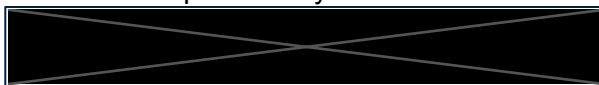


Wellcome - MRC *in situ* Cryo-ET Workshop 2024

14th – 18th October 2024

In-person / hybrid event



Organiser(s): Lorna Malone (eBIC), Karen Davies (eBIC) & Anna Rackley (eBIC)

Day 1: Monday

09:00–09:15	Arrival at RAL reception (R75) for delegates and external visitors
09:15–09:30	Welcome Coffee (G59)
09:30–10:00	Introductions and welcome – Martin Walsh (DLS) (G59)
10:00–11:00	Lecture 1: An Overview of <i>In Situ</i> Structural Biology with cryoET – Kyprianos Hadjidemetriou (eBIC) (G59)
11:00–12:00	Lecture 2: Sample Vitrification and Screening for Cryo-ET – Rebecca Thompson (TFS) (G59)
12:00–13:00	Lunch break (G59)
13:00–13:30	Demonstration 1: Sample Vitrification using a Vitrobot – Kyle Morris (eBIC) (pre-recorded)
13:30–13:45	Health & Safety Talk – Karen Davies (eBIC) (G59)
14:00–15:30	* Practical Session 1a: Sample Preparation for CryoET Group 1 – Eilís Bragginton & Parijat Majumder (synchrotron, Lab 11) Group 2 – Karen Davies & Liam Mead (synchrotron, B24)
15:30–17:00	* Practical Session 1b: Sample Preparation for CryoET Group 1 – Karen Davies & Liam Mead (synchrotron, B24) Group 2 – Eilís Bragginton & Parijat Majumder (synchrotron, Lab 11)
17:00–17:05	Group Photo (Diamond Atrium)
17:05 –	Free Evening

Day 2: Tuesday

09:00–09:15	Arrival & Morning Coffee (G59)
09:15–09:30	Orientation & day overview - Lorna Malone (eBIC) (G59)
09:30–10:30	Lecture 3: An Introduction to Correlative Cryo-ET Workflows – Michael Grange (RFI) (G59)
10:30–11:30	Lecture 4: Lamella milling for tomography – James Gilchrist (eBIC) (G59)
11:30–12:00	Lecture 5: Correlative workflows at eBIC – Parijat Majumder (G59)
12:00–13:00	Lunch break (G59)
13:00–17:00	* Practical Session 2: Principles of FIB Set Up & Lamella Preparation Group 1 – James Gilchrist (eBIC I14 Aquilos Room) Group 2 – Matt Spink (eBIC I14 Scios Room)
17:15 –	Free Evening

Day 3: Wednesday

09:00–09:30	Arrival & Morning Coffee (G59)
09:30–09:45	Orientation & day overview - Lorna Malone (eBIC) (G59)
10:00–12:00	* Practical Session 3: Lamella Preparation using Cryo-FIB Milling Group 1 – James Gilchrist (eBIC I14 Aquilos Room) Group 2 – Matt Spink (eBIC I14 Scios Room)
12:00–13:00	Lunch break (G59)
13:00–17:00	* Practical Session 3 continued: Lamella Preparation using Cryo-FIB Milling Group 1 – James Gilchrist (eBIC I14 Aquilos Room) Group 2 – Matt Spink (eBIC I14 Scios Room)
17:15 –	Free Evening

Day 4: Thursday

09:00–09:30	Arrival & Morning Coffee (G59)
09:30–09:40	Orientation & day overview - Lorna Malone (eBIC) (G59)
09:40–12:00	Demonstration 2: Cryo-ET Screening & Data Collection – Dave Farmer (eBIC) (G59)
12:00–13:00	Lunch break (G59)
13:00–17:00	* Practical Session 4: Cryo-ET Screening & Data Collection Group 1 – Dan Clare (eBIC I14 Control Room) Group 2 – Dave Farmer (eBIC I14 Control Room)
19:00 –	Dinner (The Bear, Wantage)

Day 5: Friday

09:00–09:20	Arrival & Morning Coffee (G59)
09:20–09:30	Orientation & day overview - Lorna Malone (eBIC) (G59)
09:30–10:30	Lecture 6: Averaging and reconstructing 3D maps in cryo-ET – Pranav Shah (STRUBI, Oxford) (G59)
10:30–11:30	Lecture 7: Cryo-ET Data Processing and Sub Tomogram Averaging using RELION 5 – Rangana Warshamanage (CCP-EM) (G59)
11:30–12:30	Lunch break (G59)
12:30–15:30	* Practical 5: Cryo-ET Data Processing and Sub Tomogram Averaging using RELION 5 (MR3 - RCaH)
15:45–16:30	* Delegates Presentations: Delegates learning & feedback talks (G59)
16:30–17:15	* Wrap Up Q&A Discussion (G59)

End of Course

Lectures will be held in **Diamond House G59** and broadcast to the community via Zoom. Sessions marked with an (*) indicate sessions for in-person participants only – this includes practical sessions, most demonstrations, feedback talks and the wrap-up Q&A.