QUANTITATIVE & SYSTEMS BIOLOGY COLLOQUIUM: Signaling mechanisms for glutamatergic synapse assembly and maintenance

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Date:
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Time:
2:30 PM - 3:45 PM

Location:
COB2 140

About The Speaker:

Dept of Genetics, Fudan University, Shanghai B.S.
1984-1988 Genetics
University of California, Davis and San Diego Ph.D.
1989-1995
Biochemistry and Molecular Biology With Kenneth R. Chien
University of California, San Diego, Postdoctoral Fellowship
1995-1996
Developmental Biology with Kenneth R. Chien
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Developmental Neuroscience with Marc Tessier-Lavigne

11/2000-04/2006 Assistant Professor, Dept of Neurobiology, Pharmacology and Physiology, The University of Chicago
05/2006-06/2006 Associate Professor (with tenure), Dept of Neurobiology, Pharmacology and Physiology, The University of Chicago.
07/2006-06/2011 Associate Professor, Neurobiology Section, Biological Sciences Division, University of California, San Diego
07/2011-Present Full Professor, Neurobiology Section, Biological Sciences Division, University of California, San Diego
07/2012-06/2014 Vice Chair, Neurobiology Section, Biological Sciences Division, University of California, San Diego
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Abstract:

Glutamatergic synapses are the main excitatory synapse in the brain. The signaling mechanisms that directly assemble glutamatergic synapses have been elusive. Our lab showed that the components of the planar cell polarity pathway are localized in both developing and mature glutamatergic synapses and are essential for the assembly and maintenance of the vast majority, if not all, glutamatergic synapses in hippocampus and medial prefrontal cortex. I will discuss the direct roles and mechanisms of the planar cell polarity components in the formation, maintenance and function of glutamatergic synapses and the implications in neurodegenerative disorders and neuropsychiatric disorders.

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