



Neuroscience Center of Excellence

Seminar

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Regulation of Synaptic Development by a Ubiquitination Pathway

Numerous recent studies demonstrated that ubiquitination and ubiquitin-mediated pathways play essential roles in not only protein quality-control and homeostasis, but also a multitude of other processes including protein trafficking, signaling, transcription, neuronal connectivity, synaptogenesis, synaptic transmission and neural degeneration; however, the mechanisms remain largely unknown. Using *Drosophila* as a model system, I have demonstrated that a molecular pathway mediated by an E3 ubiquitin ligase complex plays an essential role in the regulation of synaptic structure and function at the neuromuscular junction. In my future studies, I intend to combine the powerful *Drosophila* genetics with structure/function analysis and tissue- and probe-specific proteomics to study the function of ubiquitin pathways in synaptic development and plasticity and neuronal disorders.

**Wednesday November 14, 2007, 12:00pm,
8th Floor Neuroscience Center Conference Room,
LSU Lion's Building,
2020 Gravier Street, New Orleans**