MIT BOOTCAMPS

CENTER FOR PRIMARY CARE
HARVARD MEDICAL SCHOOL

Russ Phillips, MD
Director, HMS Center for Primary Care
635 Huntington Avenue
Boston, MA 02115

Welcome to Harvard, Bootcampers!

We at Harvard Medical School's Center for Primary Care are extremely excited to partner with MIT in this first of its kind Bootcamp focused on health care innovation. The mission of our Center is to transform primary care, and I can think of no better partner to do so with than MIT. You will reap the benefits of this partnership as you learn from innovation experts and create your own startup by the end of an intensive week.

At the Center, we are focused on innovation and entrepreneurship as we seek to reinvent the future of health care by improving patient outcomes, lowering costs, and improving life for providers. Whether in diagnosis or treatment, we need to design better systems to support patients and provide needed care. At this Bootcamp you will learn to do just that. By attending, you will be joining the movement to redesign healthcare, and will come away with the tools and training to be leaders in the effort to transform primary care.

Best,

Russ Phillips

Vision & Mission of the Massachusetts Institute of Technology

The mission of the Massachusetts Institute of Technology is to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world in the 21st century. We are also driven to bring knowledge to bear on the world's great challenges.

The Institute is an independent, coeducational, privately endowed university, organized into five Schools (architecture and planning; engineering; humanities, arts, and social sciences; management; and science). It has some 1,000 faculty members, more than 11,000 undergraduate and graduate students, and more than 130,000 living alumni.

At its founding in 1861, MIT was an educational innovation, a community of hands-on problem solvers in love with fundamental science and eager to make the world a better place. Today, that spirit still guides how we educate students on campus and how we shape new digital learning technologies to make MIT teaching accessible to millions of learners around the world.

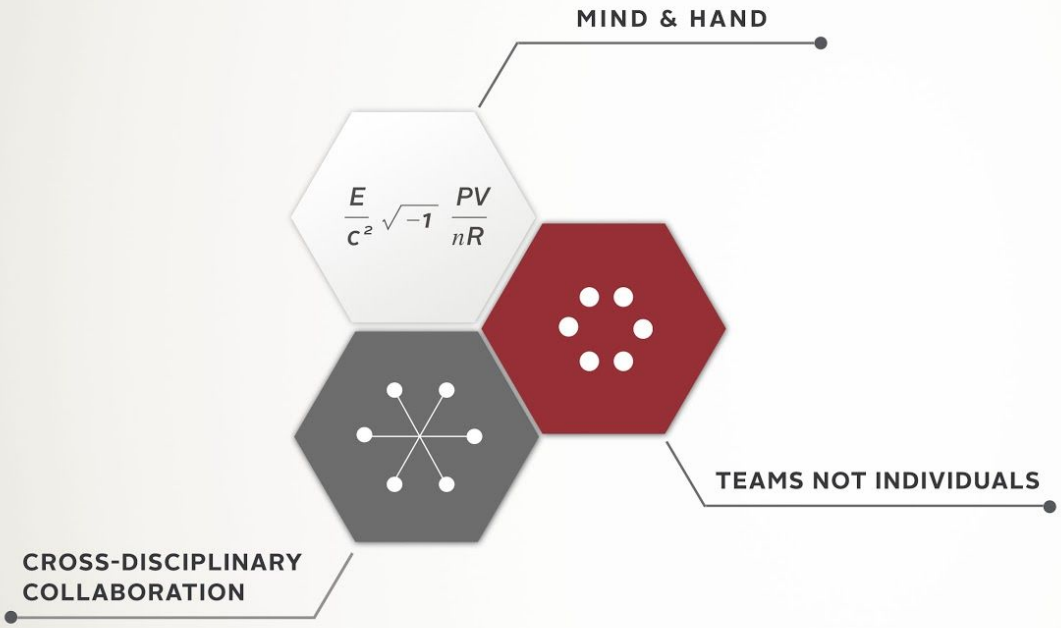
MIT's spirit of interdisciplinary exploration has fueled many scientific breakthroughs and technological advances. A few examples: the first chemical synthesis of penicillin and vitamin A. The development of radar and creation of inertial guidance systems. The invention of magnetic core memory, which enabled the development of digital computers. Major contributions to the Human Genome Project. The discovery of quarks. The invention of the electronic spreadsheet and of encryption systems that enable e-commerce. The creation of GPS. Pioneering 3D printing. The concept of the expanding universe.

Current research and education areas include digital learning; nanotechnology; sustainable energy, the environment, climate adaptation, and global water and food security; Big Data, cybersecurity, robotics, and artificial intelligence; human health, including cancer, HIV, autism, Alzheimer's, and dyslexia; biological engineering and CRISPR technology; poverty alleviation; advanced manufacturing; and innovation and entrepreneurship.

MIT's impact also includes the work of our alumni. One way MIT graduates drive progress is by starting companies that deliver new ideas to the world. A recent study estimates that as of 2014, living MIT alumni have launched more than 30,000 active companies, creating 4.6 million jobs and generating roughly $1.9 trillion in annual revenue. Taken together, this "MIT Nation" is equivalent to the 10th-largest economy in the world!


MIT
IMPACT

Principles of MIT's innovation education



MIT Alumni

have founded **30,000** active companies

employing over **4.6 million** individuals

generating **$1.9 trillion** annual global revenue

if MIT were a country, it would be the **10th largest** economy in the world

...of MIT founded companies

have survived for 10 years

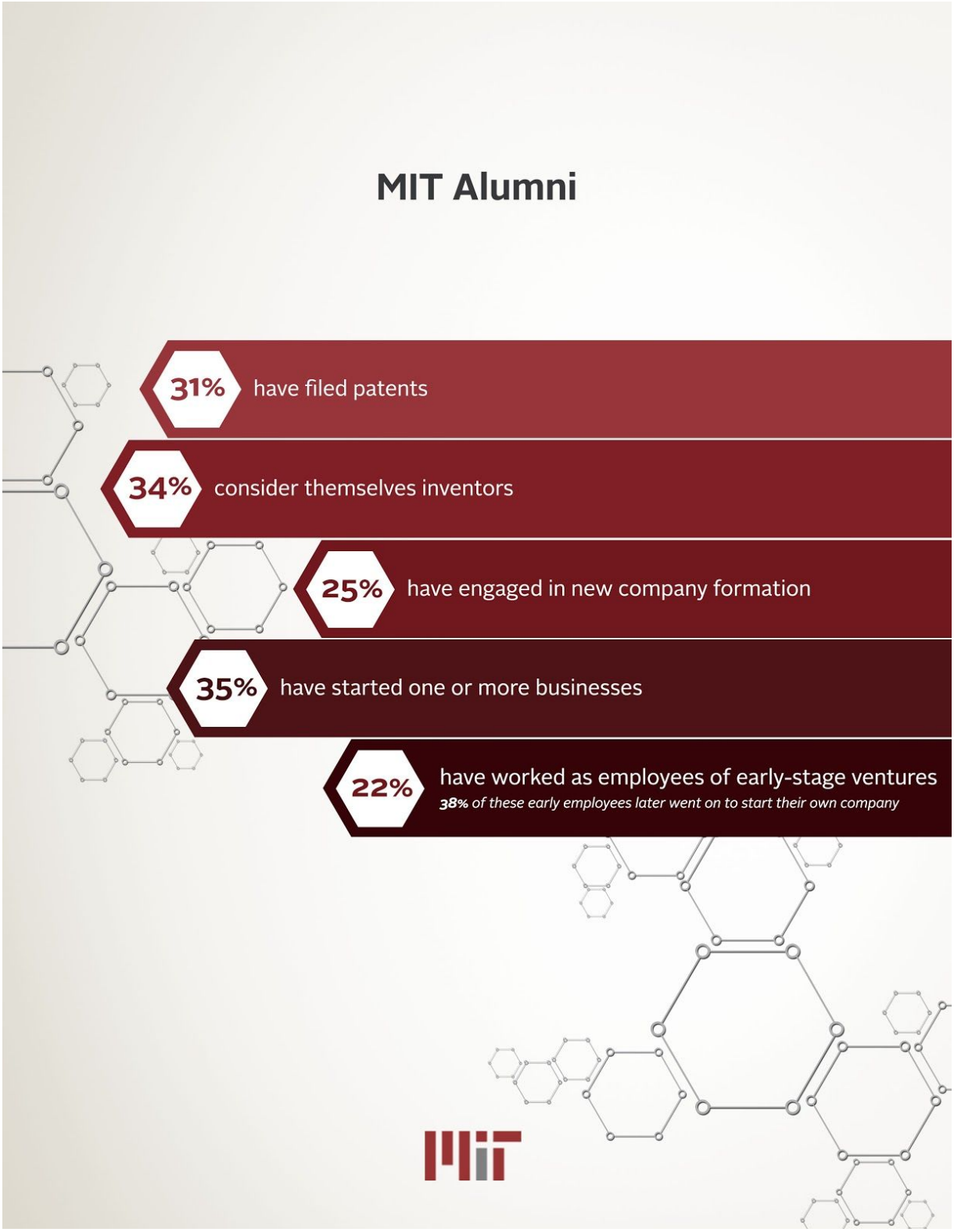
(across the US only 35% last 10 years)

MIT alumni startups **founded outside the United States**

MIT alumni that are named as an **inventor on a patent**

MIT alumni entrepreneurs who have launched **two or more companies** during their careers

MIT Alumni


31% have filed patents
34% consider themselves inventors
25% have engaged in new company formation
35% have started one or more businesses
22% have worked as employees of early-stage ventures
38% of these early employees later went on to start their own company

Pillars of the MIT Bootcamp Program

Characteristics of Bootcampers

Learning Journey

The MIT Bootcamp Learning Journey has Bootcampers learn, practice, and receive feedback from MIT faculty and coaches on Innovation Principles, Team, Leadership, and Communication. Below, on the left, are the Learning Missions the Bootcamp is designed to deliver. Bootcampers and teams will learn and practice many frameworks, concepts, and techniques throughout the Bootcamp; the key Knowledge Products that they will produce showing the synthesis of these multiple learning experiences towards the Learning Missions are on the right.

Innovation Principles

Learning Mission	**Knowledge Product**
Identify a significant opportunity for innovation	Problem articulated with actionable specificity
Understand your stakeholders *profoundly*	Persona(s) Beachhead market strategy Total addressable market
Conceptualize your solution and its position in the customer journey	High level solution specification Full life cycle use case Map of sales process
Evaluate the financial viability and the long-term growth and potential of your venture	Unit economics model

Team, Leadership, and Communication

Learning Mission	**Knowledge Product**
Form and sustain a high-performing team	Self-assessment Team charter CEO feedback
Communicate with *influence*	Elevator pitch Presentation deck Final presentation

Keynote Speakers

Monday, August 13 – Day 1

I. ***"Needs Assessment" by Zach Malchano***
- How to conduct observation in healthcare. What was most helpful?
- Define a "needs statement" in healthcare
- How did you go about narrowing down what was the best need you were going to address?

II. ***"Journey in Retail Clinics: Evaluating an Innovation" by Ateev Mehrotra***
- The journey and impact of retail clinics in healthcare
- Disruptive innovation in healthcare: how to understand and capture the market opportunities
- Evaluating innovations: why it's important for entrepreneurs to allow evaluation of their companies in healthcare and embrace the risk

III. ***"Healthcare Policy 2020" by Zirui Song***
- Important policy initiatives that will impact healthcare
- The importance of entrepreneurs understanding these policies

Tuesday, August 14 – Day 2

I. ***"My Path As A Clinician-Investigator Through Medical Innovation" by Prof. Elazer Edelman***

II. ***"Complexity of Transformation in Healthcare" by Claire-Cecile Pierre and Team***
- Learn directly from practitioners how to implement and scale an innovation at the clinic level
- How to use data in the clinical setting to innovate

III. ***"Podiometrics: Stakeholder Journey" by Jon Bloom***
- Understanding your stakeholders
- Complexity of designing for the patient but the paying customer is someone different. Who do you focus on first?
- How did you balance gaining buy in from both the patient and "paying customer"

Wednesday, August 15 – Day 3

I. ***"EMR Data: Capturing the Opportunity" by Ricky Sahu and Gajen Sunthara***
- Learn about 1UPHealth's mission and approach
- Review EMR data and discuss where the is opportunity for entrepreneurs
- Biggest challenges and the future of EMR data for entrepreneurs

II. ***"IRB Fundamentals" by Kim Serpico***
- What is the IRB and human subject research
- When is the IRB needed, General ethics, international standards
- When do startups begin to conduct research that requires IRB oversight?

III. ***"IP Fundamentals" by Luke Silva***
- What is IP?
- When do you know if something has IP?
- How do startups approach IP?

IV. "How to Build Buy-in from Your Investor" by Peter Sally and Liz Asai

- Introduction of Zaffre and 3Derm
- Zaffee:
  - What does Zaffre look for in an investment/partnership
  - What's the best way for a startup to approach an investor
- 3Derm:
  - What to look for in an investor
  - What works well about this partnership
  - Lessons learned from working with investors

Thursday, August 16 – Day 4

I. "How to Run a Pilot from a Provider Perspective" by Josie Elias

- What startups should know about working with a big hospital system
- From a physician's perspective, what is required when taking part in a pilot?.
- What are the financial and opportunity costs for the stakeholders?
- How do you de-risk a project?
- How does the decision get made internally on what pilots are run?

