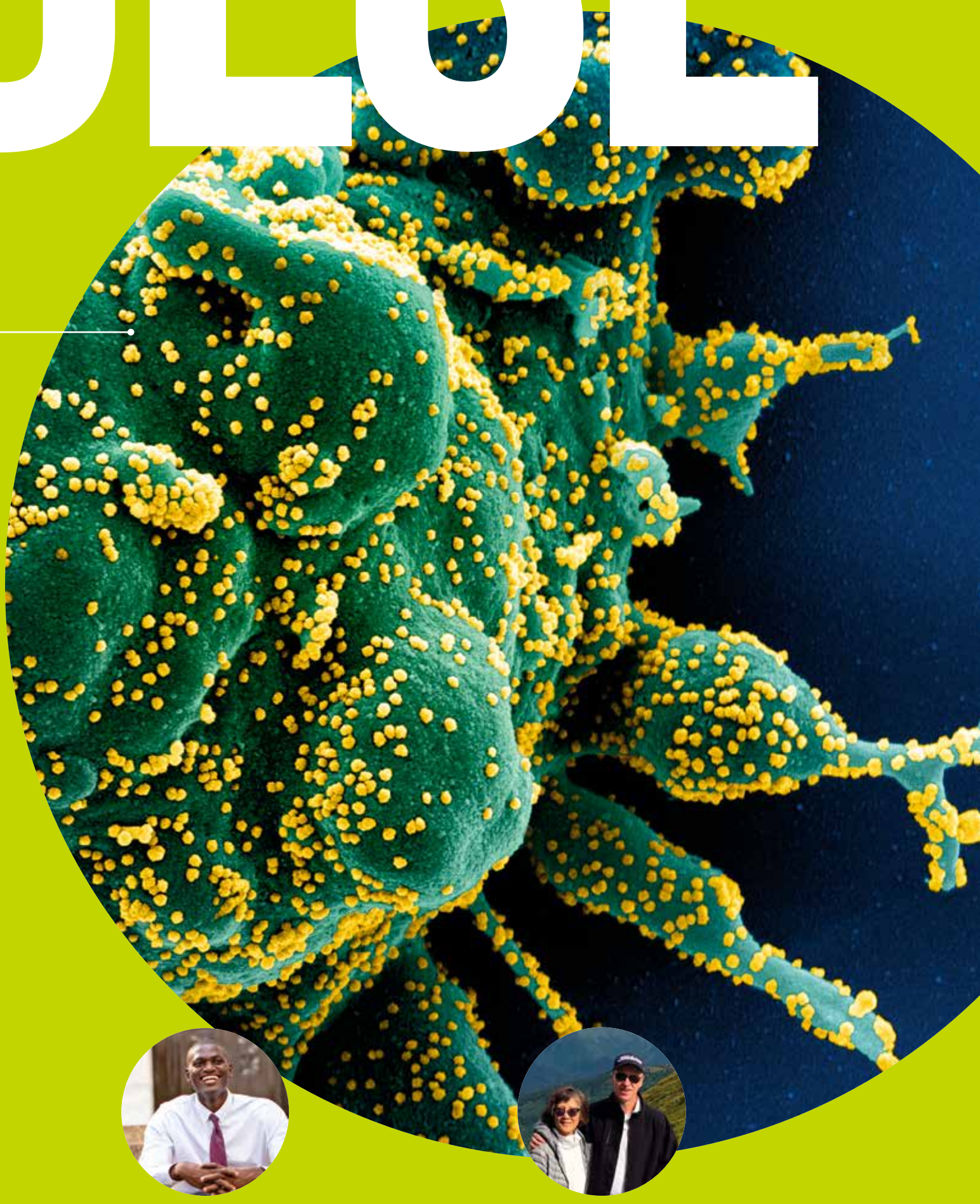
HARVARD MEDICAL SCHOOL

CELEBRATING THE HEART AND IMPACT OF THE HMS COMMUNITY

PULSE

FALL 20



FEATURED STORY

UNITING TO FIGHT COVID-19

China Evergrande Group lays the foundation for an HMS-led consortium encompassing hundreds focused on ending the pandemic

02

PAYING TRIBUTE TO HIS BEST FRIEND

The estate of Jack Cogan establishes a professorship to honor his friend of 74 years

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BOOSTING SCHOLARSHIPS

The late Meta Strickling Tomasch enhances her legacy of student support

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ATTACKING LYME DISEASE

The Fairbairns hope to spare others from the pain, worry, and confusion they experienced

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CUTTING-EDGE RESEARCH

A UNITED FIGHT AGAINST COVID-19

In late December 2019, clusters of patients with an unusual pneumonia started presenting to hospital emergency rooms in Wuhan, China. Within weeks, the culprit was identified as a novel coronavirus: SARS-CoV-2. By then the pathogen had spread, with stunning infectivity, to other parts of the globe. It was clear that the impact of this virus would be widespread and have devastating consequences.

Chairman Hui Ka Yan of China Evergrande Group—a generous supporter of Harvard University, including the Evergrande Center for Immunologic Diseases at Harvard Medical School and Brigham and Women's Hospital—sent a letter to Harvard President Lawrence S. Bacow, JD '76, MPP '76, PhD '78, in late January expressing concern and hope that Harvard scientists might help the world's response to this new virus.

"WE ARE CONFIDENT THAT THE INTERNATIONAL COOPERATION BETWEEN OUR MEDICAL AND SCIENTIFIC RESEARCH COMMUNITIES IN CHINA AND AMERICA WILL RESULT IN EXTRAORDINARY CONTRIBUTIONS TO THE GLOBAL FIGHT AGAINST THE CORONAVIRUS."

JAMES XIA

Feeling a great responsibility to respond to this humanitarian crisis, Bacow appointed Provost Alan Garber, AB '77, AM '77, PhD '82, MD, and HMS Dean George Q. Daley, AB '82, MD '91, PhD, to convene the Harvard community to offer its help. In the ensuing weeks, as coronavirus disease 2019 (COVID-19) spread throughout the world, silently here in the United States, experts across a spectrum of disciplines began communicating with a team at the Guangzhou Institute of Respiratory Health (GIRH) in China, learning essential facts about the novel disease from Chinese colleagues on the frontline of the epidemic.

On March 2, Daley convened a meeting at HMS to bring together key physicians and scientists across the commonwealth, joined by colleagues in China via videoconference, to organize a formal, integrated effort to confront this disease. There Daley shared the details of China Evergrande Group's planned commitment to separately fund Harvard and GIRH to advance research on the scale and scope needed to meet this extraordinary challenge. The Harvard-led Massachusetts Consortium on Pathogen Readiness (MassCPR) was born.

Headed by Daley, MassCPR's governing committee includes David Golan, AB '75, MD, PhD, dean for research operations and global programs at HMS, and faculty co-leaders Arlene Sharpe, AB '75, AM '76, PhD '81, MD '82, the George Fabyan Professor of Comparative Pathology, chair of the Department of Immunology in the Blavatnik Institute at HMS, and co-director of the Evergrande Center for Immunologic Diseases, and Bruce Walker, MD, the Phillip T. and Susan M. Ragon Professor of Medicine and director of the Ragon Institute of MGH, MIT and Harvard.

"The coronavirus pandemic is a shared challenge, and working together is the most effective way to win the battle," says China Evergrande Group CEO James Xia. "We are confident that the international cooperation between our medical and scientific research communities in China and America will result in extraordinary contributions to the global fight against the coronavirus."

Now a multi-institutional collaboration, MassCPR encompasses hundreds of researchers, physician-scientists, clinicians, and public health experts representing world-leading academic, hospital, biopharma, and public-health institutions based in Massachusetts. They are joined by collaborators at GIRH and Tsinghua University in China, and throughout the crisis have consulted with colleagues in Italy, Germany, and India. The consortium's shared goals are twofold: To turn the tide of this current pandemic and to create a rapid-response system to address future health crises.

"The COVID-19 pandemic is a watershed moment in human history and has been nothing short of a rallying cry to those of us who have dedicated our lives and careers to science and medicine," says Daley. "We cannot deal with a global threat by going it alone. We must work together, across labs, institutions, and geographic borders."

In May, following a request for proposals that elicited more than 400 applications, over $16.5 million in funding was awarded to MassCPR researchers and institutions to support 62 high-impact research projects selected for their potential to influence clinical outcomes in patients and populations within the next 12 months. These projects represent the consortium's six priorities and working groups: epidemiology, diagnostics, pathogenesis, clinical management and outcomes, therapeutics, and vaccine development.

These awards were made possible thanks to the first tranche of funding from China Evergrande Group and generous donations to MassCPR and the HMS COVID-19 Response and Research Fund, including gifts of $1 million or more from the Bertarelli Foundation, Nancy Lurie Marks Family Foundation, Massachusetts Life Sciences Center, and Mark Schwartz, AB '76, MBA '79, MPP '79, Lisa Schwartz, and Enid Schwartz.

"It is inspiring to see scientists from so many Boston-based institutions come together to take action in the face of this pandemic," says Bacow. "The impact of their work will be measured not only in discoveries and new knowledge, but also in lives saved and other improved health outcomes."

HMS continues to engage with philanthropic organizations and anticipates that additional projects will be greenlighted as funds become available.

