CELEBRATING THE HEART AND IMPACT OF THE HMS COMMUNITY

FEATURED STORY
IGNITING INNOVATIVE NEUROBIOLOGY RESEARCH
Roberts, DaSilva support high-risk studies with the potential for high rewards

06

ENSURING BEST TRAINING FOR FUTURE TRAILBLAZERS
Health Sciences and Technology program getting fresh look thanks to alum Chiang Li

02

TRANSFORMING INNOVATIONS INTO THERAPEUTICS
Q-FASTR program among areas bolstered by business executive Joseph Deitch

11

WOLFSON BEQUEST BOOSTS STUDENTS
Low-interest institutional loans offered to those with financial need

19
Until his ninth decade, the late Arthur B. Pardee, PhD, remained devoted to research. A titan of science whose seminal discoveries contributed to numerous aspects of molecular and cancer biology as we understand them today, Pardee is perhaps just as likely to be remembered for his outsized influence on the hundreds of students and postdoctoral fellows he trained. His generous support of young investigators and exceptional mentorship helped pave the way for many distinguished scientific careers.

“Dr. Art Pardee had a deep impact on my life,” says Pardee mentee Chiang J. Li, MD ‘98 (pictured). When Li was an HMS student pursuing his MD degree through the Harvard-MIT Program in Health Sciences and Technology (HST), Pardee was Li’s HST thesis adviser. “Art strengthened my interest in research and my curiosity in science and inspired me to pursue a career in biomedical innovation to alleviate human suffering from cancer and other life-threatening diseases,” says Li, who completed medical residency at Brigham and Women’s Hospital, postdoctoral research with Pardee at Dana-Farber Cancer Institute, and subspecialty training in gastroenterology and hepatology at Beth Israel Deaconess Medical Center (BIDMC). “After I finished my training, Art continued to be a close friend, a great mentor, and a sounding board for my ideas throughout my career.”

Li, a clinician-scientist and innovator, is passionate about research and clinical innovation. He is the founder and chairman of 1Globe Health Institute, which was established to pursue fundamental innovations to address urgent unmet medical needs in currently untreated diseases. The company is conducting multiple global phase 3 trials for novel therapies, as well as developing gastrointestinal cancer prevention methods using artificial intelligence. Li is also an adjunct faculty member at HMS and BIDMC and serves on the HMS Board of Fellows and the BIDMC Board of Trustees.

To honor Pardee’s passion for science and spirit of innovation, Li’s family foundation, the Chiang J. Li MD Family Foundation, recently committed $3 million to HMS to create the Dr. Arthur B. Pardee HST Curriculum Project Fund, which is being used to support an overhaul of the entire HST curriculum. “For the first 50 years of its existence, the HST program has been extraordinarily successful,” says HST co-director Wolfram Goessling, MD, PhD, the Robert H. Ebert Professor of Medicine at HMS and Massachusetts General Hospital. “But our medical landscape has profoundly changed, and these new times demand a fresh look and new approach to physician-scientist education.”

Goessling emphasized the significant costs of designing and implementing an innovative new way to prepare physician-innovators. “The gift from the Chiang J. Li MD Family Foundation, says Li, galvanizes and accelerates the reform process by not only supporting administrative and organizational efforts, but also by allowing the faculty involved to step away from some of their other duties for a while and focus on creating and implementing new classes, courses, initiatives, and experiences.

HMS Dean George Q. Daley AB ’82, MD ’91, PhD, himself an alumnus of the HST program, says, “I’m looking forward to witnessing the monumental changes and innovations Chiang’s gift will bring to the HST curriculum and HMS medical education.”

Innovation can take many forms, Li says. Thus, he believes HST students should be free to pursue a wide variety of research interests, as long as they are uncompromising in their efforts to become exceptional physicians who strive to alleviate human suffering and improve health care delivery systems.

Li says Pardee, a former professor in the Department of Biological Chemistry and Molecular Pharmacology at HMS and former chief of cell growth and metabolism at Massachusetts General Hospital, was a true visionary who loved collaborating with other scientists. In recognition of Li’s commitment to HMS, the School will name the student study and collaboration center within the Tosteson Medical Education Center (TMEC) after Pardee.

“I hope Dr. Pardee’s name and example continue to inspire endless curiosity and pursuit of new discoveries in the students in TMEC,” says Linda Li, a health care investor and entrepreneur, who serves as president of the Chiang J. Li MD Family Foundation.

The Chiang J. Li MD Family Foundation is committed to making a lasting impact through supporting creative ideas and initiatives in nonprofit organizations and to inspiring philanthropic drive and community engagement in Chiang Li’s three children—Charles Li, MD; Linda Li; and William Li—who oversee the foundation.

HST reboot timeline

Students in the Harvard-MIT Program in Health Sciences and Technology learn to harness the combined power of science, engineering, and medicine; to translate research findings into clinical practice; and to improve human health.

01 In early 2022, HMS Dean George Q. Daley and former HMS Dean for Medical Education Edward M. Hundert give HST co-director Wolfram Goessling the directive to start the process of completely reinventing the program.

02 A task force of faculty members from HMS and the Massachusetts Institute of Technology, along with HST students, begin formulating goals for the new curriculum.

03 Task force members start working in dedicated groups focused on how to best train students in three core aspects of the program: preclinical education, clinical integration, and research innovation time.

04 Two HST curriculum innovation co-directors are recruited and tasked with implementing the changes planned by the task force.

05 Certain components of the new curriculum are being piloted in the fall of 2023, with the intention of rolling out the new curriculum in the fall of 2024.
REJUVENATING T CELLS TO KEEP THE IMMUNE SYSTEM STRONG

T cells function as a critical component of the adaptive immune system, attacking illness-causing cells like bacteria, viruses, and cancer cells. But T cells, like every cell type in living organisms, are not immune to the effects of aging. Over time, these cells undergo intrinsic changes that lead to chronic inflammation and accelerated aging across the body. Scientists often see progressive deterioration of immune cell function in older organisms, contributing to the increased onset of autoimmune disease and elevated susceptibility to infection or cancer.

“T cells, so named because they mature and learn to do their job in the thymus before they are released into the body, are the immune system’s elite forces charged with multiple functions.

Sinclair’s three goals for this project are to identify age-related changes to the T-cell epigenome in mice and humans, to determine if epigenetic reprogramming restores T-cell function in aged human and mouse cells, and to ascertain whether epigenetic reprogramming ameliorates age-related deterioration of the immune system in vivo.

“Our decision to support HMS and the Sinclair Lab was deliberate and heartfelt,” says Michael Chambers. “We see a bright future in cell therapy, and the institution’s legacy and dedication to fostering cutting-edge research resonate deeply with our vision for transformative advancements in medicine.”

A grateful Sinclair succinctly describes the ultimate goal of this research.

“We hope it will allow us to extend the time we all have to be healthy, productive, and happy,” he says.
Neal Baer, EdM ’79, AM ’82, MD ’96 (Class of 1995), received the 2023 Distinguished Service Award for Harvard Medical School Alumni on June 2 during the Harvard Medical Alumni Association Annual Meeting, which was part of Reunion and Alumni Day activities (see pages 16–17).

The award recognizes MD alumni who have demonstrated loyalty, service, and commitment to HMS through volunteering, community building, service as an ambassador for the School, or otherwise supporting the School and its mission. Baer was selected for his staunch advocacy and support of HMS’s LGBTQ+ community and anti-racism initiatives, his invaluable service as co-director of both the Master of Science in Media, Medicine, and Health program and the Media and Medicine certificate program, and his enthusiastic participation on various leadership boards and volunteer committees to help further the School’s mission and advance alumni engagement and philanthropy.

Baer has been a Class Agent for 1995 and 1996 and has served as an elected member of Harvard University’s alumni board. He currently serves on the Board of Fellows and the Advisory Council on Education (ACE) at HMS, providing counsel to the dean, the dean for medical education, and other faculty.

