have requested to speak, the two officers may make selections which accommodate the broadest array of issues having important implications for Council’s work and represent the breadth of Council’s constituencies.

4. Speakers’ statements should be framed to present policy issues and be directed to University Council as a body through the Moderator. The Moderator will have discretion to interrupt statements that are directed against persons and otherwise to maintain the decorum of the meeting, as provided for in the Bylaws. In cases where questions or positions can be appropriately addressed by members of Council, or where a colloquy would seem to be productive given the time constraints of the meeting, the Moderator may recognize members of Council to respond to speakers’ statements, with opportunities for follow-up by the speakers.

5. Should the number of submitted topics of community-wide interest exceed what can be accommodated during a single Open Forum session, discussion will be allowed to continue at the following University Council meeting.

www.upenn.edu/almanac
We are pleased to announce the Provost-Netter Center Faculty-Community Partnership Award. This annual award recognizes Faculty-Community Partnership projects. The amount of the award is $10,000 ($5,000 to the faculty member and $5,000 to the community partner). The purpose of the award is to recognize sustained and productive University/community partnerships and to develop or enhance ongoing work. Junior and senior faculty along with senior lecturers and associated faculty from any of Penn’s 12 Schools are eligible for nomination, together with their community partners. Please see below for the complete description and process of nomination. If you have any questions or concerns regarding this award, please direct them to the ABCS Coordinator, Faustine Sun, at abcscoordinator@sas.upenn.edu

Award Nomination Process: Deadline: April 1

The award recognizes Faculty-Community Partnership Projects. One award will be made annually for $5,000 to a faculty member and another $5,000 to the community partner to recognize, develop and advance an existing partnership.

Criteria for Selection

(1) The community partnership project must be affiliated with the Netter Center for Community Partnerships i.e., engaged with Academically Based Community Service (ABCs), Problem Solving Learning (PSL) or Participatory Action Research (PAR) style pedagogy and/or research.

(2) The partnership project must demonstrate record of sustainable engagement.

(3) The faculty member can be an assistant, associate, or full professor, senior lecturer, or associated faculty.

Process of Nomination

(1) Nominations may come from members of the University and the wider community, though the strongest nominations will be those that represent both the University and the community.

(2) Nominators should submit a completed packet (see https://www.nettercenter.upenn.edu/about-center/advisory-boards/faculty-advisory-board/provost-netter-center-faculty-community-partnership) by April 1 of the given academic year to the ABCS coordinator at the Netter Center, who will submit applications to the faculty awards committee.

(3) The faculty committee will submit their recommendations by April 15 to the Netter Center Director and the Provost, who will jointly make the final selection. The award decision will be announced on May 1.

—Dennis DeTurck, Robert A. Fox Leadership Professor; Professor of Mathematics, SAS; Netter Center Faculty Advisory Board Co-Chair

—John Gearhart, James W. Efron University Professor and Emeritus Director, Institute for Regenerative Medicine; Professor of Cell and Developmental Biology and Animal Biology, PSOM and School of Veterinary Medicine; Netter Center Faculty Advisory Board Co-Chair

—Dennis DeTurck, Robert A. Fox Leadership Professor; Professor of Mathematics, SAS; Netter Center Faculty Advisory Board Co-Chair

—Terri H. Lipman, Assistant Dean for Community Engagement; Miriam Stirl Endowed Term Professor of Nutrition; Professor of Nursing of Children, SON; Netter Center Faculty Advisory Board Co-Chair

—Terri H. Lipman, Assistant Dean for Community Engagement; Miriam Stirl Endowed Term Professor of Nutrition; Professor of Nursing of Children, SON; Netter Center Faculty Advisory Board Co-Chair

—Loretta Flanagan-Cato, Associate Professor of Psychology, SAS; Co-director, Biological Basis of Behavior Program; Netter Center Faculty Fellow

