BIOLS SEMINAR SERIES
北京生命科学研究院精品讲座

报告时间：2012年7月6日（星期五）下午15:00

报告地点：中国科学院遗传与发育生物学研究所B210会议室

报告题目：Mechanisms regulating adult neural stem cells.

报 告 人：Hongjun Song. Professor of Neurology/Institute for Cell Engineering, Johns Hopkins University School of Medicine. Director, Stem Cell Program.

欢迎广大科研人员和研究生光临！

Prof. Song received his Bachelor degree of Biology in 1992 from Peking University and received his Ph.D in 1998 at University of California at San Diego, La Jolla. After finishing his Postdoctoral fellow in Howard Hughes Medical Institute at the Salk Institute for Biological Studies, La Jolla, he has been working in Department of Neurology and Neuroscience, Institute for Cell Engineering, Johns Hopkins University School of Medicine, since 2002.

The research in Prof. Song's laboratory focuses on understanding mechanisms and functions of neural stem cells and neurogenesis in the adult mammalian brain. In particularly, they are interesting in identification of both intrinsic and extrinsic mechanisms regulating sequential process of adult hippocampal neurogenesis using in vivo mouse model system, hoping to use neural stem cells as tools to explore molecular mechanisms underlying mental disorders and develop novel strategies for treatment of degenerative neurological disorders.

Because of his excellent work, Prof. Song was prized Inaugural Young Investigator Award of the Chinese Biological Investigators Society (2007), NARSAD Independent Investigator Award (2008), Young Investigator Award of Society for Neuroscience (2008), Rising Star Award of International Mental Health Research Organization (2009), and he is also the member of Faculty of 1000 Biology, Editorial Board of *Cellular and Molecular Neurobiology*, Editor-in-Chief of *Frontiers in Biology*.

Key Publications:

2005. Adult neurogenesis in the mammalian central nervous system. ***Annu. Rev. Neurosci.*** 28, 232-250.
2006. GABA regulates synaptic integration of newly generated neurons in the adult brain. ***Nature*** 439, 589-593.
2007. A critical period for enhanced synaptic plasticity in newly generated neurons of the adult brain. ***Neuron*** 24, 54:559-66.
2007. Disrupted-In-Schizophrenia 1 regulates integration of new neurons in the adult brain. ***Cell*** 130, 1146-1158.
2009. Neuronal activity-induced Gadd45b promotes epigenetic DNA demethylation and adult neurogenesis. ***Science*** 323, 1074-7.
2011. Adult Neurogenesis in the Mammalian Brain: Significant Answers and Significant Questions. ***Neuron*** 70, 687-702.
2011. Hydroxylation of 5-methylcytosine by TET1 promotes active DNA demethylation in the adult brain. ***Cell*** 145, 423-34.
2011. Postnatal neurogenesis in the human forebrain: from two migratory streams to dribbles. ***Cell Stem Cell*** 9:385-6.
2011. Neuronal activity modifies the DNA methylation landscape in the adult brain. ***Nat Neurosci.*** 14:1345-51.
2012. A unifying hypothesis on mammalian neural stem cell properties in the adult hippocampus. ***Curr Opin Neurobiol.*** Apr 13.
2012. Neuronal circuitry mechanism regulating adult quiescent neural stem cell fate decision. ***Nature*** (in press).

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报告地点：中国科学院遗传与发育生物学研究所B210会议室

报告题目：Regulation of neuronal development by risk genes for mental disorders.

报 告 人：Guo-li Ming. Professor, Department of Neurology and Neuroscience, Institute for Cell Engineering, Johns Hopkins University School of Medicine.

欢迎广大科研人员和研究生光临！

Prof. Ming graduated from Tongji Medical University, with a Doctor degree of Medicine in 1994. She received her Ph.D at University of California at San Diego, California majored in Biology in 2002. After working as a Postdoctoral Associate in The Salk Institute for Biological Studies, La Jolla, she has been working in Institute for Cell Engineering, Departments of Neurology and Neuroscience, Johns Hopkins University School of Medicine since 2003, where she was appointed a professor in 2010. The research of Prof. Ming's laboratory centers on understanding the molecular mechanisms underlying neuronal development during embryonic stages and in the adult brain and underlying psychiatric mental disorders with neural developmental origin, with a particular focus on the signaling events involved in cell morphogenesis, cell migration, and axon/dendritic guidance. They also have been working on pluripotent human neural stem cells for the past five years.

She has been serving as a Steering committee member of Neuroscience Graduate Program, a member of the Office of Women in Science and Medicine advisory group of JHMI, a committee member of JHU ISCRO and a member of the Mentoring Program "Women in Neuroscience" of Society for Neuroscience. She is also the Director of Confocal Imaging Core at Institute for Cell Engineering, Director of Human iPSC Platform of Brain Science Institute at Johns Hopkins University and the Editorial Board of The Open Neuroscience Journal and The Open Cell Signaling Journal.

Key Publications:

2005. XTRPC1-dependent chemotropic guidance of neuronal growth cones. ***Nature Neurosci.*** 8, 730-735.
2005. Adult Neurogenesis in the mammalian central nervous system. ***Annual Review of Neuroscience*** 28, 232-250
2006. GABA regulates synaptic integration of newly generated neurons in the adult brain. ***Nature*** 439, 589-93
2007. Disrupted-in-Schizophrenia regulates integration of newborn neurons in the adult brain. ***Cell*** 130, 1146-11587.
2009. DISC1 regulates new neurons development in the adult brain via modulation of AKT-mTOR signaling through KIAA1212. ***Neuron*** 63, 761-73
2009. Peptidyl-prolyl isomerase FKBP52 controls chemotropic guidance of neuronal growth cones via regulation of TRPC1channel opening. ***Neuron*** 64, 471-83
2011. Integration-free induced pluripotent stem cells derived from schizophrenia patients with a DISC1 mutation. ***Molecular Psychiatry*** 16, 358-60.
2011. Adult neurogenesis in the Mammalian brain: significant answers and significant questions. ***Neuron*** 70, 687-702.
2011. Postsynaptic TRPC1 Function Contributes to BDNF-Induced Synaptic Potentiation at the Developing Neuromuscular Junction ***J Neurosci.*** 31:14754-62.
2012. Interplay between DISC1 and GABA Signaling Regulates Neurogenesis in Mice and Risk for Schizophrenia. ***Cell*** 148:1051-64.

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