

BSPR Newsletter

Spring 2023

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BSPR-EuPA 2023

BSPR is proud to be hosting the European Proteomics Association (EUPA) Conference 2023 in Newcastle upon Tyne from 17th to 20th July.

Registration is NOW OPEN! You can register and submit abstracts here.

Early bird registration will end April 9th and the deadline for registrations is May 21st, 2023. Since spaces are limited at 350, we recommend early registration.

The conference will be held in the Frederick Douglass Centre at Newcastle University and will showcase new advances in proteomics, with plenary sessions covering a diverse range of topics including:

- Single Cell Proteomics
- Structural Proteomics & Protein Complexes
- Systems Biology & Medicine
- Computational Proteomics & Big Data
- Clinical Proteomics



In addition, the programme will also offer parallel sessions covering:

- Top Down Proteomics and New Technology
- Plants and Animals
- Human Disease: Cancer, Neuro, Cardio, Rare, Immunology
- Chemical Proteomics | Drug Discovery
- Bioinformatics | Data Processing
- PTMs
- Subcellular and Spatial Proteomics









We are delighted to confirm outstanding international speakers including:

- Mike MacCoss (University of Washington)
- Sara Zanivan (University of Glasgow)
- Tiziana Bonaldi (European Institute of Oncology)
- Julia Chamot-Rooke (Pasteur Institute)
- Daniel Figeys (Metaproteomics)
- Chiara Francavilla (University of Manchester)
- Tamar Geiger (Tel Aviv University)

- Alexey Nesvizhskii (University of Michigan)
- Argyris Politis (King's College London)
- Markus Ralser (Charité Berlin University of Medicine)
- Mikhail Savitski (EMBL Heidelberg)
- Erwin Schoof (Technical University of Denmark)
- Nicola Ternette (Oxford University)
- Mathias Wilhelm (Technical University of Munich)

For more details and information on registration and abstract submission, please visit the conference website at https://conferences.ncl.ac.uk/bspr-eupa2023/. For any inquiries regarding the conference, accommodation, travel or sponsorship opportunities please contact bspr.eupa2023@ncl.ac.uk.

Location for BSPR 2025

While preparations are ongoing for BSPR 2024, we are currently searching for the perfect location for the 2025 BSPR annual scientific meeting. If you have any suggestions or are interested in helping us host the 2025 meeting, please get in touch via social media or contact us at secretary@bspr.org. We look forward to hearing from you!

BSPR 2022 Review

In 2022, the BSPR hosted its first in-person annual meeting following the COVID-19 pandemic. The meeting took place over three days last July at St Anne's College, Oxford and was a fantastic combination of science and networking. The conference organising committee led by Shabaz Mohammed assembled an impressive programme of sessions facilitated by worldwide experts in the field. Starting with the pre-conference protein-protein interactions workshop, the meeting included talks ranging from chemical biology and P5 medicine to spatial proteomics and bioinformatics.

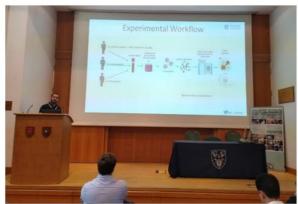


Native/Structural Proteomics | Systems Biology/Networks | Towards P5 Medicine | Chemical Biology | Bioinformatics | Imaging and Spatial Proteomics | One Health Research | Next Generation Technology

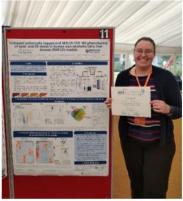




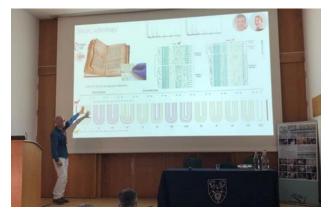
As is typical at a BSPR meeting, early career researchers were invited to present their work. The quality of the presented ECR research was outstanding. Alejandro Brenes was awarded the Early Career Researcher Award for his fascinating talk on the role of neutrophils in COVID-19 pathology. Ruth Walker, Harvey Johnston and Fernando Siliana were also presented with awards for their posters. Congratulations to all the prize winners!