“I’ve found being on the Board of Fellows and the ACE committee a wonderful way for me to stay engaged with the medical school,” Baer says.

As the co-director of the Master of Science in Media, Medicine, and Health program, Baer provides students with evidence-based, multidisciplinary storytelling skills in an arts-driven curriculum focusing on novel public health interventions. As co-director of the Media and Medicine certificate program, he supports those interested in using storytelling to advance health.

In addition, Baer is a member of the HMS ’95 Anti-Racism Task Force, which was formed in 2020 by a group of alumni to support mentorship, scholarly activity, education, and outreach on implicit bias and anti-racism issues. He’s also acted as a host for regional events, served on the Campaign Steering Committee, and volunteered on his 15th, 20th, and 25th Reunion Committees (for both the Class of 1995 and the Class of 1996).

Baer, who came out as gay in 2013, calls his activities supporting lesbian, gay, bisexual, transgender, and queer students “deeply rewarding.”

“I wasn’t out in medical school; only two people were. I’m thrilled the number is something like 20% of the class (of 2025) identifying as LGBTQ+,” Baer says. “Helping to make HMS welcoming to all students is of primary importance to me.”

An award-winning showrunner and television writer/producer, Baer served as executive producer of the groundbreaking NBC series “ER” and the Netflix TV series “The Righteous Gemstones,” as well as an executive producer of the HBO documentary “Welcome to Chechnya.” He served as executive producer and showrunner of “Designated Survivor” on Netflix, “Under the Dome” on CBS, and “Law & Order: Special Victims Unit” on NBC.

To nominate a deserving alum for the 2024 award, go to alumni.hms.harvard.edu/nomination.

Neal Baer Honored with Distinguished Service Award

Recognizing Donors’ Commitment to Global Health Equity

A celebration held May 10 at the Loeb House at Harvard University marked the establishment of the Paul Farmer Collaborative of Harvard Medical School and the University of Global Health Equity, which was made possible by a $50 million gift from Cummings Foundation split equally between these institutions.

HMS Dean George Q. Daley, AB ’82, MD ’91, PhD, and University of Global Health Equity (UGHE) Chanceller Jim Y. Kim, MD ’91, PhD ’93, delivered opening remarks at the event, which also included comments from Bill Cummings, who co-founded Cummings Foundation with his wife, Joyce.

The new collaborative will build upon and amplify the work of physician and medical anthropologist Paul Farmer, MD ’88, PhD ’90, who died on Feb. 21, 2022, while teaching at UGHE in Rwanda.

Farmer was the Kolokotrones University Professor and chair of the Department of Global Health and Social Medicine in the Blavatnik Institute at HMS, chancellor of UGHE, and co-founder and chief strategist of Partners In Health (PIH), an international health and human rights organization. Launched in 2015, UGHE is an initiative of PIH.

The Paul Farmer Collaborative will enable researchers at both institutions to deepen their exploration of social medicine, a field focused on the many factors influencing a person’s health, and pursue fundamental questions about the social determinants of health and humane caregiving. The overarching goal is to catalyze the development of sustainable, equitable health systems that improve health care delivery to underserved populations.
Faces of HMS

01
Class of 2027 students celebrate after receiving their white coats at a ceremony on the HMS Quad on July 31.

02
During the first-week Introduction to the Profession course in early August, Tyler LeComer, AB ’19, HMS Class of 2024, a member of the Office for Community Centered Medical Education (OCCME) Student Advisory Committee, speaks to 200 first-year HMS and Harvard School of Dental Medicine (HSDM) students about community engagement in health.

03
Kush Parmar, PhD ’08, MD ’10, and his wife, Padmaja Kumari Parmar, hosted a small cocktail reception at their Massachusetts home in May to promote the work of Vikram Patel, MBBS, MSc, PhD (center), who on Sept. 1 became the Paul Farmer Professor and Chair of Global Health and Social Medicine in the Blavatnik Institute at HMS. The Parmars have supported Patel’s work to transform global mental health delivery through education, research, innovation, and engagement.

04
Each year, the Harvard Alumni Association awards the Harvard Medal to recognize extraordinary service to Harvard University. Wellesley College President Paula A. Johnson, AB ’80, MD ’85, MPH ’85, was one of five recipients of the 2023 Harvard Medal. She has earned international acclaim for improving women’s health through her experience as a physician, researcher, teacher, and expert in public health and health policy. Johnson received her medal during the second annual Harvard Alumni Day on June 2.

05
Former HMS Dean for Medical Education Edward M. Hundert, MD ’84, shares a laugh with his wife, Mary, at a dinner held in his honor April 26 in Boston, following a meeting of the HMS Advisory Council on Education. After nine years leading the Program in Medical Education, Hundert transitioned to a new role over the summer as senior philanthropic adviser in the HMS Office of Alumni Affairs and Development.

06
Valerie Montgomery-Rice, MD ’87, president and CEO of Morehouse School of Medicine in Atlanta, delivers the keynote address April 11 at the 19th annual Alvin F. Poussaint, MD Visiting Lecture, which was held on the HMS campus. Her speech, “Leading With a Lens of Hope,” highlighted Montgomery-Rice’s lifetime commitment to education, service, and the advancement of health equity.

07
Residents, fellows, and program directors at all HMS-affiliated hospitals were honored and welcomed Sept. 20 at a reception hosted by HMS Dean George Q. Daley, AB ’82, MD ’91, PhD, and new HMS Dean for Medical Education Bernard S. Chang, AB ’93, MD, MMSc ’05, in the Tosteson Medical Education Center atrium.

08
At a signing ceremony in Paris on June 22, World Health Organization (WHO) Director-General Tedros Adhanom Ghebreyesus, PhD, appointed Vanessa B. Kerry, MD ’07, the first WHO director-general special envoy for climate change and health. Kerry, who leads the Program in Global Public Policy and Social Change, an initiative in the Department of Global Health and Social Medicine in the Blavatnik Institute at HMS, will help amplify the WHO’s climate and health messaging and undertake high-level advocacy.

09
Oni J. Blackstock, AB ’99, MD ’05, and Maurice G. Sholas, MD ’98, PhD ’98, enjoy a reception for HMS alumni and friends July 31 in New Orleans. Hosted by the HMS Office for Diversity Inclusion and Community Partnership and the HMS Office of Alumni Affairs and Development, the event coincided with the National Medical Association’s Annual Convention and Scientific Assembly.
Research and Therapeutics

Seeking to spark breakthroughs, couple back nascent research

Thomas G. Roberts Jr., MD ’97, and Susan DaSilva were looking for ways to support high-risk research with the potential for high rewards, and they found one in the Department of Neurobiology in the Blavatnik Institute at Harvard Medical School. The couple recently gave $1.38 million through their foundation to establish the R&D Impact Foundation Neurobiology Spark Grant Fund at HMS, which will ignite innovative research in its earliest stages.

“We feel that existing funding mechanisms often disincentivize research ideas that may hold great potential for breakthroughs but lack proofs of concept.”

Thomas G. Roberts Jr. and Susan DaSilva

Their gift, to be spread over three years, will benefit three researchers this year: Bruce Bean, AB ’73, PhD, the Robert Winthrop Professor of Neurobiology at HMS, who is hoping to develop new treatments for pain based on differences in ion channels in pain-sensing neurons compared to other kinds of neurons; Lisa Goodrich, PhD, a professor of neurobiology and the department’s vice chair, who is exploring the neural basis for responses to stress; and Wei-Chung Lee, PhD, an associate professor of neurobiology, who is studying nerve structures in the spinal cord thought to play a crucial role in processing sensory information from nerve networks outside the brain.

“We look for areas where there is both an unmet need and great potential, particularly if we feel that a field or idea has arrived at a tipping point,” Roberts and DaSilva say. “Once we identify such an area, we look to invest in world-class people who, with appropriate support, can deliver impact and who still hold the humility and commitment to work hard.”

