



The Singapore Bioimaging Consortium (SBIC)  
presents a seminar on

**“Human brown adipose tissue is phenocopied by classical brown (but not beige) adipose tissue in physiologically humanized mice”**

**Speaker:** Prof Barbara Cannon  
**Department of Molecular Biosciences**  
**The Wenner-Gren Institute**  
**Stockholm University**

**Host :** Dr Sendhil Velan  
**Date :** Thursday, 25 July 2019  
**Time :** 10.15am – 11.00am  
**Venue :** SBIC Seminar Room  
**11 Biopolis Way**  
**Level 2, Helios Building, Singapore 138667**  
**(Please enter via Level 1)**

**Abstract**

Human and rodent brown adipose tissues (BAT) appear morphologically and molecularly different. To clarify whether the reason for this could be found in their different recruitment and activity states, we have compared human BAT with both classical brown and brite/beige adipose tissues of middle-aged mice living under conditions approaching human thermal and nutritional conditions. We found that morphological, cellular and molecular characteristics (both marker gene expression and adipose-selective gene expression) of classical brown fat – but not of brite/beige fat – of mice living under physiologically humanized conditions were remarkably similar to human BAT. We also demonstrated, both in silico and experimentally, that in physiologically humanized mice only classical BAT possesses a high thermogenic potential. These observations argue that classical rodent BAT is the tissue of choice for translational studies aimed at recruiting human BAT to counteract the development of obesity and its comorbidities.

**About the Speaker**

Prof Barbara Cannon has been President of the Royal Swedish Academy of Sciences and Chairman of the Trustees of the Nobel Foundation. She has authored or co-authored about 200 peer-reviewed publications and about 100 review publications. Prof Cannon received her B.Sc. degree in Biochemistry at London University and her PhD at Stockholm University.

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