II. "How to Scale from a Startup Perspective" by Jay Desai

- Story and mission of Patient Ping
- Journey from pilot to scaling: how did you avoid the "death by pilot" phase
- Navigating all the stakeholders
- Mistakes and lessons learned
- Recommendations for new entrepreneurs entering healthcare

Friday, August 17 – Day 5

I. Alumni Panel

- Panelist: Lauren Welch
- Panelist: Osama Hanif
- Panelist: Jad Fayad
- Panelist: Siddhartha Chaturvedi
- Panelist: Jakub Chudik
- Panelist: Deborah Zanforlin

End of the Day Deliverables

Monday, August 13, 2018 – Day 2

By 3am on Tuesday

- Five Whys
- Identify Opportunity
- Define Problem
- Write Team Charter
- Define Personal Goals & Communicate to Team
- Choose daily CEOs
- Manage Conflict

Tuesday, August 14, 2018 – Day 3

By 3am on Wednesday

- Primary Market Research Pledge
- PMR Summary
- Market Segmentation
- Beachhead Market Selection Analysis
- End User Profile
- Persona Profile
- Calculate Total Addressable Market Size

Wednesday, August 15, 2018 – Day 4

By 3am on Thursday

- Submit Full Life Cycle Use Case
- High Level Product Specification
- Quantified Value Proposition
- Competitive Position
- Submit Decision Making Unit
- Decision Making Process
- Sales Process Map
- Business Model

Thursday, August 16, 2018 – Day 5

By 3am on Friday

- Submit Final Presentation

Bootcamps Team

Erdin Beshimov
Lecturer and Director,
MIT Bootcamps

Vimala Palaniswamy
Associate Director,
MIT Bootcamps

Thomas Bazerghi
Program Manager,
MIT Bootcamps

Andrew Ngui
Senior Program Manager,
MIT Bootcamps

Olivia Koziol
Admin & Logistics,
MIT Bootcamps

HMS Center for Primary Care Team

Paola Abello
Director of Innovation,
HMS Center for Primary Care

Caroline Barnaby
Manager of Marketing and Communications,
HMS Center for Primary Care

Erin Farren
Program Director for Education,
HMS Center for Primary Care

Eric Fillinger
Program Coordinator for Education,
HMS Center for Primary Care

Danielle Lebedevitch
Event Manager,
HMS Center for Primary Care

Leah Riley
InciteHealth Program Coordinator,
HMS Center for Primary Care

Instructors

Paola Abello
Director of Innovation, HMS Center for Primary Care

Paola Abello, MBA, is Director of Innovation at the Center for Primary Care. In 2015 Paola designed and launched InciteHealth, a one year intensive accelerator for primary care start-ups. Teams from around the country received funding, mentorship and participated in entrepreneurship and design thinking training as well as took part in three pitch events during the year. Currently, the Center's innovation work is focused on providing education, training and support to medical students, post-docs and PhDs interested in creating health care startups. Paola is also working on expanding the medical school's initiatives around innovation and entrepreneurship.

Previously, Paola was the clinical innovation program manager at Boston Children's Hospital supporting the Hospital's new innovation projects and enabling innovators to test and develop new ideas by providing resources and support. Paola has more than 20 years of experience launching and expanding business opportunities in the area of commercial real estate, venture philanthropy, asset management, and healthcare. Paola is passionate about launching new ideas in healthcare, inspiring creativity and reducing the barriers to entrepreneurship. Paola received her MBA from Babson College with a concentration on Entrepreneurship and her B.S. in Finance and Economics from Boston College.

Erdin Beshimov

Erdin Beshimov is a Lecturer at MIT and a Founder and Director of MIT Bootcamps. At MIT Erdin was also the founding Director of the MITx MicroMasters Program and the Incubation Group in the Office of Digital Learning. Erdin's focus at MIT is on building new pathways for learners worldwide to study frontier technology innovation and entrepreneurship.

Erdin is a graduate of the MIT Sloan School of Management. Before returning to MIT, Erdin served as Principal at Flagship Pioneering where he focused on ventures in water, energy, and materials. Erdin also co-founded Ubiquitous Energy, a solar technologies spinout from MIT, and analyzed energy efficiency startups at Venrock Associates.

Erdin was born in a country that no longer exists, the Soviet Union. He lived in India and the United Kingdom before coming to the United States. In addition to an MBA from MIT Sloan, Erdin holds a BA (first-class honours) in Development and Peace Studies from the University of Bradford, where he was awarded the International Student Scholarship and the James O'Connell Scholarship for Peace Studies, and an MA in Area Studies of the former Soviet Union from Harvard University, where he studied on full scholarship.

Vimala Palaniswamy

Vimala Palaniswamy is the Associate Director for MIT Bootcamps at the office for the VIce President for Open Learning. She joined MIT Bootcamps with 15 years of experience in social innovation, entrepreneurship, and mentoring entrepreneurs. In 2014, Vimala founded and lead Demeter Entrepreneurs Support Network, a global virtual network dedicated to improving the success rates of entrepreneurs in low-income countries through individualized support and coaching. She built Demeter's mentoring network of more than 80 personal advocates and experts to support nearly 30 entrepreneurs globally. Demeter entrepreneurs are bringing innovations in education, fintech, health and fitness, media, and food to emerging markets.

Prior to Demeter, Vimala co-founded Jamela, a "more-than-fair trade" skin care company, worked at Trickle Up, a sustainable livelihoods NGO, to redesign their monitoring and evaluation system - from data capture to dissemination, and with the Dhan Foundation in India, to develop a community-financed primary health care program. She has also worked in education technology, microfinance, water, transportation systems, and biological research in the US, Asia, Africa, and Central America.

Vimala has an MBA from MIT Sloan and an MPH in Global Health from Emory University. Her undergraduate degrees in Microbiology and Biology are from the University of Georgia and Simon's Rock College of Bard.

Ateev Mehrotra

Associate Professor of Healthcare Policy and Medicine, Harvard Medical School

Ateev Mehrotra, MD, MPH, is an associate professor of health care policy and medicine at Harvard Medical School and a hospitalist at Beth Israel Deaconess Medical Center. Dr. Mehrotra's research focuses on interventions to decrease costs and improve quality of care. Much of his work has focused on innovations in delivery such as retail clinics and e-visits and their impact on quality, costs, and access to health care. He is also interested in the role of consumerism and whether price transparency and public reporting of quality can impact patient decision making. Related work has focused on quality measurement, including how natural language processing can be used to analyze the data in electronic health records to measure the quality of care.

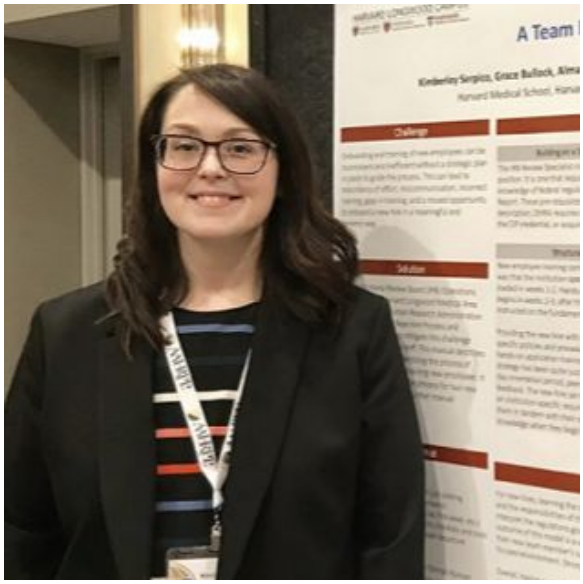
Dr. Mehrotra received his BS from the Massachusetts Institute of Technology, his medical degree from the University of California, San Francisco and his residency in internal medicine and pediatrics at the Massachusetts General Hospital and Children's Hospital of Boston. His clinical work has been both as a primary care physician and as an adult and pediatric hospitalist. He also has received formal research training with a Master of Public Health from the University of California, Berkeley and a Master of Science in Epidemiology from the Harvard School of Public Health. In 2008, he received the Milton W. Hamolsky Award for Outstanding Scientific Presentation by a Junior Faculty Member by the Society of General Internal Medicine. In 2013, he received the Alice S. Hersh New Investigator Award from AcademyHealth for health services researchers early in their careers who show exceptional promise.