THE COLORIZED SCANNING ELECTRON MICROGRAPH ABOVE SHOWS AN APOPTOTIC CELL (GREEN) HEAVILY INFECTED WITH SARS-COV-2 PARTICLES (YELLOW), ISOLATED FROM A PATIENT SAMPLE. IMAGE: NIAID-IRF

HOW TO HELP

To advance collaborative research to confront the current pandemic and future health crises, go to **hms.harvard.edu/give** and select COVID-19 Response and Research Fund from the dropdown menu.

AT TOP, LEFT TO RIGHT: LEADERS FROM HARVARD—VICE PRESIDENT FOR ALUMNI AFFAIRS & DEVELOPMENT BRIAN LEE, VICE PROVOST FOR INTERNATIONAL AFFAIRS MARK ELLIOTT, HMS DEAN GEORGE Q. DALEY, PROVOST ALAN GARBER, AND PRESIDENT LAWRENCE BACOW—AND CHINA EVERGRANDE GROUP—CEO JAMES XIA, VICE PRESIDENT MIN CHEN, LIAISON GENERAL JACK LIU, AND JASON HUANG, ASSISTANT TO THE GENERAL MANAGER OF THE INVESTMENT MANAGEMENT CENTER—MET IN FEBRUARY TO DISCUSS HOW HARVARD MIGHT AID THE WORLD'S RESPONSE TO THE CORONAVIRUS.

"George Daley has taken bold steps to deliver on Harvard Medical School's responsibility to respond to the most pressing public health crisis of the last century. I felt compelled to respond with an equally bold commitment of my own."

ERNESTO BERTARELLI

"MassCPR represents what our ecosystem is capable of in its ability to efficiently and effectively rally the knowledge, resources, and data needed to respond to this pandemic. The MLSC is proud to support these high-impact research projects aimed at combating COVID-19 and future outbreaks."

DAMON COX, MASSACHUSETTS LIFE SCIENCES CENTER

"The teamwork and collaboration have been impressive, especially the sharing of ideas, data, and results between U.S. and Chinese scientists. Philanthropic donors appreciate immediate responsiveness and accountability, and MassCPR's six working groups have provided that with great urgency, without sacrificing excellence or integrity."

MARK SCHWARTZ

"The Nancy Lurie Marks Family Foundation in making a gift to support MassCPR recognized that immediate action was required to jump-start basic research into the mechanism of action of COVID-19. We recognized that the insights gained from analyzing the structures of viral proteins and the immune response that brings about the clearance of infection could lead to therapeutic antibodies, new antiviral drugs, and more accurate, inexpensive testing kits. Harvard University has long been a pioneer in structural immunology and virus crystallography and will deliver results that will blunt the impact of COVID-19 and relieve suffering."

CLARENCE SCHUTT, NANCY LURIE MARKS FAMILY FOUNDATION

VIEW THE FULL HONOR ROLL OF DONORS AT MASSCPR.HMS.HARVARD.EDU/DONORS.

FUND SUPPORTS STUDENTS IMPACTED BY PANDEMIC

When their spring semester was abruptly curtailed and their classes moved online to reduce the spread of the novel coronavirus, HMS students could not have known the scope of the pain and suffering that would be introduced to the world. Since then, many HMS students and their families have been adversely impacted by the COVID-19 pandemic.

Thanks to the generosity of HMS donors, a new Student Emergency Aid Fund has been created to provide financial assistance to medical students who are struggling with unanticipated or emergency financial situations as a direct result of the pandemic. This assistance includes support for temporary housing and/or other essential needs, such as food; for travel associated with a personal or family emergency, crisis, or death; for unforeseen or unusually high medical expenses and related costs; for technology needs related to remote learning; and for covering the loss of parent wages.

As of June 30, more than 100 donors had given gifts totaling nearly $300,000 to this current-use fund, including significant donations from Gabriel Sunshine, AB '91, Geraldine Acuña-Sunshine, AB '92, MPP '96, and the Bertarelli Foundation.

"We wanted to support Dean Daley and HMS in an area of urgent need during this public health crisis," says Acuña-Sunshine. "We believe that supporting the future leaders of medicine is essential to ensuring the world is better positioned to handle similar crises in the future."

To date, money from the fund has been distributed to 115 students, with individual awards ranging from $100 to $22,000.

"When you are working with a student facing financial hardship, being able to offer a solution with additional funding is really a blessing," says HMS Director of Financial Aid Ryan Callahan. "This emergency fund is a magnificent benefit for HMS, and we are extremely grateful for the generosity of our donors."

HONORING A DECADES-LONG FRIENDSHIP

John F. "Jack" Cogan Jr., AB '49, JD '52, and John A. Mannick, AB '49, MD '53, were extremely accomplished. Cogan, who died in January at the age of 93, was a former managing partner and chairman at the Boston law firm Hale and Dorr (now WilmerHale), where he worked for nearly 50 years. He was simultaneously a leader in the financial services industry. Mannick, who died in October 2019 at the age of 91, was an international pioneer in vascular surgery who served as surgeon-in-chief at Brigham and Women's Hospital (BWH). He was equally influential as a researcher, providing seminal contributions in transplantation immunology.

As impressive as those credentials are, each man's greatest accomplishment may be the one they achieved together: a 74-year friendship. The two met as undergraduates at Harvard College in Kirkland House in 1945, when Mannick was roommates with Cogan's brother Charles. Though they were both freshmen, Jack Cogan was two years older than Mannick because he had enlisted in the Navy after high school, serving during the World War II battle for Okinawa. Mannick would later serve in the Korean War as a U.S. Air Force flight surgeon.

The pair's friendship was fortified over the ensuing decades via dinners, family vacations, and regular tennis matches. By 2019, "They were each other's oldest friend on the planet," says Catherine V. Mannick, JD '82, AM '89, one of John Mannick's three daughters. "As the two of them aged together and friends and family left them, their bond became very, very strong."

So strong that when John Mannick died, Cogan immediately started making plans to honor him and his legacy as an academic surgeon. Though Cogan died before he could execute his plans, his estate recently carried out his wishes, establishing the John Anthony Mannick, MD Professorship of Surgery at Harvard Medical School with a $4 million gift. The inaugural incumbent has not yet been named but will be a professor or associate professor focused on vascular- and/or immunology-related surgery at BWH.

"My dad would have been incredibly moved," says Catherine Mannick. "He would have been speechless and honored. This is an amazingly generous thing to do. Jack was a great philanthropist."

Cogan's philanthropy was well-known throughout the Boston area, where he supported many cultural organizations. He was also a longtime benefactor to Harvard University, becoming one of the most generous supporters of Harvard Law School (HLS) and a leader in its fundraising campaigns.

JACK COGAN

JOHN MANNICK

"MY DAD WOULD HAVE BEEN INCREDIBLY MOVED. HE WOULD HAVE BEEN SPEECHLESS AND HONORED."

CATHERINE MANNICK

"Jack Cogan was a superb lawyer and a kind, humble, and decent human being," John F. Manning, AB '82, JD '85, the Morgan and Helen Chu Dean of HLS, told Harvard Law Today after Cogan's death. "He did so much to make the world better and to advance the work and impact of Harvard Law School."

Now he's advancing HMS's impact while honoring his best friend—an act that leaves Catherine Mannick "moved beyond words" because of what it says about the friendship between these two self-made men. "They had so much respect for each other's integrity, and each man truly appreciated the breadth of the other's knowledge. They were both real Renaissance men," she says.

In 2009, Jack Cogan received the Harvard Medal, which was first given in 1981 to recognize extraordinary service to Harvard University.

FINANCIAL AID AND EDUCATION

LOYAL SUPPORT LIVES ON

META STRICKLING TOMASCH

Intelligent. Quiet. Kind. That's how Jennifer Granko describes her Aunt Meta. Born in Richmond, California, in 1915, Meta Strickling was the eldest of two children. Her dream was to go to college and become a French teacher, but it was too costly, so she attended secretarial school instead. Eventually, she became a stockbroker—"she was a bit of a pioneer," Granko says.

Meta Strickling Tomasch was passionate about education and reading, so much so that her friends said she had a love affair with the English language.

Sadly, Strickling was widowed twice before meeting John Tomasch, MD '31, a young bachelor who lived in her apartment complex. They both loved travel and adventure. After they were married, they traversed the world, including taking many hot air balloon rides along the way. In retirement, they were avid golf partners. Meta Strickling Tomasch loved golf so much that her friends would say, "If they opened your head, it'd be full of golf balls."

John Tomasch's fond memories of his days as a student at Harvard Medical School spurred the couple's regular annual donations supporting an array of School priorities, including the renovations 30 years ago of Vanderbilt Hall, where Tomasch was one of the first occupants of Room 202.

Expanding financial aid for HMS students was also a priority for the couple. In 1986, they established a charitable remainder unitrust (CRUT) to fund an endowed scholarship fund in their names at HMS. Following Meta Strickling Tomasch's death in 2014, preceded by John's in 2003, the CRUT distributed $3.1 million to the scholarship fund.

Now, the fund is getting another significant boost courtesy of the Strickling Tomasch estate, which established a $3.28 million CRUT that will ultimately benefit the scholarship fund.

"It's hard to describe the positive impact of a life-income gift like this for financial aid," says Edward M. Hundert, MD '84, HMS dean for medical education. "John and Meta were loyal supporters, and this endowment will help support HMS students literally forever."

To gauge the impact of scholarship support, look no further than William Mbongo, a second-year student at HMS and a recent beneficiary of the Tomasch Scholarship Fund. "As an immigrant who came to this country at the age of 10, being at Harvard Medical School is a surreal feeling and a feat that was beyond the imagination of even my optimistic parents," Mbongo says. "Having the opportunity to pursue this education without the stress of a heavy debt burden has given me the freedom to use my curiosity to shape a future in which I hope to touch many lives."

