2013 MIT Innovations in Health Care Conference

Day 1 Tuesday, December 3 | MIT Campus

7:30 Registration & Continental Breakfast
8:00 Welcome & Introduction
8:10 Opening Remarks Martin Schmidt

Morning Sessions: Accelerating Innovation

8:30 Accelerating Systems Thinking in Health Systems via Collaboration with Academia Retsef Levi
8:45 MIT Healthcare Ventures’ Process for Rapid Design, Data & Validation Zen Chu
9:00 Panel: Accelerating Innovation within Accountable Care Organizations (Panel Chairs: Professors Retsef Levi and Joe Doyle)
Jay Levine (Moderator), Kenneth Paulus, Roy Smythe, David Torchiana, Zen Chu, Dana Safran

The Affordable Care Act has created a series of imperatives for healthcare delivery systems to identify and adopt innovative approaches for improving the quality of care delivered to Americans, while providing such care in a more efficient and cost effective manner. Moreover, they face the enormous challenge, shaped by health reform, to transform from healthcare delivery systems to health delivery systems that proactively manage the health of large patient populations. While still an evolving concept, Accountable Care Organizations (ACOs) will play a key role in the emerging design of contemporary health delivery systems in the US. The on-the-ground implementation of ACOs will require potentially transformative innovation on multiple levels (organizational, operational, clinical, IT and analytics and financial to name a few).

This panel will discuss some of the major innovation domains necessary for the success of ACOs to address these challenges, with focus on the potentially critical advantages that can accrue from collaboration with academia outside of medicine and traditional academic medical centers. Such collaboration can accelerate the transformation of our healthcare delivery system into the kind of high quality and cost-effective health delivery systems that are envisioned by health reform.

10:30 Break
11:00 Keynote Robert J. Master
11:30 Introduction to Innovators Showcase (Session Chair: Janet Wilkinson)

MIT students, faculty, researchers, and alumni will display their most innovative projects in health and healthcare during the lunch session. Each project will be displayed as a
poster or at a table with product prototypes. All attendees have the opportunity to speak with presenters of these innovative projects. Projects may include a wide variety of topics including: healthcare delivery in low-resource settings; reducing wait times in an emergency department; modeling accountable care organizations (ACOs); software designed to manage family health costs and care; robotics in surgery; new devices for health care; organizational redesign models in hospitals and clinics; latest developments in electronic medical records (EMR) or healthcare information technology (HIT); Telemedicine; etc.

**Transition to Marriott Hotel**

11:40 Lunch and Innovators Showcase of Health Projects
Marriott Cambridge

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**Afternoon Session:**

**Lessons from Global Health and Healthcare in the Community**

1:15 **Panel: Doing More with Less: Global Health Lessons from the Front Lines of Care Delivery** (Panel Chair: Anjali Sastry)

*Anjali Sastry (Moderator), Heidi L. Behforouz, Lincoln C. Chen, Charlie Hough, Rebecca Weintraub*

Modern medicine could reduce disease greatly, yet fails to reach millions. To explore how innovations in management help address the constraints, we'll consider several different approaches to delivering healthcare in low-resource settings. All address the core challenge of adherence to treatment, taking a larger view of healthcare that encompasses some of the supports thought to enable patients to initiate and maintain treatment for common conditions. We'll link the discussion to the US, drawing contrasts and parallels across settings to see if innovations in care delivery could flow both ways.

3:00 Break

3:30 **Panel: Health and Healthcare - Beyond the Hospital and Clinic** (Panel Chairs: Professors Retsef Levi and Amy Glasmeier)

*Amy Glasmeier (Moderator), Nancy J. Gagliano, Jennifer Langer Jacobs, Myechia Minter-Jordan, Kevin Tabb*

The Affordable Care Act is changing the landscape of health care provision within the existing system of care and with it the value propositions of major health care providers. Organizations within the health care market place are facing numerous options including staying the course given their chosen market segment, reshaping their strategy in response to new competitors with emergent organizational forms, while others are forming into network structures which support economies of scale and scope without the burden of new fixed assets. Factors shaping strategic options include economies of scale, barriers to entry and exit, the mandate to serve new client populations, a pre-existing regulatory structure, and a spatially explicit system of care constrained by distance between patient and provider. This panel engages industry participants in a conversation about value propositions and their meaning given this new era of care.

