



Center for Multiscale Imaging of Brain Function

Brain Technology And Modeling (TeAM) event

Meeting Agenda

The Booker Conference Room Jacobs Hall (EBU1) #2512

Wednesday June 22, 2016

9:00am-9:10am Welcome Address
Anna Devor (Co-Director for the Center for Multiscale Imaging of Brain Function, UCSD)

Session I: Bridging across scales, measurement modalities, & from circuits to behavior

9:10am-9:40am *Anders Dale (Neurosciences ad Radiology, UCSD)*
Relating noninvasive electric/magnetic, optical, and MRI signals to the underlying neuronal biophysics

9:40am-9:50am Q&A

9:50am-10:20am *Gabriel Silva (Bioengineering and Ophthalmology, UCSD)*
Dynamic functional connectomics: Deriving causal information flow from the structural connectome

10:20am-10:30am Q&A

10:30am-10:45am **BREAK - Coffee and tea**

Session II: Neuroelectrical instrumentation & electrical signal processing

10:45am-11:15am *Patrick Mercier (ECE, UCSD)*
Modular neuroelectrical interfacing devices that integrate electrodes with amplifiers and wireless telemetry

11:15am-11:25am Q&A

11:25am-11:55am *Vikash Gilja (ECE, UCSD)*
Leveraging novel neurorecording and manipulation technologies to develop high performance closed-loop brain machine interfaces

11:55am-12:05pm Q&A

12:05pm-12:30pm **LUNCH**

Session III: Modeling of optical and fMRI data

- 12:30pm-12:50pm *Svenn-Arne Dragly (University of Oslo, Norway)*
Photonflow: an open-source fluorescence microscopy simulator
- 12:50pm-1:00pm Q&A
- 1:00pm-1:20pm *Marte Julie Sætra (University of Oslo, Norway)*
Estimation of oxygen consumption from periarteriolar pO₂ measurements
- 1:20pm-1:30pm Q&A
- 1:30pm-2:00pm *Richard Buxton (Radiology, UCSD)*
Bridging the gap between microscopic measurements and noninvasive quantitative fMRI measurements in humans
- 2:00pm-2:10pm Q&A
- 2:10pm-2:25am **BREAK - Coffee and tea**

Discussion and Conclusions

- 2:25pm-3:00pm *Feedback from members of the Advisory Committee and general discussion*
- 3:00pm-3:10pm *Conclusions*