Zirui Song

Assistant Professor of Healthcare Policy & Medicine, Harvard Medical School

Zirui Song, MD, PhD is an assistant professor of health care policy and medicine at Harvard Medical School and practices internal medicine at Massachusetts General Hospital. His research focuses on changes in health care spending and quality under global payment, the impact of Medicare fee policies on spending and physician behavior, and the economics of Medicare Advantage. This work has aimed to provide evidence to inform policies on payment and delivery system reform.

Dr. Song has worked on Medicare policy in the Office of the Assistant Secretary for Planning and Evaluation in the U.S. Department of Health and Human Services. He has also served as a Visiting Fellow at the Health Policy Commission for the Commonwealth of Massachusetts. He teaches health policy to medical students, residents, and fellows at Harvard Medical School and the Partners Healthcare training programs.



Kimberley Serpico

Assistant Director of IRB Operations, Harvard LMA Schools

Kimberley Serpico is the Assistant Director of IRB Operations for the Harvard Longwood Medical Area (LMA) Schools, including Harvard T.H. Chan School of Public Health, Harvard Medical School, and Harvard School of Dental Medicine. The LMA IRB is responsible for review and oversight of all human subjects research conducted by Harvard LMA researchers. As part of my role I manage our two convened IRB panels and a team of IRB Review Specialists. My areas of expertise are the ethical conduct and regulatory compliance of human subjects research, protection of the rights and welfare of participants involved in biomedical and social-behavioral research, and providing consultation, education, and research support to investigators. I have a BS in Psychology and Masters of Education in Higher Education Administration, both from Suffolk University. I am currently working on a Masters in Legal Studies from the Harvard Extension School. I am also a Certified IRB Professional (CIP).

Elaine Chen

Senior Lecturer, MIT

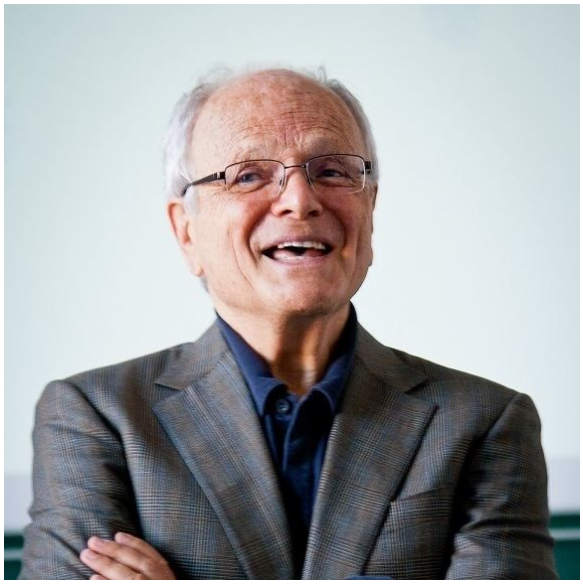
Elaine is a startup veteran and corporate innovation and entrepreneurship consultant who has brought numerous high tech products to market. She grew up in Hong Kong, and moved to the US to study engineering at MIT—eventually building a career as a technology executive. She has served at the VP level at 5 startups, including Rethink Robotics, Zeo, Zeemote and SensAble Technologies. She holds 22 patents.

As founder and managing director of ConceptSpring, Elaine works with executives and leaders in established businesses to help them develop entrepreneurial skills, craft new innovation processes, and set up and run new ventures with the speed and agility of a startup. Clients span diverse industries, including healthcare IT, industrial automation, robotics, consumer electronics, retail innovation, FinTech, and more. She is the author of the book, “Bringing a Hardware Product to Market: Navigating the Wild Ride from Concept to Mass Production”.

Elaine has been working with students at MIT since early 2011. She is a Senior Lecturer and Entrepreneur-in-Residence at the Martin Trust Center for MIT Entrepreneurship. She designs, develops, and teaches courses and programs in entrepreneurship and corporate entrepreneurship, coaches students on a one-on-one basis, and develops systems and processes to scale up the support to entrepreneurial students. She built the Trust Center’s First Time Founder Knowledge Base from the ground up. She also serves on the Board of the MIT Enterprise Forum of Cambridge. In June 2016, Elaine received the Monosson Prize for Entrepreneurship Mentoring from MIT in recognition of her contributions to foster entrepreneurship education at MIT. In 2017, she was selected by the American Academy for the Advancement of Science and the Lemelson Foundation to serve as one of eight Invention Ambassadors for 2017-2018 to inspire, inform, and influence thought leaders and global community about innovation and invention.

Elaine is a thought leader and keynote speaker who has been featured in Xconomy, TechCrunch, Huffington Post, Forbes, and Fortune. She covers topics spanning innovation, entrepreneurship, corporate entrepreneurship, technology trends, and more. Her most recent speaking engagements include speaking about innovation at a conference on Public-Private Partnership hosted by the United Nations in Geneva, Switzerland; delivering a keynote address for an Employment Conference at MIT; and delivering a keynote address for an International Tourism Innovation Conference in Portugal. She has extensive international experience, particularly in the Asia-Pacific area.

Elaine holds a BS and an MS in mechanical engineering from MIT.



Eric von Hippel
Professor of Management of Innovation and Engineering Systems, MIT

Eric von Hippel is the T. Wilson (1953) Professor in Management and a Professor of Management of Innovation and Engineering Systems at the MIT Sloan School of Management.

His research discovers and explores patterns in the sources of innovation and develops new processes to improve the "fuzzy front end" of the innovation process—the end where ideas for breakthrough new products and services are developed. In his most recent book, *Democratizing Innovation* (MIT Press, April 2005), von Hippel shows how communities of users are actually becoming such powerful innovation engines that they are increasingly driving manufacturers out of product development altogether—a pattern he documents in fields ranging from open source software to sporting equipment. This discovery has been used for a better understanding of the innovation process and for the development of new
innovation processes for industry. He is currently leading a major research project to discover how these user innovation communities work, and how and whether the same principles might extend to many areas of product and service development. In addition, von Hippel is working with governmental and academic colleagues in the Netherlands, Denmark, and the United Kingdom to develop new and modified governmental policies appropriate to the newly emerging innovation paradigm of user-centered innovation.

He holds an AB in economics from Harvard College, an SM in mechanical engineering from MIT, and a PhD in business and engineering from Carnegie-Mellon University.

Elazer Edelman
Professor of Health Sciences and Technology, MIT
Professor of Medicine, HMS

Dr. Elazer Edelman is the Thomas D. and Virginia W. Cabot Professor of Health Sciences and Technology at MIT, Professor of Medicine at Harvard Medical School, and a coronary care unit cardiologist at the Brigham and Women's Hospital in Boston. He and his laboratory have pioneered basic findings in vascular biology and the development and assessment of biotechnology. Dr. Edelman directs the Harvard-MIT Biomedical Engineering Center (BMEC), dedicated to applying the rigors of the physical sciences to elucidate fundamental biologic processes and mechanisms of disease. BMEC programs span a wide range of disciplines, with its resources made available to investigators from MIT and Harvard.

