The Singapore Bioimaging Consortium (SBIC)
presents a seminar

on

"Thermogenic action of Interferon Regulatory Factor 4 (IRF4)"

Speaker: **Dr Kong Xingxing**
Endocrinology Instructor
Beth Israel Deaconess Medical Center
Harvard Medical School
Host : **Dr Han Weiping**
Date : **Thursday, 7 April 2016**
Time : **11.00am – 12noon**
Venue : **SBIC Seminar Room**
11 Biopolis Way
Level 2, Helios Building, Singapore 138667
(Please enter via Level 1)

Abstract

We identified interferon regulatory factor 4 (IRF4) as an antiadipogenic transcription factor following a screen based on epigenomic changes during differentiation. We expanded upon those observations to show that, in addition to its effects on adipogenesis, IRF4 serves as a key molecular node in virtually all of the metabolic actions of adipose tissue. Specifically, we have demonstrated that IRF4 regulates lipolysis and lipogenesis in white and brown adipocytes, thermogenesis in brown adipocytes, and M2 polarization in adipose-resident macrophages. IRF4 is regulated transcriptionally by nutritional state and cold exposure, and directly interacts with co-factors such as PGC-1α in brown fat. These studies establish IRF4 as a transcriptional driver of a program of thermogenic gene expression and energy expenditure.

About the Speaker

Dr Kong Xingxing received her PhD from Peking Union Medical College, the top one medical school in China. In February 2011, Dr Kong joined the Division of Endocrinology, BIDMC and Harvard Medical School as a postdoctoral fellow under the supervision of Dr Evan Rosen. Her research is focused on the transcriptional pathways that underlie metabolic diseases like obesity and Type 2 diabetes. Specifically, her work is to investigate its role of IRF4 in thermogenesis. Based on this study, she first-authored an article in *Cell* in 2014, and was awarded NIH-K99 in 2015. And she was also promoted to instructor in October 2015.

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