Participant Handbook

MIT Hacking Medicine Boston Grand Hack 2022
April 15-17, 2022

Schedule

All times below are Eastern. 10-250 is building 10, room 250. The address of the building E38, the iHQ, is 292 Main St., Cambridge, MA 02139. Please refer to the on-site logistics section for a map.

Day	Time	Location	Event
Friday	6:00 PM	Lobby 13 Entrance	Check-in Begins
	7:00 PM	10-250	Event kickoff - Opening presentations
	8:45 PM	E38 (iHQ)	Dinner
	9:30 PM	E38 (iHQ)	Problem pitching
	10:15 PM	E38 (iHQ)	Team formation
	11:30 PM	E38 (iHQ)	Formal Friday events end
Saturday	8:00 AM	E38 (iHQ)	- Breakfast - Late Check-in
	9:00 AM	E38 (iHQ)	Morning kickoff, mentors available
	11:00-11:30 AM	E38 (iHQ)	Intersystems workshop
	12:00 PM	E38 (iHQ)	Team registration deadline, Lunch
	1:30-2:00 PM	E38 (iHQ)	'How to Pitch' Workshop (2x 15 mins)
	2:00-2:30 PM	E38 (iHQ)	Roche Diabetes Care Workshop
	3:00 PM	E38 (iHQ)	Pulse checks
	6:00 PM	E38 (iHQ)	Dinner
	6:30-9:00 PM	E38 (iHQ)	Practice Pitches
	10:00 PM	E38 (iHQ)	Formal Saturday events end

Sunday	8:00 AM	E38 (iHQ)	Breakfast
	8:30 AM	E38 (iHQ)	Mentors available
	8:30-11:00 AM	E38 (iHQ)	Practice pitches
	12:00 PM	E38 (iHQ)	- Presentation submission deadline - Lunch
	1:00 PM	E38 (iHQ) - Track A: 7th floor - Track B: 4th floor	Final presentations
	3:00 PM	E38 (iHQ)	Judge deliberations
	3:30 PM	26-100	Awards ceremony
	4:00 PM		Hackathon ends

Resources

Participant Portal: http://grandhack.mit.edu/boston/portal/
Password: *boston2022*

Mentor Queue: https://mitgrandhack2022.herokuapp.com/
The Mentor Queue will open for submitting tickets on Saturday 9:00 AM.

Meet the Mentors: https://bit.ly/mitgh2022mentorlist

Grandhack FAQs: https://grandhack.mit.edu/boston/faqs/

Grandhack Website: https://grandhack.mit.edu/boston/

Tracks

Track A: Home-Based Remote Patient Monitoring

The advent of long COVID and ongoing healthcare system strain of managing chronic conditions has highlighted the need for better remote patient monitoring systems. There has been recent focus on unbundling the hospital to have patients receive more hospital-quality care in their home, and devices designed for the hospital/clinic often require re-design for home use. How can everyday items around the home be re-designed to monitor patients in ways that respect privacy? How can we gain insight into which patient populations may need more support in meeting their health goals?

Track B: Healthcare Data Liquidity and Transparency

The amount of digital data within our healthcare systems have grown exponentially and the walled gardens of health systems are opening up. Data relating to patient health records, population health management, disease trends, hospital pricing and utilization… the list grows. Join this track to create solutions for how this data can be used to create efficiency and add value to the healthcare system. How can hospital pricing data, required to now be published openly, be used to benefit pricing transparency, consumer choice and increase health equity? How can patients retain private, secure access to their health records? How can health data be levered to gain insights into disease management?

Slack Details

Workspace name: http://mitgrandhack2022.slack.com

If you have not already done so, we encourage you to download Slack onto your desktop. You should receive an invite to join the workspace by Friday morning, April 15. If you do not have an invite by then, please email us at grandhack@mit.edu.

Announcements

The organizing team will be using channel `#01_general_announcements` to make general announcements for the hack. `#03_participants_all` can be used by participants to communicate amongst themselves.

Your track leads may also make additional announcements through channels `#06_track_a` and `#06_track_b`. Feel free to share photos and resources during the hack through `#03_share_photos` and `#05_resources_sharing`.

That being said, all information about the event and details can be found in this Participant Handbook and the Participant Portal. Please check them before asking the organizers!

Help Desk

The Help Desk will be located on the 3rd floor by the iHQ entrance, and will be staffed for the majority of the weekend by our team. If you have any questions, come to the help desk and we will do our best to answer your questions or direct you to resources.

Tim Tickets

What is a Tim Ticket?

Individuals who do not have an MIT ID and Kerberos account can be given temporary access to campus buildings or an MIT event using a visitor pass called a Tim Ticket, during the hours of 6am - 6pm, 7 days a week. The iHQ building (E38, 292 Main Street), the main hackathon location, will be accessible by Tim Ticket from 6am - 8pm. Individuals **must complete their health attestation each day**, at least 30 minutes prior to using the Tim Ticket to access campus.

