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AWARDEE REPORT FORM

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| NAME | | Neal Anthwal | | |
| TWITTER HANDLE\* *optional* | | nanthwal | | |
| UNIVERSITY | | King’s College London | | |
| NAME OF AWARD | | Symington Bequest | | |
| PURPOSE OF AWARD *conference/event attended/organised (full name) with city and dates.* | | | | |
| Attend the 2024 Gordon Research Conference on Craniofacial Morphogenesis and Regeneration | | | | |
| REPORT: What were your anticipated benefits?  *Minimum number of words between 200-400. Please write in coherent paragraphs.* | | | | |
| This biennial conference is a key event in the craniofacial field, and it is the first time it has been held in Europe since the lockdowns prompted by the pandemic. Consequently, I was eagerly anticipating the opportunity to reconnect with colleagues and friends I had not seen since 2020. I looked forward to learning about the most recent advances in craniofacial developmental biology from experts around the world. Additionally, I hoped to connect with potential new collaborators in the fields of jaw joint development and regeneration, as well as the evolutionary developmental biology of the head.  I was honoured to be selected to present a poster on my current work examining the temporomandibular joint, a project I have been developing with a student over the past two years. This research is currently being prepared for publication, and I was particularly keen to receive feedback from my peers to ensure that our manuscript meets the highest standards. The conference provided an ideal platform for this, as it brings together leading scientists and researchers who can offer invaluable insights and constructive criticism.  Moreover, I was also interested in discussing potential faculty-level job openings at various institutions. Engaging in these discussions could open up new career opportunities and help me expand my professional network. Overall, this conference represented a unique opportunity to advance my research, gain new knowledge, and explore future collaborations and career prospects in the craniofacial field. | | | | |
| COMMENTS: Describe your experience at the conference / lab visit / course / seminar/ event.  *Minimum number of words between 200-400. Please write in coherent paragraphs.* | | | | |
| The conference was held at a very beautiful hotel on the outskirts of Barcelona. This is a small meeting of around 200 researchers, with a single session of talks in the morning, followed by a break of 3 hours, then a late afternoon/early evening session before dinner. The poster sessions were held in the last hour of the break. The policy of the Gordon Research Conferences is that all presented work should be new and unpublished, and as such that no social media or reporting of the research is permitted. This allows for the most stimulating and emerging work to be discussed and shared with largely friendly and interactive audience. I arrived in time for the opening evening plenary sessions, which included a talk by a more junior group leader in London, as well as a talk by a group leader form a subject outside of the expertise of most attendees. This set up the rest of the meeting well, and the rest of the meeting was a good mix of junior researchers, emerging talent, and those with established leading researching programmes.  For me, one important opportunity of these conferences is the chance to interact with fellow researchers, and there were ample opportunities to make connections, either at the posters or coffees between talks, or over dinner or drinks at the end of the day. | | | | |
| 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.* | | | | |
| While the conference was primarily focused on scientific ideas rather than practical skills, I nonetheless found value in several technical discussions with colleagues. One particularly engaging topic was the advantages and disadvantages of newer in-situ hybridisation techniques, specifically RNA-Scope, which I frequently use. RNA-Scope is known for being an expensive protocol, primarily due to the proprietary reagents required. My objective was to discover if any colleagues had developed a cost-effective, "homebrew" alternative to this method. Unfortunately, no one I spoke with had identified such a solution. However, I was fortunate to receive a new protocol for another emerging multiplex in-situ hybridisation technique known as the hybridisation chain reaction (HCR).  I plan to trial this HCR protocol in the coming weeks, with the hope that it will prove beneficial in terms of both efficiency and cost-effectiveness for our laboratory. If successful, this could significantly reduce our reliance on expensive proprietary reagents, thereby saving both time and resources. Overall, despite the conference’s primary focus on scientific concepts, the technical exchanges I engaged in provided valuable insights and potential improvements to our laboratory practices. I look forward to implementing these new techniques and sharing the results with my colleagues in due course. | | | | |
| 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.* | | | | |
| While the conference does not permit direct reporting of the work presented, I can share my plans for implementing what I have learned.  The first step will be to conduct a series of pilot experiments using the hybridisation chain reaction (HCR) technique. These initial trials will help us assess the protocol's effectiveness and identify any potential issues that need to be addressed. We will meticulously document the results, making detailed comparisons with those obtained using the RNA-Scope technique to evaluate performance in terms of efficiency and cost-effectiveness.  In addition to these protocol testing experiments, I will collaborate with my student to write a research paper on the work we presented at the conference. This process will involve a thorough reflection on the feedback we received during our presentation. We will incorporate this feedback into our paper to ensure that it addresses any questions or concerns raised by our peers. This will not only improve the quality of our manuscript but also strengthen the arguments and findings we present. | | | | |
| 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 | | | | |
| N/A | | | | |
| 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 | | | | |
| N/A | | | | |
| SIGNATURE | Dr N. Anthwal | | DATE | 12/06/2024 |
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*If submitted electronically, a type-written name is acceptable in place of a hand-written signature*

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