

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Frontiers in Cryo-Electron Microscopy (B1)

February 2-5, 2021 • Fairmont Banff Springs • Banff, AB, Canada

Scientific Organizers: Sriram Subramaniam, Nenad Ban, Dorit Hanein and Pamela Williams

Supported by the Directors' Fund

Scholarship Deadline: October 21, 2020 / Abstract Deadline: November 4, 2020 / Discounted Registration Deadline: December 3, 2020

TUESDAY, FEBRUARY 2

Arrival and Registration

WEDNESDAY, FEBRUARY 3

Welcome and Keynote Address

Werner Kühlbrandt, Max-Planck-Institute of Biophysics, Germany
Talk Title to be Announced

Large and Dynamic Assemblies

Nenad Ban, ETH Zürich, Switzerland
Ribosomal Assemblies

John Rubinstein, University of Toronto, Canada
ATPase Structure and Dynamics

Elena Conti, Max Planck Institute of Biochemistry, Germany
RNA Turnover and Degradation

Short Talk(s) Chosen from Abstracts

Workshop 1: Visualization of Cryo-EM Data

Short Talks Chosen from Abstracts

Integrative Structural Biology

Sriram Subramaniam, University of British Columbia, Canada
Cryo-EM in Cancer Biology

Speaker to be Announced

Natalie Strynadka, University of British Columbia, Canada
Large Membrane Protein Assemblies

Short Talk(s) Chosen from Abstracts

Poster Session 1

THURSDAY, FEBRUARY 4

Methods Development

Jose Rodriguez, University of California, Los Angeles, USA
New Frontiers in Electron Diffraction

Bridget Carragher, New York Structural Biology Center, USA
CryoEM: Better, Cheaper, Faster...

Paul D. Adams, Lawrence Berkeley Laboratory, USA
Cryo-EM Model Building and Refinement Approaches in Phenix

Steven J. Ludtke, Baylor College of Medicine, USA
A Complete Software Pipeline for in-situ Subnanometer Resolution Subtomogram Averaging

Short Talk(s) Chosen from Abstracts

Workshop 2: Opportunities in Industry for Cryo-EM

Short Talks Chosen from Abstracts

Cellular Tomography

Daniela Nicastro, University of Texas Southwestern Medical Center, USA
New Window into the Structure and Function of an Old Organelle

Ohad Medalia, Zurich University, Switzerland
Sub-Volume Averaging

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Poster Session 2

FRIDAY, FEBRUARY 5

Drug Discovery

Pamela Williams, Astex Pharmaceuticals, UK
CryoEM Applications in Industry

Giovanna Scapin, Merck Research Laboratories, USA
Bringing Cryo-EM to Drug Discovery: Lessons Learned

Patrick M. Sexton, Monash University, Australia
GPCR Structure and Drug Interactions

Nieng Yan, Princeton University, USA
Ion Channel Structures

Short Talk(s) Chosen from Abstracts

Microbial Complexes and Ultrastructure

Martin Pilhofer, ETH Zurich, Switzerland
Cell-Cell Interactions Studied by Cryo-Electron Tomography

Jun Liu, Yale School of Medicine, USA
Bacterial Membrane Protein Complexes

Elizabeth R. Wright, University of Wisconsin-Madison, USA
Host-Pathogen Interactions

Short Talk(s) Chosen from Abstracts

Correlative Microscopy

Dorit Hanein, Sanford-Burnham Medical Research Institute, USA
Regulation of Actin Cytoskeleton

Peijun Zhang, University of Oxford, UK
In situ Structure Study of Virus Infection

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

SATURDAY, FEBRUARY 6

Departure