Royal Veterinary College
University of London

Summary Minutes for the website: AWERB: PPL Review meeting

Status: FINAL

Meeting held: 08 May 2024 via Camden Lecture Theatre 1 and MS Teams

Present: 12 plus 1 in attendance, 1 observer, 2 by invitation, 15 apologies

1 WELCOME

The observer was welcomed to the meeting.

2 NEW PROJECT LICENCE FOR REVIEW

The project licence holder and his colleague were welcomed to the meeting. It was explained that although this was a new project licence, it was continuing work from another project licence that was expiring.

The aim of the project licence was to identify drug targets for use and utility in severe skeletal diseases that affect both bone and cartilage of humans and also veterinary species.

The following queries were raised:

- **What new elements was this project licence aiming to bring as there was already plenty of research being done in this area?**
  The research carried out under the previous licence had focussed on understanding biomechanics and stimulation of joints through loading with physiological and pathological loading effects on joint and bone tissues with the aim to understand the drug targets that could be modulated to affect disease. This project licence would determine whether these targets could be used to modulate these disease processes, so moving on from the target identification stage to understanding of targets that can potentially be translated towards therapeutics.
- **Non-technical Summary:** this needed to be reviewed to make sure it made sense and was easily understood by members of the public as currently it was difficult to follow and used acronyms.
- **How do the estimated number of animals for this project licence compare to the numbers used in the previous licence?**
  Less of the protocols from the old licence were being replicated and modified in the new licence. The numbers were representative when these protocols were compared. A discussion would be held outside the meeting about including an example to demonstrate how the numbers had been estimated.
- **The licence mentioned that a specific high bone mass condition cited in the application only affected approximately 100 individuals worldwide. Did the proposed mouse model also impact other genetic diseases or animal diseases?**
  It was explained that previous research relating to understanding of the high bone mass skeleton had led to a drug that was now widely available for postmenopausal osteoporosis. As this was a reciprocal pathway, anything that was learned from looking at the high bone mass disorders could equally be applied to low bone mass disorders such as osteoporosis. This would be added to the project licence.

- **There was mention in one section that animals were not expected to show harmful phenotypes but in another it was stated that a harmful phenotype was expected. This was confusing and contradictory. The issue needed to be addressed whether the phenotypes were harmful or not.**
  The PPLH sought AWERB's advice on this. There was a mouse model that had been used previously for the breeding and maintenance of this specific model for a number of years with no welfare concerns associated with this. It is speculated now though that the model might have deafness although this has not yet been conclusively shown. There was also a discussion whether partial hearing was indeed a welfare concern as certain strains of mice also show this naturally with age. AWERB advised that the possibility of deafness should be included as a precautionary principle.
- **There was mention that pilot studies would be conducted. How had the numbers of animals to be used been decided upon?**
  It was explained that the pilot studies would be cells and tissues involving in vitro and ex vivo work and not intervention work. With in vitro work because of variation the sort of quantitative data that would be produced are micro CT based data and gene expression data, which typically involves up to 6 animals. Power calculations would generally be done to determine the numbers needed. Discussions would be held outside of the meeting to determine the types of biomarkers that would be looked at to see if they justified the sample size.
- The PPL Holder was advised to expand on the likely adverse effects that could potentially occur. They were also asked to reconsider the use of intramuscular dosing and if it was required that the licence specify that it would not be done if the animals were showing any signs of pain.
- The licence mentioned that animals would be monitored. This would be expanded to make it clearer what the monitoring would consist of and how long for, so that people using the licence knew what was expected of them.

The PPL Holder was thanked for attending the meeting. There were several sections that needed further work including the statistics, animal numbers, adverse effects and humane endpoints. AWERB however were supportive of the scientific justification of the project licence.

3 **MINUTES**

The minutes of the AWERB meeting held on 23 April 2024 were agreed as an accurate record.

4 ANY OTHER BUSINESS

4.1 **New AWERB member:**

It was noted that an additional member of the Animal Welfare Scientist team would be joining AWERB to ensure that there was consistent representation in this area at meetings.

4.2 Enrichment Seminar

Following the enrichment discussion at the previous meeting, it was agreed that it would be useful to give a seminar to the RVC on this topic.

4.3 Noise Project

The external lay panel member reported that in October it would be the 150th anniversary of a huge gun powder explosion that happened outside London Zoo. He was working with stakeholders (including the zoo and local residents) to look into the effects on animals of noise, vibrations and pressure aspects.

It was noted that this was quite timely considering the recent distressing incident where several Household Cavalry horses had become spooked by construction works causing them to bolt through central London and injuring themselves.

5 DATE OF NEXT MEETING:

11 June at 10am. It will be a PPL review meeting.

Secretary
15 July 2024