FDA Approves CAR T Therapy for Large B-Cell Lymphoma Developed at University of Pennsylvania

The U.S. Food and Drug Administration (FDA) has expanded approval for a personalized cellular therapy developed at the University of Pennsylvania’s Abramson Cancer Center, this time for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy. This approval includes treatment of diffuse large B-cell lymphoma (DLBCL)—the most common form of non-Hodgkin’s lymphoma (NHL)—as well as high-grade B-cell lymphoma and DLBCL arising from follicular lymphoma. The approval was granted to Novartis for the chimeric antigen receptor (CAR) T-cell therapy Kymriah® (tisagenlecleucel, formerly CTL019), making it the second indication for the nation’s first personalized cellular therapy for cancer.

DLBCL affects approximately 30 percent of patients with NHL, and there are an estimated 27,000 newly diagnosed cases of DLBCL in the U.S. each year. About 6,500 of those patients have relapsed or refractory disease after two or more therapies and may now be eligible for Kymriah.

“This is an exciting event—seeing this lifesaving therapy become available widely to a large patient population with an unmet medical need,” said Stephen J. Schuster, the Robert and Margarita Louis-Dreyfus Professor in Chronic Lymphocytic Leukemia and Lymphoma Clinical Care and Research and director of the Abramson Cancer Center. “Many lives may be saved.”

In August 2017, Kymriah became the first therapy based on gene transfer ever approved by the FDA when it was authorized for children and young adults with relapsed or refractory B-cell precursor acute lymphoblastic leukemia (ALL). The FDA’s action is the latest accomplishment in the alliance between Penn and Novartis, which entered into a global collaboration in 2012 to further research, develop and commercialize Kymriah and other CAR T-cell therapies for the treatment of cancers.

Investigators at Penn’s Perelman School of Medicine who led research, development and (continued on page 5)

Constantia Constantinou: Vice Provost and Director of Penn Libraries

University of Pennsylvania Provost Wendell Pritchett recently announced the appointment of Constantia Constantinou as the H. Carton Rogers III Vice Provost and Director of the Penn Libraries, effective August 1.

Ms. Constantinou will replace Mr. Rogers, who has led the Penn Libraries since 2004 and is retiring after a 43-year career at Penn.

“Constantia is a global leader in integrating the unique nature of a large university library system with the wider academic mission of a university,” Provost Pritchett said. “In particular, she has been a pioneer throughout her career in developing digital, multimedia and technology initiatives in large university library systems and in advancing partnerships among libraries, museums and universities.”

For the past five years, Ms. Constantinou has been Dean of University Libraries at Stony Brook University of The State University of New York (SUNY), as well as a SUNY Distinguished Librarian. She was the Director of the Stephen E. Buce Library at SUNY-Maritime College the previous 12 years.

She created an ambitious strategic plan for the Stony Brook Libraries, redefining the libraries as a hub of collaboration in scholarly and digital initiatives and working with students, faculty, researchers and staff across the university, especially in developing the digital humanities, open access and a Center for Scholarly Communication.

Ms. Constantinou began her career at New York University’s Elmer Holmes Bobst Library and has brought her focus on digital and multimedia technology to leadership positions at the City University of New York, at Rutgers University Libraries, and as Director of the Helen T. Arrigoni Technology Library at Iona College.

Twice named a Fulbright Scholar, she is an active member of the global university library community, publishing articles and reviews, delivering conference presentations around the world, and serving in leadership positions for the Association of Research Libraries, Online Computer Library Catalogue, and International Federation of Library Associations, among others.

In addition, she is an accomplished classical guitarist who studied at the Royal School of Music in London before earning a bachelor’s degree in music and a master’s degree in music theory from Queens College of the City University of New York, where she also earned her master’s of library science degree.

“I am confident that Constantinou will bring tremendous energy and vision to her work at the Penn Libraries, building on Carton’s legacy and collaborating with the many wonderful partners that she will meet across our university,” Provost Pritchett said. “I am grateful to the Board of Overseers, who has recognized Carton’s tenure with a generous gift that names the Directorship in his honor, and to the members of the ad hoc consultative committee who helped us arrive at this outstanding result.”

Inside
2 Planned Data Center Outage; HCM Town Hall; Trustees; Meeting; WXPN Policy Board Meeting
3 Deaths; Honors & Other Things
6 Penn’s Gardens: Useful and Ornamental
8 PASEF 2017-2018 Annual Report
9 The World On View at the Arthur Ross Gallery
10 HR: Upcoming Programs; Citizen Salon at ARIG; Burnison Gallery: Members Show and Call for Artists; Arboretum’s Nature Play
11 Penn Children’s Center Rates; CrimeStats; SEPTA
12 Research Roundup
Pullout: Sumer AT PENN

Almanac
Tuesday
May 29, 2018
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WXPN Policy Board Meeting: June 18
The next meeting of the WXPN Policy Board will take place on Tuesday, June 18, at noon at WXPN. For more information call (215) 898-0628.

Trustees Meetings: June 21-22
Meetings will be at the Inn at Penn.

Thursday, June 21
8:30-10 a.m., Local, National, & Global Engagement Committee
10:15-11:45 a.m., Facilities & Campus Planning Committee
noon-1:30 p.m., Student Life Committee
3:30-5 p.m., Academic Policy Committee, Budget & Finance Committee
Friday, June 22
11:30 a.m.-12:30 p.m. Stated Meeting

Planned Data Center Outage for August 4-5
ISC has scheduled a data center outage for Saturday, August 4. The 3401 Walnut Data Center, which houses a number of critical University applications and services, will be taken off-line for activities associated with the migration and decommissioning of the facility. It is expected that the full 48-hour maintenance window will be necessary: August 4, 12 a.m. through August 5, 11:59 p.m.

During this 48-hour maintenance window, please note:
• Clients potentially impacted by the outage will be contacted by the appropriate ISC service owner. The availability during the outage of a number of important and widely used applications and services will be posted at https://www.isc.upenn.edu/alerts-outages/planned-3401-walnut-data-center-outage-2018-08-04
• Mainframe applications and services that will not be available during the outage are: Payroll, Salary Management (SALMGMNT), Student Financial Subsidiaries (SFSEASI), Student Aid Management (SAM, SAMS), Student Records System (SRS), Table and Data Dictionary (TADD). This is not a definitive list. Additional applications may be unavailable as we approach the outage date.
• Applications and services that will be taken off-line or that may experience brief disruptions will be dependent on their migration status. Clients should contact the appropriate service owner for the migration status of their applications housed at 3401.

The Town Hall, focusing on Building the Future of Work at Penn will cover Workday@Penn, a cloud-based, integrated modern system that will replace many of the current systems that manage faculty affairs, human resources, payroll and other HCM-related processes.
- What is Workday@Penn?
- What does Workday@Penn look like?
- What does Workday@Penn do?
There will also be a video demonstration, followed by Q&A. To submit a question: https://tinyurl.com/79jk65w9

Executive sponsors and members of the Program Management Office will discuss the digital transformation and the impact on the campus community.

Learn about the success of the Penn Employee Solution Center, part of the people-centered services to provide consistent, up-to-date responses to the Penn community’s questions.