"HAVING THE OPPORTUNITY TO PURSUE THIS EDUCATION WITHOUT THE STRESS OF A HEAVY DEBT BURDEN HAS GIVEN ME THE FREEDOM TO USE MY CURIOSITY TO SHAPE A FUTURE IN WHICH I HOPE TO TOUCH MANY LIVES."

WILLIAM MBONGO

HMS STUDENT WILLIAM MBONGO SAYS HE HOPES TO SOMEDAY SHARE HIS TIME BETWEEN THE U.S. AND FRANCOPHONE AFRICAN COUNTRIES HELPING TO DEVELOP STABLE HEALTH SYSTEMS.

WHERE IT'S NEEDED MOST

BEQUEST DEMONSTRATES A PASSION FOR HMS EDUCATION

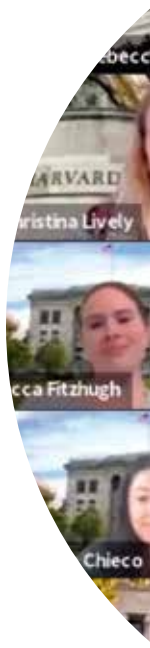
Terry M. Bennett, MD '64, MPH '69, believed that people from all walks of life deserve high quality health care. Over the course of his career, serving patients from Los Angeles to Saudi Arabia, he was known to provide care for the homeless, the uninsured, and prisoners. When he received a terminal cancer diagnosis in 2011, he never wavered in his mission, treating patients at his New Hampshire walk-in clinic for eight more years, until just a few weeks before his death at the age of 81.

"Terry felt a spiritual connection to the practice of medicine, and there were instructors at Harvard Medical School who really reinforced that for him," says his wife, Piper Allison. "He had an amazing mind and never stopped learning or being inquisitive about the practice of medicine. That started at HMS, where he was surrounded by people who felt the same way. In an empathic way, he wanted all of his colleagues to experience this as well. It's something he wished for every physician."

For the last 30 years of his life, Bennett ran his clinic as a primary care physician while simultaneously operating businesses selling antiques and exotic cars. To thank HMS for the quality of education he received, he used his collection of antique automobiles and motorcycles to establish a charitable remainder unitrust (CRUT) that would ultimately benefit the School. The CRUT recently distributed $3.9 million in unrestricted, flexible funding to be used at the dean's discretion.

Terry Bennett's profession took him to inner-city emergency rooms in Los Angeles, medical directorships in West African nations, a general practice in Saudi Arabia, and offices in Hampton Falls and Rochester, New Hampshire.

HMS interim Chief Financial Officer David Smallwood says this type of support is key to maintaining the School's stability and strength. This is especially true given the financial challenges stemming from COVID-19, as HMS has had to thoughtfully consider the pace and scale of important investments in its research and education programs. "Flexible support such as the unrestricted aid so generously given by the Terry M. Bennett Charitable Remainder Unitrust effectively allows the dean to direct funds to those areas of need most critical to the School's strategic direction within our ever-changing context, thereby helping to protect and ensure the ongoing strength of our programs."



"TERRY FELT A SPIRITUAL CONNECTION TO THE PRACTICE OF MEDICINE, AND THERE WERE INSTRUCTORS AT HMS THAT REALLY REINFORCED THAT FOR HIM."

PIPER ALLISON

Bennett would surely want to keep those programs strong, as his passion for his medical education never waned. He kept in touch with his classmates and even attended his 55th Reunion in June 2019, just three months before he died. His wife says he was particularly thankful for his opportunity to attend HMS on a full scholarship.

"Terry felt that his scholarship allowed him to do a lot of risk-taking in his career. He could serve in places that were underserved and go on adventures because he wasn't beholden to debt," she says.

FACES OF HMS

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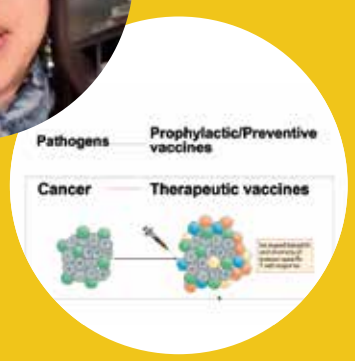
02



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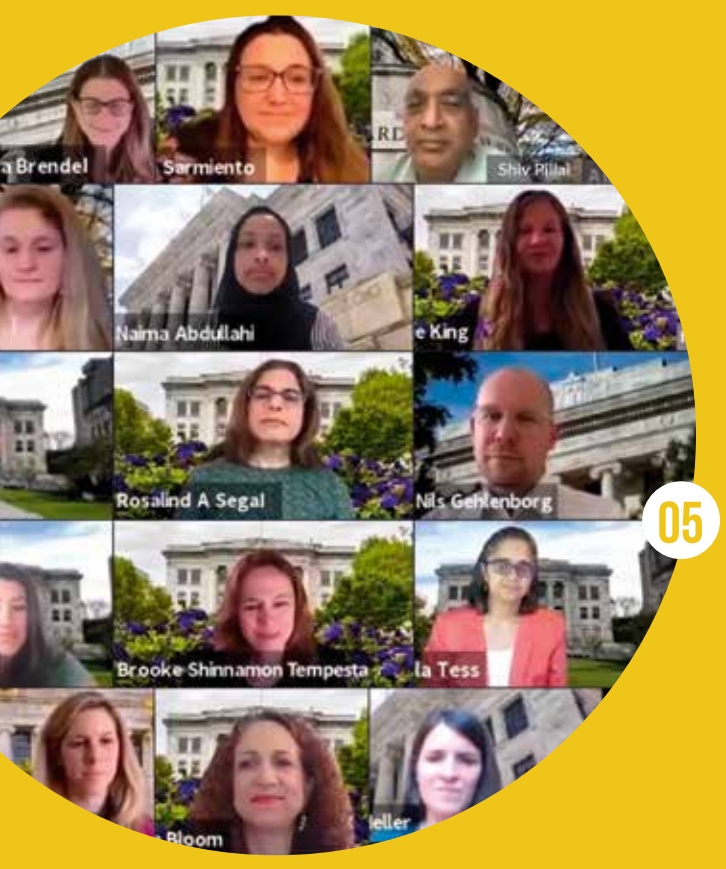

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During the HMS and Harvard School of Dental Medicine virtual Class Day celebration May 28, HMS Dean for Students Fidencio Saldaña, MD '01, MPH '05 (bottom circle), introduces (clockwise from left) Jacob Emge, DMD '20, Eve Roth, MD '20, and David Clossey, MD '20, who helped organize the event and served as class co-moderators.

02
Catherine Wu, AB '88, MD, an HMS professor of medicine at Dana-Farber Cancer Institute, delivers her speech—"Personal Cancer Vaccines: On the Path to Effective Cancer Immunity"—at the seventh annual Symposium on Immunity and Inflammation in Disease and Tissue, hosted online by the Evergrande Center for Immunologic Diseases at HMS and Brigham and Women's Hospital on July 17.

03
Anita Campo lifts her brother Camilo Campo, MD '20, as they celebrate his graduation from HMS on May 28, when Commencement and Class Day ceremonies were held virtually.

04
During a virtual conversation on the health inequities exposed by the COVID-19 pandemic, Donald M. Berwick, AB '68, MD '72, MPP '72, a part-time lecturer on health care policy at HMS and a former administrator for the Centers for Medicare & Medicaid Services, discusses ways to achieve a more equitable and just health care system. To watch a recording of the June event, which was hosted by the HMS Center for Primary Care and the Department of Global Health and Social Medicine in the Blavatnik Institute at HMS, go to tinyurl.com/equitable-health-care.

05
The faculty and staff who lead and coordinate HMS's eight master's degree programs offer congratulations to graduates during an online ceremony May 28.

06
Chiara Ambrogio, PhD, is the latest recipient of the Giovanni Armenise-Harvard Foundation Career Development Award (CDA). She did her postdoctoral work in the Molecular Oncology Program of the Spanish National Cancer Research Center, as well as in the Department of Medical Oncology at Dana-Farber Cancer Institute. In the spring, she began her CDA, founding her own lab at the University of Turin in Italy, where she will continue working on a genetic mutation in lung cancer.

07
Kirstin Woody Scott, PhD '15, MD '20, expresses gratitude to Paul Farmer, MD '88, PhD '90 (right), Kolokotrones University Professor and chair of the HMS Department of Global Health and Social Medicine in the Blavatnik Institute at HMS, before asking him a question during the Class of 1958 Endowed Lecture, delivered by Farmer online May 27. The annual lecture was established by classmates in honor of their 50th Reunion as a gift to the graduating class to reinforce the idealism, humanism, and nobility of medicine. HMS Dean for Medical Education Edward M. Hundert, MD '84 (left), served as moderator.

08
Selena Shi-Yao Li, AB '15, MD '20, receives the Hollis L. Albright Scholar Award at a private ceremony and luncheon March 11 attended by Tenley Albright, MD '61 (left), HMS Dean George Q. Daley, AB '82, MD '91, PhD, and Li's mentors. The award is presented annually to an outstanding HMS medical student who is dedicated to surgery and patient care.