Now based in San Francisco, Roberts and DaSilva both previously worked at Massachusetts General Hospital—Roberts as an oncologist and DaSilva as a nurse practitioner specializing in brain and mental health.

“We prefer to invest in areas where the societal benefit can be high, yet there is a scarcity of government or industry funding,” they say. “We feel that existing funding mechanisms often disincentivize research ideas that may hold great potential for breakthroughs but lack proofs of concept.”

They connected with one of Roberts’ HMS classmates, Sandeep Robert “Bob” Datta, MD ’94 (Class of 1997), PhD ’04, who is an HMS neurobiology professor, as well as David Ginty, PhD, the Edward R. and Anne G. Lefler Professor of Neurobiology and chair of the Department of Neurobiology. Ginty is overseeing the research of the current group of grant recipients.

Roberts and DaSilva cited a family member who was helped through neurological research as an inspiration for their gift.

“In our experience, good things usually happen when intelligent and ethical people ask important and courageous questions, receive support, and work relentlessly to find answers,” DaSilva said. “Occasionally these conditions can lead to almost magical outcomes, and breakthroughs happen. We are hoping to be a small but important part on the path to an ultimate breakthrough.”

Bruce Bean aims to fulfill a National Institutes of Health directive to find non-opioid methods of pain management. Lisa Goodrich is focusing on responses to stress through the sense of hearing in the hopes of learning how to combat pathological stress. Wei-Chung Lee hopes to make atomic-level images of nerve networks outside the brain to better understand how they function.
In 2020, tech entrepreneur Peter Holden witnessed the stark realities of the mental health crisis while distributing PCR tests for COVID-19 to California’s homeless population. Determined to effect change on a broad scale, he and business partner Tony Hughes brainstormed ways to make a difference on the front lines. They decided to invest in training individuals who could improve mental health care for underserved communities.

“The REACH Program opens doors for those with financial need who are driven to serve the underserved.”

Andrea Reid

“We understood the pressing need to disseminate our knowledge about the mental health crisis and create a substantial impact,” Hughes said. “Collaborating with Harvard, known for their innovative approaches to solving complex societal issues, was an obvious and fitting choice.” Through the Hughes Holden Foundation, they recently made a substantial gift to establish two scholarship funds at Harvard Medical School to provide crucial financial assistance to MD students. The donors hope that preference will be given to students from marginalized backgrounds and with an academic interest in mental health or psychiatry.

“We firmly believe in democratizing mental health,” Holden said. “By providing financial support through these scholarships, we can empower aspiring medical professionals to pursue their dreams and actively contribute to improving the state of mental health worldwide.”

Holden and Hughes are enthusiastic backers of the School’s REACH Scholarship Program, which will receive support from their gift. Holden says the program aligns perfectly with the foundation’s core principles of excellence and compassion. He emphasized the program’s potential to empower students who will play a pivotal role in leveling the health care playing field.

Andrea Reid, MD ’88, MPH ’01, associate dean for student and multicultural affairs in the HMS Program in Medical Education and director of the HMS Office of Recruitment and Multicultural Affairs, emphasizes the transformative nature of the REACH Program, which decreases the loan burden for students who demonstrate qualities of Resilience, Excellence, Achievement, Compassion, and Helping the underserved. REACH funding makes it more feasible for those who are from disadvantaged backgrounds to accept their offers of admission to HMS.

“The REACH Program opens doors for those with financial need who are driven to serve the underserved,” Reid says. “By providing the REACH Scholarship, we can make a significant difference in students’ lives, reducing their financial burdens and enabling them to pursue their aspirations at Harvard Medical School.”

Dozens gathered Sept. 11 at the Harvard Club of Boston to celebrate the establishment of the Christopher T. Walsh, PhD Professorship in Biological Chemistry and Molecular Pharmacology at HMS and the appointment of Jon Clardy, AM ’66, PhD ’69, as the inaugural incumbent. Clardy is a leader in investigating the ways in which small molecules control biological processes.

The crowd also paid tribute to Christopher “Chris” T. Walsh Jr., AB ’65, PhD, who died Jan. 10. Walsh was the founding chairman of the Department of Biological Chemistry and Molecular Pharmacology at HMS, an internationally renowned scholar of mechanistic enzymology, and a pioneer at the interface of chemistry and biology.

Among the attendees were Walsh’s widow, Diana Chapman Walsh, PhD, a former president of Wellesley College and a former chair of the Department of Health and Social Behavior at the Harvard T.H. Chan School of Public Health, and Chris and Diana’s daughter, Allison Walsh Kurian, MD ’99, MSc, a professor of medicine and of epidemiology and population health at Stanford University School of Medicine.

“Chris was a trusted colleague, warm friend, and remarkable mentor,” HMS Dean George Q. Daley, AB ’82, MD ’91, PhD, said at the event. “This professorship, established by his family, colleagues, friends, and mentors, is a testament to the power and impact of his groundbreaking and innovative contributions to chemistry, biology, and medicine for the improvement of human health, and the profound influence he had on so many of his trainees.”

FINANCIAL AID AND EDUCATION

STRIVING TO EASE THE MENTAL HEALTH CRISIS

Walsh Professorship Event
A Celebration and a Tribute

From left: Diana Chapman Walsh, Allison Walsh Kurian, and George Q. Daley.
EXAMINING THE FUTURE OF NURSING HOME CARE

As COVID-19 spread alarmingly across the world in 2020, it was particularly ruthless inside nursing homes. Filled with older residents—some with advanced health issues—living closely together and occupied by caregivers moving from room to room, these homes became ground zero for the virus that causes COVID-19.

While it’s clear that COVID-19 devastated these homes in the short term, the pandemic’s lasting impact on them is unclear. David Grabowski, PhD, a professor of health care policy in the Blavatnik Institute at Harvard Medical School, and his peers at Brown University are examining the long-term impact of the pandemic on occupancy, staffing, patient mix, ethnic and racial disparities, and quality of care in U.S. nursing homes. Their work is being supported by a $1.48 million grant from The Warren Alpert Foundation.

“Relative to pre-pandemic, fewer individuals want to live or work at a nursing home. How should we think about reforming nursing home policy in the context of this shift?”

David Grabowski

“Although there is growing consensus that policy reform is needed, the nursing home sector today is decidedly different from the nursing home sector in 2019,” says Grabowski. “Relative to pre-pandemic, fewer individuals want to live or work at a nursing home. How should we think about reforming nursing home policy in the context of this shift?”

The Harvard-Brown project team has worked together for over a decade on issues related to post-acute and long-term care, each school bringing expertise in particular areas. In fact, the study team received a $1.2 million Warren Alpert Foundation grant in 2019 to evaluate a Medicare nursing home payment change that occurred that year.

For the current project, the team will use a mixed methods research design (i.e., a research approach combining quantitative and qualitative methods in a single study) to examine how the pandemic has changed nursing homes. For its quantitative work, the team will study, among other things, the impact of the pandemic on nursing home admission decisions, occupancy, case mix, payer mix, length of stay, and facility closures and sales. For its qualitative work, the team will interview discharge planners, nursing home administrators, medical directors, families, and residents about how the pandemic has changed nursing homes.

“This research is important,” Grabowski says, “because subsequent pandemics are likely, nursing homes will always be a vulnerable setting, and the public health and medical communities will need to understand how lasting changes in nursing homes will impact residents and their caregivers going forward.”

Robert H. Brown Jr., DPhil, MD ’75, who is a member of The Warren Alpert Foundation’s board of directors and the chair of its grants committee, as well as a professor of neurology at UMass Chan Medical School, says that this joint project contributes to the missions of HMS, The Warren Alpert Medical School of Brown University, and the Foundation.

“One of the primary goals of The Warren Alpert Foundation is to support institutions engaged in the advancement of human knowledge for the benefit of human health,” Brown says. “Harvard and Brown are both committed to promoting research and scholarship to ensure equitable, efficient public health and enhance outcomes for those facing heightened risks due to ineffective and inefficient care.”