HCM Town Hall: June 7
Penn’s Human Capital Management Transformation Initiative invites the Penn community to join the team in a Town Hall meeting on June 7, from 1 to 2:30 p.m. at the Fitts Auditorium, Penn Law School. Registration is requested as space is limited: https://tinyurl.com/y9y9j5w9

Penn Dental Medicine 2018 Teaching Awards

Robert E. DeRevere Award
The Robert E. DeRevere Award is presented for excellence in preclinical teaching by a part-time faculty member. The award is named in honor of Dr. DeRevere, a member of the Penn Dental Medicine Class of 1945, who served on the School’s faculty. This year’s recipient is Dr. Frank Smithgall (C’79, D’83), clinical associate professor of restorative dentistry, who has been a member of the School’s part-time faculty since 1984. Dr. Smithgall lectures in preclinical courses, and for the past four years he has been course director of Partial Removable Dental Prosthesis. This is the fifth time Dr. Smithgall has been recognized with this award, also receiving it in 1990, 2010, 2011 and 2016.

Joseph L. T. Appleton Award
The Joseph L. T. Appleton Award is presented to a part-time faculty member for excellence in clinical teaching. This year’s recipient is Dr. Patrice Ierardi (MT’80, D’84), clinical assistant professor of restorative dentistry, and assistant director of comprehensive care clinics. Dr. Ierardi joined the faculty in 2014, teaching clinical restorative dentistry on the clinic floor. Since taking on the role of assistant director of comprehensive care clinics last year, she has added to her teaching responsibilities with all DMD students throughout the predoctoral clinics. The Appleton Award is named in honor of Dr. Joseph Appleton, a 1914 alumnus of Penn Dental Medicine who served as dean of the School from 1941 to 1951. The award was founded in 1979 by Abram Cohen, a member of the Class of 1923 and father of Dean Emeritus D. Walter Cohen, Class of 1950.

Senior Outstanding Teaching Award
The Senior Outstanding Teaching Award is presented to a faculty or staff member who has gone beyond the scope of his or her responsibilities to significantly impact the class’s education at Penn Dental Medicine. This year’s recipient is Steven Wang (D’09, M’12, GD’15), Instructor in the department of oral & maxillofacial surgery/pharmacology. Dr. Wang completed his DMD and oral surgery training at Penn Dental Medicine, joining the School’s faculty in 2015. Dr. Wang is the director of the predoctoral oral surgery clinic, teaching students in the clinical setting on the fundamentals of oral surgery.

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Earle Bank Hoyt Award
The Earle Bank Hoyt Award is presented for excellence in teaching to a Penn Dental Medicine graduate who is a full-time junior faculty member. This award was established by a grateful patient in honor of Dr. Earle Bank Hoyt, a distinguished clinician and educator who was a member of the Class of 1918. This year’s recipient is Dr. Steven Wang (D’09, M’12, GD’15). Instructor in the department of oral & maxillofacial surgery/pharmacology. Dr. Wang completed his DMD and oral surgery training at Penn Dental Medicine, joining the School’s faculty in 2015. Dr. Wang is the director of the predoctoral oral surgery clinic, teaching students in the clinical setting on the fundamentals of oral surgery.

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Deaths

John D. Biggers: School of Medicine
John Dennis (J.D.) Biggers, former King Ranch Research Professor in Reproductive Physiology at Penn and a pioneer researcher for in-vitro fertilization, died on April 7 in Lexington, Massachusetts, from cancer. He was 94.

Dr. Biggers was born in England, and grew up outside London. After attending the Royal College of Veterinary Medicine, he focused on mammalian physiology and earned his PhD from the University of London.

In 1958, he and his colleague Anne McClaren published their landmark paper in *Nature*, reporting the first successful development of a mammalian (mouse) early embryo in culture. This foundational work contributed to the establishment of human in vitro fertilization (IVF), and the birth of over five million children over the past two generations.

He emigrated to the U.S. in 1959 to teach at the University of Pennsylvania as the King Ranch Research Professor of Reproductive Physiology. He later moved on to John Hopkins University and then Harvard Medical School.

Dr. Biggers received many honors, including the Pioneer Award from the International Embryo Technology Society and the Marshall Medal from the Society for the Study of Fertility. He also served as the leader of the Society for the Study of Reproduction, and chief scientific adviser to the ethics committee of the U.S. Department of Health, Education, and Welfare, and he worked with the World Health Organization, consulting on contraceptive research in Bangladesh and Pakistan.

He is survived by his sister, Jeanne Brook; his children, David (Kathleen Chan); and three grandchildren.

David Pines: Physics
David Pines, a physics instructor at Penn 1950-1952 and a leader in condensed matter physics whose work paved the way for several Nobel prizes in physics, died of pancreatic cancer at his home in Urbana, Illinois. He was 93.

Dr. Pines received his undergraduate degree in physics from the University of California, Berkeley in 1944 and his doctorate from Princeton in 1950. In addition to teaching at Penn, he also taught at Princeton; he spent most of his career at the University of Illinois. He also worked at Los Alamos National Laboratory in New Mexico and the University of California, Davis, and he helped found the Santa Fe Institute.

He is best known for his contributions to understanding the phenomena that emerge from the complex interactions of the elementary constituents of matter. With his thesis adviser, theoretical physicist David J. Bohm, Dr. Pines developed a technique known as random phase approximation (RPA) to describe the behavior of electrons in a dense gas, which one of his colleagues noted “has impacted almost every field of physics.” His work also set the stage for the Bardeen-Cooper-Schrieffer (BCS) theory of superconductivity that earned the 1972 Nobel Prize in Physics (*Almanac* October 31, 1972).

He studied electron-electron interactions and superfluidity in neutron stars. His research contributions were recognized by two Guggenheim Fellowships; the Feenberg Medal; the Fizmiann, Dirac, and Drucker Prizes; and by his election to the National Academy of Sciences, American Philosophical Society, American Academy of Arts and Sciences, Russian Academy of Sciences, and Hungarian Academy of Sciences. Dr. Pines is survived by a daughter, Catherine; a son, Jonathan; a sister, Judith Fried; and three grandchildren.

Richard Sherman: Office of the Secretary
Richard Mylius Sherman (G’62, Gr’69, W’79), who held multiple positions at Penn in the Office of the Secretary, died of congestive heart failure in West Chester, Ohio, on February 15. He was 78.

Dr. Sherman grew up in Norwood, Ohio, and after receiving his undergraduate degree in 1961 from the University of Cincinnati, he moved to Philadelphia to attend Penn. Here he received his MA in history in 1962 and subsequently his PhD in medieval studies in 1969. That year, he was hired as the assistant secretary in the Office of the Secretary. He was involved in compiling a history of the Fourth Street site where the charity school stood, which would become the University (*Almanac* January 25, 1972).

Dr. Sherman became a lecturer at Penn in 1976 and 1976 an taught an undergraduate course on Roman Britain and Medieval England; he became a placement officer in 1978. During this time, he obtained his MBA from Warton. He left Penn in 1979. Dr. Sherman worked at two companies in human resources before taking a position with the human resources consulting firm Drake Beam Morin, where he managed the outplacement program.

He is survived by his second wife, Annette Moore; his sister, Marguerite Sherman Torrey; his daughter, Elisabeth (Chad); grandchildren, Abigail and Gavin; nephew, Andrew (Jill) Torrey; and niece, Kathryn Torrey.

Honors & Other Things

Ari Brooks, Suzanne McGettigan: MRF Honorees
The Melanoma Research Foundation (MRF) is honoring two Penn clinicians for their tireless work in caring for patients. Ari D. Brooks, a professor of surgery in the Perelman School of Medicine, the director of endocrine and oncologic surgery, and the director of the Integrated Breast Center at Pennsylvania Hospital, will receive the 2018 Humanitarian Award. Suzanne McGettigan, a nurse practitioner in the Abramson Cancer Center, will receive the Compassionate Care Award. Both clinicians will be honored as part of the MRF’s 5th Annual Wings of Hope for Melanoma Gala on June 13.

