



ADVANCING STRUCTURAL AND FUNCTIONAL CHARACTERIZATION OF BIOMOLECULES

TO REGISTER FOR INDIVIDUAL SEMINARS OR HANDS-ON WORKSHOPS
CONTACT JULIA FECKO (JAF48@PSU.EDU)

Location: Hybrid Workshop - Zoom and Biomolecular Interactions Core, 8 Althouse Lab

Date: Aug 21st - 22nd, 2025

SCHEDULE DAY 1- AUG. 21ST

Morning: Zoom <https://psu.zoom.us/j/97773285694?pwd=QZfOFu2X7VhjwpAlknZlEhB5bHqrTY.1>

Afternoon: Hands-on workshop in the X-ray Crystallography and Scattering facility, 8 Althouse Lab

9:00 AM Zoom	ITC, DSC and CD for studying intermolecular interactions, thermodynamic properties and structure.	Julia Fecko Research Technologist, Biomolecular Interactions Facility
10:00 AM Zoom	The principles and applications of Lumicks C-Trap optical tweezers with fluorescence confocal microscopy	Prof. Tae-Hee Lee Department of Chemistry Pennsylvania State University
11:00 AM Zoom	SEC-MALS-DLS Introduction to light scattering and good practices for optimal performance	Ben Pulminskas Wyatt Technology Applications Specialist
12:00 PM	Break	
1:30 PM 8 Althouse	SEC-MALS workshop-Using multiangle light scattering and DLS to measure molar mass and Rh of BSA	Ben Pulminskas and the Wyatt Team of Application scientists
3:00 PM 8 Althouse	ITC-DSC workshop - CuSO ₄ BSA binding and thermal melting. CD- Analyzing protein structure of lysozyme.	Julia Fecko Research Technologist, Biomolecular Interactions Facility

SCHEDULE DAY 2- AUG. 22ND

Morning: Hands-on workshop in the X-ray Crystallography and Scattering facility, 8 Althouse Lab

Afternoon: Zoom <https://psu.zoom.us/j/97773285694?pwd=QZfOFu2X7VhjwpAlknZlEhB5bHqrTY.1>

9:00 AM 8 Althouse	Introduction to data collection with the C-trap	Prof. Tae-Hee Lee Department of Chemistry Pennsylvania State University
10:30 AM 8 Althouse	Bio-SAXS data collection and analysis with BSA	Dr. Neela Yennawar Director Biomolecular Interactions, X-ray Crystallography and Scattering facilities
11:30 AM 8 Althouse	X-ray diffraction demo with lysozyme crystals	Dr. Hemant Yennawar Co-director of X-ray Crystallography and Scattering facilities
12:00 PM	Break	
1:00 PM Zoom	From Shape to Stoichiometry: Power of integrating SAXS with SEC-MALS, AUC, NMR, HDX Mass-Spec, ITC and other Biophysical Methods	Dr. Neela Yennawar Director Biomolecular Interactions, X-ray Crystallography and Scattering facilities
2:00 PM Zoom	Research highlights from the X-ray Crystallography Facility	Dr. Hemant Yennawar Co-director of X-ray Crystallography and Scattering facilities
3:00 PM Zoom	Probing Macromolecular Interactions using Multi-wavelength AUC Analysis	Prof. Borries Demeler Professor Chemistry and Biochemistry, University of Lethbridge in Alberta, Canada
