



Workshop Schedule

Workshop 3: Hands-on CryoEM Sample Preparation & Data Collection Workshop Using CryoEM Merit Badges

Organizers: Ed Eng & Craig Yoshioka

Sunday, July 7, 2024 @ 8:30 AM - 4:30 PM MT

Kindly be aware that the provided schedule is provisional and may be subject to adjustments.

Time	Instructor / Topic
8:30-8:45	Ed Eng, NCCAT/NYSBC & Craig Yoshioka, PNCC/OHSU – Welcome and introduction to NIH Transformative High-Resolution CryoEM Program’s Merit Badges
8:45-9:45	CryoEM Curriculum Development Part I (Moderated by Michael Schmid, S2C2/Stadford)
8:45-9:10	Peter Shen, University of Utah – cryoEM101: How to use media and data visualization to aid the training efforts of newcomers to the field
9:10-9:45	Wen Jiang, Purdue University – cryoVR: How Virtual Reality can be used to familiarize users with cryoEM equipment
9:45-10:10	Coffee break
10:10-12:00pm	cryoEM Practicals Part I
10:10-10:15	Ed Eng, NYSBC & Craig Yoshioka, OHSU – Introduction to practical stations
10:15-12:00	Practical stations part I <ol style="list-style-type: none"> 1) Station A: cryoVR: Virtual Reality augmented cryoEM training 2) Station B: Plunge freezing 3) Station C: Autoloaders: Autogrid clipping and cryoEM pucks 4) Station D: Remote data collection on autoloader systems Students will remote into national center microscopes
12:00-1:00pm	Lunch and discussion
1:00-4:30pm	CryoEM Curriculum Development Part II
1:00-1:05pm	Ed Eng, NYSBC & Craig Yoshioka, OHSU – Introduction to afternoon sessions

1:05-1:30pm	Caleigh Azumaya, Genentech – Samples to structures for cryoEM: optimizing quality and efficiency in translational research
1:30-1:55pm	Michael Cianfrocco, University of Michigan and Mark Herzik, University of San Diego – cryoEDU: How to learn and practice cryoEM processing with limited computational resources
1:55-3:00pm	CryoEDU practical: SPA data processing practical
3:00-3:30pm	Coffee break
3:30-4:30pm	<p>cryoEM Practicals Part II</p> <ol style="list-style-type: none"> 1) Station A: cryoVR: Virtual Reality augmented cryoEM training 2) Station B: Plunge freezing 3) Station C: Autoloaders: Autogrid clipping and cryoEM pucks 4) Station D: Remote data collection on autoloader systems Students will remote into national center microscopes 5) Station E: cryoEDU (cont.)
4:30pm	Wrap up