—Carol Muller, Professor of Music, SAS; Faculty Director, Urban Arts, Culture, Humanities, and Community Engagement; Chair of the Provost-Netter Center Faculty-Community Partnership Award Nomination Process

—Vernoca Michael, Director, Paul Robeson House and Museum, West Philadelphia Cultural Alliance Member, Netter Center Community Advisory Board

—Ira Harkavy, Associate Vice President; Founding Director, Barbara and Edward Netter Center for Community Partnerships

ABCs Course Development Grants: April 12

The Barbara and Edward Netter Center for Community Partnerships announces course development grants to promote Academically Based Community Service (ABCs) courses that integrate research, teaching, learning and service. Over 150 courses from a wide range of disciplines and Penn schools have linked Penn undergraduate and graduate students to work in the community. The grants support University faculty to develop new courses or adapt existing courses that combine research with school and community projects.

To see a list of the ABCS courses, visit https://www.nettercenter.upenn.edu/what-we-do/courses

Grants will be for no more than $5,000 per project. These funds can be used to provide graduate and undergraduate support, course support and/or summer salary ($5,000 is inclusive of employee benefits if taken as salary).

Funded by the Netter Center, course development grants facilitate faculty in developing new and/or substantially restructured undergraduate- and graduate-level courses that engage students in real-world problem-solving projects in conjunction with schools and community organizations located in West Philadelphia.

The following criteria will be used to evaluate proposals:

1. Academic excellence
2. Integration of research, teaching and service
3. Partnership with schools, community groups, service agencies, etc
4. Focus on Philadelphia, especially West Philadelphia
5. Evidence as to how the course activity will involve participation or interaction with the community as well as contribute to improving the community
6. Evidence as to how the course activity will engage undergraduate and/or graduate students in real-world problem-solving research opportunities
7. Potential for sustainability

Please format proposals as follows:

1. Cover page
   1.1 Name, title, department, school, mailing address
   1.2 Title of the proposal
   1.3 Total amount of funding you would like
   1.4 100-word abstract of the proposal (include a description of how the course will involve interaction with the community and benefit the community)
2. A one-page biographical sketch of applicant
3. A two-to-four-page mini-proposal
4. Budget detailing how you intend to use the requested funding

Proposals for Fall 2019 and Spring 2020 courses should be submitted to the Netter Center for Community Partnerships by April 12, 2019. Please contact Faustine Sun, ABCS Coordinator, at abcscoordinator@sas.upenn.edu for more information or to submit proposals.

—Dennis DeTurck, Robert A. Fox Leadership Professor; Professor of Mathematics, SAS; Netter Center Faculty Advisory Board Co-Chair

—John Gearhart, James W. Efron University Professor and Emeritus Director, Institute for Regenerative Medicine; Professor of Cell and Developmental Biology and Animal Biology, PSOM and School of Veterinary Medicine; Netter Center Faculty Advisory Board Co-Chair

—John Jackson Jr., Walter H. Annenberg Dean of the Annenberg School for Communication; Richard Perry University Professor of Communication, Africana Studies, and Anthropology; Netter Center Faculty Advisory Board Co-Chair

—Ira Harkavy, Associate Vice President; Founding Director, Barbara and Edward Netter Center for Community Partnerships
Dermatology and Antibiotics
The use of antibiotics to treat inflammatory skin conditions like acne and rosacea is decreasing, but there has been an increase in prescriptions associated with dermatologic surgical procedures, findings reported in a new study published in *JAMA Dermatology* by researchers at Penn's Perelman School of Medicine. The results show some encouraging signs in the effort for greater antibiotic stewardship in dermatology, while also pointing to a clear need for further research.

Dermatologists prescribe more antibiotics per provider than any other specialty — more than 7.1 million prescriptions per year. That number is further complicated by the fact that many patients, such as those taking antibiotics for acne, can stay on the drugs for extended periods of time, as opposed to other antibiotic uses that may only involve a seven- or 10-day course. The more antibiotics are used, the more the issue they are treating will build resistance. That reality has led to a renewed focus on stewardship across all fields of medicine, but dermatology has a particular onus given the field's sheer volume of prescriptions.

