



2015 UC BERKELEY NEUROSCIENCE ANNUAL CONFERENCE

Granlibakken Conference Center

SEPTEMBER 25 - 27, 2015

FRIDAY, SEPTEMBER 25

2:00 - 3:30 PM: Arrival and Registration

3:00 - 3:30 PM: Poster set-up in Bay Room

3:30 - 5:00 PM: Poster Session in Bay Room

Adesnik Lab

Greg Telian

"Multiwhisker integration in barrel cortex during active sensation"

Elena Ryapolova-Webb

"Exploring the role of posterior medial nucleus in the whisker system"

Julia Veit

"Somatostatin neurons generate visually evoked gamma rhythms in the visual cortex and link global stimulus features"

Richard Hakim

"Somatostatin inhibitory neurons mediate recurrent layer gamma rhythms in the visual cortex"

Bateup Lab

Andrew Ward

"Probing the effect of mTOR disruptions on neuronal signaling"

Bunge Lab

Ariel Starr

"The role of non-numerical stimulus features in the development of the number sense"

Carmena Lab

Samantha Summerson

"Stimulation in Primate Caudate Nucleus Modulates Action Selection in Probabilistic Reward Task"

D'Esposito Lab

Elizabeth Lorenc

"Disruption of prefrontal cortical function with TMS disrupts goal-directed visual processing"

DeWeese Lab

Jessey Liveszey

"Local Learning Rules for Sparse Coding"



Feldman Lab

Keven Laboy

"Representation of two-whisker sequences in L2/3 of mouse S1"

Feller Lab

Ryan Morrie

"Identifying Inhibitory Synaptic Sites in the Retina's Direction Selective Circuit"

David Arroyo

"Spontaneous cholinergic activity modulate gap junction coupling in ganglion cell photoreceptors"

Flannery Lab

Cameron Baker

"ChR2 activation in Müller cells alters retinal light response"

Flannery/Schaffer Lab

Tim Day

"Characterization of CRB1 gene therapy in a retinal degeneration mouse model"

Griffiths Lab

Falk Lieder

"Cognitive control over decision making"

Isacoff Lab

Claire Oldfield

"Experience shapes prey capture behavior and neural representations in larval zebrafish"

Drew Friedmann

"Intrinsic photoregulation of activity and development in the zebrafish spinal cord"

Kramer Lab

Zachary Helft

"How azobenzene photoswitches bestow degeneration-dependent light sensitivity on blind retina"

Miller Lab

Julia Lazzari-Dean

"Fluorescence lifetime measurements of absolute membrane potential"

Pei Liu

"Developing a genetically controlled voltagefluor sensor"

Silver Lab

Adeola Harewood

"Visual field shape and critical spacing in visual crowding"

Sommer Lab

Charles Frye

"Sparsification of spontaneous activations in mouse neocortex across development"



Alex Bujan

"Sparse representations in sensorimotor cortex during speech production"

Yartsev Lab

Heidi Kleven

"Organisation of entorhinal-hippocampal projections in the Egyptian fruit bat (Rousettus aegyptiacus)"

5:00 - 6:45 PM: 1st Session in Mountain-Lake Room

5:00 - 5:30 - **Michael Yartsev**

"Neural Basis of Complex Spatial and Acoustic Behaviors - in bats"

5:35 - 5:55 - **Nick Jourjine** (Scott lab)

"Coordinated regulation of thirst and hunger in Drosophila"

6:00 - 6:20 - **Sebastian Markett** (D'Esposito lab)

"Serotonin and the brain's rich club - association between molecular genetic " variation on the TPH2 gene and the structural connectome"

6:25 - 6:45 - **Alex Naka** (Adesnik lab)

"A direct translaminar circuit tunes cortical output"

7:00 - 8:00 PM: Dinner in Granhall

8:05 - 10:00 PM: 2nd Session in Mountain-Lake Room

8:05 - 8:10 - **Barbara Peterson** - **Opening Remarks**

8:10 - 8:40 - **Udi Isacoff** - **Welcome**

8:45 - 10:00 **3rd Year Data Slam**

10:00 PM - 1:00 AM: Social in Ski Hut



SATURDAY, SEPTEMBER 26

7:30-9:00 AM: Breakfast in Granhall

9:00 AM to 10:20 AM: 3rd Session in Mountain-Lake Room

9:00 - 9:30 - **Marla Feller**

"You are what you see — a surprising form of plasticity in the retina"

9:35 - 9:55 - **Alison Walker** (Miller lab)

"BeRST 1: A novel near infra-red voltage sensor"

10:00 - 10:20 - **Jesse Livezey** (DeWeese lab)

"Classifying spoken syllables from human sensorimotor cortex with deep networks"

10:25 - 10:45 AM: Coffee Break

10:45 AM to 11:55 AM: 4th Session in Mountain-Lake Room

10:45 - 11:05 - **Zachary Newman** (Isacoff lab)

"Optical quantal analysis of diversity in glutamatergic synaptic transmission and plasticity at the *Drosophila* neuromuscular junction"

11:10 - 11:30 - **Julie Elie** (Theunissen lab)

"Meaning in Zebra finches vocalizations: acoustic signature and neural representations"

11:35 - 11:55 - **Ryan Neely** (Carmena lab)

"Goal-directed modulation of V1 neurons using a brain-machine interface"

12:00 - 1:00 PM: Lunch in Granhall

1:05 PM to 2:30 PM: 5th Session in Mountain-Lake Room

1:05 - 1:25 PM: - **Alex Anderson** (Olshausen lab)

"Modeling foveal vision in the presence of fixational eye movements and spiking neurons"

1:30 - 1:50 PM: - **Bristol Denlinger** (Kramer lab)

"How photoswitches work to restore visual function to the retinas of blind mice"

1:55 - 2:25 PM: - **Rich Ivry**

"System interactions in movement execution and action selection"

2:30 - 6:30 PM: Free Time! Optional group hike led by Marla Feller.

6:30 - 7:30 PM: Dinner in Granhall

7:30 - 8:30 PM: 2nd Poster Session in Bay Room

8:45 - 1:00 AM: Talent Show and Social in Ski Hut

SUNDAY, SEPTEMBER 27

7:30-10:00 AM: Breakfast in Granhall



Checkout Before 11 AM