The Humanitarian Award goes each year to an oncologist, dermatologist or surgeon who is making a large impact in the melanoma community. Dr. Brooks is being honored for his commitment to and reputation for exemplary patient care and treatment.

The Compassionate Care Award is given out annually to an individual who has shown compassion, dignity and leadership and who offers a patient-centered approach to those in their care. Ms. McGettigan was nominated by Dr. Brooks and several of her patients for her unwavering commitment to patient care.

Susan Brozena: Lifetime Achievement Award
Susan Brozena, an emeritus associate professor of cardiovascular medicine in the Perelman School of Medicine, is the recipient of the 2018 Lifetime Achievement Award from the American Heart Association. This award celebrates a professional who has had a pioneering career and has made an exceptional impact on their patients, the Philadelphia community and cardiology.

As a cardiologist, Dr. Brozena has spent the last 32 years caring for patients with heart failure and those who are waiting for or recently received a heart transplant.

Michael S. Parmacek, chair of the department of medicine and the Frank Wister Thomas Professor of Medicine, said about Dr. Brozena, “She is always an advocate for her patients and their families, and has displayed resounding dedication, innovation and empathy in delivering care. Susan has taught all of us that the optimal patient experience requires a team that recognizes the value of nurses, staff and social services.”

The author of more than 65 scientific publications and book chapters and having delivered more than 50 invited lectures, Dr. Brozena is a member of the American Heart Association, the American College of Cardiology, the Cardiac Transplant Research Database Group, the Heart Failure Society of America, the International Society for Heart and Lung Transplant, and the College of Physicians of Philadelphia. She is also currently serving as the Chair of the American Board of Internal Medicine Cardiology Board Advanced Heart Failure and Transplant Certification Exam Committee.

(continued on page 4)
Honors & Other Things (continued from page 3)

Jeffrey Berns: National Kidney Foundation Clinical Excellence

Jeffrey S. Berns, PSOM associate chief of the division of renal-electrolyte and hypertension, associate dean for graduate medical education, director of the renal fellowship program, professor of pediatrics and professor of medicine at HUP and PMC received the 2018 Donald W. Seldin Distinguished Award from the National Kidney Foundation (NKF). This award is given to clinicians who display excellence in clinical nephrology.

Over the last 29 years at Penn Medicine, Dr. Berns has specialized in caring for patients with chronic kidney disease, hypertension, electrolyte disorders, kidney failure and lupus nephritis, among other diseases. His research is also focused specifically on dialysis, chronic kidney disease and kidney failure.

The author of 200 original scientific publications and book chapters, Dr. Berns serves as co-deputy editor of the NKF’s American Journal of Kidney Diseases and Nephrology and as editor-in-chief and “Dialysis Section” co-editor for UpToDate, an evidence-based and physician-authored clinical decision support resource used for making the right point-of-care decisions.

Jane Buikstra: Lucy Wharton Drexel Medal

Jane Buikstra, Regents Professor of Bioarchaeology and Founding Director of the Center for Bioarchaeological Research in the School of Human Evolution and Social Change at Arizona State University, was awarded the Penn Museum’s Lucy Wharton Drexel Medal, recognizing her exceptional achievements and contribution to bioarchaeological work. After receiving the award, Dr. Buikstra presented a lecture, Ancient Tuberculosis and Leprosy: Pre-Columbian Presence in the New World.

Dr. Buikstra’s work has defined the discipline of bioarchaeology, an international field that enriches archaeological knowledge of past peoples through scientific study of their remains and archaeological/historical contexts. She is the inaugural editor-in-chief of the International Journal of Paleopathology.

Edna Foa: Humanitarian Award

Edna B. Foa, the director of the Center for the Treatment and Study of Anxiety at Penn Medicine and a professor of psychology in psychiatry, has been named the recipient of the 2018 Carol Johnson Humanitarian Award by Women Organized Against Rape (WOAR), Philadelphia’s rape crisis center. The award is presented to a person who has shown “outstanding commitment to making [the] community safer for victims of sexual assault.”

Dr. Foa is an internationally renowned authority on the psychopathology and treatment of anxiety. She is one of the world’s leading experts in the areas of post-traumatic stress disorder (PTSD) and obsessive-compulsive disorder (OCD), and developed prolonged exposure therapy to treat post-traumatic stress disorder. The prevalence of rape is about three percent of the population; of these, 60 percent will have had PTSD at some point in their lives, and nearly one in five currently has the condition. In prolonged exposure therapy, patients revisit the traumatic event in order to help them heal. Dr. Foa has lectured on and provided workshops on prolonged exposure therapy internationally. Dr. Foa has authored 20 books and hundreds of peer-reviewed publications.

Marybeth Gasman: Lifetime Scholarship Award

Marybeth Gasman, the Judy and Howard Berkowitz Professor of Education and the director of the Penn Center for Minority Serving Institutions (MSIs), was awarded the Dr. Carlos J. Vallejo Memorial Award for Lifetime Scholarship by the Multicultural/Multithnic SIG of the American Educational Research Association.

The award recognizes a senior-level scholar whose scholarly career contributions to multicultural/multietnic education have played and continue to play a significant role in shaping the field. Recipients are selected based upon their efforts in producing scholarship that advances multicultural and multietnic education and if they have demonstrated a commitment to underserved communities beyond scholarship with evidence of improving the plight of populations experienced by multicultural communities.

James Gee: AIMBE College of Fellows

James C. Gee, an associate professor of radiologic science and director of the Penn Image Computing and Science Laboratory in the department of radiology at the Perelman School of Medicine, has been inducted into the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows. This is among the highest professional distinctions accorded to a medical and biological engineer. The College of Fellows is comprised of the top two percent of medical and biological engineers.

Dr. Gee’s research focuses on biomedical image analysis and computing. Last October, he received two NIG grants totaling $3.9 million to develop a first-ever three-dimensional, cellular-resolution digital atlas of brain cell types in collaboration with colleagues from the Allen Institute for Brain Science, MIT, Harvard, and University of California, San Diego. The atlas will include location, structure, function, molecular properties and connectedness to other cells to classify and catalogue the diversity of cell types in the brain to improve research and treatment for a range of neurological conditions.

Philadelphia Magazine’s Most Influential People

Philadelphia magazine recently announced its “100 Most Influential People in Philadelphia” list, ranking a list of “100 people shaping the way we think, talk, work and live right now.”

Recipients from Penn this year are:

• President Amy Gutmann (#2)
• Penn Trustee Chair David L. Cohen (#3)
• Richard W. Vague Professor in Immunotherapy in PSOM Carl June (#10)
• UPHS CEO Ralph Muller (#15)
• PennDesign Lecturer Paul Levy (#27)
• Penn Trustee and Penn Medicine Trustee Richard Vagelos (#32)
• Saul P. Steinberg Professor of Management; professor of psychology Adam Grant (#35)

Michael Horowitz: Air Force Office of Scientific Research Grant

Michael C. Horowitz, professor of political science and the associate director of Perry World House, will lead a research team that has been awarded a $1.04 million grant from the Air Force Office of Scientific Research, through the Department of Defense (DoD) Minerva Initiative, for a project titled “The Disruptive Effects of Autonomy: Ethics, Trust and Organizational Decision-Making.”