“To track our field’s efforts, we wanted to know two things: In what settings do dermatologists prescribe antibiotics most frequently, and how is this use changing over time?” said the study’s lead author John Barbieri, dermatology research fellow. David J. Margolis, professor of dermatology, was the study’s senior author.

Researchers examined a commercial claims database of privately insured patients in the United States and looked at data from 2008 through 2016. Dermatologists prescribe antibiotics more often than any other provider in dermatology, with antibiotic prescriptions increasing from 3.36 per 100 visits to 2.13 per 100. The drop was especially noticeable in patients taking extended courses of antibiotics, which saw a 35.3 percent decrease from 2008 to 2016. This includes a 28.1 percent reduction in antibiotic prescriptions for acne.

During the same window, prescriptions for short courses of antibiotics increased. This was particularly driven by prescriptions associated with a surgical procedure. The increase in antibiotic prescriptions increased by 69.6 percent, from 3.92 prescriptions per 100 visits to 6.65 per 100. Prescribing associated with the diagnosis of cysts also went up 35.3 percent.

The study also found that while prescription rates are down overall, the duration and the type of antibiotic are both largely unchanged.

Strongest Critics of GMOs Know Less
People who hold the most extreme negative views about genetically modified (GM) foods think they know the most about GM food science, but they actually know the least, according to new research published in the journal *Nature Human Behaviour*.

“It’s always interesting, and not infrequent, that people with particularly strong opinions about a subject are less informed about it than those in the middle of the spectrum,” said Paul Rozin, professor in Penn’s department of psychology and an author on the paper. “People who fall more in the middle often more willingly consider positions alternative to their own.”

More than 2,000 adults in the US and Europe ranked their feelings about GM foods on a scale of 1 to 7, with 7 being the greatest apprehension. More than 90 percent reported some level of opposition or concern, despite a scientific consensus that GM foods are safe for human consumption and have the potential to provide significant benefits.

With the concern levels noted, the surveys then asked respondents how well they thought they understood genetically modified foods and tested their actual knowledge with true-false questions on general science and genetics. The researchers found that the more strongly people stated their opposition to such foods, the more they thought they knew about the topic but the lower they scored on the test.

“This result is perverse but is consistent with previous research on the psychology of extremism,” said Philip Fernbach, the study’s lead author and assistant professor of marketing at the University of Colorado Boulder. “Extreme views often stem from people feeling they understand complex topics better than they do.”

One potential consequence, he said, is that the people who know the least about important scientific issues may be likely to stay that way because they may not seek out or be open to new knowledge. “Changing peoples’ minds first requires them to appreciate what they don’t know,” said study co-author Nicholas Light, doctoral candidate at CU Boulder.

The researchers also explored other issues like gene therapy and climate-change denial. Though they found the same results for the former — that extreme opponents were less knowledgeable yet thought they knew more — the pattern did not emerge for the latter. The climate-change debate has become so politically polarized, the researchers hypothesize, that people’s attitudes depend more on which political group they affiliate with than how much they know about the issue.

Energizing the Immune System to Eat Cancer
Macrophages are immune cells just like T and B cells, but they differ in that they can eat cells that are not supposed to be in the body, such as cancer cells. But most tumors express a signal called CD47, which can lure macrophages into a deep sleep and prevent them from eating. Researchers at Penn’s Abramson Cancer Center have found that rewiring macrophages might allow them to overcome this signal and act like an alarm clock to rouse and prepare macrophages to go to work. Their findings were published in *Nature Immunology*.

