

Events

Engineering recombinant proteins for structural and functional studies

27–28 November 2023, The Spine, Liverpool, UK

We are still buzzing in the aftermath of our 2-day training event in sunny (yes, we were lucky!) Liverpool, where over 80 scientists assembled to share knowledge and experiences of how best to engineer recombinant proteins for structural and functional studies. It's the third time we've run this event and it's like a well-oiled machine now, jam-packed with interactive sessions, chances to test out the latest machines and networking opportunities between delegates, trainers and sponsors (Figure 1).

We started with informatics and *in silico* protein design with sessions from Chris Cooper and Dan Rigden. Then Nicola Burgess-Brown took us through the epic high-throughput expression exploits of the Structural Genomics Consortium and Ellie Williams facilitated a lively choose-your-own-adventure activity on how to find the best expression system for your protein. After a great poster session, we enjoyed four short talks chosen from abstracts. The speakers were Barbara Altenhuber (London), Prosenjit Pal (Dundee), Jakob Proemer (Austria) and Eri Tabata who joined us all the way from Japan and told us about her heroic engineering of a chitin-digesting enzyme that might come in handy once insects as 'future food' routinely end up on our dinner plates!

En masse, we then trooped across town to the iconic docks to enjoy a lavish conference dinner (pudding pictured; Figure 2).

The next morning, we reassembled bright-eyed and bushy-tailed for a great presentation on protein purification by Mark Frost, who is the local area Cytiva AKTA specialist, and another choose-your-own adventure game run by Ellie, this time on purification strategies. After a tea








Figure 2. Conference dessert: strawberry candyfloss cheesecake!

break with a final chance to peruse the posters, we reconvened for a lively 'tips and tricks' session on how to improve your protein quality using different biophysical techniques. We heard a great whistle-stop tour from the main organizer Elliott Stollar about experimental design and the myriad ways to check your protein, brief info on thermal shift assay from Ellie and a convincing pep-talk about the value and capability of mass-spec from Rod Chalk. Next we had two case studies: Magdalena Richter (AstraZeneca, UK) told us a cool story that was facilitated by



Figure 1. Delegates, sponsors and trainers at the engineering recombinant proteins training event.

-  Scientific Meeting
-  Public Event
-  Medal Lecture
-  Training Events and Courses
-  Free to attend

For more information:
www.biochemistry.org/Events



Figure 3. Poster prize winners Emma Thompson and Margaux Haon.

hydrogen–deuterium exchange, and Rivka Isaacson gave some NMR-based tales of protein construct optimization.

Finally, we awarded the poster prizes with great difficulty (Figure 3), as they were all excellent, and had a general discussion on the course content, with people offering feedback and ideas for next year.

After a delicious lunch, we all dispersed back to the realities of our lives, itching to return to lab and apply all our newfound knowledge.

Stay tuned to our website and social media as we add more and more Biochemical Society events to our events calendar! We hope to see you at a Biochemical Society event soon. ■

Elliott Stollar (University of Liverpool, UK)

Nicola Burgess-Brown (Exact Sciences Innovation, UK)

Rivka Isaacson (King's College London, UK)