

# SINERGY SEMINAR SERIES

NUS Synthetic Biology for Clinical and Technological Innovation (NUS SynCTI)  
Member of Singapore Consortium for Synthetic Biology (Sinergy)



## Professor John March

Department of Biological and Environmental Engineering (BEE)  
at Cornell University

### Synthetic Small Intestines For Treating And Studying Intestinal Disease

In recent years, it has become widely accepted that in vitro intestinal models enable improved studies of intestinal function in an ethical and well-controlled manner. Such research led to new insights into cellular growth and proliferation, drug absorption capabilities and host-microbial interactions. By using a combination of laser ablation and microfabrication techniques, we created a plastic template with accurate dimensions and concentrations of human small intestinal villi. Since that time we have employed techniques making use of intestinal organoids and enteroids from murine and human-sourced tissue. These models are intended to improve accuracy, reproducibility and experimental control. For this talk I will compare techniques for understanding small intestinal function.

*John C. March joined the faculty of the Department of Biological and Environmental Engineering (BEE) at Cornell University in 2005 after completing his PhD in Chemical Engineering at the University of Maryland, College Park, MD.*

*The March lab is working to understand cellular metabolism and signaling and to use these systems to develop novel technologies. Projects include studies on interspecies communication, agricultural pest management and novel model development.*

*Professor March is a recipient of an NIH New Innovator award, a Presidential Early Career Award for Scientists and Engineers (PECASE), a SUNY Chancellor's Award for Excellence in Scholarship and Creative Activities, a Cornell College of Engineering Fiona Ip Li '78 and Donald Li '75' Excellence in Teaching Award and a Hartwell Investigator award. He serves as Chair of the Department of BEE.*

**Tuesday, 2 April 2019 at 2pm**

**CeLS Auditorium #01-07**

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hosted by: A/P Matthew Chang