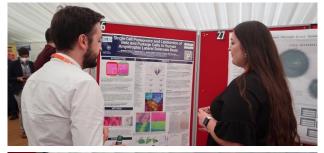






Another highlight of the meeting was a talk by Nobel Laureate Sir Peter Ratcliffe. Peter gave an overview of his career and research, as well as some important advice including to know when to accept negative results and never to wait for antibodies to become available - make them yourself. The event was also a wonderful opportunity to reconnect with colleagues and friends in the field. This year's quiz was hosted by Darragh Ennis, a postdoctoral student at the University of Oxford and chaser on 'the Chase'. We would like to thank all the meeting's sponsors for their contributions towards such a successful event.















BSPR 2022 Bursary and Fellowship Reports

At the heart of the BSPR is supporting researchers in the field, particularly early career researchers and students. Indeed, the BSPR was delighted to provide 10 travel bursaries of £250 as well as the MJ Dunn Fellowship to support the attendance support staff, Masters and PhD students to the BSPR 2022 meeting. We caught up with the students afterwards to find out more about their experiences at the meeting. Here are quotations taken from some of the meeting reports.

Megan Ford, PhD student

"Over the three days I connected with many people, including PIs, students, industry collaborators and the BSPR committee. I hope that these connections will make lasting collaborations in my research in the future."

Charlotte Hutchings, PhD student

"The BSPR meeting turned out to be the perfect combination of learning and networking, both with an open, informal atmosphere. Here's to next year - BSPR 2023 in Newcastle."

John Mulvey, Post-doctoral research scientist

"The meeting provided an intense few days of technical discussions, exchange of ideas and social events. As ever, it is impossible to fully acknowledge everyone who made such an interesting and productive meeting."

Jasmine White, Master's student

"The talks were diverse and interesting. Watching such confident and interesting speakers really solidified my interest in the field and even spurred me on to apply for PhDs in proteomics."

Ruth Walker, PhD student

"It was a valuable experience to share one of my current projects as a poster, discuss different proteomic advances with others and gain insight into the cutting edge research being carried out."

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

Zwitter | Test your knowledge of the amino acids!

Prof Rob Beynon has recently finalised and printed his card game "Zwitter", a set of 83 playing cards in a presentation box. There are four suits with 20 cards each, and 'jokerine' cards, and these can be used in many traditional card games, or even, newly designed games.

"This was a bit of fun as an outreach project, finished during lockdown. I made a set of playing cards, in which the amino acids were the faces and the space filling structure, stick structure, name and liquorice structure were the 'suits'".

If you are interested in receiving a set of the amino acid cards, follow the link: http://phbuffers.org/AAIntro/Zwitter.html



Proteomics Scientist Show Case

Alejandro Brenes, Post Doctoral Researcher, University of Dundee

My scientific career is a bit unusual. Being originally from Costa Rica, the prospect of becoming a researcher was not an option I had ever considered. Venturing into science was more of a happy accident than a concrete plan, as after graduating from university I landed a job as data scientist in Angus Lamond's lab at the University of Dundee. I started the job with virtually no knowledge of biology or biochemistry.

My time in Angus's lab was my first exposure to proteomics and research in general, and even that was a bit unusual. It wasn't a lab that was centred around technological developments, it was more focussed on using proteomics to answer important biological questions, which is what caught my interest. This exciting environment motivated me to start a PhD with both Angus and Doreen Cantrell, combining the expertise from a proteomics and an immunology lab to study molecular phenotypes.



I am now finished with my PhD and my research has revolved around using large-scale proteomics to characterise distinct subsets of the innate and adaptive immune system. By understanding the set of proteins that the different immune cells express, their abundance profiles and how they change with tissue residency (where the cells live and carry out their functions) and in response to stress signals or disease, we can better understand how to design disease therapies that are more targeted and effective. My latest work has focussed on understanding the role of neutrophils in both health and disease contexts, with a particular emphasis on COVID19.