Dr. Edelman received Bachelor of Science degrees in Bioelectrical Engineering and in Applied Biology from MIT in 1978, a Masters of Science degree in Electrical Engineering and Computer Sciences from MIT in 1979, a degree in medicine from Harvard Medical School in 1983 and a PhD in Medical Engineering and Medical Physics from MIT in 1984. His graduate thesis work, under the direction of Prof. Robert Langer, defined the mathematics of regulated and controlled drug delivery systems. After internal medicine training and clinical fellowship in Cardiovascular Medicine at the BWH he spent six years as a research fellow in the Department of Pathology at Harvard Medical School with Prof. Morris J. Karnovsky working on the biology of vascular repair.

Edelman holds a diploma from, and is a fellow of, the American College of Cardiology, the American Heart Association, the American Institute for Medical and Biological Engineering, and the American Society for Clinical Investigation. He is also a fellow of the Institute of Medicine of the National Academy of Science, the National Academy of Engineering and the National Academy of Inventors. As Chief Scientific Advisor of *Science: Translational Medicine*, he has set the tone for the national debate on translational research and innovation. As an avid ice hockey goalie, Dr. Edelman's most recent accomplishment involves passing three levels of coaching licensure from the Massachusetts Youth Hockey league and coaching the Brookline Bantam B team.

Leo Celi

Clinical Research Director, MIT Laboratory of Computational Physiology

Leo Anthony Celi has practiced medicine in three continents, giving him broad perspectives in healthcare delivery. As clinical research director and principal research scientist at the MIT Laboratory of Computational Physiology (LCP), he brings together clinicians and data scientists to support research using data routinely collected in the intensive care unit (ICU). His group built and maintains the Medical Information Mart for Intensive Care (MIMIC) database. This public-access database has been meticulously de-identified and is freely shared online with the research community. It is an unparalleled research resource; over 2000 investigators from more than 30 countries have free access to the clinical data under a data use agreement. In 2016, LCP partnered with Philips eICU Research Institute to host the eICU database with more than 2 million ICU patients admitted across the United States. The goal is to scale the database globally and build an international collaborative research community around health data analytics.

Leo founded and co-directs Sana, a cross-disciplinary organization based at the Institute for Medical Engineering and Science at MIT, whose objective is to leverage information technology to improve health outcomes in low- and middle-income countries. At its core is an open-source mobile tele-health platform that allows for capture, transmission and archiving of complex medical data (e.g. images, videos, physiologic signals such as ECG, EEG and oto-acoustic emission responses), in addition to patient demographic and clinical information. Sana is the inaugural recipient of both the mHealth (Mobile Health) Alliance Award from the United Nations Foundation and the Wireless Innovation Award from the Vodafone Foundation in 2010. The software has since been implemented around the globe including India, Kenya, Lebanon, Haiti, Mongolia, Uganda, Brazil, Ethiopia, Argentina, and South Africa.

He is one of the course directors for HST.936—global health informatics to improve quality of care, and HST.953—secondary analysis of electronic health records, both at MIT. He is an editor of the textbook for each course, both released under an open access license. The textbook *Secondary Analysis of Electronic Health Records* came out in October 2016 and was downloaded over 48,000 times in the first two months of publication. The course “Global Health Informatics to Improve Quality of Care” was launched under MITx in February 2017.

Leo was featured as a designer in the Smithsonian Museum National Design Triennial “Why Design Now?” held at the Cooper-Hewitt Museum in New York City in 2010 for his work in global health informatics. He was also selected as one of 12 external reviewers for the National Academy of Medicine 2014 report “Investing in Global Health Systems: Sustaining gains, transforming lives”.

Coaches

Nicky Agahari

Nicky Agahari is the founder of INCONFIDENCE, a discreet, non-invasive, and wearable medical device that helps patients suffering from incontinence. With a rapidly aging society globally and with over 70% of patients in aged care suffering from incontinence; INCONFIDENCE hopes to offer a solution to patients that treats the neurological core of incontinence through neuromodulation technology. In the 5 months after attending MIT Global Entrepreneurship Bootcamp (Class 5), Nicky was able to utilize the skills learned at boot-camp to help his team secure $1.25M in non-dilutive funding from the Australian Department of Health.
Most recently Nicky has moved to Boston, MA to take up a posting at Boston Scientific in their Global Leadership Management Program where he will further develop and commercialize the INCONFIDENCE neuromodulation device.

A veteran of the pharmaceutical and medical device industry Nicky has worked with some of the industries' giants including Johnson and Johnson, Eli Lilly and Medtronic to commercialize, market and sell medical technologies.
Nicky holds an undergraduate degree in Biological Sciences (Pharmacology & Physiology) from the University of Sydney and an MBA from the Macquarie Graduate School of Management. Away from his professional career Nicky has spent time serving in the Royal Australian Army as a Combat Medic and was a contestant on Australia's MasterChef where he auditioned with 2-minute noodles and achieved 'dish of the day' credits for his dishes of 'hand pulled noodles' and 'salt and pepper squid.'

Ken Endo

Ken Endo is a CEO of Xiborg Inc., and associate researcher at Sony Computer Science Laboratories Inc., and . Endo received his PhD as a member of the Media Lab's Biomechatronics group. At Sony CSL, he works on technology that rehabilitates and augments human physical capability, such as prostheses and orthoses. His team is now developing an athletic prosthesis with a goal of a gold medal in the 100m/200m sprint at the Tokyo Paralympic games in 2020. He has been named to MIT Technology Review's list of top innovators under 35 (TR35). He has also been chosen as a Young Global Leader 2014 by the World Economic Forum.

Vanessa Gurie

Vanessa Gurie spent 10 years leading Performance Medicine teams and the Global Performance Medicine Touring division at Cirque du Soleil across 48 countries. She also managed continuous operations on 5 continents with 21+ full time staff and provided medical services to 1200+ athletes from over 40 countries. She was instrumental in the implementation of the injury prevention ecosystem which demonstrated a 34% reduction in injury recovery timelines.

Vanessa then successfully leveraged her transferable skills from Sports Performance Medicine and launched a startup that leverages artificial intelligence in ophthalmology. She is the Co-Founder and CEO of
I-Ophthalmology, a smart, same day ophthalmology system which uses artificial intelligence to make comprehensive eye exams fast and convenient. I-Ophthalmology aspires to be part of a global solution to reach patients in parts of the world that would not ordinarily have access to eye care and are at the highest risk for visual impairment. In the 2 months after attending MIT Global Entrepreneurship Bootcamp, Vanessa was able to utilize the skills learned at bootcamp to win the Johns Hopkins Design Health Award and be current finalists in the EIT Wild Card in Smart Health Competition. I- Ophthalmology are also winners at EIT Healthcare Innovation Showcase.

Vanessa has lived on 4 continents and studied in 4 different countries. She is a Bio-Design D-Health Fellow, has an MBA in Finance, a Masters in Musculoskeletal and Sports Physiotherapy and was the Henry Mitchell scholarship recipient from the University of Missouri/University of Western Cape for her undergraduate degree in Physiotherapy. Vanessa has also pioneered the establishment of Performance Medicine Services and emergency response for Cambodian Circus Schools and has been the clinical lead for other sports, hospital and private practice medical teams.