To convince macrophages to attack cancer, the researchers note that first they need a signal to activate them, such as a toll-like receptor agonist. After that, a second signal, such as a CD47 inhibitor, can lower the threshold needed to wage battle on the cancer. “It turns out macrophages need to be primed before they can go to work, which explains why solid tumors may resist treatment with CD47 inhibitors alone,” said the study’s senior author Gregory L. Beatty, assistant professor of hematology-oncology at Penn’s Perelman School of Medicine. Jason Mingen Liu, PhD graduate student in Dr. Beatty’s lab, is the study’s lead author. Collaborators include Nathaniel Snyder, assistant professor at Drexel University, and Rodney O’Connor, research assistant professor in pathology and laboratory medicine at Penn.

The team used this approach by activating macrophages with Cpg, a toll-like receptor agonist that sends the first signal, and found that it rapidly induced shrinkage of tumors and prolonged survival of mice even without the requirement of T cells. They found that the activated macrophages were able to eat cancer cells even in the presence of high levels of CD47.

The team determined that activated macrophages began to utilize both glutamine and glucose as fuel to support the energy requirements needed for them to eat cancer cells. This rewiring of the macrophages metabolism was necessary for Cpg to be effective, and the researchers say these findings point to the importance of macrophage metabolism in determining the outcome of an immune response.

Dr. Beatty pointed out that patients with diabetes, cardiovascular disease, and other conditions are routinely treated with drugs that could affect macrophage metabolism, but virtually nothing is known about how these drugs might impact immunotherapy responses in cancer, meaning the team’s discovery has implications even for existing treatments.

Minorities and Risk-Related Content on Social Media
A new paper published in the *Journal of Urban Health* by Robin Stevens, director of the Health Equity & Media Lab and assistant professor of nursing in the School of Nursing at Penn, with Amy Bleakley, senior research scientist at the Annenberg School for Communication, Michael Hennessy, senior research analyst in health and political communication at the Annenberg Public Policy Center, and Jamie Duncaev and the late Stacia Gilliard-Matthews from Rutgers University-Camden, offers some insights into how the communication of risk-related content among disadvantaged youth experience in their real communities and their digital ones (what Dr. Stevens calls the “digital hood”). Their survey of 145 black and Hispanic youth showed that as many as 84 percent report exposure to risk-related content on social media, yet fewer than 1/5 actually post such material.

The researchers focused on two behaviors with well-established links between exposure and an increased likelihood of engagement: substance use and unprotected sex. They also examined exposure to violence. Their aim was to understand which platforms urban minorities use and how often, as well as what type of risk-related content they see online and how they engage with it.

Participants completed a survey in which they answered “yes” or “no” to prompts about subjects like nudity or sexually suggestive posts and fight videos on Facebook and Instagram. The researchers concluded that although a majority of these teens view risk-related behaviors on social media, a small percentage actually participate in and post about them online. By far, they’re exposed most to violent imagery, Dr. Stevens added. “It’s not like TV violence; it’s violence against people I know, or including people I know, or people I don’t know but who may go to high school with my friend’s cousin.”

Dr. Stevens said she wants to work toward challenging the myths about what these groups believe is normal. She also hopes to improve the social media feedback loop. “Most of the critiques of these platform are around bullying and fake news and propaganda,” she said. “There’s little we might have to do to protect vulnerable populations. Generally, the experiences of black and Hispanic youth online are not part of this conversation, so how are we going to empower these youth to navigate the risks they face in their digital neighborhoods?”
Penn Vet’s Mobile Clinic: Bringing More Lifesaving Services to Philadelphia Area Animal Shelters

In 2016, there were 50,000 animal intakes in the Philadelphia region’s animal shelters. The University of Pennsylvania’s School of Veterinary Medicine (Penn Vet) Shelter Medicine Program provides clinical care support to several of these shelters and works to reduce the number of animals entering them to begin with. The program is about to increase its reach and impact with the Penn Vet Mobile Clinic, a new 40-foot-long facility-on-wheels that will help more vulnerable animals.

Penn Vet unveiled the clinic at a January 25 ribbon cutting ceremony. The Mobile Clinic initiative is supported in part by the Bernice Barbour Foundation and PetSmart Charities.