CUTTING-EDGE RESEARCH, GLOBAL HEALTH AND SERVICE

ALPERT FOUNDATION EXTENDS ITS SWEEPING SUPPORT

The late Warren Alpert, MBA '47, once said, "Our job is to be a catalyst in helping some of the best medical brains in the world bring us better things for mankind." To that end, and recognizing Harvard Medical School as one of the world's premier medical institutions, he formed a philanthropic partnership with HMS 35 years ago—a partnership that thrives today through the foundation he established.

"The Warren Alpert Foundation's support for HMS has remained steadfast," says August "Gus" Schiesser, the Foundation's executive director. Combined, Alpert and the Foundation have given HMS tens of millions of dollars to innovate medical education, propel basic research, advance the dean's priorities, and create endowed professorships.

Two recent grants from the Foundation totaling $1.6 million are supporting research in the Blavatnik Institute at HMS. David Grabowski, PhD, a professor of health care policy, received $1.2 million to evaluate Medicare's new skilled nursing facility payment system. "Late last year, Medicare changed how it pays for short-term nursing home services in the U.S.," Grabowski explains. "Rather than paying nursing homes based on the amount of therapy they provide, this new policy pays nursing homes based on the needs of their patients."

"WE WOULD NOT HAVE BEEN ABLE TO UNDERTAKE A PROJECT OF THIS SCOPE IN SUCH A TIMELY WAY WITHOUT THIS FUNDING."

DAVID GRABOWSKI

Working in collaboration with Momotazur Rahman, PhD, an associate professor at Brown University, Grabowski and his team will analyze data and interview nursing home leadership and staff to determine what impact these changes will have on outcomes for nursing home patients. "Our team is examining a series of important questions," Grabowski says. "Will nursing homes change the amount of therapy delivered? Will they change the types of patients that are admitted? Will they change their workforce?"

The Warren Alpert Foundation's mission is to improve the health of the public through grants and programmatic activities progressing toward attaining or perfecting medical treatments or cures through basic, translational, and outcomes research, as well as through health education. Learn more at warrenalpertfoundation.org.

Given that COVID-19 struck the U.S. soon after the payment policy was implemented, this research project has broadened to consider both the response to the recent payment change and also how nursing homes are faring under this new policy in the context of the pandemic. "We would not have been able to undertake a project of this scope in such a timely way without this funding," says Grabowski.

WARREN ALPERT DIED IN 2007, BUT HIS LEGACY LIVES ON THROUGH THE WORK OF HIS FOUNDATION.

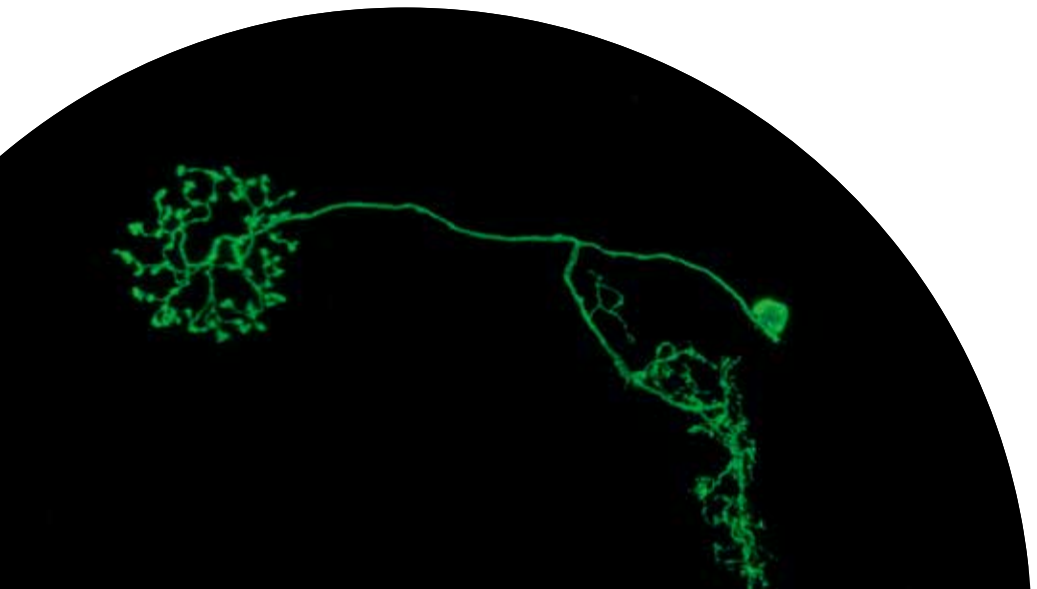
Follow the fruit fly

Tatsuo Okubo, PhD, a research fellow in neurobiology, is one of five winners of the 2020 Warren Alpert Distinguished Scholars Fellowship Award. He's receiving $400,000 to study neural mechanisms underlying context-dependent, wind-guided navigation in fruit flies.

"Humans can flexibly change their navigational strategy depending on the context," explains Okubo. "For example, if you see smoke, you generally want to walk away from it, unless the smoke is coupled with a smell of a barbecue. Even fruit flies exhibit this kind of flexible navigation based on context, and my research is aimed at understanding the neural mechanism underlying this process."

He says this type of adaptable switching during navigation is impaired in normal aging and in patients with Alzheimer's disease and mild cognitive impairment. Thus, understanding the neural basis of flexible navigation has implications for human health and disease.

And that's the crux of the Foundation's collaboration with HMS: to improve human health by supporting exceptional scientists and medical doctors. Harkening back to Warren Alpert's quote, Schiesser says, "It is our hope that our collaboration with HMS will indeed bring better things for mankind."



THIS IMAGE SHOWS A SINGLE FRUIT FLY NEURON. FRUIT FLIES ARE IDEAL MODELS FOR MONITORING AND MANIPULATING SPECIFIC NEURONAL ACTIVITY.
IMAGE: TATSUO OKUBO

FINANCIAL AID AND EDUCATION

A CHAMPION FOR PRIMARY CARE

Primary care professionals are often a patient's first point of contact in the health care system. They are critical in helping people prolong their lives, navigate often-complicated health systems, connect with needed specialists, and much more.

Recognizing the importance of primary care and wanting to alleviate the fiscal disincentives to go into the field, Edward "Ed" Scolnick, AB '61, MD '65, is establishing a $1M donor-advised fund that will be used to create the Primary Care Loan Forgiveness Fund at Harvard Medical School with an initial $250,000 gift and provide additional support in perpetuity. The HMS fund will give financial aid in the form of debt reduction through loan forgiveness to support students who join a primary care residency program.

Scolnick's gift pays tribute to Allan Goroll, MD '73, a professor of medicine at HMS and a primary care physician at Massachusetts General Hospital. As a former patient of Goroll's, Scolnick says he appreciates both the excellent care he received and Goroll's dedication to the field.

Russell Phillips, MD, director of the HMS Center for Primary Care and the William Applebaum Professor of Medicine at HMS and Beth Israel Deaconess Medical Center, says he's thankful for this gift because it "is a wonderful way to acknowledge Dr. Goroll's life work and the importance of primary care as the foundation of our health system. It is essential that leading schools such as Harvard set an example to others by encouraging our students to pursue careers in primary care. Helping with loan repayment is one important way to do that."

Scolnick has a great fondness for HMS and says he is indebted to the School for the education he received, which changed his life dramatically. "I encourage others to give back if they can financially afford to do so," he says.

"IT IS ESSENTIAL THAT LEADING SCHOOLS SUCH AS HARVARD SET AN EXAMPLE TO OTHERS BY ENCOURAGING OUR STUDENTS TO PURSUE CAREERS IN PRIMARY CARE. HELPING WITH LOAN REPAYMENT IS ONE IMPORTANT WAY TO DO THAT."

RUSSELL PHILLIPS

FINANCIAL AID AND EDUCATION

DEEPLY PERSONAL MOTIVATION FOR GIVING

CDKL5 deficiency disorder (CDD) occurs in 1 out of 40,000 to 60,000 newborns, according to the National Library of Medicine. It is caused by mutations in the CDKL5 gene, which provides instructions for making a protein that is essential for normal brain development and function. Lynn and Majid Jafar, MBA '04, are painfully aware of this devastating disorder.

"FROM OUR OWN EXPERIENCE, WE HAVE COME TO REALIZE THAT SUPPORT OF HUMAN HEALTH IS THE HIGHEST CALLING."

MAJID JAFAR

When their eldest daughter was born with CDD, the Jafars established the Loulou Foundation to advance research into the understanding and development of therapeutics for the disorder. Most children with CDD suffer from seizures and cannot walk, talk, or feed themselves, while many have scoliosis, visual impairment, sensory problems, and gastrointestinal difficulties, according to the foundation's website. The foundation has supported several leading investigators at Harvard Medical School and its affiliated hospitals and research institutions, including Massachusetts General Hospital, Boston Children's Hospital, and the Broad Institute of MIT and Harvard.

"From our own experience, we have come to realize that support of human health is the highest calling," says Majid Jafar, a member of the HMS Board of Fellows and HMS Discovery Council. "And supporting the education of the next generation of top clinicians and clinician-scientists is an important part of that and a duty for us all," he says, explaining the couple's recent decision to establish an endowed scholarship at HMS.

The Jafars, who live in the United Arab Emirates, aim to support students from the Middle East with their gift. "Our region still has room for improvement when it comes to health care provision and particularly research," Majid Jafar says. "We hope our support encourages talented students from these countries to graduate from Harvard Medical School with more choices to truly make a difference for health care, including in our region."

