



Meeting Agenda

The Booker Conference Room Jacobs Hall (EBU1) #2512

Thursday March 24, 2016

- 9:00am-9:10am Welcome Address
Anna Devor (Co-Director for the Center for Multiscale Imaging of Brain Function)
- 9:10am-9:40am Plenary Address: *Status of imaging of brain activity with microscopic resolution on volumetric scales*
David Kleinfeld (Distinguished Professor, Member of the American Academy of Arts and Sciences)

Session I: Probes and Sensors

- 9:40am-10:00am *Varoth Lilascharoen*, PhD candidate (Lim)
Intersectional strategies for genetic labeling of neuronal populations in a cell-type and projection-specific manner
- 10:00am-10:20am *Conrad Foo*, PhD candidate (Kleinfeld)
Cell-based neurotransmitter fluorescent engineered reporters (CNiFERs) for neurotransmitters
- 10:20am-10:40am *Clifford Woodford*, PhD candidate (Tsien)
Synthetic and hybrid probes for optical sensing of voltage in neurons
- 10:40am-11:00am *Matthieu Vandenberghe*, postdoctoral trainee (Devor)
Two-photon imaging of the membrane potential *in vitro* and *in vivo*
- 11:00am-11:20am **BREAK - Coffee and tea**

Session II: Optical Instrumentation and Imaging

- 11:20am-11:40am *Mu-Han Yang*, PhD candidate & *Christopher Ferri*, postdoctoral trainee (Fainman/Devor)
Non-degenerate 2-photon excitation for deep imaging with high resolution
- 11:40am-12:00pm *Céline Matéo*, postdoctoral trainee (Kleinfeld)
Ultra-large field-of-view two-photon microscopy for investigation of ongoing neurovascular activity

12:00pm-12:20pm *Michele Desjardins*, postdoctoral trainee (Devor)
From activity of specific neuronal cell types to hemodynamics

Session III: Electrodes

12:20pm-12:40pm *Hongming Lyu*, postdoctoral trainee (Kuzum)
Transparent and flexible 2D graphene electrode arrays for simultaneous electrophysiology and neuroimaging

12:40pm-1:00pm *Shadi Dayeh* (Dayeh)
Flexible, conformal, and minimally invasive 1D electrodes

1:00pm-1:30pm **LUNCH**

Discussion and Conclusions

1:30pm-2:00pm *Feedback from members of the Advisory Committee and general discussion*

2:00pm-2:10pm *Conclusions*