

Minutes: AWERB SUMMARY MINUTES

Status: Chair approved

Meeting held: 30 August 2018 at 2pm in Lecture Theatre 1 (Camden) videolinked

to F82 (Hawkshead)

Attendees: 8 members present; 1 in attendance; 4 by invitation; 7 apologies

## 1 MINUTES OF PREVIOUS MEETING

The minutes of the meeting held on 19 July 2018 were confirmed as an accurate record.

# 2 PROJECT LICENCE HOLDER PRESENTATION

The project licence holder was welcomed to the meeting. She had recently submitted a new project licence for review. There was also a scientist in attendance who had been involved in reviewing the application to provide comments from a scientist's perspective.

The project licence holder explained that this was her first project licence that she was applying for, though she had plenty of experience of working under other project licences. Her research was focused on understanding the normal process of brain development, and how these processes could be damaged by injury, particularly through uncontrolled inflammation and infection.

The project licence holder had worked with, and developed, a number of animal models of human disease and disease processes in mice and rats. She was an expert in the in vivo assessment of blood-brain barrier function and development; developmental periods of susceptibility of the blood-brain barrier to dysfunction following inflammation; and the wider effects of inflammatory mediators on the brain. This work included the testing of a number anti-inflammatory drugs as of potential novel neuroprotective agents, in models of development and neurodegenerative disorders. It required a systems approach to biology and pharmacology, where the normal cellular development of the brain was modified by systemic factors, such as inflammation or peripheral drug delivery. Those studies have also explored the response of the body to neurological damage, and the capacity of modulating neuropathology by targeting peripheral factors.

The aim of this work was to understand the normal developmental processes in the brain, and how these processes were perturbed, or the trajectory of development altered, by methods of injury such as inflammation or hypoxia. This information would be utilised to identify disease relevant targets for therapeutic intervention. The work would include the preclinical testing of these novel therapies.

There would be 3 main objectives:

- Objective 1: To determine modulators of vascular development, and how alterations in vascular development affect neurogenesis and downstream brain structure
- Objective 2: To determine how a challenge to the normal environment or local chemical balance of the developing brain affects normal structural and functional development of the brain, at a micro and macro level

 Objective 3: To identify injury mechanisms and susceptible stages of development from Objective 1 and 2, and use them to test novel therapeutic molecules using a variety of clinically relevant biomarkers

The following queries were raised:

#### **Behavioural tests:**

It was suggested that more detail should be included with the behavioural tests indicating when to terminate the testing if it looked like an animal was struggling. What stress signs should be looked out for?

Were there any guidelines on what insufficient weight gain or excessive weight loss would be for a newborn pup? 20% seemed to be quite a lot for newborns. It was clarified that this actually related to 20% reduced weight gain rather than weight loss. This would be calculated with a control animal as the experiments would be run using control and experimental animals so that it was possible to have that comparison.

Technician assistance for the procedural administrations would be required. The project licence holder would provide training for those procedures that she had experience in, for the others she would arrange training to be carried out via her collaborators who were very skilled in these techniques.

Who would be working under the project licence? It was confirmed that initially it would be her PhD student, but that if her group was expanded once she obtained further funding, then they would also work under the project licence. She would provide the supervision. Her personal licence holders would watch her for the first couple of times and then use cadavers to practice their skills before moving onto live animals. The project licence holder was advised that once the personal licence holders had been trained they would need to be assessed – this would need to be someone different to the trainer. A register of assessors was kept in the unit. It was possible the assessors would initially need to be trained in the techniques being used (as well as the technicians).

The project licence holder was thanked for attending the meeting. She would amend her project licence to take into account all the comments received and recirculate.

The committee were all supportive that this work was well justified, the use of animals was necessary and the due consideration to the harms to the animals had been given (with the amendments suggested and agreed above).

# 3 AMENDED PROJECT LICENCE APPLICATIONS

# 3.1 Project licence holder presentation

The Project Licence Holder was welcomed to the meeting. It was explained that she had been invited to attend to discuss her proposed amendment plus as she was a first time project licence holder it was a useful opportunity to obtain a general update on how the work was progressing and how the model was developing. There was also a scientist in attendance who had been involved in reviewing the application to provide comments from a scientist's perspective.

The project licence holder explained that she was requesting additional availability at another institution. She and her collaborators had recently received grant funding to develop an in vivo tendon overload model in the rat Achilles. This required specialist mechanical testing equipment which was only available at this institution. Also the researcher working on the grant was based there, so performing the animal work there would allow for quicker processing of viable samples.

