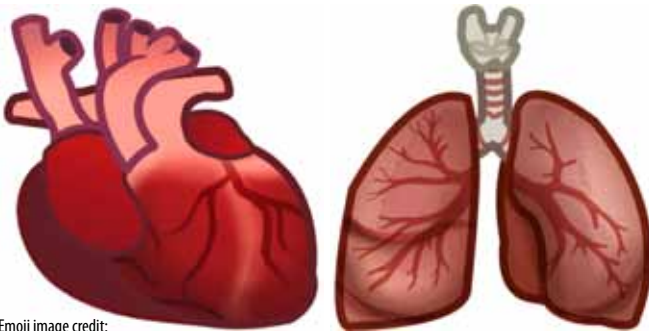
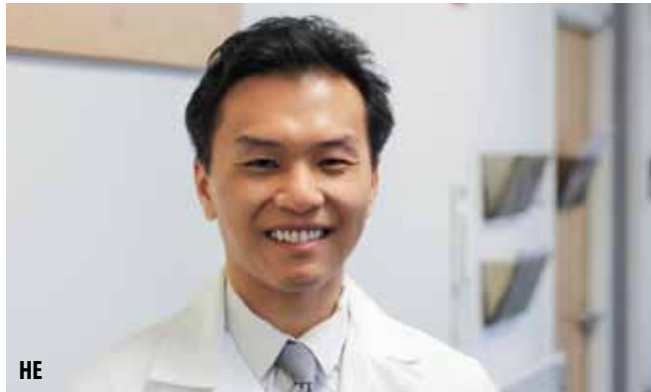


## Doctor & developer: MGH MD creates medical emojis



Emoji image credit:  
Anna Zeng/Emojination



HE

**IN AN INCREASINGLY FAST-PACED WORLD**, emojis – like the ever-popular smiley face – have crept into text messages, tweets and emails.

Shuhan He, MD, an MGH emergency physician, says he hopes to take emojis even further by making them a bigger part of patient-provider communication and the electronic health record.

Last week, He took a major step toward that goal after two digital icons he helped create – an anatomical heart and a set of lungs – were among the 117 new emojis to be rolled out to all smartphones later this year.

He says there has long been a desire – inside medical circles and on social media – to see an accurate-looking heart and lung in the emoji lexicon. He and his co-authors used that information to pitch their pictograms to the Unicode Consortium, a nonprofit organization that meets every year to review applications and vote on the newest emoji submissions.

“Chest pain and shortness of breath are two of the most common complaints we hear in the emergency department,” says He. “There are times when a patient can’t communicate that, either because of a language barrier or for some other reason. And in situations when seconds count, emojis like these could help us greatly.”

Emojis aren’t just a hobby for He. With a dual role as a physician and the associate director for the strategic alliance initiative through the Center for Innovation in Digital HealthCare, He is sharply focused on the ways the cartoon-like emoticons could help improve patient care and outcomes.

“We’re interested in working with leadership from all departments to ensure emojis stay clinically relevant for our patients,” says He.

He says he also hopes his two new emojis and any future medical emojis will benefit patients by educating them about heart and lung health, vaccinations, antismoking efforts, medication adherence and other lifestyle interventions. 🍓

## Celebrating female heroes of the civil rights movement

**Rosa Parks:** Arrested for refusing to give up her seat on a bus in Montgomery, Alabama.

**Josephine St. Pierre Ruffin:** Publisher, journalist, civil rights leader, suffragist and editor of the first national newspaper published by and for African American women.

**Inez Milholland:** Suffragist, labor lawyer, socialist, World War I correspondent and public speaker who influenced the women’s movement in America.

**Josephine Baker:** A vocal opponent of segregation and discrimination, who often initiated one-woman protests against racial injustice and spoke just before Martin Luther King Jr. gave his “I Have a Dream” speech.

**Aretha Franklin:** Created music that inspired the fight for freedom and, behind the scenes, hosted fundraisers, performed for free and bailed out activists who were arrested during demonstrations.

These female heroes – both the known and lesser-known – were showcased during the Jan. 31 Martin Luther King Jr. Gospel Celebration Breakfast, hosted by the Association of Multicultural Members of Partners (AMMP).