HMS Dean George Q. Daley, AB '82, MD '91, PhD, calls the Jafars "wonderful friends of Harvard" and says he's deeply grateful for their support of deserving students for generations to come.

"I especially appreciate Lynn and Majid's assistance in strengthening HMS's global impact by supporting students from their region," Daley says.

APPRECIATIVE ALUMNI PROVIDE CRUCIAL SUPPORT

Alumni gifts in FY20 ranged from $10 to over $100,000, with a median of $250 and average of $2,344.

Harvard Medical School alumni give for myriad reasons: to show gratitude for the School's exceptional impact on their lives, to honor the people who made their time as a student memorable, to help future generations of HMS students achieve their dreams, and to empower the research community to make life-changing discoveries.

Whatever the reason, philanthropy offers alumni a tangible way to support the School's mission. In fiscal year 2020—July 1, 2019, through June 30, 2020—that tangible impact amounted to more than $5 million raised by nearly 2,200 MD alumni. The majority of alumni designated their gifts to support two areas: financial aid and education, which helps ensure that the School is accessible and affordable for all admitted students, and "where it is needed most," which provides vital, discretionary funding that HMS Dean George Q. Daley, AB '82, MD '91, PhD, can leverage to propel his plans and vision for the future of the School.

Jacqueline Boehme, MD '15, a former Alumni Council member and a member of her 5th Reunion Committee, who was a financial aid recipient, gives back despite her limited resources as a resident. She participates in the recurring giving program, directing her monthly support to the Community and Diversity Fund.

JACQUELINE BOEHME

"It's essential to promote diversity within an educational environment," says Boehme, a former Alumni Council member who recently started a critical care fellowship in Florida. She credits HMS with giving her the confidence to seek success, and she encourages others to get into the early habit of giving regularly.

JOANNA MIMI CHOI

Joanna Mimi Choi, MD '09, a new member of HMS's Federman Loyalty Circle after making her fifth consecutive annual gift, says her motivation to give stems in part from having received a generous loan forgiveness award from HMS.

"When I graduated, that gave me the freedom to pursue the career I wanted, in terms of pursuing public health and working with the underserved," says Choi, a member of the Alumni Council who works as a pediatrician in California. She chose to let the School decide where her gift is needed most.

JULIA HALLER

Julia Haller, MD '80, ophthalmologist-in-chief at Wills Eye Hospital in Pennsylvania, directed her support toward revitalization efforts at the Tosteson Medical Education Center (TMEC) in honor of her 40th Reunion, for which she volunteered as a co-chair. "The TMEC and its orientation and simulation facilities help steer the best and the brightest as they take their first clinical steps," says Haller, who named an orientation room in the Clinical Skills Center with her gift.

A member of the Dean's Council, which is HMS's leadership annual giving society, and the Federman Loyalty Circle, Haller says HMS has had a huge impact on her life. "I still hear mentors' voices," she says.

Alfred Sandrock Jr., MD '88, PhD '88, gave in honor of Ed Furshpan, PhD, and David Potter, PhD '56, both former HMS neurobiology professors who died in 2019. He credits them with teaching him not only about neuroscience but also about being a citizen of the world.

ALFRED SANDROCK JR.

"They believed in helping underrepresented minorities, and their actions spoke loudly. They were role models in every sense of the word," Sandrock says.

A member of the Dean's Council and executive vice president of research and development at Biogen, Sandrock's recent gift through his donor-advised fund (DAF) supports the Ed Furshpan and David Potter Native American High School Summer Program and the REACH Scholarship Fund, which makes it more feasible for those who are historically underrepresented in medicine to accept their offers of admission. He says a DAF is an easy way for him to budget his philanthropy and earn tax benefits.

ROBERT SHAMBERGER

Robert Shamberger, MD '75, former chief of surgery at Boston Children's Hospital and co-chair of his 45th Reunion Committee, says supporting student scholarships is one of the best ways to guarantee that HMS is accessible for all promising students. He funded his scholarship gift by transferring money from his IRA, which he says allowed him to avoid federal income tax on the IRA distribution.

"I believe that all of us who have graduated from Harvard Medical School owe a debt to the School for our education and for propelling our careers forward," says Shamberger, who is a member of the Dean's Council and Federman Loyalty Circle.

ATTACKING LYME DISEASE FROM ALL ANGLES

A single tick bite can transmit multiple disease-causing organisms. Infections with more than one organism can result in wide-ranging disease presentation and may alter how the immune system responds to the infection.

EMILY AND MALCOLM FAIRBAIRN

To the Fairbairns, the symptoms—debilitating fatigue, joint pain, cognitive problems—were as worrisome as they were mystifying. All four members of the family had them.

Eventually, all four—parents Emily and Malcolm Fairbairn, MBA '94, daughter Nina Fairbairn, AB '17, and son Grant Fairbairn, Harvard College Class of 2021—tested positive for the bacterium that causes Lyme disease. After months of hitting diagnostic brick walls, the family had a unifying explanation for their symptoms, yet getting them under control took a year. Their conditions are now chronic, with recurrent flare-ups that require ongoing medical management.

The family's experience is not uncommon. In an effort to help spare others with the disease a similar odyssey of pain, worry, and confusion, the Fairbairns have made a $5 million donation to Harvard Medical School, split among three current-use funds supporting different Lyme disease initiatives. This support builds upon the family's previous $1 million gift to HMS to advance Lyme research.

"I call Lyme the Rodney Dangerfield of diseases. It gets no respect," Emily Fairbairn says. "For our family and others who have contracted Lyme disease, the status quo is unacceptable. In order to take on the status quo, we have to bring in world-class researchers."

The Fairbairn Family Neuro-Immunology Lyme Disease Research Fund provides $2 million to be shared by Jun Huh, PhD, and Isaac Chiu, AB '02, PhD '09, both assistant professors of immunology in the Blavatnik Institute at HMS. "There is growing evidence that in the setting of infection, the immune system and the nervous system engage in a complex interaction," Chiu says. "We hope to understand exactly how this happens in the setting of Lyme disease, which can in turn inform the design of therapies that can minimize tissue damage or even prevent disease development following infection with the pathogen."

A second $2 million gift establishes the Fairbairn Family Lyme Disease Seed Research Fund. This funding will support grants for researchers looking at different aspects of Lyme disease at HMS and its affiliated hospitals, with a goal of investigating more broadly how the bacteria that cause Lyme disease interact with cells, tissues, and organs and can result in acute and chronic disease—knowledge that can inform new and more effective diagnostics and therapies and could help propel vaccine research.

"These grants will facilitate cutting-edge, adventurous science and the ability to ask questions that are going to move the field forward in jumps instead of incremental steps," says fund administrator Mark Namchuk, PhD, executive director of therapeutics translation at HMS.

A third gift of $1 million launches the Fairbairn Family Lyme Disease Education Fund, which supports efforts to inform the public about ways to prevent Lyme disease and about the latest research on the pathophysiology of the condition.

Most of the funding will be used to develop new content for Harvard Health Publishing, which provides health information to people around the world, drawing on the expertise of more than 11,000 HMS faculty physicians.

"As a top-tier research institution, we have incredible reach," says David Roberts, MD '95, HMS dean for external education, who will administer the fund. "By leveraging this platform, we can greatly improve understanding of this disease and the lives of those who are affected."

Even though official reports put the annual number of Lyme disease cases at around 300,000 people per year, the National Institutes of Health estimates that the actual number is much higher. Other tick-borne infections have also increased dramatically in recent years.

"Much more needs to be done to better understand this complex disease and its devastating consequences," says Emily Fairbairn. "In recent years, NIH funding for Lyme disease research has amounted to less than $90 per newly diagnosed patient per year. For context, West Nile Virus has received about $20,000, and this disease needs billions of dollars, not millions. We are hoping that this investment will make strides in attracting even more funding to better understand, prevent, and treat this important disease."

There are no consistently accurate tests for Lyme disease, and most diagnoses require complex clinical assessment and astute clinical judgment in addition to testing for the causative organisms. For people who develop chronic forms of this disease, there is no established cure and the most common treatments do not work reliably for everyone.

A VIRTUAL REUNION CELEBRATION

In lieu of traditional in-person events, a slate of virtual activities gave Harvard Medical School classmates celebrating milestone Reunions a chance to reconnect and to learn how the School is handling the COVID-19 pandemic.

On June 4, HMS Dean George Q. Daley, AB '82, MD '91, PhD, moderated a panel highlighting the Massachusetts Consortium on Pathogen Readiness (MassCPR) and its efforts to combat COVID-19 and prepare for future outbreaks. That evening, in another webinar, HMS Dean for Medical Education Edward M. Hundert, MD '84, facilitated a discussion with two members of the COVID-19 Student Response Team, while Associate Dean for Medical Education Quality Improvement John Dalrymple, MD '91, described the new telehealth curriculum.

On June 5, HMS Chair of Alumni Relations A.W. Karchmer, MD '64, hosted the State of the School session, which began with a brief update from Michael Rosenblatt, MD '73, president of the Harvard Medical Alumni Association, on the work of the Alumni Council. Harvard University President Lawrence S. Bacow, JD '76, MPP '76, PhD '78, then praised alumni for their selfless work before Daley delivered his State of the School Address, during which he presented the 2020 Distinguished Service Award for Harvard Medical School Alumni to David J. Brown, MD '97 (see opposite page). Eleven classes enjoyed private Zoom events from June 4-7, engaging in virtual happy hours and formal talks.

