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 AWARDEE REPORT FORM

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| NAME | Qamariya Nasrullah |
| TWITTER HANDLE\* *optional* | qamnas |
| UNIVERSITY | King’s College London |
| NAME OF AWARD | Symington Bequest |
| PURPOSE OF AWARD *conference/event attended/organised (full name) with city and dates.* |
| Attend and present research at the Company of Biologists 100th Anniversary Meeting (@biologists100) held in Liverpool, United Kingdom |
| REPORT: What were your anticipated benefits?*Minimum number of words between 200-400. Please write in coherent paragraphs.* |
| My research explores developmental controls behind continuous tooth replacement of reptiles using bothmorphological and molecular approaches. I have been quantifying spatial patterns within snakes and lizardsand correlating these with expression patterns of tooth inhibition genes, to determine how spacing is regulated in order to fit in multiple generations of teeth. My abstract was accepted for a poster presentation and I was excited to share my results at the Biologists @100 meeting held at the Arena and Convention Centre in Liverpool.This was a special meeting of the Company of Biologists, celebrating 100 years, and incorporating meetings of multiple societies. I knew this would be a highly relevant meeting for me to attend as I utilise techniques from many of the disciplines showcased at this event. I would benefit from discovering what are the latest technologies that I may be able to implement into my own research. Furthermore, my results may have relevance across many fields, including a better understanding of genetic pathways in Developmental Biology and collecting zoological data for Experimental Biology. I will have the opportunity to meet leaders across a diverse range of fields and expand my network of future collaborators. There would also be an Early Career Workshop where I would benefit from some mentoring and career advice. This was especially important timing as I had just returned back from maternity leave and will be looking to secure my next position as an early career researcher. |
| COMMENTS: Describe your experience at the conference / lab visit / course / seminar/ event.*Minimum number of words between 200-400. Please write in coherent paragraphs.* |
| Attending the Company of Biologists conference in Liverpool this year was an enriching experience that significantly added to my technical knowledge, career development and research network.**Day 1:** The conference started off with a Early-career researcher career advice workshop, with a talk by Richard Sever, from biorXiv, on the benefits of publishing preprints. We had several round table sessions on topics including science communication, publishing, grant management and navigating the postdoctoral career pathway. That evening we had a our first Cell and Developmental Biology session to award the BSCB and BSDB medals, followed by a welcome reception at the Museum of Liverpool.**Day 2:** This morning’s plenary speakers were Jane Francis from the British Antarctic Survey, and Hans-Otto Pörtner from the Alfred Wegener Institut, who reminded us of the serious impacts that climate change is having on our environment and its inhabitants. I enjoyed some fantastic sessions in the afternoon including “Patterning and Morphogenesis”, with my favourite being Margarida Cardoso Moreira’s talk on how placentas develop and have evolved (from the Francis Crick Institute). We had our first poster session that evening, with 286 quality posters on display. I had the chance to wander around and talk to many delegates about their research. Topics included beetle appendages, axolotl tail regeneration, bird feather evolution, and even how to implement environmentally sustainable practices in the lab.**Day 3:** Sessions included mechanobiology, a trending topic, which explores how the physical properties of cells and tissues effect the development, function and evolution of structures. I enjoyed the “Conceptual Frontiers” sessions, especially Michel’s Milinkovitch’s talk on computational modelling of reptile scale and colour patterning (from University of Geneva). At the biologists@100 conference there were concurrent Society of Experimental Biology sessions, so in the afternoon I saw a fantastic talk on the high-frequency hearing in hummingbirds (by [Fernanda Duque,](https://neuroscience.gsu.edu/2020/07/21/phd-candidate-fernanda-duque-publishes-paper-in-science-advances-on-high-frequency-hearing-in-hummingbirds/) Georgia State University, USA). That evening, it was my turn to give my poster presentation. I received lots of great questions and feedback, and my little collaborator even paid me a visit. The night continued with the biologists@100 gala dinner, hosted at the stunning neoclassical St George’s Hall, with a delicious dinner and lots of dancing.**Day 4:** In the morning, we had another wonderful set of plenary talks, including Manu Prakash (Stanford University, USA), inventor of the foldscope. I also got to see some fascinating research on bogong moth navigation, using magnetic sense and celestial navigation, from Eric Warrant of Lund University. That afternoon there was the presentation of BSCB and BSDB medals. I was most impressed by Beddington Medal winner Rory Maizels, who during their PhD at the Francis Crick Institute, they developed a new more cost-effective technique, that also adds a temporal component, for doing single-cell spatial transcriptomics. The medal session was followed by a stimulating panel discussion on the hurdles we are facing to progress science. This included the pressure we face for quantity over quality of publications, trying to find the space to make mistakes, be creative and invent, and being in an age inundated with data. It was a fantastic end to a brilliant meeting. |
