




Search our site... 

- [Home](#)
- [General Info](#)
- [Events](#)
- [Abstracts](#)
- [Hotel & Travel](#)
- [Past & Future Meetings](#)
- [Guides](#)
- [Exhibit Show 23](#)

Workshop #2: SAMPREP (Sample Attributes for Multiple-techniques and Principal Requirements for Experiments in Pan-structural biology) Workshop

Date/Time	Friday, July 7, 2023 @ 8:30 AM	Registration Fees
Location	Kent AB	Regular: \$125 Per Person Retired: \$125 Per Person PostDoc: \$75 Per Person Student: \$50 Per Person Corporate: \$125 Per Person
Max Capacity	NA	
Main Contact	Christina Zimanyi Silvia Russi	

Description

The routine use of multi-technique approaches to answer the most complex and challenging questions in structural biology has dramatically increased in recent years. We believe the 2023 meeting in Baltimore is an excellent destination for bringing together Cryo-EM, MX and SAS experts to prepare students and investigators new to the methods for the successful application of these techniques. We are particularly excited to offer this workshop in conjunction with the stated goal of the 2023 meeting organizing committee to attract early career scientists via a more education focused meeting program. This one-day workshop will provide introduction to both the theory of the methods and best practices common to the field with a focus on the importance of the quality of samples. In addition to synchrotron sources, this workshop will devote content to laboratory best practices in the preparation of samples and their manipulation at the home lab and their transportation to Cryo-EM centers and synchrotrons. In contrast to the more intensive courses at synchrotrons around the world that extend across several days, but usually cover only one technique, this single day of carefully constructed lectures and tutorials is an introduction aimed at improving the chances for success in preliminary experiments. The material is appropriate for investigators new to the field, or for those with experience in one structural biology technique to gain the knowledge they need to pursue others, and elevate the standards for published data and peer-review. The workshop format will include lectures and a selection of hands-on practical exercises. Throughout the workshop the emphasis will be on practical application: knowing how to judge sample quality, how to troubleshoot during sample preparation, and the expectations for a successful experiment and acceptable publication.

Schedule*

Time	Instructor/Topic
8:30 AM ET	Introduction Cross section between Solution Scattering (SAS), macromolecular X-ray crystallography (MX), & cryo-electron microscopy (Cryo-EM) Speakers: Christina Zimanyi, Silvia Russi, Thomas Weiss
8:45 AM ET	Sample Quality The importance of purification and preparation Speakers: James Byrnes & Marco Mazzorana
9:45 AM ET	Coffee Break
10:00 AM ET	Biochemical and Biophysical Characterization and Small Angle X-ray Scattering Speakers: Kushol Gupta & Thomas Weiss
11:00 AM ET	CryoEM How much does the quality of cryo-EM data depend on your sample? Speakers: Christina Zimanyi & Ligu Wang
12:00 PM ET	Lunch with a 15 minute talk from Refeyn on Mass Photometry, then free time
1:15 PM ET	The several facets of Crystallization From large to nanosized crystals Speakers: Sarah Bowman & Vivian Stojanof
2:15 PM ET	Sample Transportation Preparing your samples for safe arrival at Centers and Facilities – Tips and Tricks Speakers: Silvia Russi, Sarah Bowman, James Byrnes & Christina Zimanyi
3:00 PM ET	Coffee Break
3:15 PM ET	Integrated Structural Biology: A Case study

Quick Links

- [ACA Homepage](#)
- [Conference Attendee Guide](#)
- [Oxford Abstracts Platform](#)
- [Oxford Abstracts Poster Gallery](#)
- [Full Program 2023](#)
- [Oxford Abstract Platform Information](#)

Announcements

[Welcome to our newest ACA Fellows!](#)











SPONSORED BY:



	Combining SAXS and cryo-EM to study dynamic protein systems: a case study with cobalamin-dependent methionine synthase Invited speaker: Max Watkins
4:15 PM ET	Panel Discussion Share your stories (all participants). Participants can also share protocols or data for feedback from the panel of experts. All speakers.
5:30 PM ET	Conclusion

**Tentative and subject to change.*

Instructors

		
Sarah E.J. Bowman National High-Throughput Crystallization Center, Hauptman-Woodward Medical Research Institute	James Byrnes Center for Biomolecular Structure, NSLS II, Brookhaven National Laboratory	Kushol Gupta Perelman School of Medicine, University of Pennsylvania & Johnson Foundation Structural Biology and Biophysics Core
		
Marco Mazzorana Diamond Light Source, Ltd (UK)	Silvia Russi Structural Macromolecular Biology Division, SSRL, SLAC National Accelerator Laboratory	Vivian Stojanoff Center for Biomolecular Structure, NSLS II, Brookhaven National Laboratory
		
Thomas Weiss Structural Macromolecular Biology Division, SSRL, SLAC National Accelerator Laboratory	Christina Zimanyi National Center for CryoEM Access and Training, New York Structural Biology Center	

Three Minute Thesis Sponsors



Special Sponsors



YSIG Lunch Sponsor



Structural Dynamics