Nearly 140 class Reunion Committee volunteers helped plan these events, raise Reunion class gifts, and boost participation in Reunion Reports—leading to 760 submissions by alumni to their class books.

CLOCKWISE FROM TOP LEFT: MASSCPR STEERING COMMITTEE MEMBERS BRUCE WALKER, MARK NAMCHUK, ARLENE SHARPE, AND GEORGE Q. DALEY FIELD QUESTIONS DURING THE Q&A PERIOD OF THE JUNE 4 SESSION TITLED "COMBATING COVID-19 AND FUTURE PANDEMICS."

"I WANT TO GIVE MY THANKS TO ALL OF YOU. YOURS IS A NOBLE PROFESSION, AND YOUR SELFLESSNESS HAS BEEN LAID BARE BY THE PANDEMIC."

HARVARD UNIVERSITY PRESIDENT LAWRENCE S. BACOW

$16.3 million raised by 607 alumni donors*

* TOTAL INCLUDES OUTRIGHT GIFTS, PLEDGES TO BE PAID OVER FIVE YEARS, BEQUESTS, AND OTHER UNIQUE GIFTS THAT ALLOW ALUMNI TO STRETCH THEIR GIVING

CURRENT STUDENT SHIVANGI GOEL AND RECENT GRADUATE MICHAEL KOCHIS ANSWER AUDIENCE QUESTIONS DURING THE JUNE 4 SYMPOSIUM TITLED "COUNTERING A CRISIS: STUDENT MOBILIZATION AND CURRICULUM INNOVATION."

"I CANNOT STRESS HOW CRITICAL ALUMNI SUPPORT IS TO THE SCHOOL, ESPECIALLY DURING THESE UNCERTAIN TIMES. REUNION GIFTS LARGELY SUPPORT FINANCIAL AID AND RESEARCH, GIVING ME THE FLEXIBILITY TO SUPPORT STUDENTS WITH NEED AND EMERGING OPPORTUNITIES AS THEY ARISE."

HMS DEAN GEORGE Q. DALEY

ALUMNUS HONORED FOR MENTORING EFFORTS

2020 Distinguished Service Award for Harvard Medical School Alumni recipient announced

DAVID BROWN RECEIVES CONGRATULATIONS FROM HMS DEAN GEORGE Q. DALEY DURING A VIRTUAL AWARD CEREMONY JUNE 5.

David J. Brown, MD '97, is committed to cultivating a culture of diversity and inclusion in the medical profession. He and his classmate Alicia Barba, MD '97, developed, manage, and fund the HMS Underrepresented in Medicine (URM) Alumni-Student Dinner, which fosters community among URM students and provides a unique opportunity to establish a mentoring relationship with alumni. Over the past five years, more than 240 students have benefited from this event.

Brown's dedication to advising HMS students earned him the 2020 Distinguished Service Award for Harvard Medical School Alumni, which was presented to him by HMS Dean George Q. Daley, AB '82, MD '91, PhD, during a virtual ceremony June 5.

"It was special to be acknowledged for doing something that I love, and something that I hope is making an impact, and that is going to make a difference for HMS's diverse emerging leaders in medicine and beyond," Brown says. "I'd be remiss if I didn't thank Alicia as well. Her partnership paved the way for this program."

Brown is associate vice president and associate dean for health equity and inclusion at the University of Michigan Medical School, where he is also an associate professor of otolaryngology-head and neck surgery. He says the URM alumni-student dinner offers an opportunity to expose students to career options beyond patient care, including careers in academia, business ventures, and nonprofits. "When you have a Harvard Medical School degree, there are so many options and opportunities for you, and we want to really help these students develop to be their own unique, amazing selves."

WATCH THIS YEAR'S AWARD PRESENTATION, LEARN MORE ABOUT DAVID BROWN, AND NOMINATE DESERVING ALUMNI AT ALUMNI.HMS.HARVARD.EDU/SERVICE-AWARD.

Visit the Reunion recap webpage to see event highlights and videos at **alumni.hms.harvard.edu/2020-recap**

THE CLASS OF 1995 CELEBRATES ITS 25TH REUNION DURING A PRIVATE ZOOM EVENT.

ALUMNI DAY

Alumni Day also shifted its format. Alumni not celebrating a Reunion this year were invited to participate in the three webinars offered during Reunion (see opposite page). Visit **alumni.hms.harvard.edu/alumni-day** to learn more.

CUTTING-EDGE RESEARCH

FELLOWSHIP FUELS AUTISM RESEARCH

Y. Eva Tan says she's grateful that her mom has never rejected her for being different. "She has been tireless in her support, through many phases of my life, in spite of the fact that some of the traits that go with being autistic may have driven her bonkers at times," Tan says.

Her mother, Lisa Yang, is a longtime advocate for the rights of individuals with disabilities and learning differences. She is particularly invested in improving the lives of people with autism spectrum disorder (ASD). In 2019, she and Hock Tan, MBA '79, gave $20 million to launch the Hock E. Tan and K. Lisa Yang Center for Autism Research at Harvard Medical School, which focuses on the biological basis of neurodevelopment at it relates to ASD. Now, Yang is expanding her support of the center, giving $4 million to establish the Y. Eva Tan Postdoctoral Fellowship.

LISA YANG

Y. EVA TAN

"IT IS IMPERATIVE THAT YOUNG RESEARCHERS ARE MOTIVATED AND ENCOURAGED TO PURSUE SOLUTIONS IN AUTISM SPECTRUM DISORDER."

LISA YANG

"It is imperative that young researchers are motivated and encouraged to pursue solutions in ASD," Yang says. "I hope that a funded financial pipeline to support such talent at a postdoc level will contribute to positive discoveries at the center that make a difference in quality of life for those with ASD."

The center's inaugural faculty leader, Michael Greenberg, PhD, the Nathan Marsh Pusey Professor and chair of the Department of Neurobiology in the Blavatnik Institute at HMS, says the center has galvanized research on autism at Harvard at a time when scientists are poised to make a great leap forward in understanding the condition. "The additional gift from Lisa to support our postdoctoral fellows is a wonderful, unexpected surprise. Postdoctoral fellows bring creativity, innovation, and energy to our research efforts and will be essential to our work to understand autism," he says.

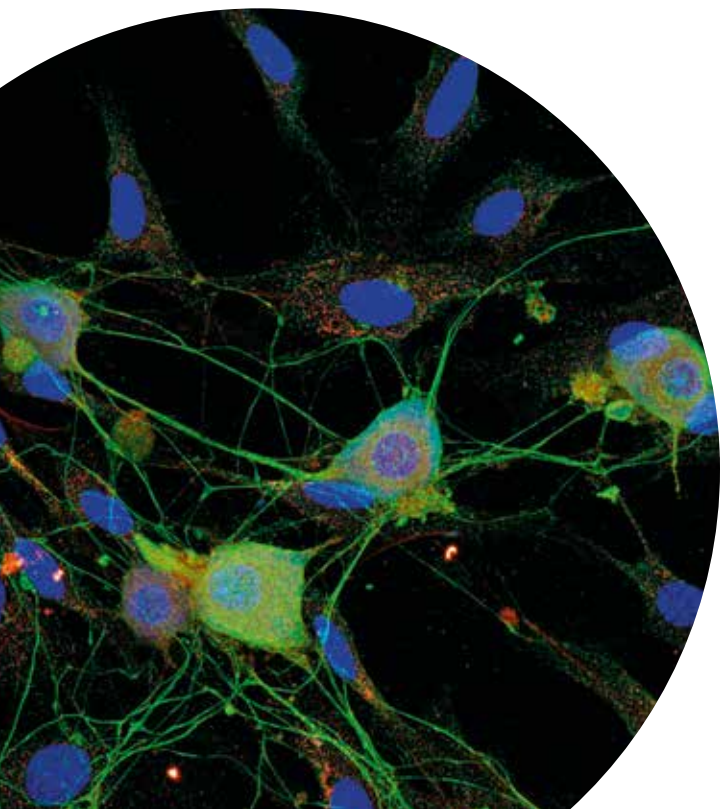
Yang says she felt it was particularly relevant to name the fellowship after her daughter, who was diagnosed as marginally on the autism spectrum but was not given appropriate educational support. When her daughter aged out of the education system and was accepted into SAP's Autism at Work program, "she substantiated that she could contribute to the bottom line in a corporate environment as a full-time employee," Yang says.

"The employment piece became crucial to overall quality of life, as a means to develop friendships and social supports, and most importantly, to gain a sense of purpose and build self-esteem."

Her daughter's transformative experience as an employee has motivated Yang to focus on ways to help people with ASD join and succeed in the workplace. For those more severely impaired by the disorder, Yang is focused on supporting autism research centers. She is hopeful the new fellowship will help to advance the work of principal investigators to understand the molecular and circuit-level basis of ASD, with the goal of accelerating the development of better diagnostics and related therapeutics that will improve the lives of those with ASD.

As for Tan, she will be with the fellows in name and in spirit. "Please know that this fellowship is named for a real person living with ASD," Tan says. "My life story is punctuated with failures in the educational system to provide appropriate support, and I have been written off in familial and social infrastructure, but in spite of it all, I proved resilient and made a path for myself in life. I expect the Y. Eva Tan Postdoctoral Fellows will share my indomitable spirit and strive to be part of the movement to make the world better for those with ASD."

