

Agenda

Day 1: Wednesday October 2

8:00 – 8:30am: Check-In, Set up Posters

8:30 – 8:45am: Welcome from IMAG

8:45 – 9:00am: Using the IMAG Wiki during this meeting—Stephanie Sabourin

9:00 – 9:30am: Introduction to the Meeting Themes—Theme Leads

9:30 – 10:30am: THEME: [MSM in Drug Discovery and Development](#)—David D'Argenio

9:30-9:35: Systems Pharmacology as an Integrating Framework for Drug Discovery and Development

David D'Argenio, University of Southern California

9:35-10:00: Models of Drug Action Incorporating Genomic Epigenomic Information

Donald Mager, University of Buffalo, SUNY

10:00-10:15: Predicting the Emergent Effects of Antiarrhythmic Drugs on Cardiac Rhythms

Colleen Clancy, University of California Davis

10:15-10:30: Anti-angiogenic Cancer Therapies Targeting the VEGF Pathway

Stacey Finley, University of Southern California

10:30 – 11:00am: Refreshments* and [Poster Viewing](#)

11:00 – 12:00pm: THEME: [Model-based Physiomarkers](#)—Vasilis Marmarelis

11:00-11:05: Introduction: Motivation and potential clinical utility of model-based Physiomarkers.

11:05-11:20: Case Study 1: Deriving Novel Physiomarkers of Therapeutic Outcomes from Patient-Specific Models of the Failing Heart

Andrew McCulloch, Univ. of California San Diego

11:20-11:35: Case Study 2: Translational Systems Biology of Systemic Inflammation: Addressing the Translational Dilemma by generating clinically relevant phenotypes with multi-scale dynamic modeling

Gary An, University of Chicago

11:35-11:50: Case Study 3: Model-based physiomarkers of vasomotor reactivity for diagnosis of early-stage Alzheimer's disease.

Vasilis Marmarelis, University of Southern California

11:50-12:00: Discussion

12:00 – 12:45pm: Lunch on your own (Lister Hill or Natcher, Bldg. 45)

12:45 – 1:45pm: Working Group Breakout sessions

Lister Hill Auditorium—[Multiscale Systems Biology](#); [Population Modeling](#); [High Performance Computing](#)

Lister Hill Alcove—[Biomechanics](#)

Bldg. 45 Rm B—[Model & Data Sharing](#) ([Index of Predictive Models](#)); [Clinical & Translational Issues](#) ([Credible Practice of Modeling & Simulation](#))

Bldg. 45 Rm D—[Theoretical & Computational Methods](#)

Bldg. 45 Rm H—[Computational Neuroscience](#)

Bldg. 45 Rm J—[Cell-to-Macroscale](#)

Lobby Lister Hill - [ImuBEAM](#)

1:45 – 2:00pm: (Return to Lister Hill Auditorium)

2:00 – 3:30pm: THEME: [Multicellular Tissue Models](#)—Herbert Sauro

2:05-2:30pm: Introduction

2:05-2:30pm: Different approaches to modeling multicellular systems, their pros and cons, including published examples and the CompuCell3D based system.
Maciej Swat, Indiana University

2:30-2:55pm: Critical multiscale modeling issues: from model uses to implementations and beyond
Tony Hunt, University of California, San Francisco

2:55-3:10pm: Position talk on reproducibility in physiological and multicellular models
Jim Bassingthwaite, University of Washington

3:10-3:30pm: Discussion

3:30–5:00pm: Refreshments* and [Poster Viewing](#)

5:00-5:30pm: [Index of Predictive Models](#) & [Model Sharing through Publications](#)

Herbert Sauro, Grace Peng

5:30-6:00pm: [Committee on Credible Practice of Modeling & Simulation in Healthcare](#)

Lealem Mulugeta, Ahmet Erdemir

6:30pm: Group Dinner at Vapiano's Bethesda

Day 2: Thursday, October 3

8:00 – 8:30am: Check-In

8:30 – 9:00am: Intro to Day 2

9:00 – 10:30am: THEME: [The BRAIN Initiative and its links to MSM](#)—Bill Lytton, Raj Vadigepalli

9:00-9:05: Introduction

9:05-9:35: **Keynote: Terry Sejnowski, NIH BRAIN Working Group**

9:35-10:00: Government Panel: Government Perspective

10:00-10:30: Discussion

10:30 – 11:00am: Refreshments* and [Poster Viewing](#)

11:00 – 12:00pm: THEME: [Public Health and Behavioral Modeling](#)—Alison Galvani, Madhav Marathe

12:00 – 12:45pm: Lunch on your own (Lister Hill or Natcher, Bldg. 45)

12:45-1:45pm: **Theme** Breakout sessions (Lister Hill and Natcher Rooms B, D, H, J)

Lister Hill Auditorium—[Multicellular Tissue Models Theme](#)

Bldg. 45 Rm B—[Model-Based Physiometers Theme](#)

Bldg. 45 Rm D—[The BRAIN Initiative and its links to MSM Theme](#)

Bldg. 45 Rm H—[Public Health and Behavioral Modeling Theme](#)

Bldg. 45 Rm J—[MSM in Drug Discovery and Development Theme](#)

1:45-2:00pm: (Return to Lister Hill Auditorium)

2:00-3:00pm: Report back on **Theme** breakouts (Lister Hill Auditorium)

3:00 – 4:00pm: **MSM Consortium Discussion**

- MSM Consortium Goals and Structure—Grace Peng
- IMAG and MSM Website & Wiki update – Stephanie Sabourin, IMAG wikimaster
- Plans for 2014 Consortium meeting—All
- Highlights from **Working Group** breakouts—2013 WG leads
- New WGs for 2014—All

4:00 – 4:30pm: **\$\$\$Funding\$\$\$, \$\$\$Funding\$\$\$, \$\$\$Funding\$\$\$ Pep Rally**—IMAG

[Update on the latest initiatives](#)

4:30pm: Meeting Adjourn

**Refreshments courtesy of the IEEE EMBS – Thank You!*