The Department of Health Care Policy at HMS is dedicated to promoting research and teaching programs focused on critical health care policy issues.
Most people who get Lyme disease can be treated with antibiotics and resume their normal routines. But there are still many patients who don’t respond to medicines and are forced to endure ongoing torment. Michael Starnbach, PhD, a professor of microbiology in the Blavatnik Institute at Harvard Medical School, is investigating how to help those people.

“We are interested in the much smaller set of disease-causing organisms—those that cause chronic or persistent infections—where the battle continues longer,” Starnbach says.

Starnbach and his team of researchers are the recipients of a $250,000 gift from the Malcolm and Emily Fairbairn Donor Advised Fund. The Fairbairns, whose family members have suffered from chronic Lyme disease despite conventional antibiotic treatments, have given more than $6 million to HMS since 2018 to better understand this complex disease and its devastating consequences.

Emily Fairbairn laments the multitude of individuals grappling with chronic Lyme disease who endure prolonged suffering. Yet, she maintains a resolute belief that “each of these individuals can reclaim their lives and regain their vitality.”

Starnbach said the funding is allowing researchers to explore how the bacterium that causes Lyme disease, Borrelia burgdorferi, is able to alter cells of the immune system during infection.

“We are trying to figure out whether the inhibition of immunity that B. burgdorferi causes early in infection results in long-term health consequences suffered by some patients,” Starnbach says.

The study of the behavior of cancer cells is helping Lyme disease researchers, who have identified a molecule on immune cells that B. burgdorferi uses as a switch to undermine the immune system. As a result, several drugs have been developed to cover that molecule/switch, hiding it from cancer cells and keeping the immune system strong and helping patients fight their cancers.

“We are engaged in experiments to see if this same class of drugs that are used in cancer patients might have utility in limiting symptoms seen in patients struggling with Lyme disease,” Starnbach says.

A study published in Emerging Infectious Diseases in 2021 used insurance records to estimate that 476,000 Americans are diagnosed and treated for Lyme disease each year.
FILLED WITH GRATITUDE, HMS GRADUATES GIVE BACK

In fiscal year 2023, alumni gifts of varying sizes—starting at $10—totaled nearly $12.3M in support for Harvard Medical School.

When you hear HMS alumni speak about their alma mater, it’s easy to understand why they choose to give back to the School.

“At HMS, I gained the knowledge and skills that make me the doctor, researcher, and person I am today,” says Ann Wu, MD ’98, MPH ’07.

“I formed lifelong friendships that have been transformative,” says Lauren Henderson, MD ’08, MMSc ’14.

“I met my closest friends and mentors,” says Derek Soled, MSc, MD ’22 (Class of 2022), MBA ’22.

“I acquired the essential tools for important and enjoyable careers,” says John Benson, MD ’46.

Wu, who spent a good amount of time in the Tosteson Medical Education Center (TMEC) as a student, says she appreciated how the facilities contributed to her education. “Twenty years later, when I became a faculty member teaching in TMEC, I was impressed with all of the updates to the building to keep up with technological advances and the new curriculum. All of these updates were to benefit the education of the students,” says Wu, a member of the Dean’s Council, HMS’s leadership annual giving society.

To support innovative education for future students, Wu designated her fiscal 2023 gift toward the Medical Education Building Revitalization Fund. She is naming an individual study room in the TMEC Student Study and Collaboration Center in honor of her parents and her 25th Reunion.

“My parents supported my medical education financially and emotionally. They came to the U.S. from Taiwan to pursue graduate school and they both value education in science and medicine,” says Wu, who recently served as Reunion Report vice chair on her 25th Reunion.

Henderson, who also recently served on her Reunion Committee, says she enjoyed working with other volunteers to plan events for their class, as well as serving as the committee’s fundraising vice chair. “It was wonderful to reconnect with the amazing members of the Class of 2008,” she says.

Henderson designated her FY 2023 gift for unrestricted use, giving the dean flexibility on how to deploy the money. “I want my gift to be used where it is most needed,” says Henderson, a member of the Dean’s Council and the Federman Loyalty Circle, which honors alumni who have made consecutive annual gifts of any size for five years or more. She says she chose the recurring gift option because she can set up a donation plan and then forget about it. “You don’t need to remember to donate monthly or yearly,” she says.

Ultimately, Henderson says, there is no way to repay HMS for everything the School has given to her. “My education prepared me for the career that I always wanted,” she says.

Echoing that sentiment, Soled says, “My time at HMS enabled me to realize my lifelong dream of becoming a doctor.” A first-time donor in fiscal 2023, Soled says he gave an unrestricted gift because there are so many ways to put the funding to good use. As examples, he pointed to financial aid funds, wellness funds, and funds for shared spaces.

As the former president of the Student Council of Harvard Medical School and Harvard School of Dental Medicine, and as a former student representative on the HMS Alumni Council, Soled has plenty of experience advocating for students in their endeavors. He says he wants to continue to find ways to support students as an alum. He also serves as a Class Agent for the Class of 2021, liaising between the School and its alumni to keep his classmates connected. “My favorite part of HMS was the people,” he says. “They were like family. This is an opportunity to continue to network with family outside of Boston.”

Benson, HMS’s oldest donor, has lived outside of Boston for more than 60 years. In 1959, he left the faculty of Massachusetts General Hospital to join the faculty of the University of Oregon Medical School, now Oregon Health & Science University, where he would later serve as interim dean. In 1975, Benson was appointed as the American Board of Internal Medicine’s first president, a full-time position.

He says his abundant experience with medical students and residents throughout his career inspired him to make his FY 2023 gift to the HMS Scholarship Fund.

“I was aware of the trials that residents and fellows seeking certification went through, which I went through as well,” says Benson, a Federman Loyalty Circle member who has given consistently to HMS for 40 years, as well as a member of the Society of the Silver Stethoscope, which is for alumni who have celebrated their 60th Reunion. “My career was always in some way related to turning out good physicians and subspecialists,” he says. “People looked after me as a young graduate, and it’s always been important for me to do the same.”

View the FY23 MD Honor Roll of Donors at alumni. hms.harvard.edu/honor-roll.

> ALUMNI GIVING

> Derek Soled

> John Benson

> Lauren Henderson

> Ann Wu
In his 1889 essay “The Gospel of Wealth,” Andrew Carnegie described three ways to distribute wealth: leave it behind for family members, bequeath it for public use upon death, or give it away while alive. Carnegie, who donated nearly all of his wealth during his lifetime, preferred the third option, writing, “In this we have the true antidote for the temporary unequal distribution of wealth, the reconciliation of the rich and the poor.”

Business executive and longtime philanthropist Joseph Deitch concurs with Carnegie’s approach. In 2011, he helped form Commonwealth Cares, the philanthropic arm of Commonwealth Financial Network. This charitable organization is dedicated to offering time, talent, and financial resources to help relieve human suffering and promote social and economic growth. And in 2018, he founded the Elevate Prize Foundation, which strives to “make good famous” and awards money and mentoring to social “heroes” whose endeavors elevate the human experience.

“We are very grateful to Joe Deitch for his generous and forward-looking contribution to this critical mission.”

David Golan

Deitch is also interested in supporting medical research, and he recently gave $1 million to Harvard Medical School to advance two areas: the Synthetic Biology Hive (HIVE) and the Quadrangle Fund for Advancing and Seeding Translational Research (Q-FASTR).

“At the HIVE, we are deeply committed to finding solutions for the many problems facing our beautiful planet,” says Pamela Silver, PhD, the Elliot T. and Onie H. Adams Professor of Biochemistry and Systems Biology in the Blavatnik Institute at HMS and the founder and co-director of the HIVE. “Generous gifts like this allow young scientists passionate about biology to explore new approaches to tackling problems like environmental pollution and climate change, sustainable manufacturing and global supply chains, food waste and security, and emerging pathogens and point-of-care diagnostics.”

