

A day in my life as an Animal Technologist

ZOE WINDSOR

University College London, Queen Square Institute of Neurology, Queen Square, London WC1N 3BG UK

Correspondence: Z.windsor@ucl.ac.uk

Recipient of a BRET-AS-ET scholarship



Introduction

My role at the Institute of Neurology (IoN) at UCL has changed quite significantly over the last year. I previously spent several years as a Research Support Technician, a role which focussed mainly on providing technical and procedural support to the research groups here at IoN. Minor procedures such as injections and dosing were regular occurrences throughout my working day, as well as training others - both technicians and researchers in these techniques. I regularly participated in studies, most recently in several COVID-19 experiments taking place at the School of Pharmacy. I also trained in and performed cranial surgeries including craniotomy, head plate installation and intra-cranial injection. Wherever necessary I assisted in husbandry as required and provided support to our team of technicians. All of this made my role extremely varied and interesting. Some days I would spend the whole day on research studies whilst at other times my day would be divided between face-to-face training with researchers, husbandry and NACWO/welfare related duties.

Working outside the box

A lot of my 'spare' time was spent to investigating animal welfare concerns and refinements of my own. Previously, I have conducted nesting and enrichment trials specifically for mice fitted with cranial devices, an area that I feel still needs us to improve our approach to their husbandry. My first nesting trial highlighted safer alternatives to the commonly used long fibre nesting materials. I presented this work at Congress 2018 and was fortunate enough to be awarded the first-time presenters award. I subsequently delivered talks on this topic at several symposia and in 2019, this work was published in a peer reviewed journal which was a proud moment for me.¹ Since completing this study, I have continued to investigate refinements for

mice with cranial devices and am working on publishing my findings. I submitted my most recent work to the IAT/ABPI Andrew Blake Tribute Award.² The award is given to the Animal Technologist judged to have made a significant contribution to improving laboratory animal welfare. Winning the award, led me to present virtually at IAT Virtual Congress 2021.

Onwards and upwards

At the end of the summer 2021, I changed role and became a Senior Research Support Technician. I hope to continue to progress into management and this seemed like a natural step for me. My daily life as a senior Animal Technologist is very different to what it has been for the last few years. My role is now more desk based, taking care of administrative tasks such as ordering and raising Purchase Orders (PO), reviewing experimental proposals, ordering animals and consumables and coordinating rotas and work routines between our multiple sites. I spend quite a lot of time in meetings and interfacing with researchers.

I'm enjoying my new role a great deal and am also pleased to still be able to spend time around the animals and retain my role as a trainer. It is still possible for me to spend time with our team of technicians teaching minor procedures and tissue sampling, as well as other skills such as colony management. I also monitor the progress and training of agency staff and new starters in our facility, of which we usually have quite a few! I am still involved with study work and perform procedures for research groups. This allows me to keep my skillset current and even continue to learn new technical skills which I thoroughly enjoy and is one of my favourite parts of my role. As a Named Animal Care and Welfare Officer (NACWO), I am also involved with monitoring all the health issues in the facility and helping to implement refinements wherever possible.

I continue to incorporate welfare trials into my role and am working on future publications, although I recently stepped down from Chairing the Collective Laboratory Animal Welfare Society (CLAWS), a technician-led welfare group at UCL. I held this role for 3 years and felt that moving into my senior role presented a natural point in which I could pass the Chair on to another enthusiastic Animal Technologist.

My passion for Animal Welfare and refinement trials is one of the reasons that led me to apply for funding from AS-ET with a view to studying Statistical Design and Analysis, taught by College of Laboratory Animal Science and Technology (CLAST). I feel it is so important to approach Animal Welfare trials in a way which will produce valid and reliable data which can then be confidently shared amongst our peers. Ultimately, any refinements we discover could be to the benefit of thousands of laboratory animals, so it is worth making sure our work is valid! The statistical analysis course was exactly what I had hoped for and covered many aspects of conducting a study, from experimental design to choosing the correct statistical test. I feel a lot more confident to continue carrying out Animal Welfare trials knowing I have the tools to for great experimental design.

The second course I was able to attend thanks to funding from AS-ET was Physiology of Pain and Stress. I was very keen to improve my understanding of pain and analgesia given that a lot of my role incorporates procedural and surgical work. I wanted to learn more about designing appropriate analgesic protocols and minimising pain and discomfort the animals may experience resulting from the experiments carried out. The course was extremely informative and enjoyable and, I learned a lot about both behavioural and physiological responses to pain and stress, as well as how best to ameliorate this.

The support I have had from AS-ET has really enabled me to develop my knowledge and understanding in these two key fields. This in turn has made me more well-rounded as a technician and has translated into my being able to provide better care and welfare for the animals in our charge. Professional development such as this has been so crucial to my career progression and ultimately to my performance as a technician. I hope to continue my education and learning going forward as I continue to grow and develop in my new role and look forward to seeing what new challenges will present themselves in times to come.

Editor's note: The Biomedical Research Education Trust (BRET) aims to educate the public about research in Biological Sciences which depends upon experiments involving the use of living animals.

References

- Windsor, Z., Bate, S.T.,** (2019). Assessing the safety and suitability of nesting material for singly housed mice with surgically fitted head plates. *Heliyon Volume 5, Issue 7, July 2019, e02097*
<https://www.sciencedirect.com/science/article/pii/S2405844019357573>
- Windsor, Z.** (2021). Refinements in head plate mouse nesting: using composite nests to enhance welfare. *Animal Technology & Welfare, Vol. 20.2 pp 135-141.*