When it launches this spring, the Mobile Clinic will offer services and equipment that can be challenging for shelters to afford or accommodate. In addition to exam, surgery and recovery spaces on board, there are diagnostic tools such as a microscope, radiography, ultrasound and blood machines. Eventually, the roaming facility will also have dental care equipment.

“When planning the Mobile Clinic, we looked at gaps across the area and discussed how we can be a consistent, valuable resource to the Philadelphia community,” said Brittany Watson, Penn Vet’s director of Shelter Medicine. “Our animal welfare partners, who often operate on budgets three to four times less than they need, are confined by their brick and mortar facilities. We will be bringing them a nimble, fully operational, independent clinic that can be directed to where the need is greatest.”

On a weekly basis, the clinic will be onsite at select Penn Vet shelter partner locations—which include Animal Care and Control Team (ACCT) Philly, Morris Animal Refuge, Pennsylvania Society for the Prevention of Cruelty to Animals (PSPCA), the Philadelphia Animal Welfare Society (PAWS), Providence Animal Center and the Women’s Animal Center—extending the shelters’ diagnostic capabilities and enabling more spay and neuter procedures.

The unit will also be used through community partners, such as Pets for Life, to provide clinical services to the public in areas of greatest need. At other times, it will provide an opportunity for Philadelphia middle and high school students to learn about animal health and welfare. Down the line, plans include using the clinic for disaster and emergency response and in animal cruelty cases.

Beyond providing clinical care and community partnership, the Mobile Clinic is going to be a dynamic new resource for teaching shelter medicine to Penn Vet students.

“We want students to understand and recognize community needs,” said Chelsea Reinhard, Bernice Barbour Assistant Professor of Clinical Shelter Medicine at Penn Vet. “With the Shelter Medicine program, students work in shelters, in underserved communities and engage with community schools. Our goal is that this experience and exposure empowers them after graduation, enabling them to be a resource as practitioners within their own communities.”

For more information, visit: https://www.vet.upenn.edu/research/centers-initiatives/shelter-medicine

One Step Ahead
Security & Privacy Made Simple

Another tip in a series provided by the Offices of Information Systems & Computing and Audit, Compliance & Privacy

February is Data Privacy Month!
Data Privacy Day was January 28 and kicks off Data Privacy Month—February. Now is an excellent time to recognize Data Privacy Month in ways that can be both practical and impactful for you.

Today’s environment is filled with networking and sharing on social media and through various apps. Here are some tips to consider for yourself and your colleagues when sharing or posting your information:
• Sharing Your Information with Apps and Websites

Understand how you are sharing information with social media platforms, apps and websites. Remember—not only are you sharing pictures with friends and family via social media, you are also sharing your personal information with the social media platform and potentially their third-party service providers. To learn how to control and limit your information sharing by configuring your privacy and security settings for specific social media platforms, go to https://staysafeonline.org/stay-safe-online/managing-your-privacy/manage-privacy-settings/

• Location Tracking

Your personal device, such as your smartphone or tablet, may be sharing your location data with apps and websites without your knowledge. Location sharing can be automatic once you download an app to your personal device. Some of these apps may be using your location data even when you are not accessing the app.


To learn more about how to protect your personal information even when you are not accessing the app, please visit Penn Privacy at http://www.upenn.edu/aapc/privacy/

Planning an Event? Email Almanac

Mounting an exhibit? Orchestrating a concert? Planning a play? Showing a film? Let Almanac know so it can be included in the monthly AT PENN calendar!

Almanac’s monthly AT PENN calendar is the most inclusive calendar of Penn events on campus. With a readership in print and online, a listing in AT PENN increases visibility and attendance.