Deitch says he recognizes the abundance of talent at HMS and hopes his gifts can help nourish the many small—but rich with possibility—seeds to create flourishing outcomes. He says he’s motivated to leverage his resources and donate to organizations that will have a significant impact. In his view, “It’s hard to find a better way to help humanity and fund medical research than to give to Harvard Medical School.”

Q-FASTR, which is part of the HMS Therapeutics Initiative, provides funding for innovative projects designed to translate basic biomedical discoveries into therapeutics, diagnostics, and related technologies that will eventually help patients directly. David Golan, AB ’75, MD, PhD, dean for research operations and global programs at HMS and co-chair of the Q-FASTR program, says gifts like Deitch’s are essential to enable Q-FASTR to fund as many innovative projects as possible from HMS Quadrangle laboratories. “We are very grateful to Joe Deitch for his generous and forward-looking contribution to this critical mission,” Golan says.

The Q-FASTR program has funded 68 projects, which have led to five new companies, 46 patents, and more than $160 million in follow-on funding.
Everybody seems to know somebody who has a family member with autism, and Peter Park, AB ’94, SM ’94, SM ’00, PhD, is no exception. But Park is now in a position to do something possibly groundbreaking about it.

A professor of biomedical informatics in the Blavatnik Institute at Harvard Medical School, Park is one of two researchers who have received grants totaling $1.1 million from the Simons Foundation Autism Research Initiative (SFARI) to study the brains of autistic people.

“Studies of human brain tissue are critical to better understand autism, which is a human-specific condition affecting the brain.”

MARTA BENDETTI

In addition to Park, Chen Ran, PhD, a research fellow in cell biology in the Blavatnik Institute at HMS, will also help further the understanding of autism spectrum disorder, why it occurs, and how it might be treated.

Ran’s work delves into the brain’s coding that can decipher signals that the body’s organs send through the five senses, especially those that indicate discomfort or disease.

“Studies of human brain tissue are critical to better understand autism, which is a human-specific condition affecting the brain,” said Marta Benedetti, SFARI senior scientist, in an announcement of the grant from the foundation.

Park is working with Christopher A. Walsh, MD, PhD, the Bullard Professor of Pediatrics and Neurology at HMS and Boston Children’s Hospital, to study the role of genetic mutations that occur in development. Whereas many genetic studies of autism in the past have examined DNA variation inherited from parents, Park and Walsh are investigating those that arise after conception. When considering Walsh’s award, the foundation is giving more than $3.3 million toward this collaborative project.

Park said that though he has done little research on autism, he expects his extensive experience in analysis of complex DNA datasets to carry over to his current project. For example, earlier this year, Park led a team that computationally discovered an antisense oligonucleotide (ASO) molecule that has since shown early promise in lab and animal experiments. The molecule appears to increase levels of a protein whose production is reduced in the brains of people with the type of dementia that arises from a mutation in a specific gene.

“My laboratory specializes in the development of computational methods for finding mutations in the human genome,” said Park, whose doctorate is in applied mathematics. “Although much of our work has been in cancer, we thought our expertise would also be useful for studying the mutational process in the brain, which is even more challenging.”

Dividing cells accumulate somatic mutations during development, meaning changes in a cell that aren’t directly passed down from, say, a parent to a child. But these mutations are difficult to find because only a tiny fraction of brain cells have them; specialized DNA sequencing techniques and sophisticated algorithms are necessary to detect them. In a previous study, Park and Walsh had discovered that the brains of some individuals with autism spectrum disorder indeed have mutations that affect key regions of the genome. They are now expanding their approach to better characterize these mutations and examine their impact.

“We are just at the beginning. We know very little about how these mutations occur in the brain and how they might contribute to a wide range of brain-related diseases,” Park said.

The Centers for Disease Control and Prevention reported in 2023 that 1 out of 36 U.S. children are diagnosed with an autism spectrum disorder.
DALEY DELIVERS UPDATES ON SCHOOL, CELEBRATES HMS COMMUNITY

Dean hails FY 2023 as the School’s most successful fundraising year in history, with more than $321 million raised.

During his annual State of the School Address on Sept. 13, HMS Dean George Q. Daley (pictured), AB ’82, MD ’91, PhD, told a crowd assembled in the Joseph B. Martin Amphitheater and those joining online that HMS remains a beacon of leadership in biomedical discovery, education, and innovation thanks to the community’s hard work and passionate commitment to the improvement of health and well-being for all.

“In reflecting today on the state of Harvard Medical School, I want to say that we have the great fortune of celebrating a strong, resilient, and restless institution,” Daley said. “Yes, I say restless, because this institution is never satisfied with the status quo. Our students, our faculty, staff, postdocs, trainees, alumni, and the many supporters of our mission are constantly striving to learn and grow and contribute—to make a difference.”

Immediately following his address, Daley hosted a community celebration (pictured). Students, faculty, and staff from across the School mingled over festive food and drinks and toasted the start of the academic year.

To read more about or watch video of Daley’s speech, visit tinyurl.com/state-of-school-2023.

ALUMNI COUNCIL WELCOMES 5 NEW ELECTED MEMBERS

Harvard Medical School MD graduates selected five new Alumni Council members during the 2023 election. Four of those members are representing the First (classes of 2018–2022), Fourth (2003–2007), Seventh (1988–1992), and Eighth (1983–1987) pentads, respectively: Kirstin Woody Scott, MPhil, PhD ’15, MD ’20 (Class of 2019), an emergency medicine resident at the University of Washington; Nancy J. Wei, AB ’02, MD ’06, MMSc ’12, an HMS assistant professor of medicine and chief medical informatics officer at Massachusetts General Hospital; Timothy D. Jenkins, AB ’88, MD ’92, area medical director and chief of staff for the Kaiser Permanente San Bernardino County Area; and Kalon K.L. Ho, MD ’87, SM ’95, an HMS assistant professor of medicine at Beth Israel Deaconess Medical Center, where he is medical director for quality in the Division of Cardiovascular Medicine. Laura Torres, MD ’98 (Class of 1987), an associate professor of anesthesiology and pediatrics at Baylor College of Medicine, will represent all classes as a councilor-at-large.

The Alumni Council promotes and supports activities that connect alumni to each other, the School, and current students. In addition, its members, who are elected to three-year terms, serve in a consultative and advisory role to HMS leaders.

FROM LEFT: KIRSTIN WOODY SCOTT, NANCY J. WEI, TIMOTHY D. JENKINS, KALON K.L. HO, AND LAURA TORRES.
The following newly established Harvard Medical School professorships were recently celebrated, recognizing the generosity of their respective benefactors and the accomplishments of their inaugural incumbents.

**FREDRICKSON PROFESSORSHIP OF PEDIATRICS**

Daniel E. Bauer, MD, PhD (top), enjoys a celebration held April 18 at Gordon Hall to mark his appointment as the inaugural Donald S. Fredrickson, MD Associate Professor of Pediatrics at Boston Children’s Hospital. This professorship will be renamed the Samuel E. Lux, IV, MD Professorship of Pediatrics upon the retirement of Lux (bottom), who is the Robert A. Stranahan Distinguished Professor of Pediatrics at Boston Children’s Hospital.

**BCH PROFESSORSHIP OF PEDIATRICS**

Carla F. Kim, PhD, of Boston Children’s Hospital (BCH), speaks to attendees of a July 17 celebration held at the Harvard Club of Boston to recognize her as the inaugural incumbent of the BCH Professorship of Pediatrics in the Field of Regenerative Medicine. This professorship will be renamed the Leonard Zon, MD, Professorship of Pediatrics in the Field of Regenerative Medicine upon the retirement of Zon (bottom), who is the Grousbeck Professor of Pediatrics at BCH and a professor of stem cell and regenerative biology in the Faculty of Arts & Sciences at Harvard University.

**EMANS PROFESSORSHIP OF PEDIATRICS**

Wanda Phipatanakul, MD, SM ’04, speaks to the crowd that gathered at the Harvard Club of Boston on May 30 to honor her as the inaugural incumbent of the S. Jean Emans, MD, Professorship of Pediatrics at Boston Children’s Hospital.