Not long after I started my PhD, the pandemic struck. This meant that for a long-time scientific conferences and symposiums had been cancelled or were done virtually. This made it very difficult for us PhD students to have scientific interactions. This year we were lucky enough to have had the BSPR symposium in person, so I am immensely grateful to the BSPR and their travel award which enabled me to attend the meeting. Science is by nature a collaborative effort, so getting to know your peers and their areas of research is truly important. In this aspect BSPR 2022 was a great conference as it highlighted all the exciting work that is done in proteomics throughout the UK. The symposium talks covered native mass spectrometry, chemical biology, clinical proteomics, imaging, biological applications as well as systems biology and multi-omics studies. But it wasn't just about the great talks and keynotes. With a well organised programme that allowed for plenty of time to network, BSPR 2022 enabled us to build new scientific links and to socialise again! We got to meet other scientists, talk to industry leaders, exchange ideas, and explore new collaborations. It was a great meeting!

At BSPR 2022 I also had the privilege to present my latest work using proteomics to study the effects of COVID19 on the neutrophil proteomes of hospitalised patients. The presentation led to fascinating questions and interactions, and to my great surprise, to being awarded the Early Career Researcher Award. BSPR 2022 had an outstanding quality of researchers that were presenting their amazing work, so I am extremely happy and humbled to have been selected for the award. BSPR 2022 may have been just a few months ago, but I am already looking forward to BSPR 2023 in Newcastle. #BSPR2023

Proteomics is reaching a stage where its contributions are well established, and its use is becoming more widespread. With the advent of population-scale datasets, single cell analyses and a coming of age of machine learning, it is a very exciting time to be a part of this community and of course this society. Thanks for the BSPR for the ECR award and for bringing together the UK proteomics community.

BSPR Student Representative Change-over

Goodbye From Our Previous Student Representative,

Kareena Adair

I joined the BSPR as student representative in 2019 during the second-year of my PhD, and it has been a pleasure to be involved in this society throughout my studies. A highlight of this role was the opportunity to be involved in the organisation and promotion of BSPR Interact 2021, which was a huge success! Now that my PhD is complete, I am excited to be continuing my career in Proteomics as a PDRA at the Centre for Proteome Research (University of Liverpool). While I may be leaving my student representative role behind, I am delighted to remain in the BSPR committee as Media and Communications Officer. I would like to take this time to wish all BSPR student members success in their studies, and welcome to our New Student Representative Charlotte. The BSPR would like to thank Kareena for her dedication and support as student representative over the past 3 years.



Meet Your New BSPR Student Representative,

Charlotte Hutchings (she/her)

Hello there, I think I had better introduce myself. I am a second-year PhD student in Prof. Kathryn Lilley's lab at the University of Cambridge. I entered the world of proteomics much by accident - I was interested in a question and proteomics was a promising approach to answer it. Of course, jumping into a new field was daunting, but the BSPR has been a great help to me. Having an understanding and appreciation of the benefits which students can derive from the BSPR, whether that be in the form of workshops, networking or funding, has put me in a great position to help other students.

Please feel free to contact me with any questions about the BSPR, getting involved, or applying for a BSPR bursary. I'm here to help and always happy to chat. Feel free to contact me at ch941@cam.ac.uk.



BSPR Lecturer

Outgoing BSPR Lecturer,

Prof. Claire Evers

Professor Claire Eyers, from the Institute of Integrative Biology (IIB) at the University of Liverpool, has been an outstanding BSPR lecturer since taking up the position in 2020. Claire has travelled the UK delivering lecturers on her ground-breaking research both <u>virtually</u> and in person, presenting her teams' vision on 'The Expanding Landscape of Human Protein Phosphorylation' and 'The Top to Bottom of Phosphorylation-mediated Signalling with Mass Spectrometry'.

The BSPR would like to thank Claire for bringing her enthusiasm to the role, and we look forward to seeing what's to come from her team in Liverpool!