IMAGE: LAUREN OREFICE



RESEARCHERS FOCUS ON PERIPHERAL SENSORY NEURONS

This photo shows peripheral sensory neurons, which are neurons outside of the brain whose function is to encode and relay information about touch to the brain. Clinical observations of patients with ASD have indicated that patients display an altered reactivity to various sensory stimuli, including the sense of touch. The cellular basis to explain this observation was demonstrated by two members of the Hock E. Tan and K. Lisa Yang Center for Autism Research at Harvard Medical School: David Ginty, PhD, the Edward R. and Anne G. Lefler Professor of Neurobiology at HMS, and Lauren Orefice, PhD, assistant professor of genetics at HMS and Massachusetts General Hospital. They found that several autism-related genetic mutations expressed only in peripheral sensory neurons can account for touch over-reactivity in ASD mouse models. And touch over-reactivity due to the dysfunction of peripheral sensory neurons during development contributes to altered brain development, as well as some anxiety and social interaction difficulties in mice. This line of work suggests that peripheral neurons outside of the brain are also critical sites to study in autism. The work is being continued in the center.

EZEKIEL HERSEY COUNCIL

EHC SPOTLIGHT: JESSIE SHERROD, MD '75

"Attending Harvard Medical School was one of the greatest opportunities of my life. Being the first student to attend HMS from Tougaloo College, a historically Black college in Mississippi, enabled me to appreciate the many doors opened and opportunities afforded by 'Harvard privilege.' Tougaloo engraved who I am, and Harvard validated my identity. To show my gratitude, inspire others, and to pay it forward, I established a charitable gift annuity at HMS that will benefit those who are historically underrepresented in the medical profession."

The Ezekiel Hersey Council recognizes those who have created a life income gift, named HMS as a beneficiary of a retirement account or existing donor-advised fund, or included HMS in their will or trust. Learn more at ***hms.harvard.edu/EHC****.*

HMS ALUMNI COMBAT COVID-19

We salute our alumni who are working on the front lines or behind the scenes to combat COVID-19 and provide comfort during the pandemic. Visit **alumni.hms.harvard.edu/stories** to read about their experiences—in their own words—and view photos of them in action. You will also find a link to access more than 200 news articles related to the pandemic and featuring our alumni.

SONIA BATRA, AB '94, MD '00, MPH '00, USES TELEMEDICINE TO CARE FOR PATIENTS AT HOME.

TANIQUA N. ALEXANDER-MILLER, MD '08, IS KEEPING PATIENTS SAFE AT EMORY HEALTHCARE IN GEORGIA.

CUTHBERT O. SIMPKINS, MD '74, AND HIS TEAM TREAT PATIENTS IN THEIR HOSPITAL'S COVID-19 UNIT.

ALLISON L. MCDONOUGH, MD '97, SAYS SHE'S HONORED TO PLAY A SMALL ROLE IN BRINGING SOLACE TO PATIENTS.

FINANCIAL AID AND EDUCATION

HMS TRAILBLAZER GIVES BOOST TO FUTURE STUDENTS

LADISLAS DOLORES WOJCIK (FRONT LEFT) JOINS FELLOW FEMALE MEMBERS OF THE CLASS OF 1949 ON THE HMS QUAD. IMAGE: CENTER FOR THE HISTORY OF MEDICINE AT COUNTWAY LIBRARY

In 1847, at age 42, Harriot Hunt applied to HMS, becoming the first woman to apply to any Harvard school. She was denied admission twice, and it would be nearly 100 years before HMS accepted its first female enrollees.

Ladislas Dolores Wojcik, MD '49, was among those enrollees—a group of 12 women admitted in 1945. After earning her medical degree, Wojcik eventually moved to Marion, Indiana, and served the community for nearly 40 years as a beloved pediatrician. Known to put lollipops on the end of the wooden tongue depressors she used, Wojcik was admired by friends and colleagues for her dedication to her young patients.

She also remained dedicated to her alma mater, providing scholarship support and flexible, unrestricted gifts to HMS for decades. Additionally, she served as a class agent, volunteering to lead the fundraising efforts of the Class of 1949. Though Wojcik died nearly 30 years ago, her legacy continues today with a $140,000 distribution from a charitable remainder unitrust she established to create the endowed Ladislas Wojcik Financial Aid Fund.

"Gifts like these are fundamental to the future of medical education, allowing Harvard Medical School to continue to attract exceptional students who might not otherwise be able to afford to come here," says Sara Fazio, MD, advisory dean and director of the Walter Bradford Cannon Society at HMS and a professor of medicine at Beth Israel Deaconess Medical Center. "Moreover, these generous gifts allow recipients to pursue their individual passions unfettered by a need to repay an insurmountable debt. The ability to attract talented individuals, often from underrepresented backgrounds, enhances our capacity to train a diverse population of physicians to serve our diverse communities.

"Dr. Wojcik was a true trailblazer; her legacy offers HMS students an opportunity to be pioneers in their own career paths as well."

> "GIFTS LIKE THESE ARE FUNDAMENTAL TO THE FUTURE OF MEDICAL EDUCATION, ALLOWING HARVARD MEDICAL SCHOOL TO CONTINUE TO ATTRACT EXCEPTIONAL STUDENTS WHO MIGHT NOT OTHERWISE BE ABLE TO AFFORD TO COME HERE."
>
> SARA FAZIO

ALUMNI COUNCIL WELCOMES 6 NEW MEMBERS

This past spring, Harvard Medical School graduates cast their votes in the annual Alumni Council election, choosing a president-elect and five new councilors. Representing the First, Fourth, Seventh, and Eighth pentads, respectively, are new councilors Numa Pompilio Perez Jr., MD '15, a general surgery resident at Massachusetts General Hospital; Coleen S. Sabatini, MD '04 (Class of 2003), MPH '04, a pediatric orthopedic surgeon at the University of California, San Francisco (UCSF); David E. Cohen, AB '82, MD '86, PhD '87, chief of the Division of Gastroenterology and Hepatology and the Vincent Astor Distinguished Professor of Medicine at Weill Cornell Medical College; and Margaret A. Liu, MD '81, CEO of PAX Therapeutics and a foreign adjunct professor at the Karolinska Institute in Stockholm, as well as an adjunct full professor at UCSF. Douglas H. L. Chin, AB '88, MD '94 (Class of 1993), MMSc '94, a plastic and reconstructive surgeon at Nasarem Healthcare, was elected councilor-at-large, and Kenneth R. Bridges, MD '76, a vice president at Global Blood Therapeutics, was chosen as president-elect. Bridges will serve in that role for one year before becoming president for two years.

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

LEARN MORE ABOUT THE NEWEST MEMBERS OF THE ALUMNI COUNCIL AT ALUMNI.HMS.HARVARD.EDU/ELECTION.

FROM LEFT TO RIGHT: KENNETH R. BRIDGES, DOUGLAS H. L. CHIN, NUMA POMPILIO PEREZ JR., MARGARET A. LIU, DAVID E. COHEN, AND COLEEN S. SABATINI

HST ALUMNUS SUPPORTS HIS FORMER 'HOME'

When he was a student in the Harvard-MIT Program in Health Sciences and Technology (HST), James Tananbaum, MD '89, MBA '91, received a stipend that allowed him to pursue his dreams without the stress of working to make ends meet. Those dreams involved conducting research across Harvard and MIT and exploring how people across those campuses commercialized technology.

"Now I want to provide for others the gift that I received," says Tananbaum, who, along with his wife, Dana, recently gave $1 million to HMS to provide at least four endowed scholarships supporting MD students in the HST program. The couple's preference is that at least one beneficiary each year is a student seeking a joint MD/MBA degree, the path Tananbaum pursued at Harvard.

"HST was a home and a family. They let me take risks and try things, and I felt supported and the faculty cared," says Tananbaum, fondly recalling his interactions with advisers. "Business and medicine wasn't really appreciated at the time, so I wanted to make it easier for similar students to pursue both degrees together."

"THEY LET ME TAKE RISKS AND TRY THINGS, AND I FELT SUPPORTED AND THE FACULTY CARED."

JAMES TANANBAUM

Tananbaum, CEO and managing director of Foresite Management, believes the HST program, which integrates science, medicine, and engineering to solve problems in human health, holds increasing importance for the next evolution of health care. "Many of the categories that HST emphasizes will drive mass change in health care and academic research," he says. "We're entering a time of the individualization of health care, which will be enabled by engineering frameworks. This will be the decade where tech and biotech have a profound impact on life sciences research and health care delivery."

Wolfram Goessling, PhD, MD, co-director of the HST program and a professor of medicine at HMS and Massachusetts General Hospital, says the COVID-19 pandemic has again demonstrated the importance of ongoing research and investigation to achieving better diagnosis, prevention, and treatment for patients.

The mission of the Harvard-MIT Program in Health Sciences and Technology is to educate outstanding minds and cultivate leaders who will explore fundamental principles underlying disease and develop preventive, diagnostic, and therapeutic innovations.

"During their studies in the classroom and their experiences in research laboratories, HST students learn to ask critical questions with the goal of improving health. We are deeply grateful to Dana and Jim Tananbaum for establishing these scholarships, which will enable students to pursue the research interests they are fascinated by and help transform them into the investigators of tomorrow. This generous gift inspires all of us," says Goessling.

Tananbaum, who is part of the planning group for the HST 50th anniversary celebration—originally scheduled for November 2020 but postponed due to the pandemic—says the program had a profound effect on his life. "It's important that alumni keep supporting the program and helping it grow and move forward," he says.