Dr. Horowitz will oversee the study of the effects of autonomous systems and artificial intelligence. The Minerva program is specifically designed to facilitate social science research relevant for national security. The Penn team will collaborate with researchers from the University of Denver, the Naval War College and Yale.

The project seeks to understand the human, organizational and political factors that could affect the willingness of individuals and bureaucracies to adopt autonomous systems, and the potential consequences of these attitudes. In addition, the team will work to advance knowledge about the potential consequences of autonomous systems for DoD policy and the modern battlefield, as well as shed light on how other actors—both state and non-state—will incorporate autonomous systems.

Vijay Kumar: National Philosophical Society

Vijay Kumar, the Nemirovsky Family Dean of the School of Engineering and Applied Science, has been elected to the American Philosophical Society. Founded by Benjamin Franklin in 1743 for the purpose of “promoting useful knowledge,” the society is the oldest learned society in the United States, continuing its founder’s spirit of inquiry by providing a forum for the free exchange of ideas.

Dr. Kumar joined the Penn Engineering faculty in 1987 and has appointments in mechanical engineering and applied mechanics, computer and information science, and electrical and systems engineering. He has served as Engineering’s deputy dean for education, deputy dean for research, chair of mechanical engineering and applied mechanics and director of the General Robotics, Automation, Sensing and Perception (GRASP) Laboratory.

During a scholarly leave 2012–2014, Dr. Kumar served in the White House as assistant director for robotics and cyber physical systems in the Office of Science and Technology Policy. He is a member of the National Academy of Engineering and a Fellow of the American Society of Mechanical Engineers and of the Institute of Electrical and Electronic Engineers.
Daniel Rader: Distinguished Investigator Award

The Association for Clinical and Translational Science (ACTS), a non-profit membership association of translational scientists from the nation’s leading academic medical centers, has awarded the Edward H. Ahrens Jr. Distinguished Investigator Award for Patient-Oriented Research to Daniel J. Rader, chair of the department of genetics in the Perelman School of Medicine.

Dr. Rader is a physician-scientist who has made numerous contributions to the prevention of heart disease. He is a globally renowned expert in the genetics and physiology of lipoprotein metabolism and atherosclerosis. Dr. Rader’s research is identifying new genes and pathways involved in regulating lipoprotein metabolism and defining its role in atherosclerosis.

Additionally, Dr. Rader’s lab has shown that the ability of HDL to extract cholesterol from cells is a predictor of coronary disease compared to its simple level in the blood. He has also made translational discoveries related to triglycerides, and his work in the area of rare diseases has resulted in FDA and European approval of lomitapide, the first effective medication for treating homozygous familial hypercholesterolemia (HoFH), a rare condition characterized by extremely high levels of LDL, leading to heart disease in children.

E. John Wherry: Innovation in Collaboration Award

E. John Wherry, the Richard and Barbara Schiffrin President’s Distinguished Professor of Microbiology, director of the Institute for Immunology, and co-leader of the Abramson Cancer Center’s Immunobiology Program, has received a Phillip A. Sharp Innovation in Collaboration Award from Stand Up To Cancer (SU2C), the non-profit organization established by film and media leaders to support collaborative cancer research and increase awareness about cancer prevention.

Dr. Wherry and Matthew Hellmann, a medical oncologist at Memorial Sloan Kettering Cancer Center, comprise one of five teams to receive $1.25 million to cross institutional lines and collaborate on new research projects. The members of the five teams are all part of the SU2C ecosystem. In selecting the winning projects, the organization placed an emphasis on projects that involved SU2C-funded researchers with different skill sets.

Under the award, Dr. Wherry and Dr. Hellmann will seek to improve reinvigoration of exhausted T cells, which are white blood cells that are part of the immune system. T cell exhaustion can arise during chronic infections and cancer; it prevents optimal control of infections and tumors. Durable reprogramming of exhausted T cells is a fundamental goal of cancer researchers.

Penn Law Students: Williams Institute Moot Court Winners

Penn Law students Jesse McGleughlin, L’20, Ian Wahrenbrock, L’19, and Andrew Wilson, L’19, won the Williams Institute Moot Court Competition held in Los Angeles on April 13. The Williams Institute Moot Court Competition at UCLA School of Law is the only moot court in the country focusing on legal issues facing the LGBT community. This was the first win for Penn Law at this competition.

After participating in several earlier rounds, the Penn Law team and a team of Yale Law students competed in the final round in which they argued a case about a transgender high school student seeking to use restroom facilities in accordance with her gender identity, against the backdrop of the shift in federal policy from the U.S. Department of Education. The Penn Law finalists advocated for the transgender student.

FDA Approves CAR T Therapy for Large B-Cell Lymphoma

(continued from page 1)

cytic leukemia (CLL). The first DLBCL trial, including double hit lymphoma, follicular lymphoma, and mantle cell lymphoma, opened at Penn in February 2014.

Many patients in the DLBCL trials experienced a side effect called cytokine release syndrome (CRS). CRS is a toxicity associated with CAR T therapy, which includes varying degrees of flu-like symptoms, with fevers, nausea and muscle pain, and can require ICU-level care.

According to the data presented at ASH, 58 percent of patients in the DLBCL global study experienced CRS, including some who experienced moderate or severe toxicities. Twenty-one of those patients (26 percent) required treatment with tocilizumab, a therapy approved for CAR T cell-induced severe or life-threatening CRS, or corticosteroids. All of those patients recovered from their CRS. Other toxicities included infections (34 percent of patients), cytopenias or low blood count (36 percent), neurologic events (21 percent), febrile neutropenia (13 percent), and a metabolic abnormality called tumor lysis syndrome (one percent). All of the toxicities resolved on their own or with treatment, and there were no treatment-related deaths.

Novartis will create a registry to follow patients for 15 years after being treated to monitor their progress and any potential, future side effects.

The Novartis-Penn Center for Advanced Cellular Therapeutics (CACT) opened in 2016 and hosted Vice President Joe Biden at the launch of his Cancer Moonshot initiative, cementing Penn’s role as international innovator in the development and manufacturing of personalized cellular therapies.

Additional leaders of the DLBCL research include Jakub Svoboda, a assistant professor of hematologic oncology, Daniel J Lansbury, an assistant professor of hematology oncology, and Sunita D. Nasta, an associate professor of hematology oncology.

Both of Dr. Schuster’s studies were supported by Novartis. The single-site trial was also supported by grants from the National Institutes of Health (1R01CA165206), as well as through philanthropic support for the Lymphoma Program at the Abramson Cancer Center of the University of Pennsylvania from James and Frances Sharyn Berman and the Richard Berman Family Research Fund, Margarita Louis-Dreyfus and Sharyn Berman and the Richard Berman Family Funds for CLL and Lymphomas.

Patients who are interested in T-cell therapies at Penn Medicine can call (215) 316-5127 for more information.

ALMANAC May 29, 2018
Penn’s Green Landscapes: Beyond Aesthetics
While the parks, gardens and green spaces found across Penn’s campus certainly add to the aesthetic, there’s much more to them than visual appeal. Meeting the global and local sustainability goals set out by the Climate Action Plan 2.0 (Almanac October 28, 2014), the Penn Connects 2.0 (Almanac July 17, 2012), and the Penn Compact 2020, the campus landscaping efforts have been focused on being ecologically sound. Here are a few examples of landscaped areas across the campus that extend Ben’s edict of “both useful and ornamental” beyond the classroom and into the green spaces.

