



AWARDEE REPORT FORM

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UNIVERSITY	University College London
NAME OF AWARD	Departmental Seminar Grant
PURPOSE OF AWARD <i>conference/event attended/organised (full name) with city and dates.</i>	
<p>I requested a Seminar Grant to enable Senior Lecturer in Anatomy, Dr. Lyndsay M. Murray (https://biomedical-sciences.ed.ac.uk/anatomy/staff/anatomyteachingstaff/lyndsaymurray) from the Institute of Neuroscience and Cardiovascular Research and the Euan Macdonald Centre for Motor Neuron Disease Research (University of Edinburgh, Edinburgh) to visit the UCL Queen Square Institute of Neurology (University College London, London https://www.ucl.ac.uk/brain-sciences/ion) on April 30th 2026 to give a seminar entitled, "Post treatment defects in the motor unit in mouse models of SMA."</p>	
REPORT: What were your anticipated benefits?	
<p>Over the years, I have had the pleasure of attending several shorter, focused presentations by Dr. Murray at international conferences. These talks provided first-hand insight into the innovative anatomical approaches her laboratory uses to investigate neuropathology in mouse models of spinal muscular atrophy (SMA). I therefore welcomed the opportunity to host a more in-depth seminar showcasing the breadth of her research, which I anticipated would be of considerable interest not only to my own laboratory, but also to the wider Department of Neuromuscular Diseases at University College London.</p> <p>My group uses mouse models to investigate the pathomechanisms underlying a range of peripheral nervous system disorders (www.sleighlab.com); there is thus substantial overlap in both research interests and methodologies between our laboratories. I thus hoped the visit would expose members of my team and the wider department to Dr. Murray's work, stimulating discussion around her compelling findings in SMA mouse models, while also providing insight into valuable morphological approaches for studying the murine neuromuscular system.</p> <p>In addition, through one-to-one sessions with the speaker, I aimed to give early career researchers the opportunity to discuss both the seminar and their own projects with an internationally recognised expert in neuromuscular research. Furthermore, as Dr. Murray and I are collaborating on several ongoing projects, I hoped her visit would also provide dedicated time to discuss emerging data, an upcoming grant submission, and her work on the Anatomical Society Research Committee.</p>	
COMMENTS: Describe your experience at the conference / lab visit / course / seminar/ event.	

Dr. Murray delivered a fantastic seminar on SMA, providing a comprehensive overview of the disease phenotype, its underlying genetics, and the therapeutics currently used in the clinic. She also highlighted one of the major challenges facing the field: although current treatments restore levels of the missing SMN protein, they do not constitute a cure. Indeed, increasing evidence suggests that SMN restoration alone is insufficient to fully rescue dysfunction within the neuromuscular system.

The seminar provided a clear, insightful, and engaging account of Dr. Murray's research, beginning with her PhD work, in which she was the first to identify abnormalities in motor neuron connectivity to muscle in SMA mouse models, through to the latest unpublished work from her laboratory. Importantly, many of the pathological mechanisms and methodological considerations discussed are relevant not only to SMA, but also to a broad range of similar neuromuscular disorders, making the seminar highly valuable to the audience.

The seminar was very well attended and generated lively discussion, reflected in both the extensive questions following the talk and the positive feedback I received afterwards.

Beyond the seminar itself, the one-to-one meetings with Dr. Murray generated additional scientific insights and opened potential avenues for future collaboration. Overall, it was a thoroughly enjoyable and productive visit, and one that I hope to repeat in the future.

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?

Hosting a seminar speaker, organising one-to-ones, coordinating the schedule for the day, as well as introducing the speaker and moderating the questions and discussion after a talk are all important skills in academia – I appreciated the opportunity to further develop these abilities. Additionally, I learnt a great deal about SMA treatment and the importance of careful anatomical work in identifying the true impact of therapeutic intervention. For instance, simply identifying the percentage of innervated neuromuscular junctions within a muscle, can underestimate the extent of pathology. This is because once a neuromuscular junction becomes denervated, the post-synaptic acetylcholine receptors can quickly disperse and are thus no longer detectable. Therefore, the impact of a treatment can be overestimated if the total number of axons and neuromuscular synapses are not also evaluated – as outlined in this recent paper from the Murray Lab: <https://academic.oup.com/hmg/article-lookup/doi/10.1093/hmg/ddac097>.

The one-to-one discussions also provided excellent development opportunities for members of my team, allowing them to practice presentation skills and strengthen their confidence in discussing both their own research and broader scientific questions with a leading researcher in the field.

On a personal level, I particularly enjoyed discussing Dr. Murray's work, exploring opportunities for future collaborations, and sharing perspectives on some of the broader challenges associated with leading a research group.

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?

I am very grateful to the Anatomical Society for providing this opportunity to host a seminar speaker through this scheme. It really is an excellent initiative and one that, to my knowledge, appears to be unique among scientific societies and funding bodies. The opportunity to invite and interact closely with an expert in the field provided significant academic and professional value, not only for myself but also for colleagues and students who attended the seminar. Dr. Murray's presentation stimulated engaging discussion and offered new perspectives on experimental design, anatomical methodologies, and the interpretation of neuromuscular data in disease models.

One of the key outcomes of this experience is that I will actively encourage other members of the Anatomical Society to take advantage of the opportunity. I also think that the scheme, along with the many other available grants, can serve as an excellent way to attract new members to the Anatomical Society, by highlighting the valuable networking, collaborative, and professional development opportunities it provides.

In addition, I intend to discuss the anatomical methods that Dr. Murray spoke about, as well as their importance for providing detailed understanding of the neuromuscular system in mouse models of disease, at an upcoming lab meeting. These discussions will help stimulate new ideas within our laboratory and will help us to refine some of our experimental approaches.

Data Protection/GDPR: I consent to the data included in this submission being collected, processed and stored by the Anatomical Society.

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.



Dr. Lyndsay Murray presenting her research seminar on 30th April at the Queen Square Institute of Neurology. Consent was obtained from Dr. Murray to include these images.

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N/A

SIGNATURE	James Sleigh	DATE	07/05/26
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If submitted electronically, a type-written name is acceptable in place of a hand-written signature

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