Email almanac@upenn.edu with your event details, including the event date, time, topic, speaker information and sponsors. For info, visit https://almanac.upenn.edu/deadlines-for-submitting-at-penn-information

For additional tips, see the One Step Ahead link on the Information Security website: https://www.isc.upenn.edu/security/news-alerts#One-Step-Ahead
IRS Operations During the Government Shutdown

Although the government shutdown has been temporarily halted for three weeks, the IRS reminds taxpayers that the underlying tax laws remain in effect, and all taxpayers should continue to meet their tax obligations as normal. Individuals should keep filing their tax returns and making payments and deposits with the IRS, as they are required to do by law.

The IRS has announced that the 2019 tax filing season began on January 28 for individual taxpayers. According to the IRS website, while the shutdown is in effect, taxpayers should keep the following in mind:

- **File electronically.** The IRS will accept paper and electronic tax returns, but taxpayers are urged to file electronically to speed processing and reduce errors and costs.
- **Tax refunds.** Refunds will be paid, but the IRS cautions that returns will continue to be subject to refund fraud, identity theft and other internal reviews as in prior years. Taxpayers should file electronically or use Free File, software or fillable forms available on the IRS website, with direct deposit to help speed refunds.
- **Tax filing.** Taxpayers can go ahead and start working on their returns in advance of the January 28 opening. Both tax software and tax professionals will be available and working in advance of IRS systems opening. Software companies and tax professionals will then submit the returns when the IRS systems open. The IRS strongly encourages people to file their tax returns electronically to minimize errors and for faster refunds.

The IRS will maintain limited operations during the shutdown. Below are how some of the services are being affected:

- Automated applications. IRS.gov and many automated applications remain available, including such things as Where’s My Refund, the IRS-2go phone app, and online payment agreements.
- Telephones. Due to heavier call volume, taxpayers should be prepared for longer wait times. Most automated telephone applications will remain operational.
- **In-person service.** IRS walk-in taxpayer assistance centers (TACs) may again be closed in the event the shutdown reoccurs. That means those offices are unable to handle large cash payments or assist identity theft victims required to visit an IRS office to establish their identity. In-person assistance will not be available for taxpayers experiencing a hardship.

For the full list of IRS services impacted by the shutdown, as well as updates, please see the IRS website at https://www.irs.gov/newsroom/irs-operations-during-the-appropriations-lapse.

—Tax & International Operations Department in the Office of the Commissioner

Form 1095-C to Arrive Soon

Although there has been a lot of public discussion about possible changes to the Affordable Care Act (ACA), federal law still requires that Penn send the 1095-C tax form to certain benefits-eligible faculty and staff members. This form includes information about the health insurance coverage offered to you by Penn as well as information for each of your family members enrolled under your Penn benefits plan.

You can expect to:

- work as a full-time benefits-eligible staff or faculty member in 2018, even if you have not enrolled in a Penn plan,
- be a part-time benefits eligible staff or faculty member enrolled in a Penn benefit plan at any point in 2018, or
- work at Penn an average of 30 or more hours per week in 2018 and were offered ACA benefits coverage.

The 1095-C form will be mailed and available online on or before February 28, 2019. To access your form online, go to the “My Pay” section of the secure U@Penn portal at www.upenn.edu/atpp, select “My 1095-C form.”

If you have questions about your form, call Equifax at (855) 823-3728. When prompted for a representative. For general information about Form 1095-C, visit the IRS webpages Q&A about Form 1095-C and Affordable Care Act & Taxes at a Glance.

The University of Pennsylvania Police Department

Community Crime Report

About the Crime Report: Below are the Crimes Against Persons or Crimes Against Society from the campus report for January 14-20, 2019. Also reported were 13 Crimes Against Property (1 disorderly conduct, 1 fraud, 1 vandalism, 6 thefts and 2 other offenses) with 3 arrests. Full reports are available at: https://www.upenn.edu/life/actions/crimes/Prior weeks’ reports are also online.

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 January 14-20, 2019. 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.

