
Minutes: AWERB summary minutes: PPL Reviews meeting

Status: FINAL

Meeting held: 21 September 2022 at 11am via MS Teams

Present: 11 plus 1 in attendance, 2 by invitation and 8 apologies

1 WELCOME

A new external lay panel member was welcomed to his first AWERB meeting.

2 NEW PROJECT LICENCE APPLICATION

An application for a new project licence had been received. The project licence holder was working with a breeding company that specialised in producing broiler chickens and had the aim of identifying a range of molecular and microbial biomarkers that could be used to identify individuals with good gut health for use in selective breeding programmes. Improving gut health would exert an enormous influence on farm-level broiler welfare and productivity as well as reducing antimicrobial use.

The company were concerned with enteric dysbiosis, as it compromised broiler productivity and welfare, increasing the occurrence of enteric disease, poor litter quality and lameness traits as well as slaughterhouse condemnation. Currently enteric dysbiosis was commonly prevented/controlled by routine application of antimicrobial prophylaxis, incurring a high requirement for antimicrobial use in chicken production. Chicken producers were striving to reduce antimicrobial use, so alternatives were required.

The plan was to establish criteria to define what dysbiosis was. Under their initial plans a Home Office project licence would not have been needed, however they had now decided that it would be valuable to collect blood samples for some of the studies, so a licence was needed.

The following queries were raised:

- **Had a literature search been done to see if there were any alternative resources that could be used. For example, as looking at the gut microbiome was it possible to use explants rather than rearing chickens for dysbiosis?**

Explants was very useful in some areas. However, the focus of this project was more about the interaction between the host, the environment, and the microbiome and currently there was not a suitable way of replicating dysbiosis in this way. In terms of a literature search details of the repositories that were regularly searched, and the search terms used and how often the searches were carried out could be added, to provide a record that they were regularly looking for alternatives.

- **How had the number of chickens been decided upon?**

Power calculations had been used. As microbiomes were being looked at it meant the whole population was needed which involved taking a range of data. They had a whole range of phenotypes that they were interested in, such as body weight gain. The project licence

holder would look to include a table that provided information on each group of birds and the numbers that were needed and why.

- **What would happen to the birds that were not used – would they go into the food chain?**
As the birds were under licence, they would not go into the food chain, but they would have to be euthanised. It was noted that from an NVS perspective it was better for the birds' welfare to be terminated in a place that they knew, rather than go through the stress of being transported. The birds though would be made available for tissue sharing.
- **Were the chickens restrained for the cloacal swabbing?**
Yes, one person would hold the chicken in the traditional way with the wings close to its body, whilst the 2nd person did the swab. However, that did raise an interesting point: which was more ethically appropriate: putting a bird on its own for a few hours to collect faecal droppings after it had been used to being with a group in a cage; or being swabbed, which was invasive but was a lot quicker? The project licence holder had been of the view that cloacal swabbing was better because it was low input and the chickens seemed to tolerate it very well and it was a quick process, whereas the birds could become quite distressed if they were separated and put in cages on their own. The flip side was that they became quite used to it through training so they would aim to train the birds quite early on.
- **Was there any opportunity to introduce blinding in the study? At the point of dysbiosis, blinding would probably not be possible, owing to the onset of clinical signs, but following extraction of materials, could the researchers be blinded?**
This was agreed and would be implemented.
- **For the non-schedule 1 culling methods (captive bolt and cervical dislocation), how would the training be carried out and monitored to ensure continued robustness of the non-schedule 1 technique? Schedule 1 culling methods were generally used because they can be monitored, and standardised training carried out which was much more difficult with non-schedule 1 culling methods.**
Schedule 1 cervical dislocation was routinely used for lighter birds. It was only when birds became heavier, such as with a fast-growing broiler, that it became an issue. For other studies they had used schedule 1 methods for heavier birds but for this one as they were looking for RNA they needed to use this method. With regards to training, the team were trained to carry out cervical dislocation on the lighter birds, and as part of that were assessed by the project licence holder and the NTCOs. When cervical dislocation was used it was important to check that it had been done properly and the bird had been killed, so the procedure was carried out by a team, rather than an individual, to ensure that bad practice did not happen.
- **For the question “will all of your protocols or experiments use animals of both sexes” would this be a 50/50 split throughout?**
This would be based on how they were hatched: it would be close to 50/50 but not exactly. As part of the records, they would record sex, as they were looking at things like body weight gain, for which there was a really profound difference between male and female chickens and if this wasn't included, when it came to the analysis, the standard deviations would be enormous.
- **For the NTS it would be good to make more explicit the positive impact that this research would have on the environment. It would also be useful to explain more about what was meant by “performance”**
The project licence holder advised that under the new application form process in ASPeL, he

had now realised that it had been set up, so that information from the application form automatically populated parts of the NTS, as he had not had to write a separate NTS. He therefore needed to review the NTS and make changes to make sure they were appropriately non-technical.

