Institute of Molecular and Cell Biology
A*STAR

SEMINAR ANNOUNCEMENT

We would like to invite you to attend this seminar hosted by Prof. Wanjin Hong:

Date: 22 November 2018, Thursday
Time: 11:00AM – 12:00PM
Venue: Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Speaker: Dr. Shalin Mehta, Leader, Advanced Optical Microscopy Platform, Chan Zuckerberg Biohub, USA
Title: Computational microscopy of order across biological scales

Living systems are characterized by emergent behavior of ordered components. Imaging technologies that reveal dynamic arrangement of organelles in a cell and of cells in a tissue are needed to understand the emergent behavior of living systems. I will present an overview of challenges in imaging dynamic order at the scales of molecular assemblies, cells and tissues. I will present advances in computational label-free microscopy to overcome these challenges.

Biography:
Shalin Mehta received Ph.D. in optics at the National University of Singapore. His Ph.D. research led to better mathematical models and novel approaches for label-free imaging of cellular morphology. He then joined the Marine Biological Laboratory in Woods Hole as Human Frontier Science Program Fellow, where he developed novel imaging and computational methods for detecting molecular order across a range of scales in living systems. He built a microscope that revealed the dynamic flow and orientation of molecular assemblies across the cell. At CZ Biohub, his lab seeks to measure physical properties of biological systems with increasing precision, resolution, and throughput by joint optimization of light-matter interactions and algorithms.