



REVOLUTIONIZING HEALTH: From left, Slavin and *All of Us* staff, Lindsay Ophel, Fatoumata Bah, Nora Emmott, Chirlien Pang and Nicole Allen

The future of health is *All of Us*

PRECISION MEDICINE has been a buzzword in health care circles for years – but now the National Institutes of Health (NIH) is poised to launch a major new research effort that will help make this vision a reality. The *All of Us* Research Program seeks to enroll 1 million or more participants who will share their health information – linked with samples – marking what could be a new era in medical research and treatment.

The MGH will be a part of this effort as a member of the *All of Us* Research Program's New England site, led by Partners HealthCare and its founding hospitals, the MGH and Brigham and Women's Hospital. Boston Medical Center also is a participant in *All of Us* in New England.

“Together we can help usher in new and better understandings of ways to prevent and treat disease,” says Peter L. Slavin, MD, MGH president, who is a participant in the program. “This is another great clinical opportunity to help build a research database that may help discover new cures.”

A core value of the *All of Us* Research Program's effort is to enroll and engage participants from diverse communities and groups that have been historically underrepresented in research. Achieving these goals will require significant effort to build trust, overcome barriers and work with participants as true partners in research.

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Bowditch Prize winners chart new courses at the MGH

“**IT'S VERY FITTING** that this prize is associated with a celestial navigator because these teams are working to chart the future of this hospital,” said Peter L. Slavin, MD, MGH president, of the annual Nathaniel Bowditch Prize nominees and winners. Awarded by the MGH Board of Trustees, the prize recognizes individuals or teams that have made significant contributions in improving patient care while reducing cost.

Nominations included projects ranging from improving handoff efficiency in the Emergency Department to standardizing inpatient documentation of penicillin allergies, from the work of Medical Interpreter Services to combatting the opioid crisis. Out of all the nominees this year, the prize was given to two recipients at a ceremony Feb. 27.

An individual award went to Nathaniel Sims, MD, of the Department of Anesthesia, Critical Care and Pain Medicine, for innovative work throughout his career in engineering medical devices that have improved patient care not only at the MGH, but at institutions throughout the world. One of his most notable projects is the “smart” infusion pump, which has sharply reduced medication errors and their associated costs, and has been licensed, produced and distributed by major manufacturers throughout the world. Most recently, use of smart infusion pump technology has been extended to pediatric patients.

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HONORING EXCELLENCE: Andrew Warshaw, MD, chairman of the Bowditch Prize Selection Committee, at left, with Sims

When safety reporting leads to change

AT THE MGH, staff put patient safety first. So when a patient in the 3-T MRI scanner reported he was feeling a heating sensation on his neck, the procedure was stopped and staff immediately began to investigate the cause.

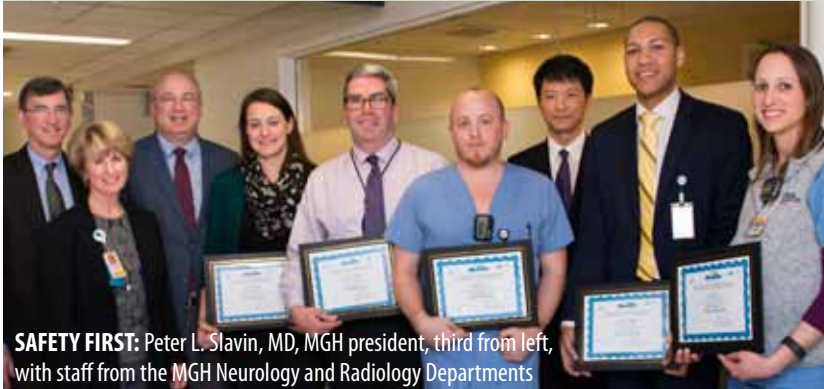
They identified a specific continuous electroencephalogram (cEEG) lead – that was manufactured to be longer than the other leads attached to the patient’s scalp – to be the cause of the heating. MRI leadership – working with Neurology Quality Assurance and Clinical Neurophysiology/EEG Lab leadership – filed a safety report, while Imaging staff and the Center for Quality & Safety staff specialists also reported the issue to the U.S. Food & Drug Administration’s (FDA) Medical Product Safety Network (MedSun).

