

Diamond Biological Cryo-imaging User Meeting: eBIC & B24

All times UK (BST)

Tuesday 3rd May

12:00 **Lunch provided**

Session 1: *Chair: Peter Harrison (eBIC)*

13:00 **Welcome: Martin Walsh (Diamond)**

13:10 **Kyle Morris (eBIC Diamond)**
eBIC user updates

13:40 **David Haselbach (IMP Vienna) – eBIC user talk (virtual)**
Structural insights into the nuclear import of mammalian proteasomes

14:10 **Katerina Toropova (Birkbeck) – eBIC user talk**
Mechanism of dynein-2 in intraflagellar transport

14:40 Break

Session 2: *Chair: Davide Zabeo (eBIC)*

15:30 **Chidinma Okolo (B24 Diamond)**
B24 user updates - virtual

16:00 **Luiza Mendonca (Oxford) – eBIC/B24 user talk**
Integrative imaging of SARS-CoV-2 infection

16:30 **User meeting round-table discussion**
Chairs: Natasha Lukoyanova (Birkbeck) & Jamie Blaza (York)
During the user meeting eBIC representatives will discuss topics raised in the eBIC User Survey: <https://www.surveymonkey.co.uk/r/MKRVHJ8>

17:15 Close

19:00 Informal conference dinner / pizza & beer mixer



CCP-EM Spring Symposium VIII

Nottingham EMCC

All times UK (BST)

Wednesday 4th May

Session 1: *Chair: Doryen Bubeck (Imperial)*

09:00

Opening and welcome

What's new in CCP-EM, eBIC, RFI & EMDB/EMPIAR

CCP-EM: **Matt Iadanza**

09:30

eBIC: **Karen Davies**

10:00

RFI: **Michael Grange**

10:30

EMDB/EMPIAR: **Gerard Kleywegt**

11:00

Coffee

Session 2: *Chair: Neil Ranson (University of Leeds)*

11:30

Dari Kimanius (MRC-LMB)

Structural heterogeneity and algorithmic robustness in Cryo-EM reconstruction

12:00

Ruben Sanchez-Garcia (Oxford)

Map post-processing with DeepEMhancer

12:30

David Herreros (National Central for Biotechnology, CSIC)

Zernikes3D: Analysis of conformational landscapes from CryoEM data

12:50

Lunch

Session 3: *Chair: Stephen Muench (University of Leeds)*

14:30

Katerina Naydenova (MRC-LMB)

The physical origins of specimen movement in electron cryomicroscopy

15:00

Ulrich Lorenz (EPFL)

Towards Microsecond Time-Resolved Cryo-Electron Microscopy

15:30

Andrija Sente (MRC-LMB)

Structural diversity of GABA(A) receptors

15:50

Coffee

Session 4: *Chair: Per Bullough (University of Sheffield)*

16:30

Tim Grant (UW-Madison)

New methods for preparing, imaging and processing cryo-EM samples

17:00

Dorothee Liebschner (Berkeley Lab)

Overview of recent developments for tools in Phenix for cryo-EM

17:30

Peter Rosenthal (Crick)

Progress and Problems in cryo-EM Validation

19:00

Conference dinner

CCP-EM Spring Symposium VIII
Nottingham EMCC

All times UK (BST)

Thursday 5th May

- Session 5:** *Chair: Tom Burnley (STFC)*
- 09:00 **Giulia Zanetti (Birkbeck)**
Cryo-electron tomography and subtomogram averaging for structural determination of membrane coat complexes
- 09:30 **Florian Schur (IST-Austria)**
Cryo-electron tomography workflows to extract quantitative and geometrical information from variable protein assemblies
- 10:00 **Emma Couves (Imperial College, London)**
Capturing Inhibited Assemblies of the Membrane Attack Complex by CryoEM
- 10:20** **Coffee**
- Session 6:** *Chair: Alistair Siebert (DLS)*
- 11:10 **Wim Hagen (EMBL)**
Automated data acquisition for high-resolution tomography and subtomogram averaging
- 11:40 **Rebecca Thompson (Leeds)**
Single particle cryoEM pipelines (reasons to be optimistic)
- 12:10 **Katie Cunnea (Evotec)**
Using cryo-EM of SARM1 to help design new therapeutics against neurodegenerative disease
- 12:30** **Lunch**
- Session 7:** *Chair: Paula da Fonseca (University of Glasgow)*
- 14:00 **Holger Stark (MPI Biophysical Chemistry)**
How to deal with large and dynamic macromolecular complexes
- 14:30 **Christiane Berger-Schaffitzel (Bristol)**
Discovery of a druggable pocket and a drug in SARS-CoV-2 spike glycoprotein
- 15:00 **Goedele Maertens (Imperial)**
Cryo-EM structures of the deltaretroviral intasome in complex with the host factor Protein Phosphatase 2A subunit B56γ and HIV integrase inhibitors
- 15:30 **Tom Deegan (MRC - Human Genetics Unit)**
A conserved mechanism for regulating replisome disassembly revealed by cryo-EM
- 16:00** **Meeting close**