

**Monday 29th April:**

**Biological Cryo-imaging User Meeting: eBIC & B24**

13:00 - 18:00 *Registration open*

14:00 **Martin Walsh** (Biological cryo-imaging group leader) | Welcome

14:05 **Katie Cunnea & Alun Ashton** (eBIC) | eBIC User Program: Update and future plans

14:45 **Ilias Kounatidis** (B24 research associate) | B24 update and future plans

15:30 *Coffee*

*User talks*

16:00 **Alister Burt** | Cryo-ET of Bacterial Chemotaxis Machinery in E. coli Minicells

16:20 **Kyle Morris** | AP-1 trimerisation and conformation switching: allosteric control by HIV-1 Nef in the context of tetherin downregulation

16:40 **Daniel Mann** | CryoEM structure of the lipid transporter MLA

17:00 **Nita Shah** | CryoEM reveals how plants turn off carbon fixation in the dark

17:20 **Kamal Nahas** | Correlative microscopy: HSV biology

17:40 **Maud Dumoux** | Correlative microscopy: Chlamydia biology

*User meeting discussion*

18:00 Chaired by **Sean Connell** | Diamond User Committee (DUC) representative

19:00 *Pizza & Beer mixer*



**Science & Technology**  
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**Tuesday 30th April:**  
**CCP-EM Spring Symposium**



- 8:30            *Registration*
- 9:30            Welcome & what's new in CCP-EM (Colin Palmer, 35mins),  
                  eBIC (Andy Howe, 20mins) & EMDB (Gerard Kleywegt, 35mins)
- 11:00           *Coffee*

Session 1 - Software Tools

- 11:30           **John Rubinstein** | CryoEM for scarce and unstable membrane protein complexes
- 12:15           **Kevin Cowtan** | Extending model building and refinement tools for Cryo-EM  
                  applications
- 12:45           **Shaun Rawson** | Rapid evaluation of EM datasets
- 13:15           *Lunch*

Session 2 - Applications / model building

- 14:30           **Doryen Bubeck** | CryoEM of the membrane attack complex reveals how proteins  
                  cross lipid bilayers
- 15:00           **Grzegorz Chojnowski** | De novo construction of atomic models into  
                  electron-microscopy maps with ARP/wARP 8.0
- 15:15           **Tristan Croll** | Interactive model building in ISOLDE
- 15:30           **Pamela Williams** | Expanding the industrial structural biologist's toolkit with cryoEM
- 16:00           *Coffee and poster session*

Session 3 - Microscopy

- 17:00           **Felix Weis** | How to get the maximum out of your cryo-EM data collection session
- 17:30           **David Bhella** | The Scottish Centre for Macromolecular Imaging - early adopters of  
                  the JEOL CryoARM300
- 18:00           *Posters continued and CCP-EM working group meeting (1hr meeting)*
- 19:30           *Conference dinner*



**Wednesday 1st May:  
CCP-EM Spring Symposium**



Session 4 - Sample preparation

- 9:00 **Giulia Weissenberger (CryoSol)** | VitroJet: Bridging the Gap in Sample Prep
- 9:15 **Michele Darrow (TTP Labtech)** | Chameleon: Next Generation Sample Preparation for CryoEM based on Spotiton
- 9:30 **Thomas Braun** | Microfluidic Sample Preparation for EM: Protein Isolation, High-Resolution cryo-EM, and 'Differential Visual Proteomics'
- 10:00 **Stephen Muench** | New approaches to grid preparation in cryo Electron Microscopy
- 10:30 *Coffee and poster session*

Session 5 - Miscellaneous

- 11:30 **Louise Fairall** | Architecture of the MiDAC histone deacetylase complex
- 11:45 **Thorsten Wagner** | Automated particle picking and preprocessing in SPHIRE
- 12:15 *Lunch*

Session 6 - Tomography

- 13:30 **Sonja Welsch** | News on Thermo Fisher Scientific's 2019 developments for cryoTEM
- 14:00 **Stefan Pfeffer** | Structural insights into the co-translational machinery for protein folding and maturation
- 14:30 **Wanda Kukulski** | Cellular membrane architectures studied by correlative microscopy and electron cryo-tomography
- 15:00 *Coffee*

Session 7 - Software tools

- 15:30 **Maximilian Beckers** | Thresholding of cryo-EM density maps by false discovery rate control
- 15:45 **Jose Miguel de la Rosa Trevin** | Development of basic building blocks and distributed computing for automatic data processing
- 16:00 **Sjors Scheres** | Developments in RELION-3
- 16:45 *Closing remarks*