“MGH has reported many products to the FDA MedSun website since 2009, including 64 reports in 2017,” said John Murphy, RN, staff specialist in the MGH Center for Quality & Safety. “The feedback from front-line staff, who use these products daily, is invaluable to manufacturers.” Through working with the manufacturer, it was discovered the MGH was the only site using the MRI-compatible long leads that were causing issue.

“Staff are encouraged to enter a safety report and to alert their manager when a product is or could present a risk for harm to a patient or staff member,” Murphy said.

The FDA Center for Devices and Radiological Health recognized the MGH – specifically members of the MGH Radiology and Neurology Departments – for contributing to this significant safety action. Staff gathered March 5 outside the MRI Unit to receive their FDA Certificates for Outstanding Contribution in Promoting Patient Safety With Medical Devices.

“Congratulations to the entire team,” said Aneesh Singhal, MD, vice chair of Neurology. “This is such great validation of our quality and safety improvement process.”



SAFETY FIRST: Peter L. Slavin, MD, MGH president, third from left, with staff from the MGH Neurology and Radiology Departments

‘Speak Up for Safety’ week of events

NATIONAL PATIENT SAFETY AWARENESS WEEK is March 12-16, and a week-long program of events will highlight employees’ role in keeping patients safe.

March 12, 8 - 10 am, East Garden Room: To kick it all off, a breakfast will be held to honor the 2018 Patient Safety Stars – those MGHers who have shown an extraordinary commitment to keeping patients safe.

1 - 2 pm: A webcast will be offered by the Institute for Healthcare Improvement and the National Patient Safety Foundation entitled, *Engaging Patients and Providers: Speaking Up for Patient Safety*.

March 13, 8 - 9 am, O’Keeffe Auditorium: Pediatric Grand Rounds, *Overcoming Communication Barriers in Difficult Situations: A Patient Safety Imperative*, will be presented by Jo Shapiro, MD, director of the Center for Professionalism and Peer Support at Brigham and Women’s Hospital and associate professor of Otolaryngology at Harvard Medical School.

March 14, 2 - 3 pm, O’Keeffe Auditorium: Patient Care Services will host an Anatomy of Safety Event session, *Managing Disruptive Patients: Promoting Staff and Patient Safety*. Presenters will review clinical narratives and strategies to promote safe and effective care.

March 15, noon - 1 pm, O’Keeffe Auditorium: Carol Haraden, PhD, an internationally recognized patient safety expert and senior faculty member for the Institute for Healthcare Improvement, will present the keynote speech, *Safety as a System Property*.

March 16, noon - 1 pm, Bigelow 4 Amphitheatre: To wrap up the week, Lakshman Swamy, MD, MBA, a Pulmonary and Critical Care Medicine fellow at Boston Medical Center, will present a keynote speech, *The Promise and Perils of Patient Safety*.

March 12 and 16, White Lobby: The Center for Quality and Safety team will host information tables to provide information for patients, visitors and employees about what the MGH does to keep patients safe.

— All of Us

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At the MGH, the *All of Us* Research Program is led by Jordan Smoller, MD, PI/project leader and director of the MGH Psychiatric and Neurodevelopmental Genetics Unit, and Shawn Murphy, MD, PhD, of the MGH Department of Neurology and Partners chief research information officer. *All of Us* engagement, communication and retention activities at the MGH are led by Susan Edgman-Levitan, PA, executive director of the John D. Stoeckle Center for Primary Care Innovation, and Dean Xerras, MD, medical director of the MGH Chelsea HealthCare Center.

Xerras is especially interested in getting the hospital’s community health centers and patients involved in research. “Increasing access to participate in medical research is an important goal for MGH Chelsea,” says Xerras. “By participating in the *All of Us* Research Program, we hope to further improve the health and well-being of our Chelsea community.”

The *All of Us* Research Program is not one single study, it will be a database linked to samples that researchers can use to run thousands of health studies. The data collected can be used by any researcher in the United States and around the world, following strict privacy and security rules.

“*All of Us* is groundbreaking not only for the data that will be provided to researchers but also for including participants as partners in every step of the program,” says Smoller. “It is our hope that research conducted on a scale this size could help revolutionize medicine, and an important piece of that is making sure the communities we’re partnering with feel welcomed and heard from along the way.”

To learn more about the *All of Us* Research Program – including what it means to be a participant – visit www.allofusNewEngland.org or visit an *All of Us* table by the Eat Street Café March 12 and March 16 or by Coffee Central March 13, 14 or 15 from 9 am - 4 pm. ■

New bill will increase access to care for stroke patients

HARD WORK PAYS OFF, and health institutions and stroke patients all over the country will soon find out how. The Furthering Access to Stroke Telemedicine (FAST) Act was recently signed into law.

