

School of Health Sciences

HSCI RESEARCH SEMINAR SERIES SCHOOL OF HEALTH SCIENCES

This week's seminar will be virtual only – here WebEx room link: <u>https://purdue.webex.com/join/bowma117</u>

"Applied In vivo Electrophysiology: An Emerging Frontier in Preclinical Neurodegenerative Disease Research"

Marcia H. Ratner, PhD, DABT Department of Pharmacology and Experimental Therapeutics Boston University School of Medicine

Tuesday, April 27, 2021 4:30-5:30 PM Eastern Time (US and Canada)

Abstract: Learning and memory deficits associated with age-related mild cognitive impairment and Alzheimer's disease have long been attributed to impaired processing within the hippocampus. Despite this, the successful translation of preclinical animal behavioral data to improvements human cognitive function continues to be an obstacle in the drug development process. This lecture presents data acquired using in vivo electrophysiology to objectively characterize the changes in neural network activity induced by systemic administration of investigational cognitive enhancers. The data presented in this seminar reveal how unique changes in neural activity serve as surrogates of cognitive enhancement and hippocampal information processing during specific animal behaviors. The translational relevance of these findings are discussed.

Host: Aaron Bowman