Jeff Sabados

Jeff Sabados is an experienced entrepreneur and leader having co-founded Resilience Therapeutics in June 2014. ResilienceTx, located in Boston MA, is dedicated to assembling the best biotech scientists and research organizations in the world in order to make available new, disease-modifying therapeutics for anxiety-related disorders including PTSD. Prior to ResilienceTx, Jeff co-founded two successful companies – one out of Stanford University and one out of MIT – that are commercializing disruptive technologies. Over the past 10 years, the companies Jeff has started have raised over $100 million dollars in over a dozen financings. Jeff is also Advising and/or helping lead several other companies and organizations including Frequency Therapeutics, Lumicell Inc and the Brigham and Women's Hospital Stepping Strong Center that can ultimately support the wellbeing of service members, Veterans and their caregivers after trauma.

In the military, Jeff completed six deployments over eight years both as a Surface Warfare Officer and U.S. Navy SEAL along with 12 years in the Navy Reserve including an assignment as an instructor at the Navy Leadership and Ethics Command. His deployments in Naval Special Warfare included one tour supporting Task Force K-Bar in Afghanistan, one tour leading several successful National level SEAL missions as both Platoon Commander and Task Unit Commander and a final tour as a Task Unit Commander where he led and had overall responsibility for 75 Special Operations personnel in South America.'

Jeff graduated from the MIT Sloan School of Management with a Master in Business Administration where he was awarded the Patrick J. McGovern Entrepreneur Award and the Martin Trust Fellow Award. Prior to MIT, he graduated from Harvard University with a Master in Public Policy.

Andrew Radin

Andrew M. Radin is the co-founder and Chief Business Officer of twoXAR, a software-driven drug discovery company. Prior to founding twoXAR, Andrew was co-founder at Thyme Labs, a consumer-facing mobile scheduling company. His endeavours have spanned the globe and include living and working in China, Australia, the United States, and the United Kingdom. Andrew has been a consultant to several leading universities to foster cross-disciplinary entrepreneurial environments. In 2014, he was awarded the Ronald I. Heller Award for substantial contributions to the entrepreneurial spirit and activities at MIT.

Andrew is an alumnus of the Stanford StartX and MIT GFSA accelerator programs and holds a Master in Business Administration degree from MIT Sloan, a Bachelor of Science degree in biochemistry and cell biology from UC San Diego, and a Bachelor of Arts degree in economics from UC San Diego.

Christopher Pririe

Dr. Pirie currently serves as co-founder CEO of Virvio, an early stage biopharmaceutical design company whose platform technology creates alternatives to antibody drugs. Prior to Virvio, he was co-founder and Director of Protein Engineering at Manus Bio, a synthetic biology company developing renewable biosynthetic processes for flavors, fragrances, and sweeteners. There he led a world-class team of researchers in creating cutting edge techniques for engineering enzymes. In addition to these entrepreneurial endeavors, he has specialized in business development of corporate research partnerships and prosecution of intellectual property.

Dr. Pirie earned his PhD and conducted post-doctoral research at the Koch Institute for Integrative Cancer Research at MIT. Also while at MIT, he served two years as representative to the Institute Committee on Intellectual Property and was a founding writer and editor in biotechnology for the MIT Entrepreneurship Review. He is a graduate of the global Startup Leadership Program and enjoys engaging young entrepreneurs while discovering new strategies for academic technology commercialization. He received his bachelors of science degree in Bioengineering from the University of Washington and is an avid soccer player.

Guest Speakers

Zach Malchano
President, Cognito Therapeutics

Zach Malchano is the President of Cognito Therapeutics. Zach previously served as the General Manager and Vice President of Product Development for Cognito Therapeutics. Prior to this, Zach was a founder and early-employee at a number of different medical device startups where he was responsible for company development, program leadership, and product development, which led to first in human clinical studies and regulatory clearance. Zach was an Entrepreneur in Residence at Rock Health, where he analyzed opportunities in digital healthcare, performed diligence, and advised portfolio companies.

Zach received his undergraduate degree in Electrical Engineering from MIT and his Masters degree in Biomedical Engineering from the Harvard-MIT Division of Health Sciences and Technology. Zach completed the Biodesign Innovation Fellowship at Stanford University. Zach also serves as an affiliate faculty member at the Center for Primary Care at Harvard Medical School, where he is on a working group establishing a medical device and healthcare innovation fellowship program and its accompanying courses.

Pete Sally
Director, Zaffre Investments

Pete Sally is a director at Zaffre Investments, which is the venture-arm of Blue Cross Blue Shield of Massachusetts (BCBSMA). At Zaffre Pete's responsibilities include deal sourcing, investment theme development, term sheet negotiation, investment due diligence, portfolio analysis and portfolio company integration. In addition to his investment responsibilities, Pete manages Zaffre's Digital Health Sabbatical. This program places a BCBSMA associate in a Zaffre portfolio company for six months. Prior to joining Zaffre, Pete spent nearly a decade working on healthcare legislation and policy in government affairs roles on Capitol Hill and in BCBSMA's government affairs division. He currently serves on the boards of InformedDNA, Cohero Health, Yaro and Ovia Health.
Education MBA - Boston College - Wallace E. Carroll Graduate School of Management BA - Union College.

Liz Asai
CEO, 3Derm

Liz Asai has served as CEO of 3Derm since 2013. 3Derm is a digital health company that has developed skin imaging systems paired with machine learning algorithms to triage dermatology concerns. Prior to founding 3Derm in 2012, she conducted research on telemedicine technologies and served as principal investigator of a teledermatology clinical study at the Yale School of Medicine. During her tenure as CEO, Liz has raised several rounds of capital, attracted over a million dollars in public and private research grants, and obtained reimbursement for their telemedicine service from several major payers. She led the team through three clinical studies over five years before entering the market in 2016. Liz is actively involved with local and national health tech policy groups drafting testimony and legislation advocating for telemedicine reimbursement. She was recently featured in LinkedIn's top 10 healthcare professionals under 35, and Forbes 30 Under 30. Liz holds a bachelor's degree in Biomedical Engineering from Yale University.

Josie Elias

Program Manager of Digital Health Innovation, Brigham and Woman's Hospital Innovation Hub

Josie Elias' focus on technology design and usability arose from many years in small business and disaster response. As the Program Manager for the Digital Health Innovation Guide, within the Brigham Digital Innovation Hub, she has the pleasure of working with innovators across Brigham Health to build and implement digital innovations from research apps, to indoor positioning, and to startup collaborations. Ms. Elias believes that technology should be a tool for clinicians to simplify their work. And not the work, itself. She brings over 20+ years of experience in business development, product design and manufacturing, and disaster response at small and large organizations. Josie received her MBA from Cornell University and MPH from George Washington University. In her spare time, she is COML/ITSL for the FEMA Urban Search and Rescue system. Josie Elias' focus on technology design and usability arose from many years in small business and disaster response. As the Program Manager for the Digital Health Innovation Guide, within the Brigham Digital Innovation Hub, she has the pleasure of working with innovators across Brigham Health to build and implement digital innovations from research apps, to indoor positioning, and to startup collaborations. Ms. Elias believes that technology should be a tool for clinicians to simplify their work. And not the work, itself. She brings over 20+ years of experience in business development, product design and manufacturing, and disaster response at small and large organizations. Josie received her MBA from Cornell University and MPH from George Washington University. In her spare time, she is COML/ITSL for the FEMA Urban Search and Rescue system.

