

# BSPR Conference Report

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**Brian Flatley**

The annual meeting for the British Society for Proteome Research was held over two days (3<sup>rd</sup> – 4<sup>th</sup> December 2014) in the impressive surroundings of Nottingham University. The theme of the conference was “Functional Proteomics: from Protein to Organisms” and from the opening lecture the speakers did not fail to excite with a series of great talks.

Juri Rappsilber (BSPR lecturer 2014) opened the Protein Structure session with a very interesting talk on the study of intact proteins in their native environments and the introduction of quantitative cross-linking/mass spectrometry to carry out this research. Listening as a bottom-up proteomic researcher this talk provided a great opportunity to learn what is happening on the top-down work to examine proteins in their natural environment and learn more about their interaction possibilities. This protein structure elucidation theme was carried on by a Perdita Barran with a lively lecture on ion mobility mass spectrometry and its usefulness for characterising protein structures in the absence of a solvent environment. This lecture offered those in the audience an opportunity to learn about the great opportunities that ion mobility mass spectrometry offers as a standalone instrument to analyse a protein and its structure.

There was a succession of talks from various vendors following a short coffee break; this proved an excellent opportunity for the audience to be brought up to speed on a number of exciting developments in both mass spectrometry and more traditional techniques such as western blotting and their application to proteome research. Hanqing Liao was awarded the prestigious Early Career investigator award for a great presentation on his work involving LC-MS raw data processing using a Bayesian statistical approach. The first day talks was drawn to a close with a number of presentation on biological implications of post-translation modifications and the techniques involved in analysing them.

Day two of the conference proved no less enjoyable from the opening talk on MALDI imaging and its applications to pharmaceutical R&D right through to the final talk from Marius Ueffing on quantitative analysis of protein complexes over space and time. One of the most enjoyable talks for me was that from Zoltan Takats (Imperial College London). He gave a very interesting presentation on his research into intraoperative tissue identification using rapid evaporative ionization mass spectrometry. A very exciting new area of research for the application of mass spectrometry, really bringing the instrument into clinical utility. This technique promises to be an excellent showcase of the ability of mass spectrometry in a medical environment.

Attendance of this year's BSPR was of very beneficial to me as I got the opportunity to present the final part of the research I carried out at the University of Reading. This allowed me to discuss that work with other researchers at the conference and generate ideas stemming from the project. In parallel to presenting that work, I was able to discuss my current research with people carrying out quantitative proteomics, an area I have recently started to work in. This was valuable as being new to the area discussion and advice is critical for the successful culmination of any project. I was

delighted to have been selected for a M.J. Dunn fellowship, the BSPR conference was very informative, the attendees were sociable and the catering was excellent so overall it provided for a great two days. I would like to express my gratitude to BSPR for offering me this prestigious fellowship.