The Singapore Bioimaging Consortium (SBIC)
presents a seminar

on

"Molecular Control of Synaptic Vesicle Fusion"

Speaker: **Dr Jeremy Dittman**
Associate Professor
Biochemistry at Weill Cornell Medical College
New York
Host : **Dr Han Weiping**
Date : **Thursday, 17 December 2015**
Time : **2.00pm – 3.00pm**
Venue : **SBIC Seminar Room**
11 Biopolis Way
Level 2, Helios Building, Singapore 138667
(Please enter via Level 1)

Abstract

Communication between neurons requires precise and highly regulated control of synaptic vesicle fusion. SNARE proteins power the fusion process, but the mechanisms underlying the regulation of fusion are not well understood. Complexin is a major gate keeper of exocytosis at synapses, and recent work from our demonstrates that complexin's C-terminal domain binds lipids through a novel protein motif, permitting inhibition of spontaneous exocytosis in vivo by targeting complexin to synaptic vesicles. We propose that the SV pool serves as a platform to sequester and position complexin where it can intercept the rapidly assembling SNAREs and control the rate of spontaneous fusion.

About the Speaker

Dr Jeremy Dittman is an Associate Professor of Biochemistry at Weill Cornell Medical College in New York City. He trained as an MD PhD at Harvard Medical School with Dr Wade Regehr where he investigated the role of calcium in presynaptic modulation and plasticity of cerebellar synapses. As a postdoctoral fellow with Dr Joshua Kaplan at UC Berkeley and Mass General Hospital, Jeremy continued to study the synapse using *C. elegans* as a model system while developing novel imaging approaches in the worm. In 2008, he joined the Biochemistry Department at Weill Cornell Medical College and began to investigate several key synaptic proteins such as complexin, Munc13, and Munc18 using a combination of genetics, physiology, as well as computational and in vitro biochemical approaches.

--- Admission is free and all are welcome ---