(Continued on page 4)



**STANDING STRONG:** Participants and guests from across the hospital united at the annual MLK breakfast.

## RESEARCH ROUNDUP

**How microbes influence the development of the infant immune system**

When infants leave their mostly sterile home in the uterus during birth, they are rapidly colonized with microbes from the surrounding environment, the majority of which takes place in the intestinal tract.

This is a critical time for the newborn's immune system, as it learns to separate friend from foe.

Research has shown that "crosstalk" between these early microbe colonizers and the immune cells in intestines plays a key role in developing a well-functioning immune system, but until now the specific process by which that occurs had not yet been defined.

An MGH research team found these early interactions between microbes and immune cells are communicated to the thymus – an organ responsible for creating specialized immune cells early in life – through specialized cells that are imprinted with microbial signatures in the intestine. The cells then travel up to the thymus, which is located just under the breastbone between the lungs.

If this signaling process goes awry, newly formed immune cells may start to target helpful microbes instead of harmful ones, which could disrupt the balance of the gut microbiome.

An unbalanced microbiome is believed to increase the risk of developing allergies, asthma and autoimmune disorders such as celiac disease and inflammatory bowel disease later in life.

A better understanding of this process could lead to new strategies that promote a healthier relationship between intestinal cells and the microbiome. The study was led by Nitya Jain, PhD, and Alessio Fasano, MD, both of the Mucosal Immunology and Biology Research Center.

**A cool new way to reduce fat**

The MGH research team that invented a process called Coolsculpting – a popular non-surgical method for reducing fat under the skin – is now developing a new technology that can reduce fat almost anywhere in the body using a safe, injectable ice solution, or slurry.

Coolsculpting, while highly effective, is limited by the amount of fat that can be removed per session and is not practical for reaching deeply seated fat in the body. The slurry injection, by contrast, can target and remove fat tissue at any site that can be accessed by a needle or catheter.

One key benefit of the slurry technique is that it is specifically designed to target fat and does not damage any surrounding organ or muscle tissues. In a study in pig models, the researchers reported a 55 percent reduction in fat thickness with no damage to skin or muscle at the injection site, and no systemic side effects or abnormalities.

More research and safety testing will have to be done before the process is approved for use in humans, but the research team is optimistic it could provide a significant upgrade in fat removal technology if approved.

"With this new technique, the doctor can do a simple injection that takes less than a minute, the patient can go home, and then the fat gradually disappears," says Lilit Garibyan, MD, PhD, an investigator in the Wellman Center for Photomedicine and co-author of the study along with center director Rox Anderson, MD.

## Melodies for children with vascular birthmarks

**MORE THAN 100 GUESTS** enjoyed a night of classical music, laughter, Vietnamese food and a silent auction in the halls of the First Church in Boston on Dec. 14, 2019, to celebrate the 10th anniversary of the Vietnam Vascular Anomalies Center (VAC).

Hosted by the MGH Department of Dermatology and the Wellman Center for Photomedicine, the event raised more than \$60,000 to support the continued training and development of the interventional radiology clinic in Ho Chi Minh City, and a second satellite VAC clinic in Da Nang – expanding access to medical care for children with disfiguring birthmarks throughout central Vietnam.

"The clinic has done an amazing job taking care of children on such a small yearly budget," says Rox Anderson, MD, director of the Wellman Center. "It's the most efficient laser center in operation."

Since its inception a decade ago, the Vietnam VAC in Ho Chi Minh City remains the only state-of-the-art facility of its kind in Vietnam, home to more than 90 million people. Anderson and Thanh Nga Tran, MD, PhD, MGH Dermatology Department, are two of the founders of the clinics.



**MUSIC TO THEIR EARS:** From left, Liz Morehouse and Nisrine Kawa, MD, of the Wellman Center; Tran; Anderson; and Neera Nathan, MD, Department of Medicine

The group also helped abolish the use of radioactive phosphorus in the treatment of vascular anomalies and provides yearly trainings to Vietnamese physicians and medical staff about modern, safe and effective medical treatments for disfiguring birthmarks and other severe skin conditions in children. Since its inception, the center and its dedicated team of physicians have provided more than 15,000 children with free laser and medical treatments.

"What I have learned is to get off your chair and go do something," Anderson says. "There is no greater thrill than knowing what you do makes an impact, to meet the people of Vietnam and help improve the quality of these kids' lives. It's a chance to fully express idealism and know that the world is a good place. That's the value of being part of this clinic. It is an honor to contribute to this effort."

For more information, visit [www.VietnamVAC.org](http://www.VietnamVAC.org). ■

## Coronavirus Update

Staff should visit [apollo.massgeneral.org/coronavirus](https://apollo.massgeneral.org/coronavirus) for more information



### WHAT IS 2019 NOVEL CORONAVIRUS?

The 2019 novel coronavirus (2019-nCoV) is a new virus that causes respiratory illness in people and can spread from person to person. This virus was first identified at the end of 2019 during an investigation into an outbreak of respiratory illness and pneumonia in Wuhan, China.

### HAVE THERE BEEN CASES OF 2019-NCOV IN THE UNITED STATES?

Yes. The first infection with 2019-nCoV in the U.S. was reported on Jan. 21. The numbers have been small overall, and all thus far have been associated with prior travel from areas in or around Wuhan, China, or close household contact to an infected person from China. Thus, the risk of being exposed to this virus in the U.S. remains exceedingly low.

### WHAT SHOULD I DO IF I HAVE SYMPTOMS?

Although your symptoms – mild to severe respiratory illness with fever, cough and shortness of breath – are most likely due to influenza or other viruses that occur commonly here in winter, you should call your health care provider to discuss your symptoms. If there is a reason to think you may have been exposed to the new coronavirus, your health care provider will work with your state’s public health department and the Centers for Disease Control and Prevention (CDC) to determine if you need to be tested for 2019-nCoV.

### IS THE MGH PREPARED TO CARE FOR PATIENTS WITH CORONAVIRUS?

The MGH is fully prepared to care for patients with coronavirus. Hospital doctors, nurses, infection control specialists, emergency specialists and administrators have been closely monitoring the coronavirus outbreak. They have developed a hospitalwide plan that will be put in place if patients with coronavirus come to the hospital or health center.

### DOES THE CDC RECOMMEND THE USE OF FACE MASKS TO PREVENT 2019-NCOV?

No. The CDC does not currently recommend the use of face masks among the general public. While the virus has spread from person to person among close contacts such as family members, this virus is not currently spreading in the community within in the U.S. As always, if you have a fever or cough when at any of the MGH campuses, please pick up a mask at any information desk to help prevent the spread of germs of all kinds. ■

## Supporting hospital colleagues in China

### HOW CAN WE HELP OUR FRIENDS, family and colleagues in China?

It is a question that many MGH staff and community members have asked in the wake of the global coronavirus (2019-nCoV) outbreak. The respiratory illness was first identified last month in Wuhan, Hubei Province, China and since has spread to thousands of people in the country, leaving hospitals there overwhelmed and in need of medical supplies and support.

“Currently, the increased demand for personal protective equipment (PPE) throughout the nation has resulted in distributors restricting the amount of supplies health care facilities can order to prevent hoarding,” says Paul Biddinger, MD, chief of MGH Division of Emergency Preparedness. “This means that we are unable to order above and beyond our typical quantities. However, after careful review of our supplies, we have identified protective suits that are no longer used in our biothreats program, as well as masks and gloves that we will be able to send to help our colleagues at our partner institutions in China.”

In addition, Mass General is sharing a toolkit of essential planning and response resources – developed for use in the MGH Biothreats Unit – with responding teams in China. “It is our hope that these expert guides will help address some of the enormous challenges they currently are facing,” says Biddinger.



**THERE IS CURRENTLY** no vaccine to prevent the 2019-nCoV infection. To help prevent the spread of respiratory viruses, the CDC always recommends washing hands often with soap and water for at least 20 seconds, especially after going to the bathroom; before eating; and after blowing your nose, coughing or sneezing.

Washing your hands is easy, and it is one of the most effective ways to prevent the spread of germs. Clean hands can stop germs from spreading from one person to another and throughout an entire community.

### Follow these five steps every time.

1. Wet your hands with clean, running water, and apply soap.
2. Lather your hands by rubbing them together with the soap. Lather the backs of your hands, between your fingers and under your nails.
3. Scrub your hands for at least 20 seconds. You can count to 20 to be sure you have scrubbed for the right amount of time.
4. Rinse your hands well under clean, running water.
5. Dry your hands using a clean towel or air dry them.

