



PROGRESS IN NEUROSCIENCE PINS



Seminar Series of the
Brain & Mind Research Institute
Weill Cornell Medical College (WCMC)
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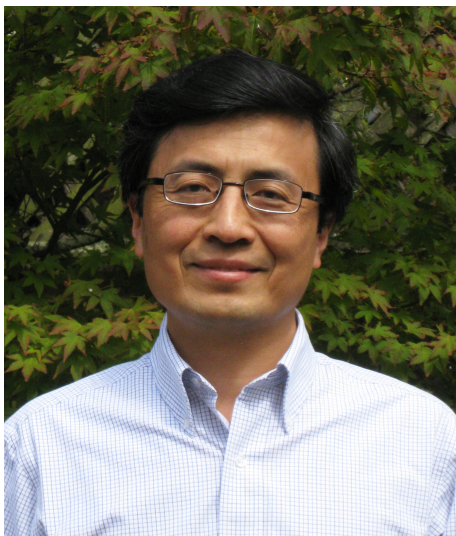
The Graduate Program in Neuroscience of
WCMC and Sloan Kettering Institute

Thursday, 11/30/17, 4 PM, coffee at 3:45 PM

Weill Auditorium

“Exploring the Biological Basis of Neuronal Identity and Diversity: from Transcription Mechanism to Motor Coordination”

Josh H. Huang, Ph.D., Charles and Marie Robertson Professor of Neuroscience
Cold Spring Harbor Laboratory



Abstract

Understanding the biological basis of neuronal identity (i.e. neuron type) is necessary for deciphering neuronal diversity and Circuit organization. I will present our recent progress in understanding the molecular genetic basis and the granularity of neuron types in the cerebral cortex of the mouse using transcriptomic, anatomic, and functional approaches.

Recent Relevant Publications:

1. Lu J, Tucciarone J, Padilla-Coreano N, He M, Gordon JA, Huang ZJ. Selective inhibitory control of pyramidal neuron ensembles and cortical subnetworks by chandelier cells. *Nat Neurosci.* 2017 Oct;20(10):1377-1383. doi: 10.1038/nn.4624. Epub 2017 Aug 21. PubMed PMID: 28825718; PubMed Central PMCID: PMC5614838.
2. Paul A, Crow M, Raudales R, He M, Gillis J, Huang ZJ. Transcriptional Architecture of Synaptic Communication Delineates GABAergic Neuron Identity. *Cell.* 2017 Sep 20. pii:S0092-8674(17)30990-X. doi: 10.1016/j.cell.2017.08.032. [Epub ahead of print] PubMed PMID: 28942923.
3. He M, Tucciarone J, Lee S, Nigro MJ, Kim Y, Levine JM, Kelly SM, Krugikov I, Wu P, Chen Y, Gong L, Hou Y, Osten P, Rudy B, Huang ZJ. Strategies and Tools for Combinatorial Targeting of GABAergic Neurons in Mouse Cerebral Cortex. *Neuron.* 2016 Sep 21;91(6):1228-1243. doi: 10.1016/j.neuron.2016.08.021. Epub 2016 Sep 8. PubMed PMID: 27618674; PubMed Central PMCID: PMC5223593.



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