**SHAMBERGER PROFESSORSHIP IN SURGERY**

Heung Bae Kim, MD (left), and Robert C. Shamberger, MD ’75, celebrate Kim’s appointment as the inaugural incumbent of the Robert C. Shamberger Professorship in Surgery at Boston Children’s Hospital, where Shamberger is the Robert E. Gross Professor of Surgery, Emeritus. The event took place June 7 at Hotel Commonwealth in Boston.
SUSTAINING SUCCESS OF BERTARELLI FELLOWS

In 2010, the Bertarelli Foundation invested significantly in Harvard Medical School to accelerate the translation of basic biomedical developments into improved health for people with neurological disorders. Scientists, engineers, clinicians, and students at HMS teamed up with their peers at École Polytechnique Fédérale de Lausanne (EPFL), a leading public research university in Switzerland, toward this goal.

Thirteen years later, a key component of this effort, the Bertarelli Fellowship program, continues to thrive.

“From the outset, the interest in this program exceeded all our expectations,” says Ernesto Bertarelli, MBA ’93, co-chair of the Bertarelli Foundation, which recently renewed its support of this program with a $1.93 million gift. The EPFL selects up to five Bertarelli Fellows yearly to perform their master’s research at HMS or HMS-affiliated labs for 10 to 12 months.

“THERE ENERGY AND PASSIONATE DETERMINATION TO EMBRACE THE REMARKABLE OPPORTUNITY OF STUDYING AT HARVARD IS AN INSPIRATION.”

ERNESTO BERTARELLI

“The quality of the applications has always impressed everyone involved, and while that enough is reason to renew this partnership, an additional element of motivation comes whenever we meet the students in person,” says Bertarelli, who chairs the HMS Board of Fellows. “Their energy and passionate determination to embrace the remarkable opportunity of studying at Harvard is an inspiration.”

David Corey, PhD, the Bertarelli Professor of Translational Medical Science in the Blavatnik Institute at HMS, says the fellowship program has been a huge success for both the students and the host laboratories at Harvard. “EPFL students are extremely well prepared in science, often with exceptional skills in computational methods as well, and they contribute a great deal to research in Harvard laboratories,” he says. “Their work has led to numerous research publications.”

Corey says the Harvard experience is an exciting opportunity for the students to explore the latest biological methods as well as translational applications, and that the program is often a springboard to further training. “Many former fellows have gone on to PhD programs, three of them at Harvard.”

HMS Dean George Q. Daley, AB ’82, MD ’91, PhD, says the School is “truly grateful to the Bertarelli Foundation for the opportunity to host these exceptional master’s students, who contribute immensely to our academic community.”

Bertarelli, chairman of the private investment firm B-FLEXION, formerly Waypoint Capital, is a former biotechnology executive and an entrepreneur active in the fields of business, finance, sport, and philanthropy. Born in Italy but a longtime resident of Switzerland, he cites another reason why the foundation, co-chaired by his sister, Dona, is devoted to the fellowship program.

“The connection it cements between Switzerland and the U.S., and two great academic institutions, brings us great pride,” he says.

The Bertarelli Fellows master’s research program was conceived with neuroengineering and translational neuroscience in mind but can be construed to include broad areas of molecular, cellular, systems, and computational neuroscience.
More than 800 Harvard Medical School alumni and guests from classes ending in 3 or 8 reconnected, reminisced, and reestablished bonds forged years ago during Reunion 2023 activities.

One hundred twenty-nine Reunion Committee volunteers helped to build attendance, generate enthusiasm, and raise funds in their milestone years. They organized 14 celebratory class events, which supplemented the core programming held Thursday, June 1, through Saturday, June 3. Moreover, their efforts to boost Reunion Report participation resulted in a record number of alumni submissions—1,054, to be exact—for the historical class books.

Visit alumni.hms.harvard.edu/2023-recap to watch a highlight video and download event photos.
Reunion Giving
$11 million raised from 571 alumni donors*

* Total includes outright gifts, multi-year pledges, bequests, and other unique gifts that allow alumni to stretch their giving.

HMS GRADUATES GET REACQUAINTED AT ALUMNI DAY

Harvard Medical School MD graduates were invited to reconnect with their classmates and the School at Alumni Day on June 2.

The day began with a continental breakfast in the New Research Building (NRB) lobby. Afterward, in the NRB amphitheater, HMS Dean George Q. Daley, AB ’82, MD ’91, PhD, delivered a State of the School Address, during which he outlined the School’s achievements, investments, and finances.

After the dean’s address, the Harvard Medical Alumni Association held its Annual Business Meeting, led by then-Alumni Council President Kenneth Bridges, MD ’76—Bridges’ term ended June 30—and featuring the presentation of the Distinguished Service Award for HMS Alumni to Neal Baer, EdM ’79, AM ’82, MD ’96 (Class of 1995). The meeting was immediately followed in the amphitheater by the Alumni Day Symposium, titled “Multiple Paths from Idea to Medicine.” Moderated by Mark Namchuk, PhD, the Puja and Samir Kaul Professor of Biomedical Innovation and Translation and the executive director of therapeutics translation at HMS; the symposium focused on successful projects within the HMS Therapeutics Initiative, which establishes a comprehensive pipeline for therapeutic development, from fundamental discovery and translational research to regulatory approval and business incubation.

After the symposium, lunch was served in the NRB lobby for Alumni Day attendees. Later in the afternoon, current HMS students led campus tours.
Biotechnology entrepreneur Gene Lay, MS, DVM, has made a $100 million gift to Brigham and Women’s Hospital to establish The Gene Lay Institute of Immunology and Inflammation of Brigham and Women’s Hospital, Massachusetts General Hospital, and Harvard Medical School.

The institute will leverage the collective strengths of Boston and HMS-affiliated immunology and biomedical experts to better understand immune-mediated diseases and learn how to translate that knowledge into the development of new immunotherapies.

“I have always been fascinated by the immune system’s ability to heal the body,” says Lay. “And I’ve had a longstanding relationship with and respect for scientists in the Harvard medical community. With this gift, I am bringing together the best scientific minds I know to translate research discoveries into therapies for immune-mediated diseases,” he says. The institute, which will be located at and administered by the Brigham, will also provide substantial training opportunities for students and fellows to support immunology innovators of the future.

Dean George Q. Daley, AB ’82, MD ’91, PhD, says the HMS community is deeply grateful for the opportunity to convene the best immunologists in the world to bring solutions to patients and families.

“With this gift, I am bringing together the best scientific minds I know to translate research discoveries into therapies for immune-mediated diseases.”

Gene Lay

“As we’ve seen with the COVID-19 pandemic, collaboration across institutions, disciplines, and modes of scientific inquiry is key to addressing our most confounding scientific and medical challenges,” Daley says.

Vijay Kuchroo, DVM, PhD, a leading immunologist and principal investigator at the Brigham and the Samuel L. Wasserstrom Professor of Neurology, will serve as the institute’s inaugural director. He will convene core and affiliated faculty and trainees around three central platforms: basic science, translational science, and technology.

“During the past several decades, the astounding rise in inflammatory diseases has made it increasingly clear that chronic inflammation is a root cause of many diseases—not only allergies and autoimmune diseases, but also cancer and neurodegenerative, cardiovascular, and metabolic diseases,” says Kuchroo.

The institute’s vice directors are Arlene Sharpe, AB ’75, AM ’76, PhD ’81, MD ’82, Kolokotrones University Professor and chair of the Department of Immunology in the Blavatnik Institute at HMS, and Ramnik Xavier, MD, PhD, the Kurt J. Isselbacher Professor of Medicine in the Field of Gastroenterology and director of the Center for Computational and Integrative Biology at Massachusetts General Hospital.

“Dr. Lay’s generosity will enable new technologies and training of the next generation, which are key to solving the rapidly growing problem of immune-mediated diseases,” says Sharpe.