The Project Licence Holder was thanked for attending the meeting. His project licence would be further discussed and AWERB would be in contact with any further recommendations on changes. Some of the information he had provided during the meeting should be added to the application as it would strengthen it.

After the project licence holder had left the meeting, AWERB discussed and confirmed that the key points were:

- Power calculation: more information to be added about how it was based on previous research
- Reduction: reference to be made to previous work that had been done.
- How the planned work from this study would build on previous work.
- Introduce blinding into the study.

3 PROJECT LICENCE AMENDMENT

The project licence holder was welcomed to the meeting. She was attending, as following a discussion with the NVS, she wanted to make an amendment to her project licence so she could implement the use of morphine as a post-analgesic drug, as currently only one specified anaesthetic was listed. There had been a recent publication that put into perspective the new analgesia regime for zebra fish for the cryoinjury procedure that she used. The procedure was listed as moderate, however there had been discussion whether it should be severe as it was a quite an invasive procedure, however the zebrafish recover very quickly within 30 seconds.

The following queries were raised:

- Protocol: Fin regeneration
This was listed as a mild protocol. However, it included fish that would not be treated with an analgesic as they were being used as a control. This therefore meant there was potential for pain in the fish, so if analgesics were necessary, the procedure would be classed as moderate and exceed the current mild limit. It was recommended that this protocol should be changed to moderate, to enable painkillers to be given if required, otherwise a condition 18 report would need to be submitted on each occasion the mild severity was exceeded.
- A query was raised about the expiry date that was listed on the project licence. It was confirmed that this expiry date related to another project licence. The project licence holder was advised to start the process for applying for a replacement project licence sooner than previously as the format of project licence applications had changed and they were taking a lot to write.

After the project licence holder had left, AWERB confirmed that subject to changing the above protocol to moderate, they were happy with the proposed amendment.

4 MINUTES OF PREVIOUS MEETINGS

The minutes of the meeting held on 7 September 2022 were confirmed as an accurate record.

5 ACTION LOG

5.1 Item 3.1: Reviewing of research policies (7 September 2022)

AWERB were reminded that if they still had a policy to review then to do it as soon as possible and to send the Secretary their comments.

5.2 Item 3.2: BSU Virtual Tour storyboard (7 September 2022 meeting)

The material that had already been taken had been passed on for review.

5.3 Item 3.4: Ethics oversight of RVC Wildlife and Pest Control used (07 September 2021 meeting)

The Environmental Sustainability Manager would be attending AWERB on 2nd November to talk about biodiversity. The Campus Service Managers needed to be contacted in relation for their input about pest control and the methods used.

6 END OF PPL REVIEW

AWERB noted an end of PPL review that had been submitted.

The consensus was that this was a very clear report with sufficient explanations of animal usage and research outcomes.

The following was noted:

- A moderate number of animals had been used but this was substantially lower than what had been originally estimated.
- One of the refined procedures involved using tissue glue in place of sutures, after the animals had been observed removing their sutures by chewing on them.
- Using information gained in these studies, the researchers were now using organ on chip approaches to continue some aspects of this work in vitro

7 AWERB TERMS OF REFERENCE REVIEW

AWERB reviewed the following and confirmed that they felt these were being covered:

- To promote the education and training of staff and users in best practice and relevant legislation;
- To review projects retrospectively and throughout their duration and to identify and advise on the 3Rs;
- To review care and accommodation standards for research animals and Camden teaching animals;
- To monitor the management and reporting systems relating to the proper use of animals and suggest improvements where necessary;
- To advise on re-homing schemes and appropriate socialisation prior to re-homing;

8 DATE OF NEXT MEETING

This was scheduled for 5th October at 2pm and would be a standing agenda items meeting.

Secretary

27 September 2022