Jay Desai
CEO, PatientPing

Jay is Founder and CEO of PatientPing, a venture-backed company that connects healthcare providers to seamlessly coordinate care. Prior to this role, Jay helped lead ACO model development at the Center for Medicare and Medicaid Innovation. He also supported development of Bundled Payments, Medical Homes, and a variety of other new payment models funded by the Affordable Care Act. Jay's previous experience includes executive management and investing positions at Triad Isotopes, Parthenon Capital, and Lehman Brothers. He has served as a subject matter expert on health reform for a variety of provider organizations and co-founded the Health System Transformation Task Force. Jay received his MBA in Healthcare Management from The Wharton School and his BBA from The University of Michigan.

Lucas Silva

Senior Counsel & IP Lawyer, Foley & Lardner LLP

Lucas I. Silva is a senior counsel and intellectual property lawyer with Foley & Lardner LLP, where he focuses his practice on patent litigation, counseling, and licensing. Mr. Silva also handles matters involving claims of trademark and copyright infringement, trade secret misappropriation, breach of contract, and unfair competition. He has also handled appeals before the Court of Appeals for the Federal Circuit. In addition, Mr. Silva represents clients in patent re-examination, inter partes review and other post-grant proceedings before the United States Patent and Trademark Office. His patent litigation experience includes a wide range of cases involving technologies such as data transmission cables, online recruiting software, data backup, magnetic braking, sound reproduction systems, semiconductor packaging, online advertising, solar panel assemblies, and 3D printing. Mr. Silva is also involved in a variety of local organizations that assist emerging companies and promote technology in the fields of medical devices, augmented reality (AR), virtual reality (VR), and Internet of things (IoT).

Krishna Yeshwant

Dr. Krishna Yeshwant is a physician, programmer, and entrepreneur who has been working with GV since its inception. He first joined Google as part of the New Business Development team. Prior to Google, Krishna helped start an electronic data interchange company that was acquired by Hewlett-Packard and a network security company that was acquired by Symantec. Krishna has a B.S. in computer science from Stanford University. He also earned an M.D. from Harvard Medical School, an MBA from Harvard Business School, and completed his residency at Brigham and Women's Hospital in Boston, Massachusetts where he continues to practice.

Jon Bloom
CEO, Podimetrics

Jon Bloom is a board-certified physician with over 15 years of experience in healthcare delivery, patient monitoring, medical devices, and biomedical research. He presently services as the Chief Executive Officer of Podimetrics, a company he co-founded while attending the Massachusetts Institute of Technology Sloan School of Business in 2011. Podimetrics is medical technology and services company focused on the early detection and prevention of diabetic foot ulcers. Prior to this he was a Clinical Assistant Professor and Staff Anesthesiologist at the University of Pittsburgh School of Medicine and the Global Medical Director for Covidien's Respiratory and Monitoring Solutions division. He completed his residency at the Massachusetts General Hospital.

Ricky Sahu
CEO, 1upHealth

Ricky is the CEO and Co-founder of 1upHealth. He previously worked at Google on the Google Apps for Business team to automate support for customer issues and forecast demand to staff hundreds of employees around the globe. Afterward he built tools to improve search engine optimization and online marketing using machine learning and programming crowds with tools like Mechanical Turk at Promediacorp for companies like Sony, Microsoft, and Forever21. Prior to 1upHealth, Ricky was the first employee and Director of Engineering at the D.C. based health tech startup CareJourney which analyzes claims data and publishes APIs for Accountable Care Organizations to improve care and reduce costs. Ricky experience spans machine learning, building scalable technology, circuit design for IOT Wifi based location sensors, blockchain smart contracts, and healthcare. He has a B.Sc. in Systems Engineering & Economics from the University of Virginia.

Claire-Cecile Pierre

Chief of Quality and Medical Informatics, South End Community Health Center

Claire-Cecile Pierre, born in Haiti, is a summa cum laude graduate of Howard University's six-year combined accelerated BS-MD program. She trained in internal medicine at the Cambridge Health Alliance (CHA), where she served as chief medical resident and later as clinical director of quality informatics, a role that focused on health care improvement and the use of information technology to support safe and effective patient-centered care. Her clinical work includes shared medical appointment (group visits) with a focus on preventive health. In 2010, she joined the earthquake rescue and relief efforts in Haiti where she remained to work with the Interim Haiti Recovery Commission, as the senior health advisor and sector lead. In this role, she worked closely with the Prime Minister, Ministry of Health, country donors, multinational organizations, and partners across sectors on key policies and programs to support the long-term reconstruction of the health sector.

As director of the Program in Health Systems Strengthening and Social Change in Harvard Medical School's Department of Global Health and Social Medicine she looked at how NGOs and partners can work together to ensure proper allocations of 'staff, space, stuff and systems' after disasters and outbreaks. Her Global Health experience has included over a decade of work in Ethiopia, South Africa, Zambia and Haiti. In 2014, she became one of the first US board certified physicians in Clinical Informatics. She served as Chief of Quality and Medical Informatics at the South End Community Health Center in Boston and as a faculty member of Harvard Medical School’s Center for Primary Care. In 2018, she joined Harbor Health Systems as Chief Medical Officer.

Subarna Mukherjee

Director of Quality & Population Health, South End Community Health Center

A fun-loving gal who likes to roll up her sleeves and work with others to get the job done, Subarna Mukherjee (aka: Subi) is a global health nurse and aspiring “intrapreneur”. She is an experienced project manager, passionate about nurse-led quality improvement, community health, and caring for complex and vulnerable patients. Most recently, she was the Program Manager for a pilot CHW program that scaled nationally in Liberia; and, in collaboration with various stakeholders, led the development of the national community health program curriculum. At present, she is the Director of Quality and Population Health at South End Community Health Center, a federally qualified health center that serves approximately 16,000 patients. She also works per-diem as a Triage Nurse at the innovative, Boston Healthcare for the Homeless clinic. Of note, Subi has a pathological dancing bug, loves being in nature, crafting, and catching live music with friends

Saray Vega

Saray Vega currently serves as the Manager of Care Coordination and Community Health at the South End Community Health Center. She holds over a decade of experience as a Medical Assistant playing a crucial role on the care team. She then became a case manager responsible for connecting patients to social services (food, transportation, supplies).

As a case manager, Saray developed care plans for the clinic's most complex patients and used coaching skills to promote behavior change and wellness. She co-designed the Care Coordination Team at the South End Community Health Center, with an approach aimed at integrating community health workers into clinical teams. Saray is a data driven manager who encourages her team to set clear goals and supports them in reaching their targets. She has managed and facilitated collaborations across disciplines within the clinic and across organizations with community partners.

Miguel Ángel Armengol de la Hoz

Miguel Ángel Armengol de la Hoz, MS is a Senior Research Associate at Harvard-MIT Division of Health Sciences. Moreover he is Chair of the study group 'Big Data and Machine Learning: Shaping the Future of Healthcare' at Harvard.

