Covalent Labeling, Cross-Linking, and HDX (CL/CX/HDX)

Prediction is Not Proof: Structural Mass Spectrometry in the Alpha Fold Era

Monday, June 1, 2026

San Diego, Ca

Presiding: Nicholas Borotto (University of Nevada Reno) and Ian Webb (Indiana University Indianapolis)

Summary: The ASMS 2026 CL/CX/HDX Workshop focused on challenges and opportunities for structural mass spectrometry techniques with the spread of widely available protein and protein-protein complex prediction tools, such as Alpha Fold. After briefly introducing the topic, we had experts in covalent labeling, HDX, and computational biology discuss integrating measurements with computation, around 5-7 minutes each. Then the speakers, with Ian Webb serving as an additional panelist (for cross-linking), served as an expert panel for a lively Q and A session. Although a series of questions was prepared to help lead the discussion, it was led almost exclusively by audience questions. The session received very positive feedback, rated highly for quality, topics, and format.

The speakers/panelists were as follows:

1. Richard Vachet (Professor, University of Massachusetts Amherst) – Covalent Labeling

2. Elizabeth Komives (Professor, University of California San Diego) – HDX

3. Steffen Lindert (Professor, University of California Los Angeles) – Computational Biology and Mass Spectrometry

Workshop attendance: ~200 people.