"Protein disordered in neurodegeneration and neurotransmission: alpha-synuclein and complexin"

David Eliezer, Ph.D.
Professor of Biochemistry and Neuroscience
Weill Cornell Medicine

Abstract: Disordered proteins mediate critical functions at neuronal synaptic junctions, including the fusion of synaptic vesicles with the presynaptic plasma membrane. The disordered proteins complexin and synuclein regulate vesicle exocytosis in ways that remain poorly understood, and both proteins are involved in neurodegenerative and neurological disorders. I will present results from our investigations of the structural properties of these proteins and their interactions with lipid membranes in order to shed further light on their functional mechanisms in regulating neurotransmission, as well as on the role of membrane interactions in the aggregation of alpha-synuclein in Parkinson’s disease.

Publications:

