



BSPR Newsletter

Spring 2024

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BSPR- BMSS Super Meeting 2024

The BSPR is delighted to be partnering with the British Mass Spectrometry Society (BMSS) to hold a combined Super Meeting in 2024. The conference will be held on the 4th to 6th September 2024, at the Warwick Arts Centre at the University of Warwick.



The Super Meeting will be an all-encompassing event, covering the full spectrum of interests from proteomics and mass spectrometry, including sessions on the topics of:

- Applications of mass spectrometry in the Natural and Life Sciences
- Chemical Biology
- Proteomics (One Health & Non-Human)
- Instrumentation and fundamental MS
- Clinical Proteomics
- Ambient Ionisation & Imaging
- Data Processing & Informatics
- Native MS & Proteomics
- Small Molecules
- Biomacromolecular Structure
- Systems Biology & Rare Diseases
- Lipidomics & Metabolomics
- Ion Mobility
- Emerging Methods and Technologies in Proteomics

We are also thrilled to announce confirmed plenary speakers:

- Prof. Bernhard Kuster (Technical University of Munich)
- Prof. Kevin Pagel (Freie Universität Berlin)
- Prof. Corinne Spickett (Aston University)

Please consider joining us for one of our three pre-conference workshops:

- **Stable isotope mass spectrometry in health and disease: Applications, methodologies and analyses** (run by Dr. Dan Wilkinson, Dr Matt Brook and Prof Kenny Smith). This workshop will introduce the application and methodologies behind stable isotope MS in basic scientific research. Including how to apply, prepare and analyse the data, with examples provided in studies from human skeletal muscle in health and disease.
- **Lipids, complexity, relative quantitation and biosynthetic pathway analysis** (run by Dr. Andrea Lopez-Clavijo and Dr. Christine Hinz). This lipidomics workshop will incorporate lipid complexity, classification,

nomenclature, short notation, and mass spectrometry based analysis. Including lipid curation for databases, hands-on automated lipid identification/integration for semi-quantitative analysis software and biosynthetic automated pathway analysis to translate lipid profile changes into biological meaning/integration with transcriptomics.

- **Skyline software for proteomics and small molecules analysis** (run by Dr. Brendan MacLean and Dr. Michele Woelk). Open a new window to understanding your mass spectrometry data for proteomics and small molecules with this introduction to the free and open-source Skyline software. Begin using Skyline data analysis and visualization for DIA, PRM, and DDA proteomics data and SRM for lipidomics data. This single-day workshop will get you started with using Skyline software in your quantitative LCMS experiments. In its 15 years of open availability, Skyline has routinely ranked as one of the most precise tools available for quantitative MS. Skyline is unparalleled in the field for its data visualization. See what you have been missing.

For more details regarding the conference programme, accommodation, travel grants and abstract submission, please visit <https://www.bmss.org.uk/bmss-bspr-super-meeting-2024/>.

Abstract submission is now open until May 17th 2024. Early registration will close July 21st 2024 and standard registration will close August 18th 2024.

For general enquiries please contact admin@bmss.org.uk.

BSPR-EuPA 2023 Review

In summer 2023, the BSPR collaborated with EuPA to host a joint Annual Scientific Meeting in Newcastle. The meeting took place over four days and included an exciting combination of scientific talks, workshops and networking.



The poster features a central image of the Angel of the North sculpture against a blue sky with clouds. The BSPR logo is in the top left and the EuPA logo is in the top right. The text on the poster reads: 'Programme', '17th - 20th July 2023', 'BSPR & EuPA Annual Scientific Meeting', 'Next Generation Proteomics', and 'Newcastle upon Tyne, UK'. At the bottom, there are logos for Platinum Sponsor (BRUKER), Gold Sponsor (ThermoFisher Scientific), Silver Sponsor (BIOGNOSYS), and Bronze Sponsors (Covaris, PREOMICS, SCIEX, and Newcastle University).

