



**THEN AND NOW:** One impromptu wedding, two children and 40 years later, Smith and Lund say the Ether Dome “looks pretty much the same.”

## Happily ether after

**ON A THURSDAY** in February 1980, English couple Mark Smith and Kay Lund were facing a dilemma: Smith was about to overstay his tourist visa while visiting Lund, a postdoctoral fellow in Joel Habener, MD’s Laboratory of Molecular Endocrinology. “Well,” an immigration officer told them that day, “you could get married.”

The couple, during a conversation at a Friendly’s restaurant – now the site of the Charles River Plaza – decided to do just that. The following Monday, with lab colleagues and friends in attendance, and a

justice of the peace presiding, they were wed in a venue that was both convenient and free: the Ether Dome.

Were they at all unnerved by the presence of Egyptian mummy Padihershef, or the fact that thousands of operations had been performed on the spot? “Not at all,” says Smith. “I just thought it was cool, a bit of history.”

Lund was given away by Habener. Smith was escorted by  
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## Coronavirus Town Hall

**HOSPITAL LEADERS HOSTED** a town hall meeting March 4 to provide the most recent information and to address employee questions and concerns regarding the ongoing worldwide outbreak of a respiratory illness, caused by the new coronavirus called COVID-19. The standing-room-only event – now available to watch on the Apollo coronavirus intranet site – focused on the current status of COVID-19, what the hospital is doing to prepare in the event it sees a patient or patients with the coronavirus, and how staff can best protect and prepare themselves and their families.

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*“All of the things that seem very low-tech – handwashing, social distancing – are the best prevention measures for this disease. If you touch a surface with the virus on it, then perform hand hygiene, you will kill the virus.”*



Erica S. Shenoy, MD, PhD, medical director, MGH Ebola and Other Special Pathogens Treatment Center and associate chief, MGH Infection Control Unit

## Daylight saving time: Easing the transition

**THIS YEAR, DAYLIGHT SAVING TIME** begins at 2 am on March 8. Here, Elizabeth Klerman, MD, PhD, of the MGH Department of Neurology, discusses possible side effects of the clock “springing forward” – moving forward by one hour – and how people can ease the transition.

### Can daylight saving time impact one’s health?

Yes, daylight saving time can adversely impact our health both acutely and chronically. During the first few days, people enjoy the sunlight when they leave work, but they also complain about additional fatigue in the morning. Most people are not aware on a daily basis of the other adverse consequences.

The acute change occurs when we “spring ahead” and therefore lose one hour of local clock time. Since we need to go to work an hour earlier – by body clock time – usually people choose to lose one hour of sleep. As a result, studies show people experience adverse cardiovascular events and the number of traffic accidents increase in the first week after the transition.

There also can be chronic effects. Even one hour of mismatch between local clock time and body clock time has negative health impacts, including increased metabolic diseases, cardiovascular disease, cancer and worsened mood regulation and performance.

### What can people do to ease the side effects?

For the acute side effects – especially at the spring change – people should try to sleep at least one hour later by clock time on the first few mornings after the clock change. To ease the chronic side effects of the mismatch between local clock, sun clock and biological clock, people should sleep more on their non-work days, preferably until they wake up naturally without an alarm clock. ■



### Researchers identify a new set of immune cells linked to bacterial sepsis

Sepsis is a life-threatening immune response to infection that can lead to tissue damage, organ failure and amputation. It is fatal in up to 34% of cases and is the most expensive medical condition to treat in the United States. Early detection has been particularly challenging in sepsis, because it’s still not clear what triggers it and it does not always present the same way.

In a recent study, MGH investigators used single cell RNA sequencing to compare samples from hospitalized patients with early sepsis and a control group who had infections without sepsis. By doing so, the team identified a new subset of immune cells that are significantly expanded in patients with sepsis, as well as two genes that together serve as a biomarker for sepsis. The team is not yet sure if the newly discovered immune cells contribute to the onset of sepsis or are a byproduct of it.

“Not only might this be a way to monitor patients with known infections to predict which of them will develop sepsis, but it could also lead to medications that interfere with the dysbiosis and thereby treat sepsis more effectively than we currently do,” says Marcia Goldberg, MD, of the MGH Infectious Diseases Division and the Broad Institute. Goldberg led the study along with Nir Hacohen, PhD, Michael Filbin, MD, and Miguel Reyes, from the Broad Institute.

The team is currently seeking funding for a larger study. “We can dig deeper once we look at more patients,” says Goldberg.

### Study finds brains of young men with autism have lower levels of a protein connected to inflammation and metabolism

MGH investigators have used advanced imaging technology to show, for the first time, that the brains of young men with autism spectrum disorder have low levels of a protein that appears to play a role in inflammation and metabolism.

