

CHEMISTRY

Fall 2023 SEMINAR SERIES

> 11am – noon **Dec. 1st** NC 1130

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Analysis of Synaptotagmin Function in Health and Disease

Communication between neurons is mediated by the fast, synchronous release of neurotransmitter upon calcium influx into an activated nerve terminal. Synaptotagmin is the calcium sensor that couples calcium influx with this transmitter release. Work in our lab focuses on structure/function relationships using site-directed mutagenesis in Drosophila. Following mutation of residues in synaptotagmin implicated via biochemical experimentation *in vitro* or via whole exome sequencing in familial disease, we use electrophysiological recordings at intact synapses *in vivo* to assess the functional significance of specific motifs.