He is a Telecommunication Engineer with a M.S. in Biomedical Engineering from Universidad Politécnica de Madrid and is currently a PhD Candidate in Biomedical Engineering at the same university.

Working at the Department of Anesthesia, Critical Care and Pain Medicine - Center for Anesthesia Research Excellence he is helping to expand the current analytic capabilities and design new strategies and applications within this dynamic and innovative organization. He has being applying state-of-the-art advanced analytic and quantitative tools and modelling techniques to derive insights, solve complex problems and improve decisions about both patients and providers from the department.

As an affiliate at the LCP, Laboratory of Computational Physiology and MIT Critical Data group, he has experience working with large and complex data sets related to critically ill patients (Intensive Care Unity and Emergency Room). He has being performing non-routine analysis problems by applying machine learning and robust statistical methods.

His main fields of expertise are innovation, data science, design, marketing, big data, cutting-edge technologies, medical devices, machine learning, intellectual property protection, internationalization and e-health project management.

Euma Ishii

Euma is currently a medical student at Tokyo Medical and Dental University. He was born in Tokyo, grew up in Davis, California, and received an AB in biology/biochemistry from Vassar College. He has experience ranging from chemotherapeutic simulation modeling to drafting polio-eradication/global health policy proposals and has found evidence and integrating empirical methods to be a common theme in his work. He has found his calling as a potential liaison between Japan and the world, specifically to improve healthcare systems by capitalizing on his passion for management and team development.

In Japan, he is currently in the process of creating a solution to improve home healthcare through research across multiple universities while also assisting the development of the Japan Intensive care PAtient Database (JIPAD), Japan's largest de-identified ICU patient database that provides benchmarking for ICUs around the country.

As an affiliate of MIT's Laboratory for Computational Physiology, he performs retrospective cohort studies and applies predictive approaches for improving patient care. In his spare time, he works to facilitate international partnerships, and is currently in the process of setting up a base in Japan for Global Citizen, a movement of engaged citizens using their collective voice to end extreme poverty by 2030.

Shawn Sturland

Qualified originally in the UK, Shawn Sturland trained in Anaesthesia and Intensive Care Medicine in Australasia. He has practiced as a Specialist Intensivist at Wellington Regional Hospital ICU for twelve years, with six years as Medical Director. Alongside clinical practice, he is also the Clinical Executive Director for Quality Improvement and Patient Safety at Capital and Coast District Health Board. Currently a visiting research scientist at the Laboratory of Computational Physiology in the Institute of Engineering and Medical Science at MIT. His interests include the secondary analysis of electronic health records and data science in Health Services research.

Bootcampers


Aditya
Kandregula


Ahmad
Bashir


Alisha
Rahemntulla


Anaya
Vohra


Andreea
Vasile


Antoni
Rucinski


Arvind
Ravinutala


Avanthika
Raghu


Azareli
Garcia


Cesar Jeronimo
Esquinca Enriquez de la Fuente


Chelsea
Sposit


Christian
Velasco


Cidalia
Eusebio


Consuelo
Gropler


Daniel
Franco


David
Susanto

Drayton
Rodrigues

Elena
Aguilera

Elena
Lopez-Rodriguez

Flaviana
Rotaru

Fotios
Papadopoulos

Gayan
Samarankoon

George
Farag

Georgia-Phaedra
Vitali

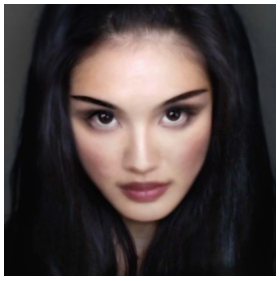
Ghulam
Abbas

Hannah
Hagen

Hardik
Patel

Josue
Medina

Hee Jung
Ryu



Hiu Yan Samantha
Ip

Hristina
Gogova

Hui Hong
Seow

Janelle
Lai

Jiyoon
Lee

Joel David
Lesses

Julio
Alonso

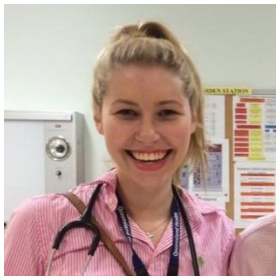
Kareem
Hernandez

Kiyara
Fernando

Kunal Kishore
Dhawan

Laura
Sanchez Lasso

Lisa
Mazur



Lucy
Morgan

Mauricio
Dujowich

Michael
Fichter

Molly
Gray

Monika
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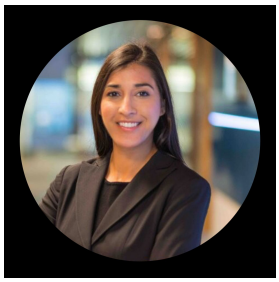
Netza
Delgado

Nikolai
Byskov

Niraj
Bafna

Nuno Sousa
Dias

Ori
Zelichov



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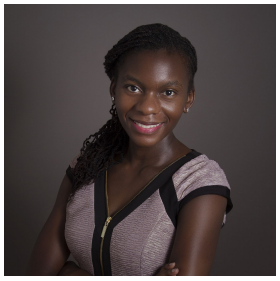

Sally
Amkoa

Sangheetha
Parthasarathy

Sarah
Zbeidy

Sergio
Ramirez-Perez

Sevval
Karadag

Siddhartha
Dash

Smit
Patel

Uriel
Correa

Wardah
Rafaqat

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Nowogrodski

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Rakhecha

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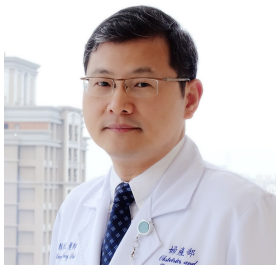
Huang



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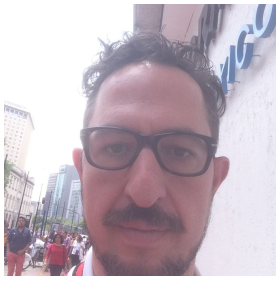

Joaquin
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Marie
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Nathan
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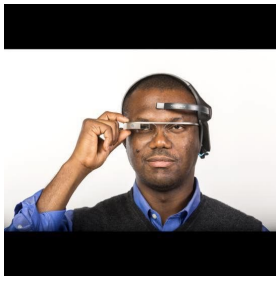

Zuby
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Aastha
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Alejandro
Chardon Torres

Brett
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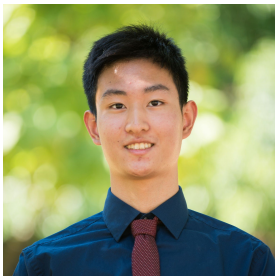

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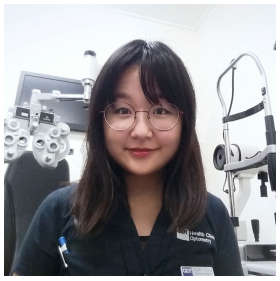

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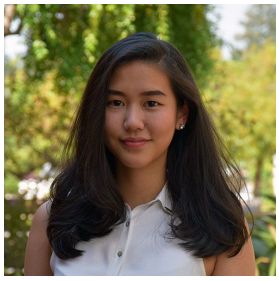

Tiara
Hudyana

Tessa Wei Ling
Kwek

William
Spalla

Yael
Alroy