FOR THE PAST TWO YEARS, HUBweek has brought together some of the most accomplished, creative and revolutionary leaders in science, technology and the arts for an extraordinary innovation festival. A unique civic collaboration, HUBweek was co-founded by Harvard University, the MGH, MIT and The Boston Globe.

From Oct. 10 through Oct. 15, the MGH and the HUBweek co-founders will host a variety of engaging programs, discussions, problem-solving sessions, behind-the-scenes tours, competitions and art installations.

HUBweek also will launch a first-of-its kind festival site, the exciting new “Heart of HUBweek,” on Boston City Hall Plaza. Attendees are invited to connect, learn, wander and create at the HUB. The MGH strives to jump-start conversations to explore innovations and ideas that captivate the world by participating in or hosting a dozen programs. All highlight the hospital’s missions of clinical care, research, teaching and service to the community.

The return of De-Stress Boston and The Art of Talking Science joins programs featuring innovations in artificial intelligence, addiction treatment and exploring the benefits of failure. In two shipping container installations at the HUB, the MGH will spark discussions about anesthesia and the unconscious mind, and how art can help our communities recover from the opioid epidemic.

Future Forums will feature MGH panelists discussing topics including privacy in a digital world, the future of digital health, artificial intelligence and the power of the brain to improve health. The goal is that all attendees learn something new and join in a sense of great pride in what Boston has accomplished in the field of medicine.

This year HUBweek welcomes sponsors Bank of America, Liberty Mutual, Millipore Sigma and Union Point. All HUBweek programs are open to the public, and most are offered free of charge with advance registration required.

For a full schedule and registration for MGH-hosted programs, visit www.massgeneral.org/hubweek or www.hubweek.org.
ART OF TALKING SCIENCE COMPETITION: RISE OF THE MACHINES
Oct. 11, 2 PM – 4 PM
The Russell Museum
One of the biggest challenges scientists face is communicating effectively to various audiences, including donors, investors, the media and the public. New and emerging science involving artificial intelligence (AI) and deep learning has been memorably communicated by science fiction writers and filmmakers making it even more of a challenge for researchers to explain what they are doing and how it could impact every part of our lives.

The MGH Research Institute will offer members of the Boston AI community a chance to present their work – in four minutes – in front of a live audience and receive feedback from a panel of expert science communicators: Carey Goldberg, WBUR; Rich Hayes, Union of Concerned Scientists; Christine Reich, PhD, Boston Museum of Science; and Ike Swetlitz, STAT.

DE-STRESS BOSTON
Oct. 14, 10 AM – Noon
Faneuil Hall
Now in its third year, De-Stress Boston will focus on mindfulness, meditation and stress reduction. Hosted by the Benson-Henry Institute for Mind Body Medicine and its founder Herbert Benson, MD, this event is a community-wide experiential education session about the power of stress reduction techniques to improve health and build resiliency.

The program focuses on issues impacting families across the board including the stress that comes with living in a politically charged world and how parents can effectively communicate with their children given the prevalence of today’s technologies (smartphones, apps, social media, etc.).

CONTAINING ADDICTION: PAINTING, RAPPING AND WRITING TOWARD RECOVERY
Oct. 13, 11 AM – 7 PM
The HUB at City Hall Plaza
Opioid use has become a pervasive public health crisis throughout New England and across the country. For many people, creating art helps them “let go” of the burden of stress and trauma that affects individuals who have an addiction or are in recovery, as well as their loved ones, friends and community. Participants are invited to share their own expression to a community portrait of addiction and recovery in Boston by painting, writing or adding a memento of an experience.

This event is presented by the MGH Center for Community Health Improvement; Charlestown Coalition; the Artists Group of Charlestown; The Health Story Collaborative; and the Opioid Project.

THE UNCONSCIOUS MIND:
ANESTHESIA TODAY AND TOMORROW
Oct. 12 - 15, 10 AM – 5 PM
The HUB at City Hall Plaza
In this mini-museum, explore how surgical anesthesia revolutionized health care when it was introduced in 1846. Discover what happens in the brain in the space between consciousness and anesthesia, and how new anesthesiology research is changing the understanding of brain science. Learn more about the MGH’s historic Ether Dome, where the first successful public demonstration of surgical anesthesia was demonstrated.

Presented by the Russell Museum, the exhibit also will feature a video highlighting common questions about anesthesia; an interactive exploration of a musical metaphor for how the brain works under anesthesia; and 19th century surgical tools.
innovations in opioid treatment and recovery
Oct. 13, 1 PM – 4 PM
The HUB at City Hall Plaza

It has been said that substance use disorders are the only disease where people can go to prison when they relapse. Massachusetts clinicians, researchers and community activists are helping to change the narrative of treatment and recovery by viewing addiction as a chronic condition – like diabetes or asthma – with periods of relapse and recovery over time. Based on the latest neuroscience, this new perspective has the potential to radically change community response to the opioid epidemic, reduce stigma and bring hope to individuals, families and communities affected by this nationwide challenge.

The MGH will host this interactive, how-to “course” with some of Boston’s leading innovators in addiction treatment and recovery. This session is designed to help participants implement promising innovations in their organizations and communities.

