Single Cell Biology Symposium 2022
Beyond Single Cells: Subcellular and Spatial ‘Omics

Friday, November 4, 2022
1:00 PM – 5:45 PM

Arthur H. Rubenstein Auditorium
Smilow Center for Translational Research
Perelman School of Medicine University of Pennsylvania

PROGRAM

1:00  Welcome & Introduction
Garret A. Fitzgerald, MD, FRS
Robert L. McNeil, Jr., Professor in Translational Medicine and Therapeutics, University of Pennsylvania
and
James H. Eberwine, PhD
Elmer Holmes Bobst Professor of Systems Pharmacology and Translational Therapeutics, Co-Director, Penn Program in Single Cell Biology, University of Pennsylvania

1:10  Dissecting the repetitive genome’s structure-function relationship in single cells
Jennifer E. Phillips-Cremins, PhD
Associate Professor, Departments of Bioengineering, Departments of Genetics, University of Pennsylvania

1:50  High throughput digital droplet microfluidic assays for the ultrasensitive detection of single extracellular vesicles
Graduate Student Presentation: Yasemin Atiyas, PhD
Department of Bioengineering, David Issadore Lab, University of Pennsylvania

2:10  Looking under the hood of cells: from single molecule dynamics to whole cell organelle reconstructions
Jennifer Lippincott-Schwartz, PhD
Senior Group Leader, Head of 4D Cellular Physiology, Janelia Research Campus, HHMI, VA

2:50  Refreshments in the Lobby

3:20  Looking under the hood: Establishing the framework for single cell data analysis
Junhyong Kim, PhD
Chair and Patricia M. Williams Term Endowed Professor, Department of Biology, Department of Computer and Information Science
Co-Director, Penn Program in Single Cell Biology, University of Pennsylvania
**PROGRAM**

4:00  Biological insights from single cell mitochondria and single mitochndrion sequencing  
Postdoc Presentation: Parnika Kadam, PhD  
Department of Systems Pharmacology and Translational Therapeutics  
James Eberwine Lab, University of Pennsylvania

4:20  Illuminating the biochemical activity architecture of the cell  
Jin Zhang, PhD  
Professor and Vice Chair, Department of Pharmacology Department of Chemistry & Biochemistry Bioengineering, Co-Director, Center for Cell Signaling, University of California, San Diego

5:00  Lattice light sheet microscopy – innovations, applications and future directions  
Wesley R. Legant, PhD  
Assistant Professor, Department of Biomedical Engineering, Department of Pharmacology, University of North Carolina, Chapel Hill

5:40  Closing Remarks  
James H. Eberwine, PhD and Junhyong Kim, PhD  
Co-Directors, Penn Program in Single Cell Biology  
Co-Directors, Penn Center for Subcellular Biology

Organized by:

Sponsored by: