

Keystone Symposia: Synapses: Formation, Function and Misfunction

(Joint with "Towards Defining the Pathophysiology of Autistic Behavior")

April 11–15, 2010 • Snowbird Resort • Snowbird, Utah • USA

Scientific Organizers: Matthew B. Dalva, Peter Scheiffele and Yishi Jin

PROGRAM FACULTY & TALKS

Silvia Arber, Biozentrum, University of Basel, Switzerland
Mechanisms Controlling Synaptic Specificity in the Motor System

Dwight Bergles, Johns Hopkins School of Medicine, USA
Synaptic Communication between Neurons and Glial Cells in the Mammalian Brain

Thomas Biederer, Yale University, USA
Synaptic Adhesion Complexes Organize Synapse Development

Nancy M. Bonini^o, University of Pennsylvania, USA
*Human Neurodegenerative Disease: Insights from *Drosophila**

Lisa M. Boulanger, Princeton University, USA
Regulation of Synaptic Transmission and Synaptic Plasticity by MHC Class I

Nils Brose^o, Max Planck Institute of Experimental Medicine, Germany
Genetic Dissection of Neuroligin Function: From Synaptogenesis to Autism

Vivian Budnik, University of Massachusetts Medical School, USA
Activity-Dependent Synapse Remodeling: Wnt of Change?

Ed Callaway, The Salk Institute, USA
New Rabies-Based Tools for Studies of the Structure and Function of Neural Circuits

Ann Marie Craig, University of British Columbia, Canada
Molecular Assembly of Hippocampal Synapses

Matthew B. Dalva, University of Pennsylvania, USA
Postsynaptic Mechanisms Guiding Synapse Development

Karl Deisseroth, Stanford University, USA
Optogenetics: Development and Application

Cagla Eroglu, Duke University Medical Center, USA
How do Astrocytes Induce Central Nervous System Synaptogenesis?

Anirvan Ghosh, University of California, San Diego, USA
On the Emergence of Synaptic Specificity in Developing Neural Circuits

Michael E. Greenberg^{*o}, Harvard Medical School, USA
Signaling Networks that Control Synapse Development and Cognitive Function

Philip Haydon, Tufts University, USA
Glia: Listening and Talking to the Synapse

Stephan Hell, Max-Planck-Institute for Biophysical Chemistry, Germany
Nanoscopy with Focused Light

Kimberly M. Huber^o, University of Texas Southwestern Medical Center, USA
Regulation of Synapse Number by Fragile X Mental Retardation Protein

Ben Philpot^o, University of North Carolina at Chapel Hill, USA
Angelman Syndrome and Synaptic Plasticity

Hitoshi Sakano, University of Tokyo, Japan
Autonomous Topographic Map Formation by Olfactory Axons in Mouse

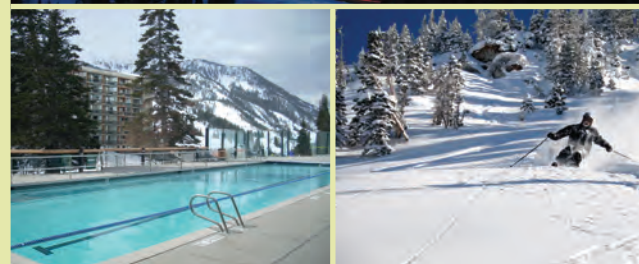
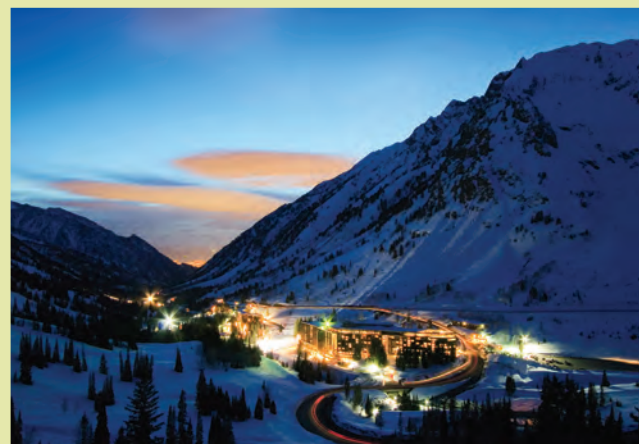
Kang Shen, Stanford University, USA
*Intrinsic and Extrinsic Factors Pattern Neural Circuit Assembly in *C. elegans**

Hisashi Umemori, University of Michigan, USA
Wiring the Functional Brain

Michisuke Yuzaki, School of Medicine, Keio University, Japan
Cbln1 and its Receptor: A Unique and Essential Bidirectional Synaptic Organizer Complex

*Keynote speaker. ^oJoint speaker. Program subject to change. Current as of February 9, 2010.

This is a joint meeting. Registration for one meeting allows participation in sessions of the other, pending space availability.



During the last half-decade, a host of cellular mechanisms guiding synapse development have been identified. Exciting new links are being forged between our growing understanding of the basic processes and certain diseases. A major driving force in current research of synapses is new technologies. The meeting will focus on these areas and will bring together scientists working on the basic biological questions of how synapses form in model organisms and the development of new technology, as well as those with interests in understanding the links to human diseases.

PROGRAM PLENARY SESSIONS:

- Circuit Formation
- Synaptic Adhesion and Signaling
- Transsynaptic Mechanisms
- Glia Cells and Synapse Formation
- Synaptic and Circuit Function in Neurodevelopmental Disorders (Joint)
- Technology

DEADLINES:

Abstract & Scholarship: December 10, 2009

Late-Breaking Abstract: January 6, 2010

Early Registration: February 11, 2010

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