**18th District**

Below are the Crimes Against Persons from the 18th District: 6 incidents (1 aggravated assault, 1 rape, 1 robbery, 2 assaults) were reported between January 14-20, 2019 by the 18th District covering the Schuylkill River from 4th Street & Market Street to Woodland Avenue.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Incident</th>
<th>Information</th>
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<tr>
<td>01/15/19</td>
<td>8:29 PM</td>
<td>4300 Walnut St</td>
<td>Compliant assaulted by unknown male</td>
<td>Compliant assaulted by known male</td>
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<tr>
<td>01/16/19</td>
<td>4:29 AM</td>
<td>100 S 41st St</td>
<td>Assault</td>
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The University of Pennsylvania Police Department

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<th>Information</th>
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<tbody>
<tr>
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<td>4628 Walnut St</td>
<td>Assault</td>
<td></td>
</tr>
<tr>
<td>01/15/19</td>
<td>8:28 PM</td>
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<td>Robbery/Arrest</td>
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<td>01/16/19</td>
<td>8:32 PM</td>
<td>1100 S 47th St</td>
<td>Purse Snatch</td>
<td></td>
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</tbody>
</table>

Update

January AT PENN

TALKS

29 Lindback Lecture; Rita Copeland, English and Lindback Award winner; 5 p.m.; Philomathean Halls, College Hall; contact: secondcensor@philomathean.org (Philomathean Society).

AT PENN Deadlines

The February AT PENN calendar is now online. The deadline for the March AT PENN is February 12.

Book Discussion for the Penn Community

In the spirit of discovery and community, the Penn Book Talk Group has been meeting once a month in Van Pelt Library since 1982. The group is primarily made up of Penn staff and faculty, and all are welcome to join the discussion. It is a time to reflect on all manner of literature and non-fiction in an informal and collegial environment. Check out the online bibliography to see what they are reading this month and find recommendations from past discussions. Book Talk meets in the Meyerson Conference Room (Room 223) on the second floor of the Van Pelt Library on the 3rd Tuesday of every month at 1 p.m.

February 18 The Price of Salt by Patricia Highsmith, 1952

March 19 The Stargazer’s Sister: A Novel by Carrie Brown, 2015

To sign up for announcements or get more information, see https://pennebook-talk.wordpress.com. And most important of all, don’t forget to drop by for a lively and informative discussion each month (even if you haven’t read or finished the book! All are welcome).

Almanac

3910 Chestnut Street, 2nd floor Philadelphia, PA 19104-3111 Phone: (215) 898-5274 or 5275 FAX: (215) 898-9193 Email: almanac@upenn.edu URL: 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 Penn website) include HTML, Acrobat and mobile versions of the print edition, and inter alia information may be posted in electronic-only form. Guidelines for readers and contributors are available on request and online.

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Managing Semester-Long Course Projects

Steve Zdancewic

One of the things I enjoy most about teaching is creating course projects that challenge students outside of the classroom, where they can engage with the material on their own terms. A well-crafted project emphasizes and expands on the course’s core intellectual topics—it focuses the students’ attention and lets them apply the course concepts in a tangible way.

For the students in my Compilers and Interpreters course (CIS 341), I have created an integrated, team-based, semester-long project. By the end of the term, the students have built, from scratch, a fully-functional compiler. A compiler is the fundamental tool that a programmer uses to translate human-readable code into the binary instructions understandable by a computer’s CPU. This project resonates with students because they use compilers routinely—building one themselves is enlightening and empowering.

There are many benefits to this approach. We tackle an ambitious engineering task, where each step builds on the previous one. Along the way, students grapple with development issues that arise at scale; they integrate knowledge from throughout our curriculum; and they gain a strong sense of accomplishment.

Structuring the course around a single project made me rethink its organization so that the lectures cover each component’s material when we need it. In return, the project provides a clear narrative arc, so that even the most theoretical parts are well motivated, which keeps the students engaged.

Using a large project is not without cost. The stakes are higher (for both me and the students), and it takes significant time and energy to develop. Nevertheless, I think (and, based on student feedback, they seem to agree!) that the extra effort is worth it.