James G. Kaskey Memorial Park (BioPond)
Penn’s oldest green space that opened as a research garden in 1897, this oasis located near the Lynch Labs and the Levin Building. It is a cool, woodland oasis where over 500 trees thrive in the middle of the bustling urban campus. A waterfall and weeping water walls serve as a source for birds to drink from and also aerate water to keep it clean.

Class of 1968 Legacy Garden (at right)
This space next to the Jaffe History of Art Building and Van Pelt-Dietrich Library transformed unused lawn area into a native perennial garden and cherry tree collection.

Shakespeare Garden
Located in front of the Duhring Wing of the Fisher Fine Arts Building, this tranquil spot that celebrates plants mentioned in Shakespeare’s writings has transitioned from featuring mostly annual plants, which require more maintenance, to more perennials and native plants which are lower maintenance.

New College House
The landscaping in front of this student residence on Chestnut Street, between 33rd and 34th streets features native plants and pervious paving for storm water drainage.
**Class of 1957 Geology Garden**

Just west of Hayden Hall, this green space contains 10 boulders that represent the area’s geologic periods spanning 500 million years, from the Paleozoic through the Pleistocene eras. Each stone represents important transitions in the span of geologic time, while the plants growing here symbolize the evolutionary emergence of plant species.

**Shoemaker Green (at right)**

Shoemaker Green, between Franklin Field and the Palestra, is a 2.75 acre space that connects the main campus to Penn Park. Its rain garden contains highly absorptive engineered planting soils where floodplain species like bald cypress and sweetbay magnolia flourish. Stormwater filters through a system of trench drains and inlets before it enters the rain garden, where it is further filtered through a series of stone and vegetative swales. This area is also used as living laboratory, where faculty and students are active in monitoring the process of plant growth, soil health and water quality.

**Pollinator Garden and Food Forest**

With paw paws, quinces, figs, hardy kiwis, and persimmons, as well as pollinator plants, this garden near 38th and Spruce streets behind the Rosenthal Building brings bees, butterflies, and wildlife to an urban corner of campus, demonstrating the power of plants to create pockets of habitat even in developed sections of the city.

**Penn Park (at left)**

A stunning reclamation and re-imagimation of a former industrial site, this park, which opened in 2011, increased green space on campus by nearly 20 percent and created a vibrant connection between Center City and West Philadelphia. Underground cisterns, bioswales and meadows capture rainwater and mitigate storm water overflow into the Schuylkill River. Over 500 mainly native canopy trees were carefully chosen for this 24-acre recreational space at the east end of campus.
Overview
PASEF’s members are senior (age 55 and over) and retired standing faculty at Penn. Its mission is to organize programs and activities for its members and to provide them with opportunities to enhance the intellectual and social life of the University and to provide service to the University and the community. A major function of PASEF is to assist senior faculty in their transition to retirement by providing retirement planning seminars and information.

PASEF was founded in 2004, and its current membership numbers approximately 900 senior faculty and 600 retired faculty. The Association of Senior and Emeritus Faculty (ASEF–PSOM) is an analogous organization for faculty at the Perelman School of Medicine. The two organizations each have their own Council, but they regularly cooperate in planning joint programs and activities, mostly recently through a newly established joint Program Committee.

PASEF is a member organization of AROHE, the Association of Retiree Organizations in Higher Education.

Administration
Governance and administration. PASEF operates under a set of bylaws and is governed by a Council which meets monthly during the academic year. The President, President-Elect, and Past President form the Steering Committee (Council members for 2017–2018 are listed in Appendix A).

PASEF receives an annual budget from the Provost and reports to Vice Provost for Faculty Anita Allen, who has been especially supportive. During the past year excellent assistance has been provided by members of the Provost’s staff, including Jillian Powell, Julie Shuttleworth, and Kathy Swartz. We are also participating with the staff of the Provost’s Office on the redesign of our PASEF website.

Facilities. PASEF has an office in Duhring Wing, next to the office of the Faculty Senate. Staff support is provided by a half-time employee, the PASEF Coordinator, Sarah Barr. Through the efforts of Vice Provost Allen, PASEF has acquired a room adjacent to its current office which is now fully furnished and operational. Both the current office and the new space can accommodate meetings of small groups.

PASEF’s website is www.upenn.edu/emeritus

Retirement
PASEF and ASEF–PSOM provide resources and give presentations to aid senior faculty in planning their transition to retirement. During the past year four informational events were held, also receptions to recognize newly emeritus faculty.

Reception for newly emeritus faculty. Recently between 50 and 60 standing faculty have taken emeritus status each year, and PASEF and ASEF–PSOM have co-sponsored a reception in the Fall to honor the retirees.

This past year’s event in October 2017 was held at the Sweeter Center with Vice Provost Allen as the featured speaker. Attendance at the event was surprisingly low, due in large part to the fact that many 2017 retirees had already relocated. After discussions by both PASEF and ASEF Councils, a joint decision was made to shift the ceremony to the end of the spring semester 2018, initially as an experiment. Thus, a second reception (with honorees’ photographs continually displayed on a large screen, and, again, with Vice Provost Allen as featured speaker) was held on May 16, 2018 (with much greater participation). If, as seems likely in view of the response to the spring ceremony, this scheduling turns out to be more popular, then the annual retirement reception for that year’s retirees will henceforth be held each May. The PASEF Council decided at its May 2018 meeting not to hold a retirees event in the fall.

Road to Retirement programs and Hitchhiker’s Guide. Each spring PASEF presents two Road to Retirement information programs and, with ASEF–PSOM, partners with Human Resources for a third presentation.

In March, a panel of senior and retired faculty spoke in the Van Pelt-Dietrich Library about their retirement decisions and experiences in emeritus status. The session included a presentation on continuing care retirement communities (CCRCs). PASEF proposes to hold a separate panel discussion on CCRCs in fall 2018.

In April, Hilary Lopez and Vicki Mulhern, University staff experts on retirement, discussed retirement options and the details of retiree benefits. Some 53 potential retirees attended the event (in Van Pelt-Dietrich Library), and many general and specific questions were addressed.

Representatives from Social Security and Medicare spoke in May at the event organized by Human Resources.

In January 2018 PASEF published the eleventh edition of its Hitchhiker’s Guide to Faculty Retirement under the able editorship of Martin Pring. Sections on financial planning for retirement, transition to emeritus status and retiree relations with the University are included, and the publication is available on the PASEF and ASEF–PSOM websites.

Activities and Events
Monthly lectures. PASEF sponsors lectures throughout the academic year. These are open to all members of the University community and span a wide range of topics of general interest. ASEF–PSOM also sponsors monthly lectures and two special lectures in fall and spring. This year PASEF’s Program Committee was jointly chaired by Paul Shaman and Jerry Porter. Further, a joint Program Committee for ASEF–PSOM and PASEF has also been established this year to coordinate the timing of joint events and lectures.

The PASEF Program Committee arranges eight monthly lectures and a featured lecture each semester. The Fall Lecture, given each year in October in conjunction with the 25-Year Club Dinner, was presented by Jane Golden, director of Mural Arts Philadelphia (entitled “Public Art and Social Change”), and the Spring Lecture speaker was Kathleen Jamieson of the Annenberg School (How Russian Hackers and Trolls Exploited U.S. Media In 2016). In addition, the Library Committee (headed by Vivian Seltzer) arranged four lectures on a variety of topics.

Links to video recordings of some of the lectures are available on the PASEF website.