Programme

17th - 20th July
2023

BSPR & EuPA
Annual Scientific Meeting
Next Generation Proteomics

Newcastle upon Tyne, UK

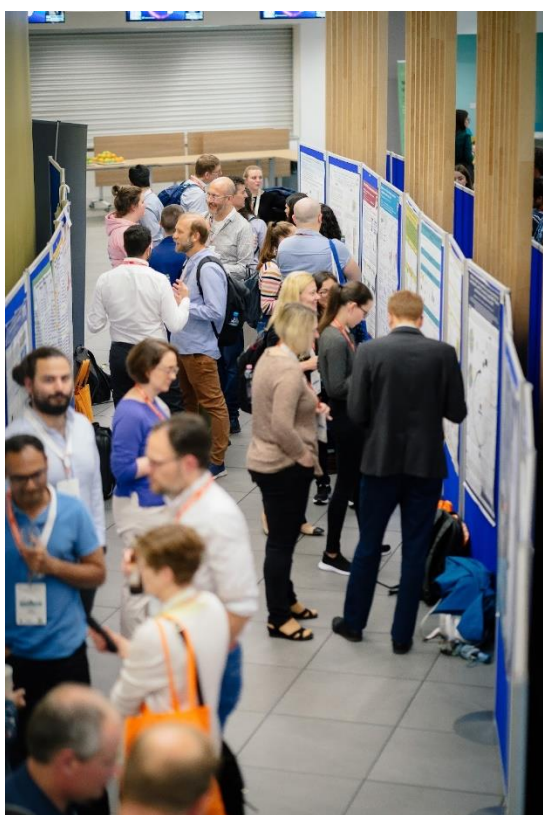
Platinum Sponsor: **BRUKER**
Gold Sponsor: **ThermoFisher Scientific**
Silver Sponsor: **BIOGNOSYS**
Bronze Sponsors: **Covaris PREOMICS SCIEX** and **Newcastle University**

The week started strong with pre-conference workshops arranged by the Young Proteomics Investigators Club (YPIC) on topics ranging from metaproteomics and bioinformatics to careers and mental health. These were closely followed by an excellent plenary session given by Mike MacCoss who talked about the complexities of experimental design and data analysis in the context of his work studying the mechanisms of Alzheimer's disease.



The quality of the presented science continued to impress over the following three days. These days included parallel sessions with talks covering clinical and disease proteomics, chemical proteomics, bioinformatics, spatial proteomics, structural proteomics, metaproteomics and top down proteomics. With such a diversity of science discussed there was something for all who attended. The meeting also included a fantastic plenary talk from Sara Zanivan, the 2023 BSPR Lecturer.

As well as hearing from established experts in proteomics, early career researchers were given a spotlight at the meeting. Alejandro Brenes, Emily Clarke, Stephan Eckert, Roberta Noberini, Leonie Mueller and Giulana Siragusa received awards for their excellent ECR talks. Simran Aulakh, Firsia Hamood and Dušan Živković were also presented with awards for their posters. We would again like to congratulate all of the prize winners.



Finally, the meeting provided an opportunity to network with colleagues, both old and new. On the first evening all attendees were invited to a networking reception at the Discovery Museum. This provided a fun, informal atmosphere to get conversations flowing and start the meeting on a high. The conference dinner and after party at Wylam Brewery was another highlight with live music and dancing going on into the night.



The BSPR would like to take the time to thank and extend our appreciation to everyone who was involved in the organisation and running of the BSPR-EuPA 2023 Annual Meeting. Special thanks go to the organising committee led by Prof. Matthias Trost, EuPA and YPIC committees, and our industrial partners who kindly sponsored and attended the event.



BSPR-EuPA 2023 Bursary and Fellowship Reports

One of the BSPR's primary aims is to support members of the proteomics community. Indeed, the BSPR was delighted to provide travel bursaries of £250 to help early career researchers and staff attend the BSPR-EuPA Annual Meeting in Newcastle. We also awarded the MJ Dunn Fellowship 2023 to Dr. Sean Burnap, a postdoctoral researcher at the University of Oxford. We caught up with the recipients of the awards and bursaries to find out more about their experiences at the meeting.

Lilly Adair (PhD student, University of Reading)

"Being able to discuss my work with other researchers and experts in the field was such an invaluable experience, providing me with feedback and further inspiration that I will carry forward throughout my PhD."

Olga Tereszowska-Kaminska (PhD student, University of Liverpool)

"The talks were diverse and very interesting, and I especially enjoyed the Post-Translational Modifications session with Tiziana Bonaldi's talk on the role of protein methyltransferases in cancer plasticity and resistance. This session and talk related to my research and gave me new insights into where my PhD could take me."

Charlotte Hutchings (PhD student, University of Cambridge)

"It must be said that the early career researcher talks were very impressive, as were the 150+ posters. I also had the opportunity to present a poster of my own PhD research this year, gaining valuable insight and feedback from discussions with colleagues."

Dr. Sean Burnap (Postdoctoral researcher, University of Oxford)

"It was an absolute pleasure to have the opportunity to discuss my own research over my poster focussing on the use of cross-linking mass spectrometry to determine lipoprotein-based interactors of the SARS-CoV-2 spike protein. [...] It was also incredible to see a large focus of the meeting given to support Early Career Researchers, not only through the selection of many to give talks but also through organised workshops and seminars, as well as with the wonderful presence of the Young Proteomics Investigators Club."

