Engineering Innovation for Clinical Impact

November 21, 2016

Cutting-edge engineering innovations advancing the delivery of high-value healthcare will be presented in four thematic panels:

- Novel Frameworks for Driving Decisions Using Data
- Systems Engineering Approaches to Improved Care Delivery
- Engineering Innovations for Interventional Medicine
- Patient-Centered Design Engineering
8:00 a.m.  Registration

8:30 a.m.  **Introductory Session: Welcoming Remarks**
T.E. Schlesinger, Benjamin T. Rome Dean, Whiting School of Engineering, Johns Hopkins University
Michael J. Klag, Dean, Bloomberg School of Public Health, Johns Hopkins University

8:45 a.m.  **Engineering in Healthcare: Framing the Opportunities**
Gregory D. Hager, Director, Malone Center for Engineering in Healthcare, Mandell Bellmore Professor, Department of Computer Science, Johns Hopkins University

9:10 a.m.  **Panel 1: Novel Frameworks for Driving Decisions Using Data**
*Moderators:*
Suchi Saria, Assistant Professor, Department of Computer Science, Johns Hopkins University
Brian S. Caffo, Professor, Department of Biostatistics, Johns Hopkins University

*Panelists:*
Artur Dubrawski, Director, Auton Lab, Carnegie Mellon University
Marilyn Hravnak, Professor and PhD Program Director, School of Nursing, University of Pittsburgh
Katherine Heller, Assistant Professor, Department of Statistical Science, Duke University
Lee Hartsell, Assistant Professor, Department of Neurology, Duke University
Nilanjan Chatterjee, Bloomberg Distinguished Professor, Department of Biostatistics, Johns Hopkins University

10:30 a.m.  Break

10:50 a.m.  **Panel 2: Systems Engineering Approaches to Improved Care Delivery**
*Moderator:*
Sauleh Siddiqui, Assistant Professor, Department of Civil Engineering, Johns Hopkins University

*Panelists:*
Brian Denton, Professor, Department of Industrial and Operations Engineering and Department of Urology, University of Michigan
Rollin J. “Terry” Fairbanks, Director of the National Center for Human Factors in Healthcare, Associate Director, MedStar Institute for Innovation
Scott Levin, Associate Professor, Assistant Director for Research, Department of Emergency Medicine, Johns Hopkins University

12:10 p.m.  **Remarks and Introduction**
Antony Rosen, Vice Dean for Research, Professor of Medicine, Johns Hopkins University, School of Medicine

12:15 p.m.  **Engineering in Healthcare: Pathways to Clinical Impact**
Peter Pronovost, Senior Vice President for Patient Safety and Quality, Director of the Armstrong Institute for Patient Safety and Quality, Johns Hopkins Medicine
12:45 p.m.  Lunch

1:40 p.m.  Remarks and Introduction

Gregory D. Hager, Director, Malone Center for Engineering in Healthcare, Mandell Bellmore Professor, Department of Computer Science, Johns Hopkins University

1:45 p.m.  Engineering in Healthcare: An Industry Perspective

Simon DiMaio, Senior Manager, Research and Advanced Systems Development, Intuitive Surgical, Inc.

2:15 p.m.  Panel 3: Engineering Innovations for Interventional Medicine

Moderator:
Russell H. Taylor, John C. Malone Professor, Department of Computer Science, Johns Hopkins University

Panelists:
Thomas M. Krummel, Emile Holman Professor and Chair Emeritus, Department of Surgery, Stanford University School of Medicine, Susan B. Ford Surgeon-in-Chief, Lucile Packard Children’s Hospital at Stanford, Co-Director, Stanford Byers Center for Biodesign

Nabil Simaan, Associate Professor, Department of Mechanical Engineering, Associate Professor of Otolaryngology, Vanderbilt University

Jeffrey H. Siewerdsen, Professor of Biomedical Engineering, Director of the Carnegie Center for Surgical Innovation, Johns Hopkins University

Mehran Armand, Associate Research Professor, Department of Mechanical Engineering, Senior Scientist, Applied Physics Laboratory, Johns Hopkins University

3:35 p.m.  Break

3:50 p.m.  Panel 4: Patient-Centered Design Engineering

Moderator:
John Krakauer, Director, the Center for the Study of Motor Learning and Brain Repair, Professor, Department of Neurology, Johns Hopkins University

Panelists:
Bilge Mutlu, Associate Professor, Department of Computer Science, University of Wisconsin-Madison

Andrea Grimes Parker, Assistant Professor, College of Computer and Information Science, Bouvé College of Health Sciences, Northeastern University

Omar Ahmad, Director of Innovative Engineering, Department of Neurology, Johns Hopkins University

5:15 p.m.  Closing Remarks

Landon Stuart King, Executive Vice Dean, School of Medicine, Johns Hopkins University

5:30 p.m.  Reception and Poster Presentations
THANK YOU

The Malone Center for Engineering in Healthcare gratefully acknowledges the support of Paul Maritz for making the live streaming and video archival of this symposium possible.