The Singapore Bioimaging Consortium (SBIC)
presents a seminar
on

"Of Mice and Men : Novel Insights into Brown Fat-Mediated Energy Metabolism"

Speaker: **Tseng Yu-Hua**
Associate Professor
Harvard Medical School
Host : **Dr Han Weiping**
Date : **Wednesday, 21 December 2016**
Time : **11.00am – 12.00noon**
Venue : **SBIC Seminar Room**
11 Biopolis Way
Level 2, Helios Building, Singapore 138667
(Please enter via Level 1)

Abstract

In mammals, there are two functionally distinct types of fat tissue : White adipose tissue (WAT), which is specialized for energy storage, and Brown adipose tissue (BAT), which dissipates energy for thermogenesis via uncoupling protein 1 (UCP1). In addition to the classical brown adipocytes, UCP1-positive "beige" or "brite" adipocytes can be recruited within WAT upon cold exposure. Increasing the amount or activity of brown/beige fat has been considered to be an appealing approach for the treatment or prevention of obesity and related metabolic disorders. Using mouse models, we and others have identified several novel pathways regulating brown and white adipose tissue energy expenditure. The ability to utilize human subjects to obtain a better understanding of brown fat function and activity is also improving. We have recently established immortalized human brown and white fat precursor cell lines, and these cells offer an invaluable resource for understanding human brown fat differentiation and function. Together, these studies have provided important translational work to enable the development of new therapeutics targeting brown fat for treatment of obesity and other metabolic diseases.

About the Speaker

Dr Yu-Hua Tseng is an Associate Professor of Medicine at Harvard Medical School (HMS), an Investigator at the Joslin Diabetes Center, and a Principal Faculty of the Harvard Stem Cell Institute. Dr Tseng's laboratory has been focusing on unraveling the role of developmental signals in brown versus white adipose cell fate, the identification and characterization of adipose progenitor/stem cells, the integration of genetic and humeral factors on thermoregulation, and whole body energy homeostasis, and has made significant contributions to the understanding of brown

fat biology in mice and humans. Dr Tseng was an Eleanor and Miles Shore Scholar in Medicine at HMS.

Admission is free and all are welcome ---