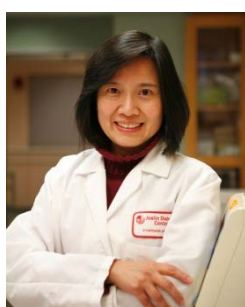


Guest lecture

Of mice and men: new insights into metabolic regulation and human brown fat

27 January 2016
11 AM in BMB seminar room



Yu-Hua Tseng, PhD

Joslin Diabetes Center and Harvard Medical School
Boston, USA.

Abstract: Brown adipose tissue dissipates chemical energy as heat. Recently, there has been great attention given to the possibility of combating obesity by targeting brown fat activity, or increasing differentiation of brown adipocytes in white fat depots, through a process termed “browning”. In adult humans, UCP1-positive adipocytes are found in the neck, supraclavicular, and spinal cord regions. The presence of brown, beige, and white adipocytes, as well as perhaps other unidentified adipose cell types, highlights the heterogeneity of adipose tissue depots, which potentially links to their diverse functions in energy metabolism. Both inter-subject differences and various cellular compositions within a fat tissue contribute to the heterogeneity of human brown fat and affect thermogenic potential. There have been significant recent advances in understanding the mechanisms of increasing adipose tissue energy expenditure, as well as how brown adipocytes appear in white fat depots, including via *de novo* adipogenesis from tissue precursor cells. In this seminar, I will integrate this new knowledge with a perspective on the potential avenues for developing effective therapies for obesity and its many associated metabolic diseases.

Host: Professor Susanne Mandrup, Department of Biochemistry and Molecular Biology, SDU.