While the cause of autism is still unknown, growing evidence has linked the disorder to neuroinflammation – inflammation of the brain tissue.

The study team compared the brains of 15 young adult males with autism – of varying symptom intensity – to 18 control subjects who were similar in age. Going into the study, investigators thought they would see increased levels of translocator protein (TSPO) in patients with autism, as TSPO has previously been connected to neuroinflammation. To their surprise, however, the opposite occurred.

The scans showed that the subjects with autism had lower levels of TSPO than healthy subjects and that those with the lowest levels also demonstrated the most severe symptoms. The brain regions where the low TSPO levels were found have previously been linked to autism and are believed to regulate brain functions related to the processing of emotions, interpreting facial expressions, empathy and relating to others.

“Our study has generated new hypotheses that now need to be investigated,” says Nicole Zurcher, PhD, of the Martinos Center for Biomedical Imaging, who led the study along with Jacob Hooker, PhD, director of Radiochemistry at the Martinos Center.

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## COVID-19 SYMPTOMS AND TRANSMISSION:

- Symptoms are very nonspecific which can make it difficult to initially determine if a patient has COVID-19 or seasonal flu, the common cold or respiratory syncytial virus (RSV). Symptoms often include fever, fatigue and a dry cough, and may also feature aches and pains, congestion, runny nose or sore throat.
- As of March 4, roughly 80% of cases across the globe have presented with mild to moderate symptoms – similar to those found in a common cold. Some 15% may require hospitalization for more severe symptoms, such as shortness of breath or dizziness, and an estimated 5% will require more intensive care.
- Current reports suggest the 1-2% of people who have died from COVID-19 are elderly patients or those who have multiple chronic conditions.
- The virus is transmitted primarily through droplets of fluid, which come from coughing and sneezing. Those droplets then can contaminate surfaces when they fall down.
- Currently, it is unknown how long a person is contagious.

*“This is about your safety, patient safety and community safety. Stay home if you are not feeling well. The hospital will not be able to function properly if people who are not feeling well put our patients and their colleagues at risk.”*



Steve Taranto, director of Human Resources

*“While there is no evidence right now of sustained transmission in Massachusetts, this could change. This is not cause for panic or terror, it is simply what the disease will do. People have been working extremely hard for many weeks now on this situation through the Hospital Incident Command System.”*



Paul Biddinger, MD, chief, Division of Emergency Preparedness

## PROTECT YOURSELF AND OTHERS:

- Infection prevention is best. Wash your hands often for at least 20 seconds.
- Avoid touching your face, nose and mouth.
- Routinely disinfect surfaces, especially cell phones, pagers and tablets.
- If you have respiratory symptoms, in most cases you should respond in the same way as you would when you have a cold or the flu. Stay home, distance yourself from others, rest and contact your primary care doctor if needed.
- Patients with mild symptoms can overwhelm the health care system. It is safe to stay home and recover and not risk exposing others to the disease.
- Health care workers should make sure they know the proper way to don and doff their personal protective equipment (PPE).

## WHEN TO WEAR, AND NOT WEAR, FACE MASKS

- N95 respirators – which protect a wearer from airborne particles – should only be worn by health care providers and when caring for a patient who is on airborne isolation or strict isolation.
- Surgical masks should be worn by health care workers when caring for patients on droplet isolation or as part of standard precautions.
- Patients in the hospital, and the general population, should



wear surgical masks when they have a fever or cough. Do not wear a surgical mask if you are not experiencing these symptoms.

## PREPAREDNESS AT THE MGH:

- The MGH Biothreats Committee was created in 2003, focused on pandemic planning, trainings and preparedness measures.
- The MGH is a designated Regional Ebola and Other Special Pathogens Treatment Center, one of only 10 in the United States, offering enhanced capabilities to respond to and treat a patient with an infectious disease.

## WHAT STAFF CAN DO NOW:

Ensure the MGH continues to function and lead for our patients, our staff, our communities and our families by following these key steps:

- **Be flexible.** Think now about what plans you can put in place should, say, schools close. Think of your contingency plans and be prepared.
- **Stay informed.** Be an ambassador for good information from credible sources – these include MGH and Partners HealthCare updates and Apollo, the MGH intranet, as well as the Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and local and state public health departments.
- **Be prepared.** For emergencies of any kind, it is always good to keep supplies on hand. Visit [www.ready.gov/](http://www.ready.gov/) for preparedness checklists and plans. ■

*“We’re very fortunate to have world-class expertise in this area of emergency preparedness. This obviously falls into the category of prepare for the worst, and hope for the best. Should anything play out, we’ll be ready for our patients, our staff and the community.”*