BSPR Bursaries and Fellowships 2024

The BSPR provides several bursaries and fellowships awarded each year to BSPR members. For details on becoming a BSPR member please visit www.bspr.org/about/membership/application. Student membership is free and gives access to reduced registration fees and bursaries. Please see below for the list of awards available for 2024.

MJ Dunn Fellowship - Up to £1000 for a Postdoctoral scientist who is within 6 years of completing their PhD. The award may be put towards registration, accommodation and travel expenses for the BSPR/BMSS 2024 conference.

Student and Support Staff Conference Bursaries - £350 for national and £700 for international proteomics meetings to help cover costs of registration, accommodation and travel.

Travel Bursary to Regional Meetings - £50 to support student and technical staff with travel cost to their nearest local meetings e.g., London Proteomics Discussion group, London Biological Mass Spectrometry Discussion Group, Midlands's mass spectrometry group.

European Summer School Travel Bursary 2024 - Award to cover registration, accommodation and travel expenses for the 15th European Summer School (<https://advancedproteomics2023.febsevents.org>) **Deadline 31 May 2024.**

John Timms Memorial Travel Bursary - Up to £1500 available to any researcher (all career stages applicable) to attend a conference with a poster or presentation featuring proteomics research. Priority will be given to researchers presenting cancer-proteomics. **Deadline 1st May.**

John Timms Mentoring Award - This prestigious award has been created to recognise the effort, time, and commitment to mentoring proteomics researchers (e.g., early career, technical staff, colleagues). It will be a personal lifetime award: medal and £1000 for personal use. **Deadline 1st May.**

For details on how to apply for an award, visit www.bspr.org/bursaries-and-fellowships/

Free BSPR Membership for Students

A reminder that students are entitled to FREE membership on provision of evidence of student status, continuing up until the end of the year in which you complete your studies. Student membership gives you access to reduced registration fees and the many bursaries on offer to help with attendance at Proteomics conferences. Student members do not have voting rights at the AGMs unless they choose to become full paying members.

For more information and to apply visit: <https://www.bspr.org/about/membership/application>

Proteomics Scientist Show Case

**Emily Clarke, Post-Doctoral Research Associate,
Institute of Life Course and Medical Sciences, University of Liverpool.**

We invited Emily Clarke, one of the ECR award winners from the BSPR-EuPA 2023 meeting, to tell us about her research and career path. Here's what she had to say:

I started my academic career at the University of Chester where I completed an undergraduate degree in Bioveterinary Science BSc (Hons) prior to completing a Master of Research at the University of Liverpool exploring "Prospective Metabolomic Biomarkers of Equine Osteoarthritis" using nuclear magnetic resonance spectroscopy metabolomics, as a member of Professor Mandy Peffers lab group. During my masters I was able to develop many skills and had my first experiences of public engagement, participating in faculty led 'Meet the Scientist' events and patient involvement panels.

Due to Covid-19 a large proportion of my masters was completed at home and during this time I tried to utilise any opportunity I could, including attending the University of Liverpool Computational Biology Facility trainings in how to code effectively using R software.

In October 2020 I started a PhD supervised by Professor Mandy Peffers "Investigating the Role of Extracellular Vesicles in Equine Musculoskeletal Pathologies and Associated Regenerative Therapies". During this time, I gained experience in a range of omic techniques including mass spectrometry proteomics, and gained experience in a number of laboratories including the Wauben Lab at Utrecht University. I cannot emphasise enough how important it was to experience different research environments and knowledge I gained from these experiences. I was fortunate to attend and present at a number of conferences, such as OARSI, Cutting Edge OA, TERMIS and BSPR-EUPA in Newcastle, where I was delighted to receive an award as runner up early career researcher presentation. The talk I gave was entitled 'Proteome and Phospholipidome Interrelationship of Synovial Fluid-derived Extracellular Vesicles in Equine Osteoarthritis: An Exploratory 'Multi-omics' Study to Identify Composite Biomarkers'. Such opportunities are paramount when building networks and collaborations as well as developing new research ideas. I would like to thank the BSPR for the ECR award and for bringing together the UK proteomics community.

As a researcher I have a passion for public engagement and throughout my PhD participated in a range of activities, including: 'Pint of Science', Veterinary School outreach programmes and secured funding to establish a companion animal patient involvement panel, with a focus on equine, canine and feline related health issues. This panel is now in its third year and thriving with a range of individuals involved, with an emphasis on engaging public in research activities and sharing findings with those it is supposed to benefit. Fundamentally I believe as scientists we conduct research to improve society in, and it is often funded directly or indirectly by the general public, therefore I feel it is paramount as Scientists we communicate what we do effectively with a range of audiences.



