a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

Cellular and Physiological Sciences
CELL Graduate Program
CELL Research Group
Life Sciences Institute
LSI Imaging

ascb
an international forum for cell biology™

Bringing the ASCB to the LSI

Dr. Eric Betzig

2014 Nobel Prize winner for
Super Resolution Microscopy

Imaging Cellular Dynamics from Molecules to Organisms

The hallmark of life is that it is animate. To gain a better understanding of how inanimate molecules assemble to create animate life, it is necessary to image the dynamics of living organisms noninvasively at high resolution in both space and time. However, there exist inevitable tradeoffs of spatial resolution, speed, non-invasiveness, and imaging depth. I will describe various methods that balance these tradeoffs in different ways: super-resolution fluorescence microscopy for cellular imaging at the nanoscale; lattice light sheet microscopy for imaging rapid three-dimensional dynamics in cells and embryos; and adaptive optics for studying cellular processes deep in multicellular specimens.

Thursday December 8th, 2016

11:15 AM, LSC 2, Room 1002

Life Sciences Centre
University of British Columbia

Imaging Mini-Symposium
1:30 PM, LSC 3, Room 1003

1.30 Libin Abraham. Altered B cell receptor organization and mobility as the basis for priming in marginal zone B cells

1.45: Joshua Scurll. StormGraph: a new algorithm for the analysis of clustering in single molecule localization microscopy data

2.00: Madison Bolger-Munro. Arp2/3-dependent spatial organization of the B cell receptor impacts signaling output, immune synapse formation and B cell activation

2.15: Jia Wang. Imaging the B cell cytoskeleton by STED

2.30: Vivian Qian Liu. Membrane protrusion serves as a hot spot for virus transmission as revealed by super-resolution microscopy

2.45: Runxia Wen. Using tandemly linked fluorescent protein markers to study autophagy in rod photoreceptors

3.00: Fanrui Meng: Tyrosine phosphorylated caveolin-1 regulates vinculin tension in focal adhesions through its scaffolding domain

3.15: Ismail Khater: Quantifying caveolin-1 molecular domains via machine learning and computational network analysis of super-resolution microscopy data

Reception
3:30 PM, LSC West Atrium

Hosted by Dr. I. R. Nabi
(irnabi@mail.ubc.ca)

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