

Roundtable on Biomedical Engineering Materials and Applications

Agenda

The National Academies

Keck Center Room 208

November 6, 2017

“Improving Efficiencies in Clinical and Pre-Clinical Studies through Modeling”

Sunday, November 5

Working Dinner (Chop House Restaurant, 509 7th St., NW. Washington DC)

6:00 pm Marvin Slepian, University of Arizona
“Computational Modeling in Cardiovascular Device Development: The in vivo-in silico--in vitro cycle, A case study in VADs and Thrombosis”

Monday, November 6

8:00 a.m. Breakfast

8:30 a.m. Welcome and Introductions
Becky Bergman, Art Coury, BEMA Co-Chairs

8:50 a.m. Dinner presentation recap

9:05 a.m. Grace Peng, National Institute of Biomedical Imaging & Bioengineering
“The Interagency Modeling and Analysis Group (IMAG) & the Multiscale Modeling (MSM) Consortium”

9:55 a.m. Craig Myers, Medtronic Vascular
“Endurant Evo Clinical Trial Failures: A Challenge of Worst Case Assumptions”

10:45 a.m. Break

11:00 a.m. Robert Miller, Sigilon Therapeutics
“Use of modeling verify the effectiveness of Sigilon technology in minimizing the inflammatory response to foreign body implants”

11:50 a.m. Lunch

12:30 p.m. Mark Palmer, Medtronic
“The In Silico Patient: Successes, Opportunities, and Practical Considerations”

- 1:20 p.m. Ali Mazalek, Ryerson University
“Grasping the Numerical World: Bringing Bioinformatics Out of the Box”
- 2:10 p.m. Break
- 2:20 p.m. Leonardo Angelone, FDA
“Computational Modeling & Measurements for Electromagnetic Safety in MRI: a regulatory science perspective”
- 3:10 p.m. Tina Morrison, FDA
“Modeling and Simulation Approaches: Enhancing Certainty, Reducing Animal In Vivo Studies, Speeding Development”
- 4:00 p.m. Rapporteur Report, Nathaniel Kinsey, Virginia Commonwealth University
- 4:20 p.m. General Discussion and future meeting planning
- 4:50 p.m. Adjourn