Outings. PASEF and ASEF–PSOM together organize two outings a year, one in the fall (organized by ASEF–PSOM), and another in the spring (organized by PASEF). In fall 2017 we visited the Hagley Museum in Wilmington, and in April there was a visit to the Michener Museum in Doylestown, where a guided tour took us through a special exhibit of works of the Wyeth family.

Membership initiatives. The Membership Committee, chaired by Anita Simmons, presented several recommendations, which were approved by the Council. These include organization of special events such as attendance at concerts, which has been extremely popular and successful; reserving a table at the University Club where members can meet for lunch and conversation on a regular schedule, which has not, thus far, attracted a sufficient clientele; a second annual cultural outing in the fall (yet to be implemented); and additional planning for retirement presentations, including a special session devoted to CCRCs (the first of which is planned for fall 2018).

Community Involvement. Following up on an enthusiastic presentation by members of the Council concerning community involvement initiatives at the final meeting of the PASEF Council in May 2017, Ira Harkavy, the Director of Penn’s Netter Center, was invited to attend the PASEF Council’s September 2017 meeting. Members of the ASEF–PSOM Council also attended.

He described to us the various community-based initiatives in which the Center and members of the Penn faculty are currently involved. As a result of that meeting and the discussions that followed, a PASEF ad-hoc committee on community involvement, chaired by Joan Goodman, was established. The committee made regular presentations to subsequent PASEF Council meetings during the year, including results from its survey of member interest. In March 2018 it was proposed and accepted that the ad-hoc committee should become a standing committee, requiring a change in the PASEF by-laws. A resolution to that effect was passed at the May 2018 meeting.

Speakers Bureau. With encouragement and funding from Vice Provost Allen, PASEF launched its Speakers Bureau in the spring of 2016. This work was spearheaded by Jack Nagel as initial chair of the Speakers Bureau Committee; Roger Allen has since taken over as coordinator of the bureau’s activities. The Bureau enables community groups, including retirement communities, civic and religious organizations and high schools, to identify and invite PASEF members to speak to audiences in the Philadelphia area. The current roster of speakers numbers 25 and includes both senior and retired Penn faculty from Schools across the University. Information about the Bureau and the speakers and their topics is available on the PASEF website at www.upenn.edu/emeritus

(continued on page 9)
Faculty Senate and University Council

For the last 10 years, PASEF has sent a non-voting representative to the Senate Executive Committee (SEC). After discussions last year, the Senate leadership granted PASEF non-voting membership on four Senate Committees, starting in 2016–2017. The committees are the Senate Committee on Faculty and the Administration; the Senate Committee on Faculty, and the Academic Mission; the Senate Committee on Students and Educational Policy; and the Senate Committee on Faculty Development, Diversity, and Equity. PASEF also has a member on the University Council’s Committee on Personnel Benefits.

PASEF Annual Election

Gino Segré chaired the AY2017–2018 PASEF Nominating Committee. The Committee’s proposed slate was approved by email voting following the March Council meeting.

James Ferguson was elected President-Elect, Paul Shaman Secretary, and Martin Pring the SEC Representative. New at-large Council members who will serve three-year terms are Marc Dichter, Joretha Bourjolly and Jorge Santiago-Avriles.

—Roger Allen, PASEF President (2017–2018)

Appendix A: PASEF Council Members, 2017–2018

Roger M.A. Allen, Professor Emeritus, Near Eastern Languages and Civilizations (SAS), President; Co-Chair, Speakers Bureau Committee
David Balamuth, Professor Emeritus, Physics and Astronomy (SAS), Representative to the University Council Committee on Personnel Benefits
Janet Deatrick, Professor Emerita, Family and Community Health (Nursing), at-large member
Lois Evans, Professor Emerita, Family and Community Health (Nursing), President-Elect
Murray Gerstenhaber, Professor Emeritus, Mathematics (SAS), at-large member
Joan F. Goodman, Professor Emerita, Literacy, Culture, and International Education (GSE), Chair, Ad-hoc Committee on Community Involvement
Howard I. Hurtig, Professor Emeritus, Neurology (PSOM), Secretary
John C. Keene, Professor Emeritus, City and Regional Planning (Design), Representative to the Faculty Senate Committee on Faculty Development, Diversity, and Equity
Walter Licht, Professor of History (SAS), at-large member
Ann Mayer, Associate Professor, Legal Studies and Business Ethics (Wharton), at-large member
Marshall W. Meyer, Professor Emeritus, Management (Wharton), Representative to the Faculty Senate Committee on Faculty and the Administration
Jack H. Nagel, Professor Emeritus, Political Science (SAS), Co-Chair, Speakers Bureau Committee
Gerald J. Porter, Professor Emeritus, Mathematics (SAS), Co-Chair, Program Committee
Martin Pring, Professor Emeritus, Physiology (PSOM), Representative to the Faculty Senate Executive Committee; Editor, Hitchhiker’s Guide to Retirement
Gino C. Segré, Professor Emeritus, Physics and Astronomy (SAS), Representative to the Faculty Senate Committee on Faculty and the Academic Mission
Vivian C. Seltzer, Professor Emerita, Human Development and Behavior (SPP), Chair, Library Committee
Paul Shaman, Professor Emeritus, Statistics (Wharton), Past-President and Co-Chair, Program Committee
Anita A. Summers, Professor Emerita, Business Economics and Public Policy (Wharton), Chair, Membership Committee; Representative to Faculty Senate Committee on Students and Educational Policy
Past Presidents: Rob Roy MacGregor, Benjamin S. P. Shen, Neville E. Strumpf, Vivian Seltzer, Roger Allen, Ross A. Webber, Jack Nagel, Anita Summers

The World On View: Objects from Universal Expositions, 1851-1915 at the Arthur Ross Gallery

How do objects made for universal expositions condense the world and put it on display? The World on View: Objects from Universal Expositions, 1851-1915 at the Arthur Ross Gallery is the culmination of a curatorial seminar that explores this crucial aspect in the history of globalization. The course and exhibition examine competing visions of the world and mechanisms of international exchange, materialized as objects displayed at world’s fairs.

Examples include an early electric water kettle; a photo-sculpture executed at the 1867 Paris exhibition; Chinese export porcelain and Japanese metalwork designed for international consumption; Manchester textiles made for the Senegalese market; Chitimacha tribal baskets woven in St. Louis in 1904; and a Paul Gauguin painting associated with the 1889 Paris Exposition Universelle.

Such objects exemplified the period’s advances in art and technology, yet they also demonstrated an imperial frame for locking cultures into hierarchical dependency.

This exhibition brings together works dating from the Great Exhibition of 1851 in London through San Francisco’s Panama-Pacific International Exposition in 1915, borrowed from the university’s as well as other local Philadelphia collections.

The exhibition will be on view through July 29. It is accompanied by an illustrated catalog.

The curatorial seminar was taught by André Dombrowski, associate professor of history of art, University of Pennsylvania.
Human Resources
Upcoming July Programs

Professional and Personal Development Programs
Open to faculty and staff. Register at http://knowledgeLink.upenn.edu/
Project Management; July 19; 12:30-1:30 p.m.; free. This brief session will provide solutions for project leaders to better manage your team and meet your objectives and timeline.

Tools for Career Assessment and Development; July 26; 12:30-1:30 p.m.; free. In this program we will examine questions for assessing and developing your career. You will compare your career options by using a variety of tools. By the end of the session you will have the resources needed to develop a plan for career success.

