



The Singapore Bioimaging Consortium (SBIC)  
presents a workshop on

## **"TidyBiology: An Introduction to Biological Data Science in R"**

**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 :** Wednesday, 31 July 2019  
**Time :** 2.00pm – 3.00pm  
**Venue :** SBIC Seminar Room  
11 Biopolis Way  
Level 2, Helios Building, Singapore 138667  
(Please enter via Level 1)

### **Abstract**

This workshop-style lecture provides an introduction to the emerging field of Data Science in R, including data analysis and visualization, with a particular focus on its utility for biological insight. Methods for filtering, sorting, and transforming data will be discussed along with visualization tools and options. Particular attention will be paid to code interpretation and data provenance methods by learning to generate reproducible data output files. Although specific datasets will be used for analysis in this lecture, this workshop will provide broadly applicable tools to reproducibly analyze and visualize data across the biological sciences.

### **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 ---***