



The Singapore Bioimaging Consortium (SBIC)  
presents a seminar on

**"Reactive Metabolites in the Regulation of Metabolism:  
A story about Statins"**

**Speaker:** Dr Matthew Hirschey  
**Duke Molecular Physiology Institute and  
Sarah W. Stedman Nutrition and Metabolism Center  
Duke University Medical Center**

**Host :** Prof Han Weiping  
**Date :** Tuesday, 30 July 2019  
**Time :** 4.00pm – 5.00pm  
**Venue :** SBIC Seminar Room  
11 Biopolis Way  
Level 2, Helios Building, Singapore 138667  
(Please enter via Level 1)

**Abstract**

Statins are among the most widely prescribed drugs in the world because of their effective prevention of cardiovascular disease; however, the mechanism and effects of statins are incompletely understood. Recent work in our lab has identified a novel post-translational modification in response to statin treatment on fatty acid synthase (FASN), which might explain some of the effect of statin therapy. These findings reveal how changes in cellular metabolism that occur during statin therapy could contribute to the drug's pleiotropic effects. Understanding statin and HMG-CoA effects on fatty acid metabolism may provide a mechanistic explanation for statin therapy side effects that may be manipulated to improve treatment and patient health.

**About the Speaker**

Matthew Hirschey is an Associate Professor in the Department of Medicine, Division of Endocrinology, Metabolism and Nutrition, and is a faculty member of the Duke Molecular Physiology Institute where his lab is located. Dr Hirschey studies how cells integrate nutrient sensing and metabolism. He is particularly interested in how metabolites and chemical modifications control metabolism. One of his primary goals is to expand our understanding of metabolic regulation by post-translational modifications of proteins. He and his lab study the regulation of this process by a family of enzymes called sirtuins, and how they maintain energy homeostasis. New types of chemical moieties are being discovered on proteins. These concepts are pushing the boundaries of knowledge and the landscape of acylation is rapidly expanding. His work has appeared in several leading journals, and has received numerous awards including an Innovator Award from the AHA, a New Scholar in Aging Award from the Ellison Medical Foundation, the Helmholtz Young Investigator in Diabetes (HeIDi) Award, and the Glenn Award.

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