5:00 **Awarding of Prizes for Innovators Showcase**

5:15 **Reception and Networking**
2013 MIT Innovations in Health Care Conference

Day 2  Wednesday, December 4  |  MIT Campus

7:30  Registration & Continental Breakfast

8:00  Morning Welcome  David Schmittlein

Morning Sessions: Organizational Changes and Health Care Analytics

8:15  Keynote  Gary L. Gottlieb

8:45  Panel: Managing Organizational Changes in Health Care Systems  (Panel Chairs: Professors Katherine Kellogg and Thomas Kochan)
Katherine Kellogg (Moderator), Thomas Kochan (Speaker), John August, Carla Bettano, Rushika Fernandopulle, Robert Schreiner
There is growing consensus that serving the new populations of patients covered under the Affordable Care Act will require reliance on community and home care and staffing models that mix teams of nurses, social workers, physicians, community navigators and other professionals. This will require fundamental transformations in organizational structures, cultures, practices and staffing patterns in many existing health care providers that seek to serve these populations. At the same time, a number of organizations, large and small, are already delivering care in these new ways with delivery models and staffing configurations tailored to the needs of these populations. This panel will bring together leaders of health care providers working to transform their organizations and staffing mix to provide community and home based care with organizations specifically designed for this purpose. Panelists will share lessons learned to date in serving these patient populations.

10:15  Break

10:30  Panel: Health Care Analytics in Action  (Panel Chairs: Professors Joseph Doyle and Dimitris Bertsimas)
Stephen Sofoul (Moderator), Dimitris Bertsimas (Speaker), Amy Finkelstein (Speaker), William H. Crown, Joseph Doyle, Anna McCollister-Slipp, Corbin Petro, Charlie Schick
This panel considers the current opportunities and challenges in using large data sets to improve the delivery of health care: improving patient health and provider efficiency. This includes clinical data collected by providers, claims data collected by payers, and self-monitoring data collected by individuals and monitored by providers.

12:15  Keynote  Jeffrey Brenner

12:45  Box lunch and conference adjournment
Maria T. Zuber is the Vice President for Research and the E. A. Griswold Professor of Geophysics at the Massachusetts Institute of Technology. Previously, she served as the Head of the Department of Earth, Atmospheric, and Planetary Sciences at MIT.

Professor Zuber has been involved with more than half a dozen NASA planetary missions aimed at mapping the Moon, Mars, Mercury, and several asteroids. She is currently the Principal Investigator for NASA's Gravity Recovery and Interior Laboratory (GRAIL) Mission, which is measuring the gravitational field of the Moon in order to reveal its internal structure and thermal history.

She holds a BA in Astronomy and Geology from the University of Pennsylvania and an ScM and PhD in Geophysics from Brown University.

Professor Zuber is a member of the National Academy of Sciences and American Philosophical Society, and is a fellow of the American Academy of Arts and Sciences, the American Association for the Advancement of Science, the Geological Society of America, and the American Geophysical Union, where she served as president of the Planetary Sciences Section.

She has won numerous awards including the MIT James R. Killian Jr. Faculty Achievement Award, NASA's Outstanding Scientific Achievement Medal, Distinguished Public Service Medal, and Outstanding Public Leadership Medal, as well as the American Geophysical Union Harry H. Hess Medal, the Geological Society of America G.K. Gilbert Award, and the American Astronautical Society/Planetary Society Carl Sagan Memorial Award.

