Health Sciences & Semiconductors (HS+S): Shaping the Future of Personalized Healthcare

Thursday, November 20, 2025
The Broad Institute of Harvard & MIT
415 Main Street, Cambridge, MA

Agenda:

9:30 **Breakfast & Registration**

Session I | 10:00am - 12:00pm

10:00 **Opening Remarks** - Tomas Palacios, *Director, Microsystems Technology Laboratories (MTL); Clarence J. LeBel Professor, Electrical Engineering & Computer Science (EECS), MIT*

Visionary Remarks - Ahmad, Bahai, *Professor of the Practice, EECS, MIT; CTO, Texas Instruments*

10:20 **Keynote | Patient Monitoring at the Intersection of Computing, AI, and Devices**
Aaron Aguirre, *Cardiologist & Critical Care Physician, MGH; Assistant Professor of Medicine, HMS*
Moderated by Alex K. Shalek, *Director, IMES; J.W. Kieckhefer Professor, IMES, Chemistry, and Koch Institute for Integrative Cancer Research (KI); Institute Member, Broad Institute of MIT & Harvard; Member, Ragon Institute*

10:45 **Keynote** | Faisal Mahmood, *Associate Professor, Pathology, HMS, BWH*
Moderated by Alex K. Shalek

11:10 **Panel | Frontiers in Computation: Leveraging AI & Medical Devices to Drive Impact**
Polina Golland, *Sunlin (1966) and Priscilla Chou Professor, EECS; PI, Computer Science and Artificial Intelligence Laboratory (CSAIL), MIT*
Mahnaz Maddah, *Director, Machine Learning for Health (ML4H), Broad Institute of MIT & Harvard*
David Sontag, *Hermann L. F. von Helmholtz Professor, IMES, EECS, CSAIL, MIT*
Moderated by Ahmad Bahai

Networking Lunch | 11:55pm - 1:00pm

Session II | 1:00pm - 2:30pm

1:00 **Keynote | Sensing the Future: How Data and AI are Rewiring Human Health**
Alex Vannoni, *Head of Healthcare Product, WHOOP*
Moderated by Alex K. Shalek

1:25 **Panel | Creating Impact Through Venturing Pathways: From R&D to Commercialization**
Marcie Black, *CEO & Co-Founder, Advanced Silicon Group*
Olivier Rousseaux, *Director, Venture Development, imec*
Tom Ruby, *Senior Principal, Flagship Pioneering*
Craig Smith, *Senior Director, Boston Scientific*
Moderated by Roozbeh Parsa, *Head of Venturing Acceleration & Ecosystems (US), imec*

2:15 **Visionary Remarks: The Massachusetts Opportunity** - Ben Linville-Engler, *Deputy Director and Chief Investment Strategist, Massachusetts Technology Collaborative*

Coffee Break | 2:30pm - 3:15pm

Session III | 3:15pm - 5:00pm

3:15 **Circuits to Care: Collaborative Innovation at the Intersection of Semiconductors and Health**
Veerle Reumers, *Head of Health, imec USA*

3:30 **Lightning Talk | New chemistry for single molecule sensing with solid state nanopores**
Jeremiah Johnson, *Professor & Associate Department Head, Department of Chemistry, MIT; Associate Member, Broad Institute of MIT & Harvard*
Sanjin Marion, *Principal Member of Technical Staff, imec*
Moderated by Veerle Reumers

3:45 **Lightning Talk | Non-invasive Hemoglobin Quantification with Photo Acoustics**
Brian Anthony, *Principal Research Scientist & Director, MIT; Associate Director, MIT.nano*
Hilde Jans, *ImageOpt Team Manager & Project Manager, imec*
Moderated by Veerle Reumers

4:00 **Panel | Perspectives & Opportunities from the Clinic**
Joe Frassica, *Professor of the Practice; Executive Director, Hood Pediatric Innovation Hub, MIT*
Bruce Levy, *Chair, Department of Medicine; Chief, Division of Pulmonary & Critical Care Medicine, MGB; Professor, HMS*
Collin M. Stultz, *Nina T. and Robert H. Rubin Professor in Medical Engineering and Science; Professor, EECS; Co-Director, Harvard-MIT Division of Health Sciences and Technology (HST); MIT Division of Cardiovascular Medicine MGH*
Alexi Wright, *Dana Farber Cancer Institute; Associate Professor, HMS*
Moderated by Erin McKenna, *Head of Medical Devices & Operating Partner, Amplify Program, MGB*

4:45 Closing Remarks - Alex K. Shalek

Reception | 5:00pm – 6:30pm