More information about Tim Tickets and requirements can be found here: https://covidapps.mit.edu/visitors

How to get a Tim Ticket

Link: https://tim-tickets.atlas-apps.mit.edu/pgfmibzSsU727bbj6
QR code:

The event share code

You will be taken to MIT's Tim Tickets website. Follow these steps to complete your Tim Ticket registration:

- Click or tap on Visitor.
- Enter your mobile number and click Send OTP to receive a one-time PIN code via SMS.
- Enter the PIN code you received and tap Login.
- Enter your contact details and complete the health attestation.
- The app will display a QR code you can present to check in to the event. You can also scan this ticket with the QR code readers at most entrances to enter the building doors, between the hours of 6am and 6pm.

Workshops

We have a number of workshops happening on Saturday covering a variety of topics across tracks. Our sponsors have invited industry experts to discuss some of the most pressing healthcare problems in their fields and to provide guidance on how to address these problems. We hope that these talks will help you develop your projects and inspire you to tackle new challenges!

All workshops will occur on Saturday, 4/16/2022 (times in Eastern).

Time	Sponsor	Title
11:00 AM	InterSystems	**5 Unexpected Stakeholder Perspectives to Consider in Developing Healthcare Innovations** ***IHQ - 7th floor***
1:30 PM	MIT Hacking Medicine	**How to Pitch** ***IHQ - 7th floor***
2:00 PM	Roche Diabetes Care	**Accu-Check SugarView: Innovative Healthcare Delivery** ***IHQ - 7th floor***

Workshops will last 30 minutes. Participants are welcome and encouraged to attend all workshops; however, different workshops may be more relevant for certain tracks, as indicated under the “Track” column. We recommend that each team sends at least one team member to each workshop.

5 Unexpected Stakeholder Perspectives to Consider in Developing Healthcare Innovations || By InterSystems

When most of us think about how the healthcare system works, we focus on the high level roles of “The Three P” stakeholders:
Providers who deliver care,
Patients who receive clinical interventions, and
Payers who provide reimbursement for care.
Upon closer examination of these high level roles, we uncover unexpected yet highly impactful priorities held by diverse healthcare stakeholders. For example, a patient may have had a perfectly executed knee replacement, but will they recover well if the hospital food is inedible? Or, can a health system truly deliver high quality care if social workers cannot find stable housing for patients? Examining these unique and unmet needs reveals many opportunities for technological innovation.

This talk will describe several critical gaps in healthcare delivery today, and get your wheels turning on how the innovation you design can help.

Speaker: Leah Postilnik
Leah Postilnik is a registered nurse and clinical informaticist. At InterSystems, Leah works with provider, payer, application developer and government organizations to ensure technology solutions align with customer's clinical, operational and strategic business goals. Leah collaborates with engineers and product owners in designing innovative tools and platforms in key healthcare areas including enterprise analytics, real-time notifications, and risk management.
Contact email: leah.postilnik@intersystems.com

Accu-Check SugarView: Innovative Healthcare Delivery || By Roche Diabetes Care
People with Type 2 Diabetes in emerging markets with limited access to healthcare can now easily get guidance on how and when to test their blood sugar, set personal goals, and get a meaningful and easy-to-understand blood glucose range and simple advice. Innovative, smart-phone based technology from Roche Diabetes Care has made it possible to deliver affordable care where it was otherwise not possible.

Speaker:

Nigel Surridge | R&D Fellow

Born near London, Nigel holds a degree in Chemistry from Bristol University and a Ph.D. in Photo-electrochemistry from the University of North Carolina, Chapel Hill. He joined Roche Diabetes Care in 1991 as a Senior Research Scientist with Post-doctoral and industry experience in biosensors. In his career at Roche, he has assumed managerial positions and led numerous projects and programs. He was Project Lead for Accu-Chek 'Comfort Curve', acknowledged in the Harvard Business Review as the most disruptive product in its category. He has also developed and introduced Accu-Chek Guide and Instant platforms to serve the global self-monitoring blood glucose market. He currently assesses innovative solutions for Diabetes Care both internal and external.

Other representative:

Christophe Mauge | Global Head R&D and Digital

Born in Paris, Christophe holds a Degree in Mathematics and Engineering from Université Paris 13 and a Ph.D. in Mechanical Engineering from Tufts University, Boston MA. He joined Roche Diabetes Care in 2018 as Global Head R&D and Digital with over 20 years of business and product development experience in the

Medical Device Industry. During these years, he introduced numerous products to market in the fields of Neurosurgery, Women's Health, Cardiovascular and Electrophysiology of the heart. Prior to joining Roche, Christophe held R&D positions of increasing responsibility with Medical Device companies such as Johnson & Johnson and C.R. Bard and most recently was Vice President of R&D and Program Management at Hologic.

