

Frontiers in Cryo-Electron Microscopy

3rd-4th October 2017 | Leicester

Venue – Henry Wellcome Building

3rd October 2017

09:00 – 09:30 Registration
09:30 – 09:45 Welcome, Introduction

Plenary

09:45 – 10:45 Dr Richard Henderson – “Electron Cryo-microscopy of biological structures: progress and prospects”
10:45 – 11:15 Coffee

Session 1

11:15 – 11:45 Prof. Gabriel Waksman – “Structural and Molecular Biology of Secretion Systems in Gram-negative Bacteria”
11:45 – 12:15 Prof. Masahide Kikkawa – “Combination of Cryo-EM and genetics for studying eukaryotic cilia”
12:15 – 12:45 Dr Radostin Danev – “Single particle analysis of small molecules with the Volta phase plate”
12:45 – 13:15 Prof Kaoru Mitsuoka – “Structural Analysis of V-ATPase from Thermus Thermophilus by Cryo-Electron Microscopy”
13:15 – 14:15 Lunch & Posters

Session 2

14:15 – 14:45 Dr Sjors Scheres – “How Cryo-EM is revolutionising structural biology: examples from Alzheimer's disease”
14:45 – 15:15 Prof. Kenji Iwasaki – “Toward the determination of more complicated protein structures by Cryo-EM”
15:15 – 15:45 Talks from conference sponsors

15:45 – 16:15	Tea
16:15 – 16:45	Prof. Ben Luisi – “Structure and mechanism of bacterial multi-drug efflux pumps”
16:45 – 17:15	Dr Hideki Shigematsu – “Structure of the Kv1.2 Ion Channel in Liposomes”
17:15 – 18:00	Talks from conference sponsors
19:00 for 19:30	Conference dinner - College Court

4th October 2017

09:00 – 09:15 Arrival

Session 3

09:15 – 09:45	Dr David Bhella – Title TBC
09:45 – 10:15	Dr John Briggs – “Using Cryo-electron tomography to determine protein structures within complex environments”
10:15 – 10:45	Dr Naoyuki Miyazaki – “Structural analysis of viruses by Cryo-electron microscopy and tomography”
10:45 – 11:15	Dr James Conway – “Probing virus capsid assembly with Cryo-electron microscopy: from phage HK97 to herpesvirus”
11:15 – 11:45	Coffee

Session 4

11:45 – 12:15	Dr Akihiro Kawamoto – “Structure and rotational symmetry of the rotor of the bacterial flagellar motor revealed by Cryo electron microscopy”
12:15 – 12:45	Prof. David Barford – “Molecular basis for regulation of the anaphase-promoting complex by the spindle assembly checkpoint”
12:45 – 13:15	Prof. Jiro Usukura - “A new approach for live cell imaging and structural analysis of the cytoskeleton by newly developed high-speed AFM”

13:15 – 14:15 Lunch & Posters

Session 5

14:15 – 14:45 Dr Judy Hirst – “Cryo EM structure of mammalian respiratory complex I, an asymmetric 1 MDa energy-converting enzyme”

14:45 – 15:15 Dr Meindert Lamers – “The mechanisms of high fidelity DNA replication revealed by Cryo electron microscopy and single molecule light microscopy”

15:15 – 15:45 Dr Yoshiyuki Fukuda – “In situ structural studies of macro molecular complexes by Cryo-electron tomography with Volta phase plate”

15:45 – 16:15 Tea

Session 6

16:15 – 16:45 Prof. Neil Ranson – The structure and function of the β -barrel assembly machinery

16:45 – 17:15 Prof. Akira Sawaguchi – “Backscattered electron imaging for ultrastructural evaluation of the blood platelet profile: with a provision of human iPS cell-derived platelets production for clinical transfusion”

17:15 – 17:45 Prof. Helen Saibil – “Cryo EM studies of protein aggregation and disaggregation”