## Cupcake tasting Thursdays at the Blood Donor Center

**THIS YEAR MARKS** the 10th annual Cupcake Days event at the MGH Blood Donor Center. Anyone who makes a lifesaving blood or platelet donation any Thursday in February – Feb. 13, 20 or 27 – will enjoy a delicious cupcake and receive a long-sleeved T-shirt.

This year's cupcakes are provided by the following area bakeries: Treat Cupcake Bar, Lyndell's Bakery, Yum Bunnies Cakery, Sweet, Montilio's, Wilson Farm, Georgetown Cupcakes and J.P. Licks.

The Blood Donor Center is located in the Gray/Jackson corridor and is open weekdays from 7:30 am - 5:30 pm.



## Submit a Patient Experience Award nomination

**NOMINATIONS FOR THE SEVENTH ANNUAL** Patient Experience Awards are now open through Feb. 21. The program has two components – awards based on excellent or improving survey results, and awards based on nominations for individuals, leaders, and/or departments, programs or teams.

Nominations are being accepted for three categories of awards:

- Individuals who put the needs of patients and their families first.
- Leaders who inspire their teams to provide outstanding service.
- Departments, programs or teams whose work contributes to the patient experience.

Visit the Patient Experience page on Apollo, the MGH intranet, to submit a nomination. Award winners will be recognized at a ceremony led by senior leaders on April 23.

Contact Cindy Sprogis, of the Office of Patient Experience, at [csprogis@partners.org](mailto:csprogis@partners.org) for more information. ■

## – MLK breakfast

(Continued from page 1)

“Though history books contain only brief – if any – mentions of the contributions of these women activists who influenced the civil rights movement, they were instrumental in the fight for racial equality in America,” said keynote speaker Jovita Thomas-Williams, senior vice president of MGH Human Resources. “Like Dr. King, they spent their lives organizing and leading meetings, writing about and advocating for equality, and advancing the causes they believed in.”

Though Parks often is the first woman who comes to mind when recalling women in the civil rights movement in the United States, Thomas-Williams said, she was not alone in her fight. “While it is apparent that we have a long way to go, Dr. King’s dream has carried on long after his death – through the work of these women and others who have followed,” she said. “Today, let us celebrate these women and their male counterparts, who have paved the way for us to go forth and spread the message of equality in our communities – both here at MGH and beyond.”

The annual event – which was standing room only in the Paul S. Russell, MD Museum of Medical History and Innovation – began with the presentation of the flag by the MGH Police and Security Honor Guard, followed by the national anthem and opening prayer. Throughout the celebration, attendees were treated to inspirational musical performances by the Harvest Ministries of New England Youth Worship Team, led by Daniel Urizar, of Environmental Services.

“I encourage you all to put what you’ve learned today into action and refuse to be a bystander in the fight for equality,” said Latoya Brewster, AMMP vice chair. ■

## 2020 AMMP Diversity Champion Award

The 2020 AMMP Diversity Champion Award recipient also was announced during the annual Martin Luther King Jr. Gospel Celebration Breakfast. This award recognizes the exceptional efforts of employees who champion and advocate for equal participation of diverse



**BEDENBAUGH**

professionals and support staff within the hospital community.

This year, the honor went to Mary Elizabeth Bedenbaugh, RN, of the Blake 12 Intensive Care Unit, for her work to promote inclusiveness at the MGH, and across the globe.

Bedenbaugh has been a nurse for 18 years – six of those at the MGH – in a variety of roles. She is part of the MGH Global

Disaster Response team – which recently deployed to the Bahamas after Hurricane Dorian – and serves on the MGH Collaborative Governance Ethics Committee. In the summer, Bedenbaugh leads outreach teams through her church to Nairobi, Kenya, to provide basic services to families and to educate local nurses to improve quality of care.

“Of all this year’s amazing nominees, Mary stood out on top among the rest,” said Sandra Thomas, AMMP scholarship chair. “Mary is clearly dedicated to diversity, and connects with all staff to make them feel welcome on a daily basis. Thank you for fostering an inclusive environment for all.”