Peter L. Slavin, MD, MGH president

## Stop Germs! Wash Your Hands.



**Wet** your hands with clean, running water (warm or cold), turn off the tap, and apply soap.



**Lather** your hands by rubbing them together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails.



**Scrub** your hands for at least 20 seconds. Need a timer? Hum the “Happy Birthday” song from beginning to end twice.



**Rinse** hands well under clean, running



**Dry** hands using a clean towel or air dry them.





## Veteran takes marathon training mission to new heights

**AS A 10-YEAR PARTICIPANT** in the Run to Home Base, Marine Corps veteran Michael York is no stranger to putting in the miles to support veterans, service members and their families. This year, York is taking on a new challenge through his participation in the 124th Boston Marathon.

“I first learned about Home Base in 2009 – shortly after I left the Marine Corps,” says York. “After having such incredible experiences participating in the Run to Home Base each summer for the last decade, I couldn’t pass up the chance to run the Boston Marathon for a cause I am so passionate about.”

The East Bridgewater, Massachusetts native will run his first marathon as part of MGH’s Home Base Boston Marathon team. In addition to traditional running, there is an element to York’s training regimen that is somewhat unconventional: he has set out to summit all 4,000-foot peaks in the White Mountains of New England this winter. Climbing all of the 48 peaks is a major goal for many avid hikers, but completing them all in the winter is even more challenging.

For York, mountains are a place of healing and serenity, but they are also a source of physical and mental challenge akin to what he experienced while in the service – and what he will experience during the Boston Marathon this April.

“We are grateful to have a team of dedicated Boston Marathon runners this year who are committed to our mission and dedicated to giving back to those who have served our country,” said retired Brig. Gen. Jack Hammond, executive director of Home Base.

York has so far completed six winter hikes. Though he was initially accompanied by his father – a U.S. Army veteran – on his hikes, York now invites fellow veterans to join him on the trail. He has inspired others to take on the #Veteransonthe48 challenge and, like York, they all share a fierce determination to raise awareness of, and end, veteran suicides.

“As a veteran, I am deeply appreciative of the work Home Base is doing for the military community,” said York. “I’m proud to support that work by raising awareness through hiking in the White Mountains and running the 2020 Boston Marathon. When people come together from all over the country to achieve the same goal, it’s a powerful thing. It doesn’t take much to show a veteran you care – sometimes all you need to do is something small and it will make ripples that last a lifetime.” ■

## Marathon motivation:



“During my first Boston Marathon in 2013, I was stopped by police a half mile from the finish. I had to return the following year to finish what I started. What I thought was a bucket list item has become a huge part of my life. Having a patient partner in 2016 solidified my passion tenfold – my relationship made it personal and gave more meaning to my fundraising efforts. I run in his memory and in support of my new partner Teddie. Go MGH!”

**JESSICA SPENCE, RN**, PEDIATRIC HEMATOLOGY AND ONCOLOGY TEAM, SEVENTH MARATHON



“In 2018, I met a patient being treated at MGHfC for leukemia. I was paired with Emilia as part of the patient partner program. She was full of courage and joy for life despite her illness. Her family was so amazing and supportive despite all their challenges. Emilia and her family have become part of my own. I’m excited to run the Boston Marathon for her this year.”

**DEB JACOBSON**, ADMINISTRATIVE DIRECTOR OF THE MGH REVERE HEALTHCARE CENTER, 12TH MARATHON



“I run to support the kids who face cancer head-on every day. Sometimes getting through the uphill battle is about putting one foot in front of the other, much like running a marathon. When I face challenges of my own, I regain my strength and determination by thinking of the kids and families who are navigating a tough cancer diagnosis. I want to let them know they aren’t alone. Come rain or shine, I will finish the Boston Marathon strong for each one of these kids and for my patient partner Isaac.”

**PAUL MYOUNG**, SENIOR ADMINISTRATIVE DIRECTOR OF THE MGH TRANSPLANT CENTER, FIFTH MARATHON

## – Ether Dome wedding

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Habener’s assistant Jean Sullivan. Many friends from MGH attended the ceremony. After the ceremony, the attendees headed to Houlihan’s in Faneuil Hall for a celebration.

After Lund spent three years at MGH, the couple moved to North Carolina where she held a faculty position at the University of North Carolina, Chapel Hill for many years and Smith was an artist and home builder. They raised two daughters and recently moved to Maryland where Lund is the director of the Division of Biomedical Research Workforce at the National Institutes of Health and Smith continues to be an artist. They recently returned to the unusual site of their “I do’s” – 40 years later.

Alas, they no longer have those fabulous hats. ■

