Burke Medical Research Institute
785 Mamaroneck Avenue
White Plains, NY 10605
(914) 597-2551
www.burke.org

Weekly Colloquium

Tuesday, 04/19/2016, 12:30pm, Billings Building – Rosedale Conference Room

"Synaptic dysfunction of Munc18-1/STXBP1 in infantile epileptic encephalopathies"

Jacqueline Burré, Ph.D.
Assistant Professor of Neuroscience
Appel Institute for Alzheimer's Disease Research
Brain and Mind Research Institute
Weill Cornell Medicine

Research Abstract

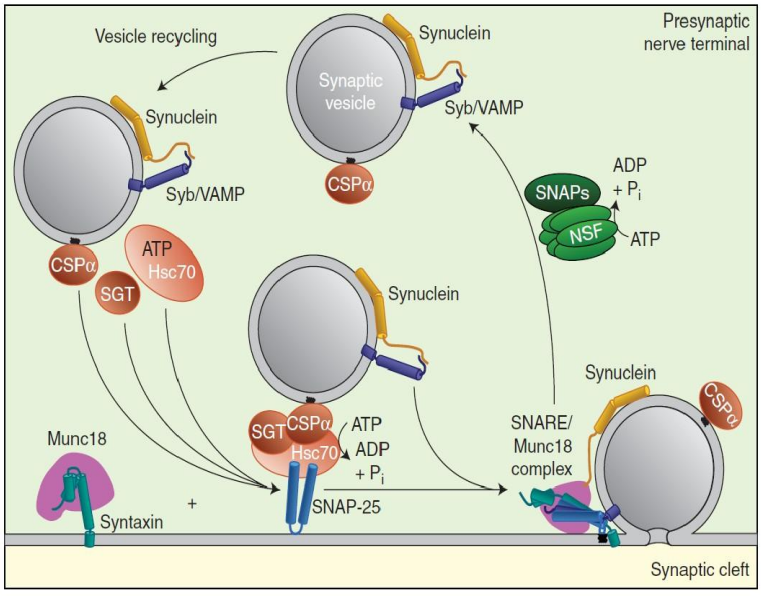
Our long-term goal is to identify early pathogenic events at the synapse that trigger neurological and neurodegenerative diseases, in order to develop strategies to combat these events and thereby delay or prevent disease. We are interested in 1) the synaptic function and dysfunction of synucleins in Parkinson's disease and related synucleinopathies, 2) the synaptic dysfunction of Munc18-1/STXBP1 in infantile epileptic encephalopathies, and 3) identifying early, disease-triggering events at the synapse that trigger neurodegeneration in Parkinson's and Alzheimer's disease. To address these aims, we employ a variety of technologies, including biochemistry, cell biology, imaging, and *C. elegans* and mouse models of neuropathology.

Recent publications:

Burré J, Sharma M, Tsetsenis T, Buchman V, Etherton MR, Südhof TC. α-Synuclein promotes SNARE-complex assembly in vivo and in vitro. Science 329: 1663-1667 (2010).

Burré J, Sharma M, Südhof TC. Systematic mutagenesis of α-synuclein reveals distinct sequence requirements for physiological and pathological activities. The Journal of Neuroscience, 32: 15227-15242 (2012).

Burré J, Sharma M, Südhof TC. Definition of a molecular pathway mediating α-synuclein neurotoxicity. The Journal of Neuroscience, 35: 5221-5232 (2015).



For more information contact: dwhite@burke.org