DANA AND JAMES TANANBAUM WITH THEIR CHILDREN, ALEXANDRA AND CHARLES

IN BRIEF

The following faculty-generated grants and gifts totaling $250,000 or more were awarded by organizations to support members of the Harvard Medical School community in their work to alleviate suffering and improve health and well-being for all.

The **Damon Runyon Cancer Research Foundation** has awarded grants totaling nearly $1.2 million to five scientists at HMS. Denis Schapiro, PhD, a research fellow in therapeutic science, is working in the Laboratory of Systems Pharmacology to develop methods to uncover patient-specific biomarkers that can guide therapeutic decisions for melanoma. The other four scientists are conducting research within the Blavatnik Institute. Erin Duffy Lacy, PhD, a research fellow in neurobiology, is studying how neuronal activity can regulate gene expression in the developing brain in order to identify new pathways as therapeutic targets for pediatric brain cancer. Nikit Patel, PhD, a research fellow in systems biology, is investigating the regulators that determine how stem cells differentiate into two kinds of blood cells: erythroid cells and myeloid cells. Better understanding of this process could reveal novel strategies for combating blood-related cancers. Shouwen Wang, PhD, a research fellow in systems biology, is developing computational tools to study how the regulator Gata1 effects the early differentiation of blood cells from stem cells. And Rachel Greenberg, PhD, a research fellow in cell biology, is studying the development, differentiation, and plasticity of vagal neural circuits and their role in maintaining homeostasis of internal states, such as blood-oxygen level.

The **Commonwealth Fund** is continuing its longstanding role in fostering diversity efforts under the direction of Joan Reede, MD, MPH '90, SM '92, MBA, HMS dean for diversity and community partnership, through another $800,000 grant. Now in its 25th year, the Commonwealth Fund Fellowship in Minority Health Policy at Harvard University prepares physicians for leadership roles in health policy and public health, giving them the tools to transform health care delivery systems for minority, low-income, and other vulnerable populations across the country.

The **Ludwig Family Foundation Inc.** is expanding its support of Bruce Yankner, MD, PhD, a professor of genetics and neurology in the Blavatnik Institute at HMS and co-director of the Paul F. Glenn Center for Biology of Aging Research at HMS. The grant will help Yankner build upon his work studying modulators and therapeutic targets for aging and Alzheimer's disease.

Three scientists in the Blavatnik Institute at HMS have received grants totaling $526,500 from the **Helen Hay Whitney Foundation**. Meredith Skiba, PhD, a research fellow in biological chemistry and molecular pharmacology, is studying the interactions between antibodies and the angiotensin receptor AT1R, which regulates cardiovascular and renal homeostasis. Better understanding of these interactions could provide insights into developing antibody-based therapeutics targeting G-protein coupled receptors. Travis Walton, PhD '19, a research fellow in biological chemistry and molecular pharmacology, is investigating the unique structural features of cilia that direct intraflagellar transport and how its dysfunction can lead to disease. Katja Hansen, PhD, a research fellow in genetics, is studying the role of mitochondrial gene expression regulation and the spatial distribution of oxidative phosphorylation (OXPHOS) transcripts to adapt OXPHOS function in order to understand tissue-specific functions of mitochondria.

Michael Chernew, PhD, the Leonard D. Schaeffer Professor of Health Care Policy in the Blavatnik Institute at HMS and director of the Healthcare Markets and Regulation Lab at HMS, has received a grant of $400,000 from **Ballad Health**. The funding will help Chernew study how the competitive dynamics of small rural and suburban hospital markets are affected by closures and acquisitions.

The **Human Frontier Science Program** has awarded grants totaling $392,016 to two scientists in the Blavatnik Institute at HMS. Dan Davidi, PhD, a research fellow in genetics, is studying the autonomous regulation of mitochondrial DNA to understand how selection shapes mitochondrial genomes and why certain mitochondrial mutations cause cancer. Jiska van der Reest, PhD, a research fellow in cell biology, is investigating tumor metabolism in vivo to understand how host tissue supports metastatic tumor growth and to explore strategies to combat metastasis by interfering with redox metabolism.

Richard Frank, PhD, the Margaret T. Morris Professor of Health Care Policy in the Blavatnik Institute at HMS, has received a grant of more than $376,000 from the **Robert Wood Johnson Foundation** to utilize labor market forecasts to predict near-term changes in health and health care access for U.S. workers.

The **Adelson Medical Research Foundation** has given more than $372,000 to continue its support of Joan Brugge, PhD, the Louise Foote Pfeiffer Professor of Cell Biology in the Blavatnik Institute at HMS and co-director of the Ludwig Center at Harvard. The grant supports studies in Brugge's lab to develop safe combination therapies for treatment-resistant tumors in patients with high-grade serous ovarian cancer.

The **GE Foundation** has given $313,000 to continue its support of John Meara, DMD, MD, MBA, the Steven C. and Carmella R. Kletjian Professor of Global Health and Social Medicine in the field of Global Surgery in the Blavatnik Institute at HMS and chief of plastic surgery at Boston Children's Hospital. With this grant, Meara and his team seek to improve access to safe, affordable, and timely surgery and anesthesia care as part of the Safe Surgery 2020 initiative.

The **Louis E. Wolfson Foundation** has continued its longstanding support of MD students at HMS through a $310,000 gift that provides access to low-interest institutional loans for those with demonstrated financial need. Over the past 35 years, the foundation has given more than $11.4 million to support deserving MD students.

Chris Sander, PhD, professor in residence of cell biology in the Blavatnik Institute at HMS and director of the cBio Center at Dana-Farber Cancer Institute, has received a $300,000 gift from **Innovation in Cancer Informatics** to fund ovarian cancer research. Sander's lab is building predictive network models of molecular and cell-to-cell interactions to support cancer precision medicine.

The **American Heart Association** has awarded more than $259,000 in grants to two research fellows in cell biology in the Blavatnik Institute at HMS. Lindsay Clark, PhD, is studying the structure of membrane proteins in the endoplasmic reticulum, which are critical for maintaining the shape and function of the organelle. Soohong Min, PhD, is investigating how two types of blood vessel wall sensors detect and control changes in blood pressure and oxygen level.

Q&A WITH BRUCE WALKER

We sat down with Bruce Walker, MD, the Phillip T. and Susan M. Ragon Professor of Medicine at Massachusetts General Hospital and HMS and director of the Ragon Institute of MGH, MIT and Harvard, to talk about COVID-19 research funding, which is the focus of our featured story in this issue.

01

You are faculty co-leader of the Massachusetts Consortium on Pathogen Readiness (MassCPR), a multi-institutional collaboration that includes hundreds of scientists and clinicians. Why is this united effort so essential to addressing the COVID-19 pandemic?

We are blessed to be located in the most awesome biomedical research ecosystem in the world, yet the full impact of the incredible talent here had never been realized. MassCPR has changed that by engaging across disciplines, universities, and hospitals to leverage existing talent to address the most important global health threat of our lifetime. In my four decades here, I have never before seen anything close to the interactive, supportive environment we have created with MassCPR. For example, we have working group Zoom meetings with 100 investigators engaged, sharing ideas, and creating new collaborations. It is such a heartening experience!

02

What has impressed you most about MassCPR and its progress thus far?

The most impressive aspect of MassCPR has been the creation of an interactive and supportive community with a common goal: To bring an end to the COVID-19 pandemic. No single lab or researcher is going to solve this problem, but collectively we can. It is remarkable to see the extensive new collaborations arising through MassCPR, and to experience the selfless commitment of so many investigators who have placed their emphasis on working together toward a solution.

03

How will MassCPR's work today better prepare us for future outbreaks?

The COVID-19 pandemic has shown the world in very stark terms how important pandemic preparedness will be to human existence. SARS-CoV-2, the virus that causes COVID-19, is similar to past pathogenic coronaviruses SARS-CoV-1 and MERS, except it is much more transmissible and has a much lower case fatality rate (less than 1 percent for SARS-CoV-2 compared to 10 percent for SARS-CoV-1 and over 30 percent for MERS). A new coronavirus with the transmissibility of SARS-CoV-2 and the case fatality rate of MERS would be an existential threat to humanity. We can expect more deadly coronaviruses and other pathogens in our future, so sustaining the efforts of MassCPR is foremost on our minds. We need to develop robust surveillance systems to recognize new pandemics as they arise, and we need to maintain the collaborative response network of the most talented clinicians and scientists that we have created with MassCPR.

CALENDAR

Please note that we have removed the calendar section from this issue of Pulse as a result of the evolving COVID-19 pandemic and its potential impact on upcoming events.

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14

CELEBRATING THE HEART AND IMPACT OF THE HMS COMMUNITY

PULSE

FALL 20

LONG-DISTANCE INTRODUCTIONS

"Your journey here begins in extraordinary times," HMS Dean George Q. Daley, AB '82, MD '91, PhD, told members of the Harvard Medical School and Harvard School of Dental Medicine Class of 2024—the first class in either school's history to start its studies remotely. Daley welcomed students via teleconference in early August to kick off a virtual orientation week, which also included a patient clinic, an antiracism class, and the annual White Coat Ceremony. To read more, view photos, and access the ceremony video, go to **hms.harvard.edu/news/no-other**.

JEANNA MARY QIU, AB '20, HMS CLASS OF 2024, IS JOINED BY HER MOTHER, FATHER, AND SISTER AS SHE INTRODUCES HERSELF TO CLASSMATES DURING THE VIRTUAL WHITE COAT CEREMONY.