THE AI REVOLUTION IN MEDICINE
Oct. 12, 9 AM – Noon
The HUB at City Hall Plaza

Artificial intelligence (AI) and deep learning have the potential to transform the field of medicine in the coming decade by improving physicians’ ability to quickly and more accurately diagnose and treat certain conditions. The Center for Clinical Data Science at MGH and BWH is at the forefront of helping shape the discussion and the use of AI to improve medical outcomes.

The possibilities – and challenges – are endless for clinicians, researchers and policymakers. Issues including data accessibility and safety, validation and testing, and future staffing have significant implications for clinical practices of the future.

In this session, participants will join experts in exploring big questions of addressing public fear of AI, the future of government regulation and ethical questions.

TWILIGHT: EXPLORING THE UNCONSCIOUS MIND
Oct. 11, 6 PM – 7:30 PM
MGH Ether Dome

What happens to our brains in that mystical space between consciousness and unconsciousness? In this session, experts will discuss the MGH’s renowned history as the home of the first public demonstration of ether and how it changed medicine forever. The advancement of personalized anesthesia and its potential for eliminating chronic pain, depression and insomnia will be explored, as well as new avenues of brain study in the field. The session also will address how advances in anesthesiology research could help address the opioid epidemic.

WHEN THE BEST IDEA FAILS
Oct. 10, 6 PM – 7:30 PM
The Russell Museum

The science world looks unfavorably upon failure. Negative results that are unlikely to make headlines often go unpublished and researchers gravitate toward areas of study with a higher likelihood of success and funding dollars. From researching new drugs for treatment-resistant depression, to engineering human organs in the lab, to inventing medical devices to prevent deaths in developing nations, MGH physician researchers are serial innovators who are helping change the world by moving past setbacks and failure to bravely pursue their passions. In this panel discussion, attendees will explore the psychological effects and value of failure in the scientific journey.

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Healthy Brain; Enlightened Brain

From left, Chopra, Tanzi and Walker (inset).

Feature MGH clinician speakers at HUBweek

**Future Forum: Cornerstone of HUBweek**

**THE CHALLENGES** we face today – as individuals, as citizens, as a global population – require fierce collaboration and an openness to new ideas and points of view.

HUBweek Future Forum is about solving big challenges and tapping into the best ideas and solutions Boston offers. Three MGH clinical leaders are among the thinkers, risk-takers and creators who are panelists for the Future Forum:

- O’Neil Britton, MD, chief medical officer
- Keith Dreyer, DO, vice chairman, Radiology; director of the Center for Clinical Data Science at MGH and BWH
- David Y. Ting, MD, MGPO chief medical information officer

They will join other Boston experts to discuss the future of artificial intelligence, cybersecurity and privacy, and the digital health revolution.

The goal: how do we ensure that technological advancement serves each and every one of us?

**AI REVOLUTION IN MEDICINE**
- Katherine Andriole, PhD, FSIIM
- Jayashree Kalpathy-Cramer, PhD
- Mark Michalski, MD

**DE-STRESS BOSTON**
- Margaret Baim, MS, NP
- Herbert Benson, MD
- Gregory Fricchione, MD
- Laura Malloy, LICSW
- Steve Schlozman, MD
- Ellen Slawsby, PhD

**HEALTHY BRAIN; ENLIGHTENED BRAIN**
- Peter L. Slavin, MD, MGH president
- Rudolph Tanzi, PhD

**WHEN THE BEST IDEA FAILS**
- Ellen Braaten, PhD
- Cristina Cusin, MD
- Kristian Olson, MD
- Harald Ott, MD

**TWILIGHT: EXPLORING THE UNCONSCIOUS**
- Patrick Purdon, PhD
- Ken Solt, MD
- Warren Zapol, MD

**ART OF TALKING SCIENCE: RISE OF THE MACHINES**
- Susan Slaugenhaupt, PhD

**INNOVATIVE STRATEGIES FOR OPIOID TREATMENT AND RECOVERY**
- Timothy G. Ferris, MD, MGPO CEO
- Martha Kane, PhD
- Laura Kehoe, MD, MPH
- David Torchiana, MD, Partners CEO
- Sarah Wakeman, MD

**CONTAINING ADDICTION**
- Annie Brewster, MD
- Sarah Coughlin, LICSW

**WATCHING OVER YOU**
- O’Neil Britton, MD

**NOW HIRING:**
- **CHIEF HUMAN + MACHINE OFFICER**
  - Keith Dreyer, DO

**THE DIGITAL DILEMMA**
- David Ting, MD

**VOICES OF ONCOLOGY DISCOVERY**
- Alice T. Shaw, MD, PhD
- Stanley Shaw, MD, PhD

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**HUBWEEK IS PLEASED** to host Deepak Chopra, MD, founder of the Chopra Foundation, co-founder of the Chopra Center for Wellbeing & Jiyó, and Rudolph Tanzi, PhD, vice chair of Neurology and director of the MGH Genetics and Aging Research Unit, two visionaries in the field of neuroscience and health who believe that advances in neuroscience offer the potential to transform lives – and health – by using the power and untapped potential of the brain.

Co-authors of *Super Brain* (2012), *Super Gene* (2015) and a new book to be released early next year, Chopra and Tanzi will host a program at Faneuil Hall, a foundation of the American Revolution, and a fitting location for a “revolution of the mind.”

Rev. Liz Walker will moderate.

**Oct. 12, 5 PM – 7 PM**
**Faneuil Hall**

**REGISTER NOW**
**MASSGENERAL.ORG/HUBWEEK**