Event Details

Problem Pitching
Problem pitching will occur on Friday night within each of the two tracks. All participants within a track will be able to pitch a problem that they are interested in (or multiple problems!). Each pitch will last for 45 seconds. Listen to announcements for where to go for your track.

Team Formation
Following problem pitching, participants will be given the opportunity to have discussions associated with each pitch, and will be able to form teams of 4-6 people.

Note: You do not need to stick to the problem you pitched – you're welcome to solve another problem that was pitched or an entirely new problem altogether.

Team registration will close at **noon on Saturday**, though we highly encourage you to form teams before then! Links to register your team will be provided during the Grand Hack via Slack.

Pulse Checks
Pulse checks will occur on Saturday afternoon, as a way for the organizing team to check in and see how teams are doing. Members of our team will come around to ask members of your team a series of questions about your project, so be prepared to tell us about the problem you want to address.

Practice Pitches
Practice pitches will take place on Saturday evening. Teams will have 10 minutes to meet with members of the MIT Hacking Medicine team to go over their projects so far. You will be given 3-5 minutes to give your pitch, and our members will spend the remainder of the meeting providing feedback on areas for improvement. Check the practice pitch sign-up sheet and check for announcements for your practice pitch location.

These spreadsheets will open at 1:00PM on Saturday! When signing up for a slot, **please do not overwrite another team's entry**. If you are unable to make any of the slots that are remaining, please reach out to your track lead for assistance.

Final Pitches

Final pitches will occur **live** on Sunday afternoon. Teams will be given exactly 3 minutes to give their pitch using Google Slides before moving on to a 2 minute Q&A session with the judges.

Please ensure to submit your slides **before 12:00 PM ET** using the Final Presentation Submission form that will be provided to you on Sunday morning by your track leads. **Make sure your slides are on Google Slides, or we cannot guarantee the slides will be in the correct format for the final presentation.** The order of presentations will be **random**, so please do not ask ahead of time when you will present.

On-Site Logistics

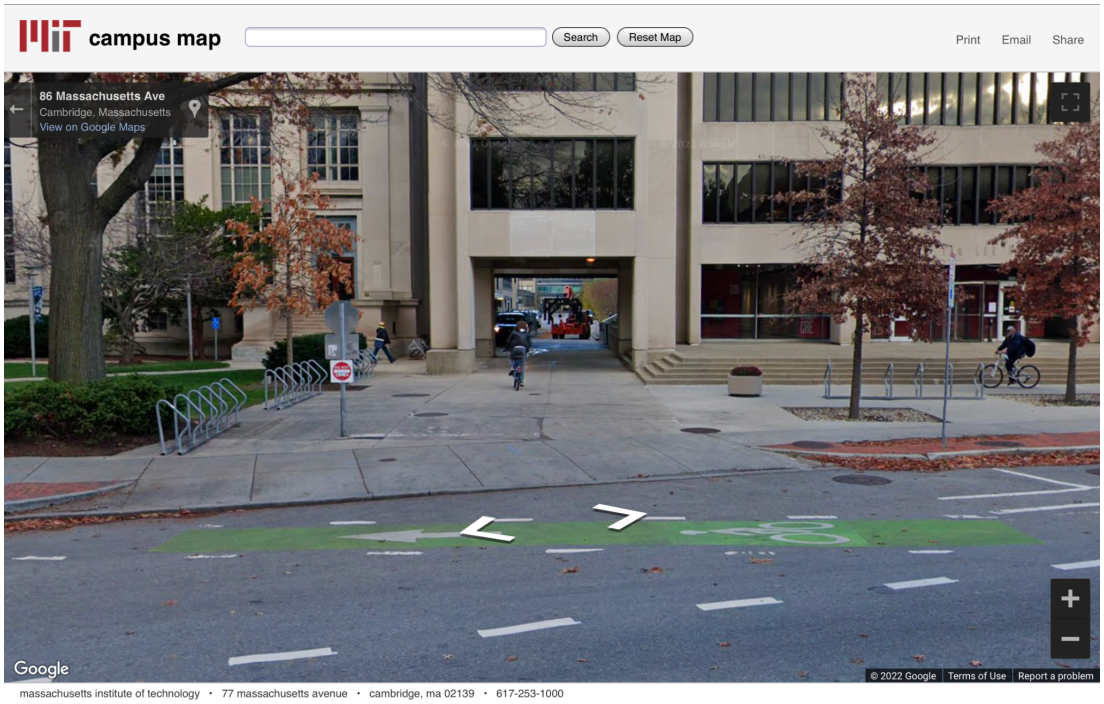
Buildings

The three buildings you will need to access are Building 26 (26-100), Building 10 (10-250), and Building E38 (iHQ, 292 Main St., Cambridge, MA 02139). Below, you can find an annotated map of the three locations, as well as pictures to help guide you.

