

Biochemical Society support in action: experiences from our community

Lucy Ollett (Biochemical Society, UK)

Throughout the year, the Biochemical Society offers a programme of grants for all career stages supporting research, attendance at scientific conferences and sponsorship of events. In 2023, we awarded over £320,000 towards international collaboration and the training of essential biochemistry techniques through workshops as well as the organization of independent lectures and seminar series. In this article, we are delighted to share a few insights from our community that highlight the variety of projects and opportunities made possible by our funding. For more information about our funding opportunities and the application process, please visit our website.

General Travel Grants

Professor Ehmke Pohl (Durham University, UK) attended the 8th International Symposium/Training Course on Molecular Medicine and Drug Research



It was snowing when I left Edinburgh on 25 November to fly to Karachi to attend the 8th International Symposium/Workshop in Molecular Medicine and Drug Research (MMDR-8) at the International Centre for Chemical and Biological Sciences (ICCSB). I arrived 12 hours later to the warm climate in Karachi with temperatures between 25 and 30°C, perfect for a conference with more than 600 participants from more than 25 countries. My plenary talk entitled 'Structure-based and AI-supported drug discovery targeting protozoan amino-acid biosynthesis' was well received and led to many interesting discussions.

During the conference, I was particularly impressed by the poster session featuring over 200

posters, mostly from early-career researchers. The quality and the enthusiasm of the young scientists was truly inspiring, and I was privileged to serve as one of the poster judges. In addition to the conference, we were able to continue our collaboration with the group of Professor Iqbal Choudhary, Director of the ICCBS, on novel diagnostic kits for Leishmaniasis, a neglected tropical disease endemic in the southern provinces of Pakistan.

After the conference, I travelled with my colleague Professor Paul Denny from Durham University to the capital, Islamabad, invited by COMSTECH, the Ministerial Standing Committee on Scientific and Technological Cooperation of the Organisation of Islamic Cooperation. We were truly honoured to be part of a panel discussion on 'Enhancing international collaboration on science and technology' of the 4th Rector's conference bringing together over a hundred senior leaders of private and public universities from over a dozen countries and attended by the Minister for Education, the honourable Mr Madad AliSindhi. As panel members, we shared our experience leading the GCRF network on Neglected Tropical Disease, a large collaboration with more than a dozen groups from Latin America, Asia and the UK. We particularly emphasized the importance of an equitable partnership with the research team of the ICCBS in Karachi, which is crucial for success. The next day, COMSTECH had organized a workshop on 'Advances in NTD research' with over 100 participants, mainly earlycareer researchers from the local universities.



On the final 2 days, we visited the National University of Science and Technology (NUST) and the COMSAT University Islamabad to discuss opportunities for future collaborations. Everywhere, the hospitality and the interest in our work on neglected tropical diseases were amazing and we are truly grateful to the COMSTECH team seen in the picture for everything. I am extremely grateful for the Biochemical Society travel grant, which, with further contributions from Durham University and COMSTECH, made this visit possible.

Paige Policelli (University of Southampton, UK) attended the 5th Annual International Conference on Base Editing, Prime Editing and Related Enzymes



The 5th Annual International Conference on Base Editing, Prime Editing and Related Enzymes (Deaminet) was held at the University of California, San Diego, set in the stunning coastal district of La Jolla.

Deaminet is one of two major international meetings that bring together researchers interested in base-editing enzymes, predominantly the APOBEC and ADAR deaminase family members, so this was a truly influential experience for the showcase of my PhD research findings thus far. I presented a poster on the mechanisms of regulation for the cytosine deaminase, APOBEC3A, an enzyme that can drive oncogenesis by generating somatic mutations in keratinocytes. Exchanging knowledge and

discussing similarities, differences and novel hypotheses with peers conducting closely related research provided me with new, valuable perspectives for my work. Furthermore, I have developed connections with student peers from countries including the USA, Canada, the Netherlands, Germany, Italy and Austria.