Gene Lay is the founder and CEO of BioLegend, which focuses on the development and production of high-quality antibodies, proteins, and assays for cellular immunity, inflammation, cancer, stem cells, and other reagents required for research and diagnosis.
EASING THE FINANCIAL BURDEN FOR MEDICAL STUDENTS

After Louis Elijah Wolfson graduated from English High School in Boston, he enrolled at Massachusetts Agricultural College (now the University of Massachusetts) because there was no charge for tuition. He would eventually earn a Doctor of Medicine degree from Tufts University in 1919, but after completing postgraduate education at Cambridge Hospital and New York City’s Lying-In Hospital, Wolfson lacked the money to specialize in his chosen field of otolaryngology. Thus, he accepted an appointment at a U.S. Army hospital in Panama from 1920 to 1921.

"With this latest gift, Dr. Wolfson is extending his legacy of helping thousands of medical students pursue their education."

Ryan Callahan

Wolfson used the proceeds from his government employment to apply to the best clinics for otolaryngology in Berlin and Vienna. He then returned to Boston in 1922 and was able to practice otolaryngology at Beth Israel Hospital and the Boston Dispensary (now known as Tufts Medical Center) before eventually opening his own clinic, where he saw ambulatory patients and removed many tonsils and adenoids. He was certified by the American Board of Otolaryngology in 1925 and soon afterward became a Fellow of the American College of Surgeons.

Decades later, with funds amassed from his lucrative surgical practice as well as real estate and other investments, Wolfson established the Louis E. Wolfson Foundation in Boston to provide funds for public, charitable, and religious purposes. But he never forgot how stressful it had been paying for his medical education. Thus, he eventually decided to change the purpose of the foundation. Its new objective would be to provide low-interest loans for students of Boston’s three medical schools at the time, located at Harvard University, Boston University, and Tufts University.

Wolfson realized that if he set aside a large sum of money, the annual income could be used to create a revolving low-interest loan fund for these students. To ensure that funds would continue to be available for these loans, he planned that most of his estate would go to the Louis E. Wolfson Foundation, and he tasked several family members and friends, along with senior deans from each of the medical schools, to serve on the board of directors. Serving successively for Harvard Medical School have been deans for medical education Daniel D. Federman, AB ’49, MD ’53; Daniel H. Lowenstein, MD ’83; Malcolm Cox, MD ’70; and Jules Dienstag, MD.

Fast forward 40 years after Wolfson’s death in 1983, and the foundation has helped HMS students to the tune of more than $12 million in institutional loans, including $505,000 to 83 students—roughly 13% of the MD student body—in the 2022–2023 academic year alone.

In 2022, after the Wolfson Foundation board had overseen the fund for more than 70 years, the board concluded that the Wolfson funds would be invested and administered more effectively and efficiently as part of the individual endowments of each of the schools. Therefore, in 2023, the Wolfson Foundation made a bequest gift of nearly $5.7 million to HMS to establish the Louis E. Wolfson Foundation Endowment Fund, which will enable the School to offer more student loans.

"The generous funding from the Wolfson Foundation allows us to provide a low-interest loan option for MD students with financial need," says Ryan Callahan, HMS’s director of financial aid. "With this latest gift, Dr. Wolfson is extending his legacy of helping thousands of medical students pursue their education.’’

Shortly after World War II began and before the U.S. became involved, Wolfson volunteered to help the British. He practiced as an otolaryngologist and also as a plastic surgeon. He again volunteered for service during the Arab-Israeli War of 1948.
The following grants totaling $250,000 or more were awarded to members of the Harvard Medical School community in support of their work to alleviate suffering and improve health and well-being for all.

**The Commonwealth Fund Fellowship in Minority Health Policy at Harvard University** has prepared physicians for leadership roles in health policy and public health for more than 25 years, giving them the tools to transform health care delivery systems for historically marginalized populations. The Commonwealth Fund renewed its support for the fellowship in 2023 with a grant of $823,456 under the direction of Joan Y. Reede, MD, MPH ’90, SM ’92, MIA, dean for diversity and community partnership at HMS.

**The Gray Foundation** has given an additional $750,000 toward a Gray Foundation Team Science project led by Joan Brugge, PhD, the Louise Poole Pfiffer Professor of Cell Biology in the Blavatnik Institute at HMS. Brugge and her multidisciplinary, multi-institutional team of basic and clinical scientists have made multiple important discoveries that they aim to build on to develop strategies to detect and prevent breast cancer in women who carry BRCA1 or BRCA2 gene mutations.

**The G. Harold & Leila Y. Mathers Charitable Foundation** has awarded a grant of $700,000 over three years to Marco Jost, PhD, an assistant professor of microbiology in the Blavatnik Institute at HMS, to support his lab’s efforts to discover and characterize the chemical signals produced by microbes living in our gut. A better understanding of how these signals are used to communicate with our bodies may advance the development of therapeutics for diseases associated with microbiome imbalances, including cancer, infectious diseases, and autoimmune diseases.

**The Helen Hay Whitney Foundation** has awarded three-year postdoctoral research fellowships to three scientists in the Blavatnik Institute at HMS: Josh Cofsky, PhD (left), a research fellow in biological chemistry and molecular pharmacology; Rikki Garner, PhD (bottom, right), a research fellow in systems biology; and Shelly Kalaora, PhD (next column, right), a research fellow in cell biology. Each award is worth $214,500. Cofsky will use his award to study how environmental nutrients reawaken dormant bacterial spores. This research will provide valuable molecular insight into bacterial nutrient sensation and transmembrane signaling, and it will uncover new biological mechanisms that can be targeted to combat antibiotic resistance. Garner will investigate the interplay between tissue fluidity—the ability of cells to move freely within a tissue—and adhesion-based sorting of cells in the developing neural tube of zebrafish embryos. This work could have broad implications for our understanding of cell patterning in diverse tissues throughout development and disease—including how misregulation of tissue fluidity disrupts patterning and tissue homeostasis, with particular relevance for cancer metastasis. Kalaora aims to direct proteomic tools and computational analyses to investigate the role of recurrent mutations in tumor cells. She will also use chemical biology approaches as a tool to perturb cells expressing these mutated genes, to gain new insights into the proteins involved directly and indirectly in the mutant protein function. Connecting individual cancer mutations to molecular networks will reveal the underlying fundamental biological mechanisms resulting in tumor growth and progression.

**Lucas Farmung, PhD,** an assistant professor of cell biology in the Blavatnik Institute at HMS, has funded more than 200 early-career scientists, fostering creative research with above-average risk and promise.

**The Cancer Research Institute** has awarded postdoctoral fellowships to two research fellows in immunology in the Blavatnik Institute at HMS: Samuel Markson, PhD (right), and David Owen, PhD (next column, right). Each researcher will receive $243,000 over three years. Markson’s project will focus on CD8+ T cells, which can directly recognize and kill tumor cells and are essential for the efficacy of immunotherapy, but are functionally compromised by aging. He hopes to identify key genetic targets driving CD8+ T cell...
Norbert Perrimon, PhD, the James Stillman Professor of Developmental Biology in the Department of Genetics in the Blavatnik Institute at HMS, has received a three-year research grant of nearly $440,000 from the Human Frontier Science Program. Perrimon is part of an interdisciplinary consortium of insect geneticists, biophysicists, and virologists aiming to unravel fundamental membrane processes in insect cells and compare these to mammalian cells. This work will provide insight into mechanisms driving insect versus mammalian membrane shape and function, potentially revolutionizing our understanding of virus adaptation across fundamentally different species.

Josefina del Mármo, PhD, an assistant professor of biological chemistry and molecular pharmacology in the Blavatnik Institute at HMS, has received a three-year Smith Family Award for Excellence in Biomedical Research from the Richard A. and Susan F. Smith Family Foundation. The $400,000 award will enable del Mármo to study the molecular mechanisms by which mosquito vectors of disease use their sense of smell to find and bite humans. This work will open translational avenues for the control of mosquito-borne diseases.