Map:

Circle 1: go through under the overhang
Circle 2: lobby 13 entrance
Circle 3: go through under the overhang
Circle 4: building 26 entrance (under the overhang)

Circle 1:



Circle 2, Lobby 13 Entrance:

Parking

For those driving to campus, there are parking garages located around Cambridge and Boston. The 4 parking garages closest to the event are listed below. These garages are not affiliated with the Grand Hack.

- 33 Broadway Parking - 33 Broadway, Cambridge, MA 02142
- Kendall Center Green Garage - 355 Main St, Cambridge, MA 02142
- Kendall Center Yellow Garage - 75 Ames St, Cambridge, MA 02142
- One Kendall Square Garage - 389 Binney St, Cambridge, MA 02139

Judging

Pitches will be judged on the following criteria.

IMPACT	• Real problem • Potential for widespread impact • Solution addresses identified problem
INNOVATION	• Convincing rationale for why solution will work • Addresses challenges specific to stakeholders • Considers user experience, interface, and service design
BUSINESS MODEL	• Demonstrates a plan to work in the field • Sustainable business model
PRESENTATION	• Presentation effectiveness • Team (diversity backgrounds, technical expertise, etc.)

Prizes

The top three teams from each track will be awarded the following prizes

Track	1st Place	2nd Place	3rd Place
A. Home-Based Remote Patient Monitoring	$1500	$1000	$500
B. Healthcare Data Liquidity and Transparency	$1500	$1000	$500

In addition to track prizes, we also have special prizes organized by our sponsors:

InterSystems Healthcare Technology Challenge
Submit a working proof-of-concept or application using any of InterSystems tools and technology as part of the team hackathon project. To qualify for the InterSystems challenge, the final product must not only make use of InterSystems tools and technology, it must demonstrate innovation and usefulness as a technology solution as part of your hackathon project. **All teams, regardless of track, are eligible for consideration** provided they address the challenge adequately.

1st Place - $1,500 Cash Prize to the winning team
2nd Place - $1,000 Cash Prize to the second-place team
3rd Place - $500 Cash Prize to the second-place team

4-10 places: JBL speakers to each team member

Also Note: InterSystems will also be providing free access to FHIR cloud service (6 months of XSmal / 3 months of Small size) to all winning teams

Challenge participants can access Intersystems tools and technologies at this link: https://gettingstartedhealth.intersystems.com/hackathon/

Sponsors

Intersystems

Established in 1978, InterSystems is the leading provider of data technology for extremely critical data in the healthcare, finance, and manufacturing and supply chain sectors. Its cloud-first data platforms solve scalability, interoperability, and speed problems for large organizations around the globe. InterSystems also develops and supports unique managed services for hospital EMRs, unified care records for communities and nations, and laboratory information management systems. InterSystems is committed to excellence through its award-winning, 24×7 support for customers and partners in more than 80 countries. Privately held and headquartered in Cambridge, Massachusetts, InterSystems has 25 offices worldwide. For more information, please visit https://www.intersystems.com/.

Additionally, you can visit the Intersystem booth on the 3rd floor of the iHQ, by the help desk.

Roche Diabetes Care

Roche Diabetes Care, Inc., the maker of Accu-Chek products, is a leading provider of blood sugar monitoring systems and insulin pumps. With more than 40 years experience, our number one goal is to help people living with diabetes track and manage their blood sugar so they may have better control of their health.

Through well-established relationships with healthcare professionals, governments, and institutions in healthcare systems, we are able to meet the complex and changing needs of people with diabetes and their healthcare providers with highly innovative products and diabetes management solutions. We continually strive to create new products and resources to help fit better blood sugar control into our customers' lifestyles.
More information can be found at https://www.facebook.com/RocheDiabetesCareUS/

Additionally, you can visit the Roche Diabetes Care booth on the 3rd floor of the iHQ, by the help desk.

DailyRounds, Marrow

DailyRounds is India’s largest academic network of doctors, with over 500,000 active users in the country and more than 1 million worldwide. Doctors across the world share

and discuss clinical cases on the DailyRounds app, both on Android and iOS. Along with being a collaborative knowledge-sharing platform, DailyRounds is updated with the latest practice-relevant journal articles, has an exhaustive drug database, ECGs and treatment guidelines, and Continuing Medical Education courses.

Marrow is a learning platform for doctors, medical students and other healthcare practitioners with topic-wise learning modules, tests and performance analytics, and high quality recorded medical video classes. Marrow is currently used by over 5 lakh medical students in India to prepare for the country's largest medical competitive exam - NEET PG.
More information can be found at https://dailyrounds.org/.