Incoming BSPR Lecturer,

Prof. Sara Zanivan

We're delighted to announce the incoming BSPR Lecturer for 2023-24 as Professor <u>Sara Zanivan</u>, from the CRC Beatson Institute, University of Glasgow. Sara and her team are interested in using proteomics' tools to investigate the tumour microenvironment, with particular focus on cancer associated fibroblasts (CAFs).

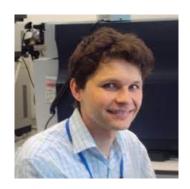
"With our research we want to understand the molecular mechanisms through which CAFs alter the tumour microenvironment (TME) to influence cancer aggressiveness and resistance to therapy".

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



Holger Kramer (1979-2022)

Holger Kramer has always been curious about the chemical basis of biological processes. He just started as lead of the MRC laboratory of Molecular Biology's Mass Spectrometry facility when he passed away on the 23rd August 2022, aged 43, suffering from a brain haemorrhage due to a ruptured aneurysm. Holger has been a very engaged and passionate colleague active in mass spectrometry and proteomics for over 14 years with a publication list of ~ seventy papers. He obtained his degree from the University of Marburg in Germany, followed by an MSc in Chemistry at the University of Birmingham. The subject of his doctoral thesis, performed under Prof. Benjamin G. Davis at the Department of Organic Chemistry, University of Oxford, was focused on the Synthesis of Glycoproteins and C-linked Glycopeptides.



That was the time Holger became interested in biological mass spectrometry, which he subsequently pursued in Prof. Benedikt M. Kessler's laboratory at the Nuffield Department of Medicine, University of Oxford between 2007-2010. Holger pursued proteomics approaches to investigate early events in HIV-1 infection. In addition, Holger codeveloped chemical proteomics strategies for the study of cellular deubiquitinases (DUBs) and the ubiquitin system. He successfully collaborated with many scientific colleagues, applying quantitative proteomics analysis to cellular signalling and clinical proteomics.

Holger then became proteomics core facility scientist at the University of Oxford (Department of Physiology, Anatomy and Genetics) in 2010, participating in the OXION consortium. In 2016, he became Head of Biological Mass Spectrometry and Proteomics at the MRC London Institute of Medical Sciences. In October 2021, Holger joined the LMB as Head of the Mass Spectrometry Facility. Across his career, Holger has been refining quantitative high-resolution proteomics workflows to solve otherwise challenging problems in biomedical research.

Holger has also been very active in teaching. He was recognised as a Fellow of the Higher Education Academy (FHEA) in 2017. He was also a member of the MRC Harwell training coordination committee (2018), the British Mass Spectrometry Society (BMSS), British Society of Proteome Research (BSPR) and the Royal Society of Chemistry (RSC). Holger will be greatly missed as a very dedicated proteomics scientist and as a colleague.

HUPO 2023 Announcement



The HUPO 2023 Congress will take place September 17-21, 2023 in Busan, South Korea. HUPO are thrilled to invite you to join one of the largest international gatherings in the field of proteomics.

The first day of the congress on September 17 will have Pre-Congress Training Courses, Workshops and an Opening Plenary. At 7:30 pm during the Welcome Reception, an amazing traditional Korean performance has been planned - an excellent opportunity to learn about a different culture through a jaw-dropping performance.

From September 18-20, 5 plenary sessions, 7 industry seminars and 8 concurrent sessions have been planned, and we are expecting over 1,000 posters.

On the evening of Tuesday, September 19, HUPO 2023 is preparing for an extraordinary HUPO Night Gala with a K-POP performance and other entertainment getting elevated status around the world.

On Thursday, September 21, an excellent HPP Day is being organized with various events available for all participants.

Mark your calendars that Abstract submissions, Travel Award applications, and a call for Big Questions in Proteomic sessions are launching March 1, 2023. The **program-at-a-glance** is available as well as other information regarding the Congress and **Sponsorship**.

Early Registration and Accommodation details will also be opening soon. Please visit the <u>HUPO 2023 website</u> to stay current with Congress developments.