Lucas Farrung, PhD, an assistant professor of cell biology in the Blavatnik Institute at HMS, has received a Damon Runyon-Rachleff Innovation Award from the Damon Runyon Cancer Research Foundation. He will receive $400,000 over two years for his work to better understand the molecular mechanisms that give rise to MLL-rearranged leukemias. A distinct subset of leukemias arises from chromosomal translocations in the mixed lineage leukemia (MLL) 1 gene. This work may contribute to the development of anti-leukemia therapeutics, which remain a major unmet medical need.

The American Cancer Society has renewed its support of Johannes Walter, PhD, a professor of biological chemistry and molecular pharmacology in the Blavatnik Institute at HMS. Walter will use a second Research Professor Grant from the society—also worth $400,000 over five years—to provide fundamental new insight into the mechanisms that repair DNA and suppress cancer.

Gabriel Romero, PhD, a research fellow in neurobiology in the Blavatnik Institute at HMS, has been selected as a Hanna Gray Fellow by the Howard Hughes Medical Institute. Romero will receive $373,000 over four years to study how the central nervous system uses lateral olivocochlear neurons to communicate information about its internal state to the cochlea, enabling animals to adjust how they detect, perceive, and react to stimuli in the world around them. This work will reveal how the auditory system continuously adapts to diverse environments, providing direct insight into mechanisms underlying the nervous system’s response to stress. Hanna Gray Fellows may later qualify for an additional $270,000 per year for up to four years as they transition to independent faculty positions.

The Carol and Gene Ludwig Family Foundation, which gave $2.58 million to HMS in 2021 to establish the Ludwig Neurodegenerative Disease Seed Grants Program, recently gave an additional $342,000 to support this program, which provides seed grant funding for talented researchers who are approaching neurodegeneration, particularly Alzheimer’s disease, from innovative perspectives.

Over the last several years, the Leon Lowenstein Foundation has invested in building the capacity of mobile health care, including through its support for the Mobile Health Map (MHM). This collaborative research network works with researchers and front-line mobile clinic staff to evaluate and improve the work of mobile clinics. Mollie M. Williams, DrPH, MPH, executive director of The Family Van and MHM, was recently awarded $250,000 from the foundation to provide mobile providers with new resources to measure and communicate their impact. As a result, MHM is better equipped to share information with health care leaders, funders, and policymakers about the unique ways mobile clinics make trusted, quality health care accessible in communities nationwide.

Meanwhile, Owen aims toward more personalized immunotherapy for elderly cancer patients. Meanwhile, Owen aims to understand how a specific subset of regulatory T cells plays a crucial role in controlling inflammation and tissue regeneration in various health conditions. Understanding this process will allow this critical population of regulatory T cells to be exploited to enable more efficient control of tissue regeneration following damage or inflammation.

The Richard King Mellon Foundation is supporting a project by David Sinclair, PhD, a professor of genetics in the Blavatnik Institute at HMS, with a $400,000 grant. Sinclair’s lab will use human age-programmable brain organoids and high-throughput genomic technologies to identify age-related changes that can be reversed to improve brain function.
LEARNING HOW TO FLIP THE AGE RESET SWITCH

A few years before his death at 82, the noted neurologist Oliver Sacks quipped that when he was 11, his age was also the atomic number of sodium. “And now, at 79, I am gold.”

Sacks’ sly references to the periodic table aside, David Sinclair, PhD, is of the mind that you can certainly get physically better despite your number of years—or reverse the clock entirely. He is taking his work to the next level with a grant from the Milky Way Research Foundation.

“The new work is to investigate how it is possible to reverse aging,” said Sinclair, a professor of genetics in the Blavatnik Institute at Harvard Medical School. “This new grant will allow us to understand how cells are able to restore their youthful functions, essentially by turning on a reset switch. The results of this study could allow us to find new ways to reset the age of tissues and treat age-related disorders.”

During previous work in 2020, Sinclair and his colleagues learned that introducing three embryonic genes could reverse the age of retinal nerves and restore vision to mice with glaucoma. To translate this research to human application, the Sinclair Lab adjusted its methods. In applying for the new grant, Sinclair explained: “To understand how rejuvenation works, where else it works, and find more efficient ways to make it work, we will engineer the first ‘mini-organs,’ such as the ear, skin, and brain, whose age can be programmed in the forward and reverse directions. We will then take 3D snapshots of organs in the dish and in the mouse to visualize what happens during rejuvenation and find what genes are required.”

The number of people 80 or older is expected to triple between 2020 and 2050 to reach 426 million, according to the World Health Organization.
Q&A WITH DAVID GINTY

We sat down with David Ginty, PhD, the Edward R. and Anne G. Lefler Professor and chair of the Department of Neurobiology in the Blavatnik Institute at Harvard Medical School, to discuss the direction of neuroscience research at HMS.

If you compare how scientists studied the brain when the HMS Department of Neurobiology was founded in 1966 with how you and your peers are studying the brain today, what are some of the most dramatic differences?

In many ways, the discipline of neurobiology was jump-started in 1966 when physiologists, biochemists, cell biologists, and anatomists interested in the brain came together to form the HMS Department of Neurobiology. This convergence of interests and approaches to interrogating nervous system function, in health and disease, and the developmental underpinnings, remains. Today, we also have powerful new molecular genetic tools to discover and manipulate cell types across the nervous system, approaches to map connections within the brain and between the brain and the body, and computational methods to make sense of the complexity of the nervous system. These new approaches have elevated the level of discovery of how the nervous system works, how it is assembled during development, the relationship between brain and body, and what goes awry in disease states, to levels that could not have been imagined by Stephen Kuffler, Ed Kravitz, and other founding members of our department. There is no doubt that this is the most remarkable era of neuroscience research, and members of our department are at the vanguard of this enormously exciting field.

Can you describe some of the most impactful work that has taken place within the department since you joined 10 years ago?

Discoveries made in our department in just the last year are stunning. To mention just a few, one would be the application of advanced single-cell sequencing technologies to identify cellular building blocks across different brain areas. Another came from the use of computational and systems-level analyses that led to breakthroughs in understanding how neural circuit motifs in the cortex underlie decision making. Other recent discoveries have resolved structures of molecular machines that govern our circadian rhythms and identified a remarkable causal relationship between signals emanating from the gut and detrimental effects of sleep loss. I could go on and on with examples of impactful breakthroughs. The work of all my department colleagues is inspiring, and at each of our departmental research presentations, I am left in awe of the advances made by our faculty, postdocs, students, and staff.

As you look to the near future of the department, which neuroscience research areas inspire and excite you?

Excitement abounds across our research labs. One of many exciting areas is deciphering the dialogue between body and brain. Department labs are at the forefront of understanding the workings of the sensory systems, including vision, touch, smell, hearing, and internal senses, and how the brain controls aspects of body function, ranging from motor commands to physiology of the body’s internal organs. I’m also inspired by progress in the field of functional connectomics, which is forging a deeper understanding of the wiring diagrams underlying information flow across the nervous system. Another exciting area bridges computation and large-scale physiological recordings to decipher the language of the nervous system. This work is leading to a deeper understanding of how sensory experiences are represented in the brain, memories are stored, and complex ensembles of neural activities are used for decision making, cognition, and behavior. Also inspirational, many of our scientists are translating discoveries of fundamental aspects of nervous system function and development to therapeutics aimed at improving the quality of lives for patients afflicted with neurological disorders.
Sweet Introduction to New President

Harvard University President Claudine Gay, PhD ’97, hosted three ice cream socials July 11 to connect with members of the Harvard community. Her first stop was the Harvard Longwood Campus, where hundreds of staff, students, postdocs, and high school interns gathered outside Countway Library to enjoy treats with Gay, who chatted and posed for selfies with many of them. She then headed to Schwartz Pavilion at Harvard Business School before her final stop, Massachusetts Hall in Harvard Yard. Gay became Harvard University’s 30th president July 1.