

FROM NEURONS AND NETWORKS TO BEHAVIOR

CONFERENCE AND WORKSHOP
NOV 10 & 11

HERMANN NIEMEYER AUDITORIUM EDIFICIO MILENIO, FACULTAD DE CIENCIAS UNIVERSIDAD DE CHILE LAS PALMERAS 3425

PROGRAM

FROM NEURONS AND NETWORKS TO BEHAVIOR WORKSHOP AND CONFERENCE

10-11 November 2015

Tuesday, Nov 10

Workshop:

Extrinsic control of neuronal activity: Optogenetics and dynamic clamp

08:30 - 09:00	Registration and Welcome
09:00 - 09:45	Jorge Vera , Universidad de Chile <i>"Dynamic Clamp and the control of excitability in single neurons"</i>
09:45 - 10:30	Alexia Nuñez-Parra , University of Colorado <i>"An Introduction to optogenetics: why and how"</i>
10:30 - 11:00	Coffee Break
11:00 - 12:00	Nathan Schoppa , University of Colorado <i>"Use of optogenetics in neural circuit analysis in brain slices"</i>
12:00 - 13:00	Diego Restrepo , University of Colorado <i>"Optogenetic control of neuronal activity in awake animals"</i>
13:00 - 13:30	Discussion: <i>"Can an optogenetic dynamic clamp be developed for in vivo studies?"</i>
13:30 - 14:30	Lunch
14:30 - 17:30	Demonstrations: Optogenetics and dynamic clamp <i>in vitro</i> Diego Restrepo, Nathan Schoppa, Magdalena Sanhueza, Alexia Nunez-Parra, Jorge Vera. Location: Cell Physiology Lab, Millennium Building, 3rd Floor

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Wednesday, Nov 11

Conference:

From Neurons and Networks to Behavior

09:00 - 09:20	Registration
09:20 – 09:30	Opening Remarks
09:30 - 10:00	Juan Bacigalupo , Universidad de Chile <i>"Complementary energy sources sustain chemotransduction in the olfactory cilium"</i>
10:00 - 10:30	Magdalena Sanhueza , Universidad de Chile <i>"Complex regulation of synaptic function by an endogenous CaMKII inhibitor"</i>
10:30 - 11:00	Andrés Chávez , Universidad de Valparaíso <i>"Activity-dependent modulation of synaptic strength: New mechanisms and synaptic rules"</i> .
11:00 - 11:45	Coffee Break
11:45 - 12:15	Jorge Vera , Universidad de Chile <i>"Resonant neurons, the same mechanism but different frequency ranges: A general principle behind the setting of intrinsic frequency preference"</i>
12:15 - 13:00	Nathan Schoppa , University of Colorado <i>"Olfactory signal processing in a single glomerulus"</i> .
13:00 - 14:30	Lunch
14:30 - 15:00	Alexia Nuñez-Parra , University of Colorado <i>"Role of cholinergic neurons in a self-initiated associative learning task"</i>
15:00 - 15:30	José Luis Valdés , Universidad de Chile <i>"Role of neuromodulatory system during learning and memory processes"</i>
15:30 – 16:00	Pablo Fuentealba , P. Universidad Católica de Chile <i>"Modulation of basal forebrain synaptic output by local interneurons"</i>
16:00 - 16:30	Coffee Break
16:30 – 17:00	Jorge Mpodozis , Universidad de Chile <i>"A cortex in the avian brain? Layers and columns in the avian visual pallium"</i>
17:00 - 17:45	Diego Restrepo , University of Colorado <i>"Trial-to-trial anticipatory variability in the basal firing rate of mitral cells: Optotetrodes and Beyond"</i>
17:45 - 18:00	Concluding Remarks
18:00	Cocktail