The FAST Act encourages hospitals to use telemedicine in stroke care by allowing sites across the country to bill for telemedicine consultations. With a financial barrier broken down, the act will increase access to care for stroke patients, thereby diminishing long-term disability and ultimately saving more lives.

The bill takes effect in January 2019 and one key to its success was part of an advocacy campaign spearheaded by the American Heart Association (AHA), which was joined by the American Academy of Neurology (AAN).

"It's a remarkable accomplishment," says Lee Schwamm, MD, executive vice chair of Neurology and director of the MGH Comprehensive Stroke Center. "It's hard work and I'm thrilled to see that this bill passed with its core principles intact and without being altered by the legislative process. It was in the right place at the right time and in the right hands when Congress came together to pass the budget resolution."

Schwamm testified in front of the United States Senate Committee on Finance in support of the bill last year and has been consulting with the AHA and AAN for more than a decade to make telehealth in stroke care more accessible.

The concepts behind the FAST Act were first drafted in 2003 as part of the Stroke Treatment and Ongoing Prevention (STOP) Act, which ultimately failed to achieve passage because of its broad scope. This time around, the AHA and AAN sharpened the act's focus.



SCHWAMM

"We were really laser-beam-focused on one condition, on one specified disease, where we had strong data on efficacy and projected financial savings," Schwamm says. "This made the bill attractive to bipartisan sponsors and increased overall access to care."

Sue Nelson, vice president of Federal Advocacy for the AHA, says passing this bill was a logical, common sense thing to do.

"All we're doing is providing for appropriate medical care," Nelson says. "Most people, when it was explained to them on The Hill, said 'Why aren't we already doing that?' I'm happy we finally crossed the finish line." ■

TELESTROKE, EXPLAINED

What it is: Telestroke is a videoconferencing service that enables stroke specialists from miles away to rapidly diagnose and determine the most appropriate treatment for a stroke patient who lives in a rural or suburban area. Hospitals must subscribe to telestroke services.

How it works: When a patient who lives in a remote or rural area experiences a stroke, that patient is transported to the nearest hospital – there is no time to transfer that patient to a specialty center. Through the telemedicine network, a stroke expert is immediately contacted for a consultation using a videoconferencing service. Prior to the consultation, the specialist can download and review brain CT scan images. During the videoconference consultation, the specialist will determine the severity of the stroke and whether the patient would benefit from a clot-busting IV drug, tissue plasminogen activator or from direct clot extraction by a catheter.

Why it's important: When it comes to stroke, "time is brain." With telestroke services, hospitals that lack the resources to diagnose and treat stroke patients can access high-quality specialty care remotely.

Continuing a legacy: MGH responds to disasters

DOMINICA; TEXAS; THE FLORIDA KEYS; PUERTO RICO. These four regions were consecutively ravaged by Hurricanes Harvey, Irma and Maria in 2017. But each time, the MGH responded. On Feb. 15 in the O'Keefe Auditorium, a panel of those dedicated responders – led by the Global Disaster Response (GDR) at the MGH Center for Global Health and the Center for Disaster Medicine – shared their deployment experiences.

Juan Pablo Domecq, MD, a clinical research fellow in the BWH Renal Division, recalled his deployment to the Princess Margaret Hospital in Dominica when he encountered a patient receiving dialysis lying on the ground. When the patient began bleeding, Domecq knelt and immediately started applying pressure to stop the blood loss. Despite the circumstances, the patient gathered enough strength to ask Domecq to take a chair and make himself comfortable. "It was very rewarding that the person I was supposed to help was thinking of me," said Domecq. "That patient – even in his situation – managed to have empathy."

In sharing their heartfelt stories and expressing thanks to the staff for their exemplary response to the devastating disasters, other speakers at the event emphasized the importance of collaboration, preparation and gratefulness. "I want to acknowledge the internal and external teams, the senior leadership support at every level and the amazing collaboration with various departments," said Hilarie Cranmer, MD, MPH, director of GDR at the MGH Center for Global Health. "There are so many people to thank for their service."

Emphasizing the need for preparation, Paul Biddinger, MD, director of the Center for Disaster Medicine, said, "Just good clinical care or a good heart is not enough, preparation is important to deploy professionally and safely. You want to be sure that you can help and not become a victim yourself. We can train you."