Work-life Workshops
Open to faculty and staff. Register at www.hr.upenn.edu/registration
Mindfulness; July 11; 12:30-1:30 p.m.; free. This monthly workshop will offer participants an opportunity to practice awareness activities adapted from Jon Kabat-Zinn’s Mindfulness-based Stress Reduction (MBSR) program. We will begin with a brief guided meditation. Following this meditation, we will experience mindful breathing. (Please be sure to bring a lunch or snack that you would feel comfortable eating in silence.) We will then discuss how we might apply awareness to our everyday lives. The session will conclude with Kabat-Zinn’s “body scan,” “lake,” or “mountain” meditation. No experience necessary.

Guided Meditation; July 24 and 27; 12:30-1:30 p.m.; free. Practice mindful breathing that focuses your attention on the present moment with kindness, compassion and awareness. Self-massage and gentle mindful movements that promote relaxation and reduce stress may also be included in the workshop. No experience necessary.

—Division of Human Resources

The Burrisson Gallery will feature a Members’ Exhibit, now through August 23, 2018.

Burrisson Gallery: Calling for Campus Community Artists
The Burrisson Gallery is calling for artwork submittals to be considered for future exhibitions. The Burrisson Gallery is named after Maurice Burrisson, W ’32, former interior designer and fine arts consultant in Penn’s Department of Facilities Planning. Mr. Burrisson began mounting art displays in the Penn Faculty Club in 1978. His goal was “to raise the consciousness of people on this campus to the art around them.” In 1990 the Faculty Club Gallery was named for Mr. Burrisson. In 1999, the Gallery was rededicated in its current home as part of the University Club at Penn, located in the Inn at Penn.

By providing an intimate space for artists from the University Community to showcase their work, the Burrisson Gallery seeks to continue Mr. Burrisson’s vision while, at the same time, enhancing the ambience and advancing the mission of the University Club at Penn. Any Penn faculty, staff, alumna, alumnus or spouse or partner of these groups may submit work for consideration. Selected artists will be given a four- to five-week, one-person show at the gallery.

To receive an application form and more information, please email the Gallery at burrisongallery@gmail.com

Citizen Salon: A Crowd-Sourced Exhibition
To mark the Arthur Ross Gallery’s 35th Anniversary, they invite their audience members to partner with them by selecting artworks to be included in the exhibition. Visit http://artcollection.upenn.edu/cs/ to look through works by Modigliani, Matisse, Manet and more. Help ARG curate by choosing an artwork for Citizen Salon, this crowd-sourced exhibition. Select one artwork from their database of 125 paintings, prints and works on paper from Penn’s University Art Collection. Browse the artworks or view them individually by artist. Visitors can click on the images to view more information and make a selection. Citizen Salon will be installed at Penn’s Arthur Ross Gallery from November 30, 2018-March 26, 2019. The deadline to make a selection is September 15.

Morris Arboretum’s Nature Play, a New Outdoor Event Series Continues on June 2

Morris Arboretum’s Nature Play, a new outdoor event series, continues on Saturday, June 2, 11 a.m.-3 p.m. These sessions of unstructured time use what’s available in the outdoors for fun; learning to love nature and loving to learn naturally. This month, kids are invited to climb on fallen tree trunks and jump from stump to stump.

Nature Play will be held the first Saturday of each month through October, 11 a.m.-3 p.m., at a different location of the garden each session. Visitors may stop by anytime. The June event will take place beyond the end of the Oak Allée, past Three Tubes sculpture. These events are free with regular garden admission. For more information, visit www.morrisarboretum.org

Morris Arboretum is a 92-acre horticultural display garden that features a spectacular collection of mature trees in a beautiful and colorful landscape. The official arboretum of the Commonwealth of Pennsylvania, effective 1988, Morris Arboretum is listed on the National Register of Historic Places and accredited by the American Association of Museums.

At left, During May’s event Raya, age 11, practiced her handstands and Alex, age 7, built a tower with tree slices and bark.
Penn Children’s Center: FY2019 Rates

Effective Monday, July 2, 2018, new rates at the Penn Children’s Center become effective. The rate structure for the 2018-2019 school year reflects the Center’s commitment to continue to provide high-quality care and programming in the most cost-effective manner possible. Accredited by the National Association for the Education of Young Children (NAEYC) and licensed by the State of Pennsylvania’s Department of Human Services (DHS), the Penn Children’s Center is open to all members of the University and surrounding communities with preference given to faculty, staff and students of the University. For more information, please visit www.upenn.edu/childcare

<table>
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<tr>
<th>Penn Children’s Center</th>
<th>FY19 Rate Schedule (per week)</th>
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<tr>
<td>Infants</td>
<td>$458  $527  $276  $344</td>
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<td>5 Days</td>
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Penn Rate is available to Penn faculty, staff, students and UPHS employees. Assisted Rates are for the University of Pennsylvania Faculty and Staff meeting eligibility requirements. Subject to space and funding, Assisted A rates apply to University faculty and staff only with combined family income below $62,000. Assisted B rates are for University faculty/staff only with combined family income below $74,000.

Important Tax Information: Under current applicable Internal Revenue Service (IRS) regulations, any subsidies for dependent care provided by the University of Pennsylvania must be reflected on your Form W-2 as imputed income. If you have any questions concerning your spending account, you may contact the Benefits Office at 1-888-PENN-BEN (1-888-736-6236).

SEPTA Project Impacts University City Rail Station Service

Please be prepared for a major infrastructure project that may affect your commute this summer. SEPTA’s Arsenal Interlocking Reconstruction Project is scheduled to continue through August 2018. This multi-staged infrastructure project will affect the Airport, Media/Elwyn and Wilmington/Newark rail lines coming into and leaving University City Rail Station during the periods noted below:

- The weekends of June 2-3
- June 9-10
- June 16-17
- Sunday, August 5-Sunday, August 26

During these times, SEPTA plans to replace affected rail service with buses and make other service modifications. Construction work may also impact areas next to University City Station. Passengers are advised to allow extra time getting to and from their destinations or consider alternative transportation. Other commuters may be affected due to increased traffic on the roads.

SEPTA will release additional schedule and service updates online at www.septa.org/arsenal/index.html Please check www.septa.org for a detailed schedule and project information.

If SEPTA’s infrastructure project will disrupt your travel to and from campus, consider flexible work options. Penn encourages supervisors to consider flexible scheduling or to facilitate remote work—when appropriate—to allow staff members to commute safely while maintaining productivity. Staff members are advised to consider the organizational needs of their department and to communicate with their supervisor before requesting adjustments to their schedules or work locations.

Please visit www.hr.upenn.edu/PennHR/wellness-worklife/flexible-work-options for the University’s Flexible Work Options guidelines and recommendations for staff and supervisors.

—Division of Human Resources

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 May 14-20, 2018. Also reported were 20 crimes against property (1 auto theft, 1 DUI, 1 Narcotic, 2 vandalism, 6 other offenses and 9 thefts) with 6 arrests. Full reports are available at: https://almanac.upenn.edu/sections/crimes 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 May 14-20, 2018. The University Police actively patrol from Market St to Baltimore Avenue and from the Schuylkill River to 43rd St 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) 898-4842.

18th District

Below are the Crimes Against Persons from the 18th District: 12 incidents (4 assaults, 3 domestic assaults, 1 rape, 4 robberies) with 1 arrest reported between May 14-20, 2018 by the 18th District covering the Schuylkill River to 49th Street & Market Street to Woodward Avenue.

