Workshop: H/D Exchange, Covalent Labeling, and Cross-Linking Interest Group

Date: Nov 2 2021

Organizers: Mike Guttman, University of Washington

Corie Ralston, Lawrence Berkeley Lab Fabio Gozzo, University of Campinas

Attendance: 106 (we're unsure how many additional people were logged in online) (72 survey respondents)

This year a pre-workshop survey was implemented to poll Interest Group members on what aspects of methodology and/or what biological questions, new advances, insight from HDX/CL/XL techniques are of greatest interest. Survey results were shared with panelists prior to the meeting to enable tuning their presentations to better address interests of the group indicated in survey results. The workshop included three 10-minute talks introducing each topic and relevant advances followed by three 5 minute talks on a specific topic selected from poster presentations at ASMS.

Due to covid-related travel restrictions one of the organizers (Fabio Gozzo) and one of our main presenters (Richard Scheltema) we not able to make it to ASMS in person. Despite this hurdle, we were able to get through all the presentations. Thankfully, Richard provided a recording of his presentation ahead of time that we were able to air as part of the workshop.

As several of the talks went a few minutes long, the panelists were only able to address a few questions before we ran out of time. Several of the presenters included additional discussion as part of their presentations that addressed specific topics that were common among the survey results including new crosslinking chemistries, new covalent labeling reagents, and combining HDX-MS data with molecular dynamics simulations.

Based on the first set of online responses in the online discussion and later confirmed by the workshop survey several people trying to join were being redirected to the artificial intelligence workshop. It was not clear whether this issue was resolved through the course of the workshop.

The overwhelming comments from the surveys agree that there should have been more time devoted to discussion and answering questions from the audience, instead of short presentations. Several responses also noted that covering all three topics with introductions within a single 85-minute workshop that leaves time for panel or audience discussions is impossible.

The workshop agenda is below.

5:45 - 5:50 General introduction

Introduction and advances	5:50 - 6:00 Covalent labeling – Mark Chance 6:00 - 6:10 HD exchange – Daniel Deredge 6:10 - 6:20 Cross-linking – Richard Scheltema
Select topics	6:20 - 6:25 Cross-linking - Saiful Chowdhury 6:25 - 6:30 HD exchange - Mulin Fang 6:30 - 6:35 Covalent labeling - Deseree Reid
Panel discussion	6:35 - 6:55 Open discussion