Staff – both clinical and non-clinical – who are interested in getting involved in international and national disaster response can visit www.mghcgh.org.



RESPONSE REFLECTIONS: Ann Prestipino, senior vice president of Surgery, Anesthesia, Emergency Medicine and Clinical Business Development, at right, and panelists

Witnesses for the vulnerable

FOR REFUGEES who have fled violence and persecution in their home countries, attaining asylum status in the United States can be a beacon of hope at the end of a long, dark journey.

Asylum is a permanent residency status granted by the government to individuals who have experienced violence and persecution – such as torture or sexual assault – in their home countries, or who believe they will be subject to violence and persecution if they return.

Attaining asylum is not an easy process, however.

The immigration system can be challenging to navigate, particularly for those who do not speak English as a first language or whose uncertain legal status creates a fear of government organizations. It also can be difficult to prove claims of past physical and mental abuse, particularly if the incidents occurred thousands of miles away.

A team of MGH clinicians is working to help this vulnerable population through the MGH Asylum Clinic. Clinic members volunteer their time to provide independent medical

assessments of individuals seeking asylum based on a past history of physical or mental abuse.

The team meets twice a month to provide clinical assessments, which are typically arranged through connections with a network of immigration lawyers and community support groups. Patients are from across New England and most receive their primary medical care outside of the MGH.

“As physicians, we listen to their stories,

perform physical examinations to corroborate those stories, and submit an affidavit to the court with an objective assessment of whether our findings are consistent with the reported abuse,” says Matthew Gartland, MD, director of the Asylum Clinic.

FROM CONCEPT TO REALITY

The concept for the clinic originated with Eleanor Emery, MD, who recently completed her residency in Internal Medicine at the MGH. Emery helped to start a similar clinic while studying at Weill Cornell Medical School.

Team members received training from Physicians for Human Rights, which provides a legal background on the qualifications for asylum and a foundation in medical forensic examination that is specific to the types of trauma experienced by immigrants applying for asylum.

In addition to providing independent medical assessments, the team also makes connections with local immigration advocacy groups, which help connect MGH patients to legal services as the first step in the asylum process.

Volunteering at the clinic has been a natural fit for Jo Henderson-Frost, MD, Internal Medicine resident at MGH Chelsea, where more

than half of patients are foreign-born, many from Central America. “In the primary care

clinic, we often hear stories of trauma and refer patients to mental health specialists,” she says, “but we also must consider the legal status of our patients as a social determinant of health and ensure they have access to legal representation.”

THE HIDDEN SIGNS OF TRAUMA

The stories that clinic members hear in their evaluations can be heartbreaking, though team members find some comfort in being able to bear witness to the stories and help refugees strengthen their case for asylum.

During a recent evaluation of a young mother seeking asylum, Gartland and Henderson-Frost learned about the political and gang violence she faced in her home country, as well as a sexual assault she suffered during her journey to the United States.

Following a period of detention at the border, the woman was released pending a hearing in immigration court. In Boston, she has found a new life – joining a church, finding a job and starting a family. However, her future in the United States remains in jeopardy. She lives in constant fear of deportation and the consequences of returning to the place she fled.

“These are the stories of our patients and our neighbors. They are difficult for patients to relive and often difficult to hear,” Gartland says. “If we educate ourselves, create an open environment and support patients to process life after trauma, we can have an incredible impact on people’s lives.” ■



HENDERSON-FROST



GARTLAND

— Bowditch

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A team award went to the Home Hospital Program – led by Ryan Thompson, MD, director of Quality Improvement in the Department of Medicine – for the great level of collaboration in providing acute care at home to patients with conditions such as heart failure, COPD, pneumonia and cellulitis. The Home Hospital Program helps address capacity issues in the Emergency Department. In its first six months, the program has served 70 patients – saving nearly 350 bed days. Partners HealthCare at Home nurse practitioners and registered nurse teams visit patients at least twice daily. Additionally, an MGH Home Hospital physician sees each patient within 24 hours and tele-rounds with the home care team daily.

“Patients can face difficult circumstances in the home environment,” says Thompson. “Extending our reach into the home through programs such as Home Hospital is helping us as MGH providers to better understand how to support our patients at home while avoiding hospital admissions.”



A WINNING TEAM: The Home Hospital team with Warsaw