ALMANAC May 29, 2018 www.upenn.edu/almanac 11
**Status, Not Economic Hardship, Drive Voters in 2016**

New evidence published in April in the *Proceedings of the National Academy of Sciences* supports the idea that many Trump voters are feeling left behind, but not for reasons related to personal financial problems or economic anxiety about the future.

Based on survey data from a nationally representative panel of the same 1,200 American voters polled in both 2012 and 2016, Penn professor Diana C. Mutz found that traditionally high-status Americans, namely whites, feel their status in America and the world is threatened by America’s growing racial diversity and a perceived loss of U.S. global dominance. Under threat by these engines of change, America’s socially dominant groups increased their support in 2016 for the candidate who most emphasized reestablishing status hierarchies of the past.

Dr. Mutz, the Samuel A. Stouffer Professor of Political Science and Communication and Director of the Institute for the Study of Citizens and Politics, followed voters over a four-year period to assess their changing views of trade, the threat posed by China, their sense of group threat, and perceptions of their own personal finances, as well as experiences of unemployment and the economic conditions in their local communities.

Trump’s rhetoric during the 2016 election centered on the fears of Americans who currently enjoy dominant status in society, most notably those who were white, Christian, male, or some combination of the three. Many of those Americans, Dr. Mutz found, switched from voting for the Democrat in 2012 to the Republican in 2016. Particularly those who found societal changes threatening voted for Trump in an effort to maintain their perceived social dominance in the country and the world.

Despite exhaustive data analysis, the study did not show any relationship between financial hardship and voting for Trump. Meanwhile, lack of a college education was noted as a strong predictor of support for Trump. Education, Dr. Mutz explains, is also the strongest predictor of support for international trade. Negative attitudes toward racial and ethnic diversity, she points out, are also correlated with low levels of education.

“Elected officials who embrace the ‘left behind’ narrative may feel compelled to pursue policies that will do little to assuage fears of less educated Americans,” Dr. Mutz writes. In other words, addressing economic anxieties may not be the path to winning future elections.

“The 2016 election was a result of anxiety about dominant groups’ future status rather than a result of being left behind in the past,” Mutz writes. “Given current demographic trends within the United States, minority influence will only increase with time, thus heightening this source of perceived status threat.”

**How to Stop Teens from Texting While Driving**

Teens who admit to texting while driving may be convinced to reduce risky cellphone use behind the wheel when presented with financial incentives, according to a new survey conducted by researchers at the Perelman School of Medicine and CHOP.

The researchers asked students to consider strategies or factors that would help them refrain from texting while operating a vehicle, especially measures that could be implemented through technology and financial incentives or rewards.

The vast majority of the teens indicated that they would use “texting apps” or “cell phone apps” to avoid texting while driving. However, these students underestimated the cost of using apps.

The researchers asked participants to consider several possible factors or strategies that could discourage them from texting while driving, such as an annual insurance premium discount, or a cash reward for every week they don’t text and drive. Most of the teens indicated that financial incentives would be “very effective,” but many (54 percent) also indicated that they would actually be likely to use apps to avoid texting while driving.

“More than half of teens in the United States admit to texting while driving, and this has become a significant public health issue leading to preventable deaths and disabling injuries,” said study lead author M. K. Delgado, Penn assistant professor of emergency medicine. “Our study suggests a promising strategy to curb this epidemic would include enabling a phone setting or third party app with automatic responses to incoming messages and navigation and functions accessible, combined with financial incentives to sustain use.”

When asked why they wouldn’t want to use cellphone apps that monitor driving behavior, the survey participants cited an aversion to letting parents monitor their behavior as their top reason. A modest financial incentive may be enough to outweigh such concerns, Dr. Delgado said, though he noted it would need a better understanding of how to design interventions that optimally balance parental engagement and acceptance by teens.

**Gun Violence in Movies**

A new study by researchers at the University of Pennsylvania’s Annenberg Public Policy Center reveals how parents determine what makes intense gun violence in PG-13 movies acceptable for teens. The lead author was Daniel Romer, research director of the APPC. The authors of the study also included Kathleen Hall Jamieson, APPC director; Patrick E. Jamie- son, an APPC fellow at the Annenberg Communication Insti- tute; Azeez Adembibe, an APPC postdoc fellow; and Robert Lull, a former APPC postdoc fellow at California State University, Fresno.

The study, “Parental Desensitization to Gun Violence in PG-13 Movies,” was published online in the journal *Pediatrics* on May 14 and will be in the June issue. It measured responses of 610 parents in the United States to scenes of gun violence in popular PG-13 movies to determine how upsetting they were to watch and at what age parents would consider it appropriate for teens to view those scenes.

Previous research suggested that parents were growing emotionally desensitized to violence on film in response to the increase in gun violence, especially in PG-13 films.

The study found that parents were not emotionally desensitized to gun violence but were far more willing to expose their teens to such scenes if they found the violence to be “justified.” Violence that is perpetrated in self-defense or to protect loved ones was considered less upsetting and more appropriate for teens than unjustified violence. Nevertheless, most parents thought even justified gun violence was more appropriate for children starting at age 15 rather than 13, as the PG-13 rating category suggests.

“The result of this most recent study suggests that parents would favor a new rating, PG-15, that would more accurately signal the violent content in some movies.”

**Gold Nanorods Measure Squishiness at the Nanoscale**

Rheology is the science of studying how soft materials and complex fluids deform and flow under stress. These materials are everywhere in biology, and since their relative stiffness or squishiness is relevant to diseases, such as cancer, there is a need to accurately measure just how squishy they are.

Researchers at the University of Pennsylvania’s School of Engineering and Applied Science have made advances in the field of “microrheology,” developing a microscopy system able to make such measurements at previously impossible length scales.

By embedding cigar-shaped gold nanorods in the material to be studied and observing them with a stereoscopic, laser-based microscope, the researchers are able to map out the movements of nanometer- or smaller. This is small enough for the researchers’ microrheology technique to be used on the membranes of cancer cells.

They plan to apply this technique to ongoing research at Penn’s Physical Sciences Oncology Center (PSOC), which aims to connect the stiffening of liver cells in cirrhosis to the progression of liver cancer.

Researchers, John C. Crocker, professor of chemical and biomolecular engineering’s department of chemical and biomolecular engineering, along with lab members Mehdi Molaei and Ehsan Atefi, published a study detailing this system in the journal *Physical Review Letters*.

“Our technique provides a unique way of probing the fluctuations and rheology of soft materials at the nanoscale for the first time,” Dr. Crocker said. “This has the potential to revolutionize experiments in soft matter and interfacial science, and provides experimental verification of dynamics that could only previously be observed in computer simulations.”

The researchers tested their technique on a model polymer with well-understood rheological properties, using a laser-illuminated dark-field microscope with two different polarizations to track the nanorods. Some-what like a 3D movie, contrasting the data from the two polarizations allowed the researchers to calculate the rods’ orientation in space.

“The result turns out to be orders of magnitude superior to previous methods in several important metrics, including working on volumes of goo as small as an attoliter, or a quadrillionth of a milliliter,” Dr. Crocker said. “Still, the rods are way smaller than what can actually be resolved in an optical microscope; thousands could fit inside a single E. Coli. We had to turn a lot of optics calculations in order to quantitatively convert optical polarization to orientation.”

New research in collaboration with PSOC Director Dennis Discher, Robert D. Bent Professor of Chemical and Biomolecular Engineering, is already underway. Dr. Molaei is measuring the stiffness of liver cell membranes in vitro.