| REPORT: In relation to skills, what were the most important things you gained? *(does not apply to equipment grant.* For public engagement/outreach awards what did your audience gain and how did you evaluate success?*Minimum number of words between 200-400. Please write in coherent paragraphs.* |
| **Technical knowledge**From seeing a breadth of talks from a diverse range of disciplines, I learnt what cutting-edge techniques have recently being developed, that I could try and implement in my own research. I gained inspiration and ideas about new projects that I could start, and also gained insight to better interpret results of my current projects. I also gained a bigger picture of current trends in research, where there are gaps in research and where to direct my research to fit in with research and funding priorities.**Career Development**I found the ECR workshop incredibly valuable. Being in a postdoctoral role, I’m in a challenging stage of my career, trying to secure a more stable and more senior role. So, it was helpful to talk to a range of mentors about what career paths there were and how to get there. There was a lot of discussion about publication strategies, including publishing preprints and in open access journals. I also learnt more about funding opportunities, including research, workshop and travel grants that I could apply for.**Networking skills**There were many opportunities to network, including at refreshment breaks, poster sessions and social events. This was highly valuable to me as an ECR to meet new researchers and get to know other labs and their research themes. I met many scientists that I could potentially collaborate with, and lab groups that I could apply for a grant or a future role with.**Presentation skills**I got to work on my presentation skills through presenting my poster at the conference. I had to explain my research in only a few minutes to delegates and to the poster judges. I handled answering questions on the spot and received constructive feedback both on my research methodology and my visual and verbal presentation of my results. I usually opt for oral presentations at conferences, so it was a rewarding experience (and challenge) to do a poster presentation instead this time. |
| REPORT: How do you think you will put this learning experience into practice in the future? For public engagement/outreach awards how with the materials/knowledge generated by this activity be used in the future?*Minimum number of words between 200-400. Please write in coherent paragraphs.* |
| **Applying new techniques**From the technical knowledge I gained, I plan to implement some mathematical modelling to look at tooth replacement patterns in reptiles, inspired by the research presented by Michel Milinkovitch (University of Geneva). I also hope to utilise the single-cell spatial transcriptomics technique developed by Rory Maizel and the Briscoe lab (The Francis Crick Institute), to look at gene expression patterns in tooth development through time.**Fostering new connections**Through the connections I have made, I have found new people to collaborate with, and potentially apply for grants with. For example, I have just returned from maternity leave so I am looking to apply for fellowships that allow for career breaks, and lab leaders that are happy to support these. I am also helping host the Centre for Ecology and Evolution Spring Symposium (hosted at UCL) this year, the theme being *Evo Devo Palaeo*. I’ve used my new connections made at biologists@100 to discover and invite several speakers to present at this upcoming symposium.**Improving Presentation Skills**From the feedback at the conference on my poster presentation I know better how to tailor my content depending on the conference. As this meeting included the British Society for Developmental Biology members, it was key to include molecular data including gene expression analyses. It was also important to demonstrate an understanding of the pathway interactions related to these genes. In contrast, for an Anatomical Society meeting, which has an audience that appreciate anatomical details, I would make sure to include morphological based data including 3D scanning and modelling, and geometric morphometrics. |
| Data Protection/GDPR: I consent to the data included in this submission being collected, processed and stored by the Anatomical Society. Answer YES or NO in the Box below |
| Yes |
| Graphical Images: If you include graphical images you must obtain consent from people appearing in any photos and confirm that you have consent. A consent statement from you must accompany each report if relevant. A short narrative should accompany the image. Answer N/A not applicable, YES or NO in the box below |
| YesImage descriptions:1. Excited to be at the biologists@100 meeting
2. A sunny day at the Liverpool Arena and Convention Centre
3. Me and my little collaborator at the poster session
4. The gala dinner at St George’s Hall
5. Sunset over the Liverpool docks as biologists@100 concludes
 |
| Copyright: If you submit images you must either own the copyright to the image or have gained the explicit permission of the copyright holder for the image to be submitted as part of the report for upload to the Society’s website, Newsletter, social media and so forth. A copyright statement must accompany each report if relevant. Answer N/A not applicable, YES or NO in the box below |
| Yes |
| SIGNATURE | Qamariya Nasrullah | DATE | 27/04/2025 |

*If submitted electronically, a type-written name is acceptable in place of a hand-written signature*

*File: AS-Award-Report-Form-171023 – International Conference*