



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

scuolagalileiana
di studi superiori



PhD Program in
Biomedical Sciences

Polo Didattico e Scientifico Vallisneri

**Viale Giuseppe Colombo 3 (accesso pedonale)
Via Ugo Bassi 58/B, Padova**

Lunedì 16 Ottobre 2017

Aula Magna

Ore 15:30

Seminario

Prof. Yeon-Kyun Shin

**Professor of Biophysics,
Iowa State University**

Synaptic vesicle fusion: A biophysics perspective

Vesicle fusion is required for neurotransmitter release at the synapse. Membrane fusion is mediated by the protein nanomachine composed of SNAREs, Ca²⁺-sensor synaptotagmin, and other auxiliary proteins. EPR and single molecule techniques are used to investigate the structure and the function of SNAREs and regulatory proteins. In particular, research is focused on identifying the major intermediates on the membrane fusion pathway and in reproducing millisecond membrane fusion, a feature unique to synaptic vesicle fusion. I will discuss the current status of our understanding of synaptic membrane fusion with a biophysics perspective.

Prof. Paolo Bernardi

Prof. Michele Maggini

Prof. Cesare Montecucco