As I reflect on what I’ve learned from project-based teaching, the following lessons come to mind.

Set expectations appropriately

It’s important that students know what they’re signing up for. The CIS 341 students are mostly juniors and seniors who are looking for a challenge; it’s a “projective elective” a class which is not required, and in this case with a reputation for being difficult. I make it clear up front that the project will be time consuming yet rewarding. I enforce the course prerequisites and meet with students to make sure that they have sufficient background. My grading scheme reflects the course priorities—the project makes up about 70% of the overall grade.

I tell the story of the whole project on day one and reiterate it many times throughout the semester. My goal is that students always know where the project is going and how what they’re working on connects to what we’re doing in lecture.

Modularity and abstraction are key

I divide a semester-long project into six to eight well-defined parts that fit together and yet can be graded separately. Decomposing it in this way makes up about 70% of the overall grade. In lecture we consider various possibilities for how the specification might be implemented, but the students are largely left to their own designs when it comes down to building the parts.

After each phase, I provide students with feedback that gets them going in the right direction, so one misstep does not derail the whole project.

Set a good pace

A semester-long project is a marathon, not a sprint. I try to arrange the workload so that students can make consistent progress throughout the term. I allow generous time for students to familiarize themselves with how the parts of the project relate to one another, often providing information about subsequent parts well in advance of when they will be assigned. I aim for the denouement of the project—when all of the pieces fit together for the first time—to be about three quarters of the way through the semester. This allows the last stages to be more about polishing, reflecting on the project as a whole, and creative extensions, rather than just about getting it finished. Since student workloads pile up during the last week of class, they also appreciate having the peak effort earlier.

Nudges work

I incentivize students to start early and give them a lot of feedback along the way. One effective way I’ve found is to require (for a grade) that students post challenging tests or examples to the course’s web forum. Those examples can be used by the entire class for troubleshooting and clarifying the specifications, which helps everyone gain a deeper understanding. I insist that each new example be substantially different, so students who start early have a leg up on procrastinators. This kind of small nudge is particularly effective because it plays to the students’ competitiveness, but in a way that helps everyone.

I’ve found that small teams of two or three students work better than individual projects or larger groups. Small groups let students share the work, but still feel a sense of ownership. This helps keep them motivated, and makes assessing their understanding for the purposes of grading easier. I explicitly talk about good collaboration practices, and encourage the use of appropriate collaboration technologies (GitHub, Slack, etc.), which students are eager to use.

I also try make each part distinct in terms of the experience it evokes—I never want students to feel that they are just doing “more of the same,” even though it all boils down to coding. This variety of challenges keeps thing fresh and creates a sense of anticipation, which helps drive their interest throughout the semester.

Revise, revise, revise

The course staff and I devote a lot of time to testing our own solutions to the project, documenting its specifications, and improving its presentation. This pays off not only by ironing out problems before the project is released, but also by creating test cases and examples that we use to give feedback to students continuously throughout the semester.

Conversely, I ask the students to give substantive feedback about each part of the project, so I can learn how engaging, challenging, and effective they found it. Their insights about what worked, what didn’t, what was unclear, and what was rewarding or boring have helped shape the project. It takes a fair amount of effort to update the project significantly every time I offer the course, but doing so mitigates against cheating, and, more importantly, keeps the material fresh. I find myself learning something new each time. This keeps me excited about the course, which (I hope!) translates into an enthusiasm shared by my students.

Steve Zdancewic is a professor in the department of computer and information science in The School of Engineering and Applied Science. Dr. Zdancewic won the Lindback Award for Distinguished Teaching in 2018.

This essay continues the series that began in the fall of 1994 as the joint creation of the College of Arts and Sciences, the Center for Teaching and Learning and the Lindback Society for Distinguished Teaching.

See https://almanac.upenn.edu/talk-about-teaching-and-learning-archive for previous essays.

www.upenn.edu/almanac