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Northwestern University
Interdepartmental Neuroscience

Student Hosted Seminar Series

P R E S E N T S

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Thursday, August 15th
11:30 am - 12:30 pm
Pancoe Auditorium (Evanston)

Information coding and calcium dynamics at hippocampal mossy fibre synapses

Neurons in the entorhinal cortex and the hippocampus respond to distinct spatial locations and other parameters essential to build and memorize navigational clues. Cortical information is translated to hippocampal code by granule cells. Their synapses, form large complex terminals that operate with multiple release sites. Research in my laboratory is focused on the mechanism by which these terminals code incoming signals and translate it to a particular pattern of neurotransmitter release. Are distinct release sites functionally diverse or uniform? We aim to unveil the functional relevance of their heterogeneity in information transfer at complex synapses. We investigate these questions in *in vitro* hippocampal slices and use morphological (electron microscopy), electrophysiological (patch-clamp), imaging (two-photon imaging) and computational approaches at the level of individual synapses.

This talk will be videoconferenced to Baldwin Auditorium (Chicago)