Royal Veterinary College
University of London

Summary Minutes for the website: AWERB: PPL Review meeting

Status: FINAL

Meeting held: 11 June at 10am via MS Teams

Present:
11 plus 1 in attendance, 3 by invitation, 18 apologies.

1 WELCOME

A new member was welcomed to his first AWERB. He was attending as an Animal Welfare Scientist representative.

2 NEW PROJECT LICENCE APPLICATION FOR REVIEW

The project licence holder and colleague were welcomed to the meeting. The primary objective of this project was understanding the mechanisms involved in cellular rejuvenation and assessing its potential as a therapeutic strategy.

The licence involved wound healing studies. The animals should typically experience a rapid recovery from surgery with the wound healing process generally naturally happening within 14 days post surgery without any intervention.

The study involved in vivo work. In vitro work had initially been carried out which had been valuable for cultivating stem cells and simulating the microenvironment for the follow on studies. However in vivo work was needed in order to comprehensively study the interactive effects and to establish the safety and efficacy of the therapeutic processes.

It was noted that the project proposed moving animals between two different sites. AWERB requested that where possible, this should be minimised, as transferring animals would have a welfare impact on the animals. It was noted that the majority of these animals would be young mice who would undergo a stringent NACWO/NVS check before being transported. The transfers would also only be carried out by a regulated transporter. The animals once moved would not undergo any procedures for at least a week to allow time for them to settle in.

AWERB asked for more details about the model being used for skin healing, including the use of an aseptic bandage; the calculations that had been used to determine the total skin injury and if any adverse effects had been encountered from using the skin punch. It was confirmed that there had been no adverse effects. Analgesia would be provided though generally only one dose was needed as there was normally no signs of pain during the healing process.

There was discussion about the experimental design. AWERB recommended that following pilot studies that had been completed, power calculations should be provided within the licence to explain how these had been used to determine the optimal study design for the pivotal studies. Consideration was required to really understand and determine the numbers of animals that were needed to ensure that excessive numbers were not used. Examples were needed in the project licence to provide reassurance that the numbers being used were enough to either prove or disprove a concept without having to repeat an experiment.

The licence proposed also using aged animals.

The following points were noted:

- Some of the defined humane end points were vague. These needed more detail and a scoring sheet should be provided to help gauge whether an animal had reached an end point.
- There was concern that some mice could be kept up to 120 weeks of age, which was very old for a mouse. It was clarified that the majority of the mice would be between 80 to 100 weeks; however the option of 120 weeks was required for monitoring purposes.

The researchers advised that preliminary data indicated that the results from the CAR T-cell therapy should be able to be used to improve all CAR T cell therapy by increasing the memory phenotype of the T-Cells and their engraftment into how long they linger into the preferred blood or go back into the ambience.

In conclusion, AWERB summarised that the following key areas needed to be focused on:

- The non-technical summary was currently too technical and needed to be revised to make it simpler.
- Body condition score for humane end points was needed
- All potential applications of CART-T cell rejuvenation to be included
- Power calculation for pilot and future experiments to be included as well as example data that backs up the key messages in the licence in relation to particular treatments. AWERB would be able to provide advice on experimental design tools to help with this.

The licence would be revised accordingly and recirculated for another review.

3 ISSUES REPORTED BY NVS

3.1 Sheep: recent occurrence of 4 sheep purchased for studies being pregnant

One of the NVSs informed AWERB of a recent incident where 4 sheep that had been purchased for a study had turned out to be pregnant. The sheep had been scanned upon arrival, had gone into quarantine, and had been due to be scanned again at the 40 days mark. However as the project they were being used for was postponed, the 40 days health scan had not occurred and they had been turned out into the field instead.

As the sheep were not identified immediately as pregnant it meant they did not receive nutrients to sustain their continuing development and growth of the lamb as well as vaccines.

The following steps have now been put in place:

- More information would be requested on the timeline for projects and where in the process the study was before ordering future sheep to ensure that projects would be going ahead as planned.
- Sheep would routinely be scanned 40 days after arrival, irrespective of whether they were being used on a project.

AWERB were reassured about the steps that have been taken to ensure that a similar situation would not occur again in the future.

3.2 Teaching animals at Camden

AWERB were informed of concerns that had been raised about two calves that were kept at Camden for teaching purposes during term time. These concerns related to:

- The environment that they were now in due to building works taking place close by which backed onto the yard. Issues including debris blowing in and the yard having to be regularly checked to make sure it was safe for the cattle.

- The calves were now quite large and very strong so were becoming increasingly difficult to handle and there were concerns about injuries both to the calves and to the animal technicians looking after them.
- The two calves were not used to being with other cows so when they were returned to Hawkshead to rejoin their herd, there was concern they would not know how to behave and socialise with the other cows. They were also halter trained so were used to only moving when they have a halter on.

Following a recent assessment, it had been agreed that the current calves would return to the Hawkshead campus early, but discussions were needed about providing replacement animals for the autumn term. Possible options were suggested which would be looked into further. An update would be provided at the next meeting.

4 MINUTES

It was noted that the minutes were still in draft format as clarification was needed on a couple of points made by the project licence holder during the project licence discussion.

5 DATE OF NEXT MEETING:

25 June 2024 at 10am. It would be a Standing Agenda items meeting.

Secretary
15 July 2024