I have a keen interest in cell-free regenerative therapeutics and one medicine approaches to research. Now, as a post-doctoral researcher I am focussing on the development of suitable in vitro models for veterinary orthopaedic research, supported by the Horserace Betting Levy Board, and have recently returned from a secondment to the lab of Dr Mario Rothbauer at the Medical University of Vienna. Looking to the future, I would like to obtain a fellowship and eventually have my own lab group. For now though, the focus is writing grants, generating data, and utilising every opportunity in order to take the necessary steps, however big or small, towards achieving my future goals.

BSPR Board of Directors and Management Committee

In 2023 we welcomed two new members to the BSPR Board of Directors and Management Committee.

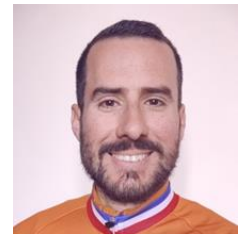
Dr Edward Emmott

Welcome to our new Trustee, Dr Edward Emmott. Ed is a Reader/Wellcome CDA Fellow at the Centre for Proteome Research, Department of Biochemistry in the University of Liverpool. Ed joined Liverpool in November 2019 and is using and developing proteomic methods to study RNA virus replication and virus-host interactions, and in particular the use of single-cell proteomics to aid in this research. Ed holds a PhD from the University of Leeds and a Bachelor's degree from the University of Warwick. Welcome, Ed!



Dr Alejandro Brenes

Welcome also to a new member of the Management Committee, Dr Alejandro Brenes. Alejandro is a Postdoctoral Researcher. His research uses low cell number and single cell proteomics to study human leukocytes in health, to help define their heterogeneity, phenotypes and functional capacities, as well as characterising how these are altered in disease. Alejandro completed his PhD last year at the University of Dundee, focusing on optimising large-scale proteomics to study immune cells, with an emphasis on T cells and neutrophils.



BSPR Lecturer

Prof. Sara Zanivan

Professor Sara Zanivan from the Cancer Research UK Scotland Institute has been an outstanding BSPR Lecturer since taking up the position in 2023. Sara has travelled the country giving talks at the University of Dundee, University of Leeds, University of Bath and Keele University.

The BSPR would like to thank Sara for the lectures she has given so far and wish her the best of luck with her continuing research. We can't wait to see what comes next.

To invite Sara to give a lecture, please email: Sara.Zanivan@glasgow.ac.uk



HUPO 2024 Announcement

The 23rd Human Proteome Organization World Congress will be held on 20th to 24th October 2024 in Dresden, Germany, in association with the European Proteomics Association (EuPA) and the German Society of Proteome Research (DGPF).

The congress will provide a unique opportunity to present and discuss progress in the interdisciplinary field of proteome research from application of new technologies to advancement of biological knowledge, global health and wellness in a variety of workshops, sessions, training courses and poster sessions.



HUPO

DRESDEN, GERMANY 2024

OCT 20-24

23rd HUMAN PROTEOME ORGANIZATION WORLD CONGRESS

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*Come to Dresden for the **HUPO 2024** World Congress!*

When?

October 20-24, 2024

Where?

International Congress Center
Dresden I Ostra-Ufer 2
01067 Dresden, Germany

Scan and win!

Sign up for the congress newsletter to receive up-to-date information and use the chance to **win a free congress registration** for HUPO 2024!



Dresden is a beautiful city with a rich history and culture. It is also known for its long tradition in research and education. In the beautiful International Congress Center Dresden at the banks of the Elbe river you will have the chance to present your latest developments and products to the proteomics community and researchers applying these technologies in basic and applied research.

For further details and registration please visit <https://2024.hupo.org/registration>. Abstract submission is open until May 31st and registration is open until August 15th. The BSPR, in collaboration with HUPO, will be awarding travel bursaries to attend HUPO 2024. For further details, applicant criteria and how to apply for an award, please visit www.bspr.org/bursaries-and-fellowships/ or email Dr Karin Barnouin (karin.barnouin@msd.com), Dr Sarah Hart (S.R.Hart@liverpool.ac.uk) and Dr Harry Whitwell (h.whitwell@imperial.ac.uk).

Save the Date BSPR 2025!

BSPR is excited to announce that the BSPR Annual Meeting 2025 will be held in Liverpool on 7-9th July 2025. More details to follow!

While preparations are ongoing for BSPR 2025, we are currently searching for locations for the future BSPR annual scientific meetings. If you have any suggestions or are interested in helping us host an annual meeting, please get in touch via social media or contact us at secretary@bspr.org. We look forward to hearing from you!