In 2004 Professor Zuber served on the Presidential Commission on the Implementation of United States Space Exploration Policy. In 2008 she was named to the USNews/Harvard Kennedy School List of America's Best Leaders and in 2013 President Obama appointed Professor Zuber to the National Science Board.
Rear Admiral (RADM) Boris D. Lushniak, MD, MPH, is the Acting United States Surgeon General. Dr. Lushniak articulates the best available scientific information to the public regarding ways to improve personal health and the health of the Nation. He also oversees the operations of the U.S. Public Health Service (USPHS) Commissioned Corps, comprised of approximately 6,700 uniformed health officers who serve in locations around the world to promote, protect, and advance the health and safety of our Nation.

Dr. Lushniak served as Deputy Surgeon General from November 2010, until July 17, 2013, when he assumed the duties of Acting Surgeon General.

RADM Lushniak was introduced to the USPHS in 1983 as a senior medical student when he completed an elective with the Indian Health Service in Winslow, Arizona. He began his USPHS career in 1988 as a Lieutenant, entering the service as part of the Epidemic Intelligence Service (EIS) at the Centers for Disease Control and Prevention (CDC) and initially was stationed with the CDC’s National Institute for Occupational Safety and Health (NIOSH) in Cincinnati, Ohio where he conducted epidemiological investigations of workplace hazards. In 1990 he was accepted for CDC's long term training program and completed a three year residency in dermatology at the University of Cincinnati after which he established an occupational skin disease program at NIOSH. During his time at CDC he also served on special assignments and disaster response activities in Bangladesh, St. Croix, Russia, and Kosovo, was part of the CDC/NIOSH team at Ground Zero (World Trade Center) and part of the CDC team investigating the anthrax attacks in Washington, DC. In 2004 he transitioned from CDC to the Food and Drug Administration (FDA) as the Chief Medical Officer of the Office of Counterterrorism and was appointed FDA Assistant Commissioner in 2005. While at FDA he was deployed after Hurricane Katrina to serve as the Department of Health and Human Services representative in San Antonio and also served as the FDA Deputy Incident Commander for the 2009 pandemic response. He was promoted to Rear Admiral, Lower Half in 2006 and attained the rank of Rear Admiral, Upper Half in 2010. In 2010 RADM Lushniak completed his tour with the FDA as the FDA Assistant Commissioner, Counterterrorism Policy and Director of the Office of Counterterrorism and Emerging Threats within the Office of the Commissioner.

Dr. Lushniak was born in Chicago to post-World War II immigrants from Ukraine. He was admitted to the six-year Honors Program in Medical Education at Northwestern University and completed his Bachelor of Science degree in Medical Sciences in 1981 and obtained his medical degree (MD) in 1983. In 1984 he completed the Masters of Public Health (MPH) degree at Harvard University. He completed a residency in family medicine in 1987 at St Joseph Hospital in Chicago and a residency in dermatology at the University of Cincinnati in 1993. RADM Lushniak maintains board certifications in dermatology and preventive medicine (occupational). He served as a staff physician in dermatology.
at the National Naval Medical Center in Bethesda and is adjunct professor of dermatology at the Uniformed Service University of the Health Sciences.

RADM Lushniak served as the co-executive director of the USPHS Music Ensemble from 2007-2011 and is a member of many professional organizations including the American Medical Association (AMA), the American Academy of Dermatology, the American College of Preventive Medicine, the American Dermatological Association, the American Contact Dermatitis Society, the Association of Military Surgeons of the United States (AMSUS), and the Ukrainian Medical Association of North America. He has received numerous USPHS awards including the Exemplary Service Medal, two Outstanding Service Medals, a Commendation Medal, and two Achievement Awards. In addition he has received the AMA Dr. William Beaumont Award in Medicine and the AMSUS Sustaining Member Lecture Award as well as DHHS Secretary and FDA Commissioner Awards.

A firm believer in leadership by example, RADM Lushniak also promotes the core messages of the National Prevention Strategy via his active lifestyle. He is an avid long-distance bicyclist, runner and hiker. In 2013, he scaled the summit of the most heavily-glaciated peak in the United States, Washington’s 14-thousand foot Mount Rainier. He also leads community Surgeon General's Walks throughout the United States. He resides in Rockville, Maryland with his wife Dr. Patricia Cusumano and two daughters Larissa and Stephanie.