

IMCB & SBIC Invited Speaker



Speaker : **Dr. Peter Thorn**
*Associate Professor, School of Biomedical Science and Affiliate Group Leader,
Institute for Molecular Bioscience, University of Queensland, Australia*

Date : 5th June 2012 (Tuesday)

Time : 11am - 12pm

Venue : SBIC Seminar Room, Level 2, Helios Building, Biopolis
(please use Level 1 entrance)

Host : Prof. Wanjin Hong (IMCB) and Dr. Weiping Han (SBIC)

Seminar :

The role of VAMP8 in the control of secretion in the pancreas

Membrane fusion is orchestrated by a large family of proteins called SNARES. Specifically, in regulated exocytosis, it is believed that SNAREs control the targeting of membranes such that granules only fuse with their correct target membranes. One example of a SNARE protein is VAMP8 which has been shown to be involved in membrane fusion in a number of cells including secretion in epithelial cells.

My laboratory is interested in studying the biophysics and control of membrane fusion. We employ two-photon imaging to track fusion events in real time within native blocks of pancreatic tissue. Our work now shows that VAMP8 is a selective regulator of the process of granule-to-granule fusion that underlies compound exocytosis in acinar cells. Furthermore, it seems that VAMP8 is key player in the development of pancreatic disease.

About the Speaker :

Dr. Peter Thorn is an Associate Professor at The University of Queensland, Australia. He previously worked for 10 years as a lecturer at Cambridge University in the Department of Pharmacology. His studies focus on stimulus-secretion coupling in pancreatic cells. Despite their physiological significance, we know remarkably little about the actual mechanisms that control secretion in these cells. Dr. Thorn's laboratory uses confocal and two photon imaging along with electrophysiological techniques to measure secretion in real time in living primary cells.



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