

Neuroscience Center of Excellence
Chancellor's Award Lecture
in Neuroscience



Early Health and Disease Matters: Regulation of Neuronal Migration in the Developing Brain

The proper development of the mammalian cerebral cortex requires precise execution of multiple steps, which are tightly regulated. Failures, or even slight deviations in any of these steps may result in a wide range of human brain diseases. Over the last decade a dramatic increase in the discovery of genes implicated in human brain development diseases has been witnessed. These diseases affect brain size and structure, the position of neurons in the brain, and/or their connectivity. These alterations underlie brain malformation, epilepsy, intellectual disabilities, autism and schizophrenia. Therefore, the fundamental molecular mechanisms regulating brain formation are of considerable importance. An overview of the recent and exciting progress in our understanding of the molecular mechanisms of deficits in regulation of neuronal polarity and neuronal migration will be provided. The cellular pathways as well as exciting novel non-cell autonomous pathways involved will be discussed.

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**4:00 p.m.
Thursday
December 12, 2013**

**8th Floor
Neuroscience Center
of Excellence
Conference Room**

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