



2014 UC BERKELEY NEUROSCIENCE ANNUAL CONFERENCE  
PAJARO DUNES RESORT  
SEPTEMBER 12 - 14, 2014

**FRIDAY, SEPTEMBER 12**

10:30 AM: Bus from UCB to Pajaro Dunes (for those who signed up)

1:00 - 1:30 PM: Arrival

**2:00 - 6:00 PM: 1<sup>st</sup> Session in Cypress House**

2:00 - 2:35 - **Diana Bautista**

"Molecular mechanisms underlying chronic itch"

2:35 - 3:00 - **Ian Greenhouse** (Ivry lab)

"Cortical GABA concentrations and motor dynamics during response preparation"

3:00 - 3:25 - **Guy Isley** (Sommer lab)

"Training spontaneous activity in recurrent neural nets"

3:25 - 3:50 - **Andrew Halley** (Deacon lab)

"Evolutionary changes in temporal schedules of embryonic neural development across mammalian species"

3:50 - 4:20 Coffee Break and registration

4:20 - 4:45 - **Claire Oldfield** (Isacoff lab)

"Practice makes perfect - a novel learning assay in larval zebrafish"

4:45 - 5:10 - **Elise Piazza** (Silver lab)

"Rapid multisensory learning influences perceptual selection during binocular rivalry"

5:10 - 5:35 - **Mike Schachter** (Theunissen lab)

"Fishing in a sea of LFPs and spikes"

5:35 - 6:10 - **Stephan Lammel**

"Multiple types and functions of midbrain dopamine neurons"

6:30 - 7:30 PM: Dinner in Lagoon House

**7:45 - 10:00 PM: 2<sup>nd</sup> session in Cypress House**

7:45 - 8:15 **Ehud Isacoff**, Director welcome

8:15 - 10:00 **3<sup>rd</sup> year students data slam** (19 students)

10:00 PM - 12:00 AM: Social at Lagoon House



## **SATURDAY, SEPTEMBER 13**

7:30-8:45 AM: Breakfast in Lagoon House

### **9:00 AM to 1:00 PM: 3<sup>rd</sup> Session in Cypress House**

9:00 - 9:25 - **Ignacio Saez** (Hsu lab)

"Pharmacological enhancement of dopamine tone promotes human egalitarian behavior"

9:25 - 9:50 - **Ryan Morrie** (Feller lab)

"Wiring Up a Direction Selective Circuit"

9:50 - 10:25 - **John Flannery**

"Engineering viral vectors for gene-based therapy"

10:25 - 10:40 AM Coffee Break

10:40 - 11:05 - **Franz Weber** (Yang Dan lab)

"A brain stem circuit regulating rapid eye movement (REM) sleep"

11:05 - 11:30 - **Doby Rahnev** (D'Esposito lab)

"The role of PFC in perception"

11:30 - 12:20 - Key Note - **Jack Gallant**

"Functional MRI doesn't have to suck"

12:30 - 1:30 PM: Lunch in Lagoon House

1:45 - 3:45 PM: Volleyball on the beach, poster set up in Lagoon House, and/or free time

4:00 - 6:00 PM: Poster Session in Terrace Room (next to Lagoon House) and Lawn

Adesnik Lab

**Alan Mardinly**

"Optically probing the neural basis of perception"

**Elena Ryapolova-Webb**

"Sensory signal transformation between barrel cortex and VPM nucleus of the thalamus"

Bateup Lab

**Katie Benthall**

"Investigating striatal E/I balance in Tsc1 KO mice"

**Andrew Ward**

"Investigating loss of inhibition in a mouse model of tuberous sclerosis"



Bautista Lab

**Carolyn Walsh**

"Molecular mechanisms underlying chronic itch"

Brooks Lab

**George Brooks**

"Direct and Indirect Brain Fueling via the Lactate Shuffle Following Severe Trauma"

Bunge Lab

**Maria Eckstein**

"Pupillometry reveals cognitive processes underlying a higher-order reasoning task"

Carmena Lab

**Ryan Neely**

"Brain-machine interface control in primary visual cortex"

Dan Lab

**Siyu Zhang**

"Long-range and local circuits for top-down modulation of visual cortical processing"

D'Esposito Lab

**Courtney Gallen**

"Task-based reorganization of brain networks in healthy aging"

DeWeese Lab

**Melissa Newton**

"Exploring the role of A1 in auditory behavior"

Feldman Lab

**Brian Isett**

"Whisker-mediated grating detection in a virtual foraging task"

Feller Lab

**Juliana Rosa**

"Developmental changes in the s-cone pathway underlying direction-selectivity in the retina"

**Anna Vlasits**

"Inputs and outputs are segregated in the starburst amacrine cell dendrite in the retina"

Hsu Lab

**Joshua Moller-Mara**

"Computation in social learning with information cascades"

Isacoff Lab

**Alden Conner**

"Neural-glia interaction in the zebrafish spinal cord"

**Ben Gaub**

"Using rhodopsin as intrinsic optogenetic actuator for vision restoration in blind mice"



Kaufer Lab

**Kimberly Long**

"Investigating the effects of maternal care on the response to acute stress and neurogenesis in adulthood"

Knight Lab

**Chris Hodgraf**

"Evidence for predictive coding in human auditory cortex"

**Sara Slama**

"Signal-to-noise ratio affects go response rates in complex auditory go/no-go Task for Rodents"

Kriegsfeld Lab

**Benjamin Smarr**

"Lasting Effects of Early Life Circadian Disruption"

Miller Lab

**Alisha Contractor**

"Brought to you by Water: Increasing Solubility of Functionalized Probes"

**Parker Deal**

"Development of "Light-Writable" Calcium Dosimeters for in Neuronal Activity Mapping"

**Vincent Grenier**

"Progress Towards a Photoactivatable Small Molecule Voltage Indicator"

**Rishikesh Kulkarni**

"Next Generation Voltage Sensors for Neural Imaging"

Neuroscience First Year Students

**Ignas Cerniaukas**

"Optogenetic Dissection of Entorhinal-Hippocampal Space Circuit"

**Charles Frye**

"Spontaneous Activity Converges On Sparse, Global Patterns During The Development of Sensory Cortex"

**Ben Shababo**

"Bayesian Inference and Online Experimental Design For Mapping Neural Microcircuits"

Olshausen Lab

**Urs Koster**

"Laminar Structure of Oscillatory Activity in Cat Visual Cortex"

**Dylan Paiton**

"Visual Sensitivity Modulation During Fixational Eye Movements"

**Karl Zipser**

"Figure-ground and Early Visual Cortical Areas"



Olshausen/Theunissen Labs

**Tyler Lee**

"Noise Reduction Using Artificial Auditory Neurons"

Scott Lab

**Nick Jourjine**

"Internal Osmosensors in Drosophila"

Sommer Lab

**Chris Warner**

"Modeling Retinal Network Computations via Coupled Oscillator Systems"

Wallis Lab

**Feng-Kuei Chiang**

"Prefrontal Mechanisms of Hierarchical Reinforcement Learning"

Whitney Lab

**Alina Liberman**

"Serial Dependence of Position Perception"

Wilbrecht Lab

**Wan Chen Lin**

"Early Life Food Insecurity Decreases Flexibility in Multiple Choice Reversal Learning in Adulthood"

6:00 - 7:15 PM: Dinner in Lagoon House

7:30 PM - 12:00 AM Social and talent show at Lagoon House

**SUNDAY, SEPTEMBER 14**

8:00-10:00 AM: Breakfast in Lagoon House

10:00 AM: Bus back to UC Berkeley campus (for those who signed up)

**Before 11 AM - Check out**