I was provided the opportunity to meet in person our virtual collaborators, Dr Rémi Buisson (UC Irvine, USA) and Professor Silvestro Conticello (Tuscany Tumour Institute, Italy) and, following the conference, our research group is initiating a new collaboration with Dr Abby Green (Washington University, USA), building on our shared interest in APOBEC-mediated mutagenesis in cancer. Deaminet also spans fundamental and methodological science, in which I have gained a new appreciation and understanding for the use of base-editing enzymes as biological tools, something I had not previously considered.

It was a privilege to converse with experts in the field, putting names to faces and receiving their valuable feedback, but it was also a humanizing experience, learning that even the most seasoned academics were once, an early-career researcher like me. Attending Deaminet has strengthened my APOBEC knowledge, provided drive for my project and engraved a confidence that I can communicate my science worldwide, create networks and conduct knowledge exchange.

A Travel Award for International Skills and Knowledge Exchange to Professor Kevin Gaston allowed a team from Nottingham University, UK to visit Kuala Lumpur, Malaysia



The team staged three 2-day workshops on Bioinformatics and data handling, Molecular and digital pathology, and 3D cancer models, as well as held a 1-day cancer research symposium with over 50 participants from Malaysia and other parts of South East Asia. The team was hosted by Dr Nazefah Abdul Hamid, Associate Professor and Deputy Dean at the Universiti Sains Islam Malaysia, and Dr Wan Yong Ho, Associate Professor at the University of Nottingham Malaysia. In the 3D cancer models workshop, Dr Paloma Ordonez Moran and Professors Anna Grabowska, Sheela Jayaraman and Kevin Gaston delivered several lectures on 3D *in vitro* models and worked in the lab with 16 attendees to prepare mouse small intestine organoids.

The attendees also looked at the dependence of cell viability on growth factors by staining the organoids for live cells, dead cells and DNA. To our delight, we produced viable organoids using an optimum medium and we hope that this technology, using these and other type of organoids, will be adopted by the workshop participants and their colleagues. In parallel, other attendees were gaining hands-on experience in bioinformatics and new nanopore technology, from Dr Jennie Jeyapalan, Dr Anna Harris and Professor Matt Loose, while in the third session, Professor Mohammad Ilyas and Drs Abhik Mukherjee, William Dalleywater and Declan Sculthorpe led an online pathology workshop with local and international participants.

In total, the three workshops and symposium had well over 100 attendees. Although we delivered a total of 8 days of interactive events, we also had a chance to network and socialize with the other attendees and to visit the city. We thank the Biochemical Society and the University of Nottingham International Research Collaboration Fund for their generous support of these events.

A Sponsored Seminar Series grant supported the Centre for Reproductive Health series at the University of Edinburgh (Dr Chih-Jen Lin)



As we proposed, our 2023–2024 seminar series covered a wide range of topics across various biochemistry fields including cell cycle regulation in the oocytes, signalling regulation in the ovarian cancer/organoid, lipidomics and metabolism, and interdisciplinary research on menstrual health in human right (social science) perspective. Over the course of four seminars, we invited Dr Suzanne Madgwick (Newcastle University, UK), Dr David Bryant (University of Glasgow, UK & Beatson Institute), Professor Jules Griffin (Aberdeen University, UK) and Dr Inga Winkler (Central European University).

The research model organisms discussed by our invited speakers included cancer cell lines derived from patients, diseases and mouse. In this series, not only did we engage over 150 attendees from our campus, but all sessions attracted researchers from another four campuses across Edinburgh city as well.

With the additional Biochemical Society seminar grant, we were able to invite Dr Inga Winkler from the EU and attracted additional support from the Centre for Biomedicine, Self, and Society, Usher Institute from UoE Medical School, as well as a bursary from William Longworth.

We believe that we brought successful seminars to the Centre by delivering state-of-art sciences and technologies which facilitate academic excellence, establish networking and promote future collaboration not only for the PIs but also for students/post-docs/ECRs. In addition, these seminars also provided a platform to promote the advantages and opportunities of membership in the Biochemical Society. Again, we very much appreciate the support of the Biochemical Society and we look forward to applying for this grant again in the hope that this support can be continued. ■