



The Singapore Bioimaging Consortium (SBIC)  
presents a seminar

on

**“Adipose Tissue Expandability, Lipotoxicity and Antilipotoxic Strategies”**

**Speaker: Dr Toni Vidal-Puig**  
**Professor in Molecular Nutrition and Metabolism**  
**University of Cambridge**  
**Date : Friday, 3 August 2012**  
**Time : 11.00am – 12.00pm**  
**Venue : SBIC Seminar Room, 11 Biopolis Way**  
**Level 2, Helios Building**  
**Singapore 138667**  
**(Please use Level 1 entrance)**

**Abstract**

Whereas it is clear that obesity is a cardiovascular risk factor, the mechanisms linking expansion of the adipose tissue (AT) to these co-morbidities is uncertain. They think that inappropriate AT expandability and function is a key determinant of obesity-associated metabolic complications initiating a lipotoxic proinflammatory cascade that affects essential metabolic organs. Thus, understanding the mechanisms that control AT expansion and function may provide therapeutic approaches to optimise adipose lipid deposition and prevent lipotoxic events. Increasing lipid oxidation through strategies that involve either mitochondrial biogenesis, uncoupling or brown fat differentiation/activation may also provide antilipotoxic advantages. Finally as a third antilipotoxic strategy, understanding of the organ specific lipotoxic effector mechanisms may provide the rational for lipid related biomarkers as well as for personalized therapeutic advice to maintain energy homeostasis despite obesity.

**About the Speaker**

Dr Vidal-Puig obtained his medical degree from Valencia Medical School before training at Granada Medical School, where he obtained his PhD. He then carried out his post-doctoral training at Harvard University. After publishing several key papers and being appointed Instructor in Medicine at Harvard, Dr Vidal-Puig further broadened his scientific horizons with experience in mouse transgenesis and knockout techniques. In 2000, he moved to the University of Cambridge to establish his own laboratory.

Dr Vidal-Puig is currently Professor of Molecular Nutrition and Metabolism at Cambridge University and Honorary Consultant in Metabolic Medicine at Addenbrooke's Hospital, Cambridge. He is Deputy Director of the MRC Centre for Obesity and Related Diseases and Director of the Cambridge Phenomics Centre, a state-of-the-art centre that applies multidisciplinary approaches to murine phenotyping. His programme of research focuses on the molecular mechanisms of lipid-induced insulin resistance and on developing strategies to prevent the deleterious effects of lipids, specifically by modulating fatty acid oxidation and thermogenic mechanisms.

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