The project licence holder was applying for minor changes to the details of the loading protocol to ensure that they were able to induce consistent damage within the Achilles tendon through application of load. Since the original project licence application, her collaborators have further characterised the tendon damaged that is generated by loading of the tibia is due to compression from the loading cups rather than due to the tendon being stretched and is therefore unsuitable to study tendon overload. The model would be adapted by securing the knee and hip of the hind limb and applying displacement to the paw to stretch the Achilles tendon. The forces required will be lower than in the original protocol and therefore the adverse effects were likely to be less severe.

A query was raised about the analgesia. Would there be any issue in assuming the procedure was going to be painful so analgesia should be issued as standard, or would that have implications for the procedure in seeing whether tendons were damaged? It was agreed that this would be added to the licence as standard as the damage would be assessed by looking at changes in mechanical properties and tendon properties rather than changes to walking gait so there was no problem with routinely using analgesics.

The project licence holder concluded by advising that the work was going to plan with no major issues.

The project licence holder was thanked for attending AWERB and was advised that she would be informed of AWERB's decision about the proposed amendment after the meeting.

After the project licence holder had left the licence was discussed and it was agreed that subject to the suggested change above being incorporated this amendment was approved.

### 3.2 Project licence holder presentation

The project licence holder explained that he was applying to amend his project licence to include two new objectives and protocols.

The new protocols were:

- Development of and assessment of upright restraint and head-only stunning systems for poultry and waterfowl
- Assessment of the effectiveness of air weapon slaughter of turkeys and geese.

In addition, the third protocol had been modified to include a captive bolt control treatment for ducks and geese only.

The project licence holder added that as it had been found in experiments involving turkeys, that the capture and handling of birds to place LA cream caused the turkeys significantly more stress than the relatively minor pain associated with the subdural electrode placement, he was therefore proposing not to include the desensitizing of the skin for electrode placement. After discussion AWERB confirmed that they were happy with this suggestion, for if it had been proved to be more stressful giving the injection then it should be avoided.

AWERB noted that the intention was for individual animals to go through one of the protocols for a maximum of 10 restraint cycles. What steps were being taken to address the potential aversive reactions of the birds going through multiple rounds? AWERB strongly recommended that for harm benefit analysis it would be better to use more birds as it would mean the process would be repeated less frequently, so being less stressful for the birds. This would also follow the Home Office recommendations.

The project licence holder was thanked for attending the meeting. He would amend the project licence to take into account AWERB's comments, which would be recirculated for final sign off.

#### 4 MATTERS ARISING

# 4.1 Item 3.5: Poster for the Lab Animal Workshop (July meeting)

The following suggestions for topics that could be included in the proposed poster had been received:

- Dog socialisation and rehoming programme (for dogs and other species)
- Project on environmental enrichment
- Tissue sharing project
- Possibly welfare of teaching animals as the animals were vital to student life and teaching them how to handle animals.

AWERB agreed that these were all good suggestions. The A0 poster would focus on 3 projects that AWERB had been involved in. The list of suggestions received would be circulated for people to vote on their top 3. Members of AWERB would then be assigned to put together panels for the posters using these suggestions.

# 4.2 Item 9.2: Attending other AWERB meetings (July meeting)

The Chair of the London AWERB Hub had been e-mailed about whether it would be possible to attend other AWERB meetings as an observer. She didn't think it was a problem and would contact Hub members upon her return from leave in September. This would certainly help with seeing how other AWERBs did things (such as tackle mid term reviews) and identify areas that could be improved.

## 4.3 Item 10: Assessors List Review (July meeting)

Areas where replacements assessors were needed were being identified. It was confirmed that external people could be approached if they had the relevant experience.

## 4.4 Item 11.2: Conferences (July meeting)

Users have been reminded that if they are attending conferences and learn something of interest to them, then AWERB should be notified so that the information could be disseminated.

# 4.5 Item 4: ARRIVE Guidelines (June meeting)

A new study request form was being drafted that would help researchers follow the ARRIVE guidelines too. It would then be piloted.

# 4.6 Item 11: Training Records (May and June meeting)

User training records for existing PIL holders were being phased in. New starters were receiving their training records straight off. A sample copy of the training folder would be circulated to AWERB for info.

## 4.7 Item 2.2: Refresher Training (April meeting)

This training presentation was nearly completed. There would be a practice run through with AWERB to obtain their feedback before arranging a session with the project licence holders.

### 5 LONDON AWERB HUB

AWERB noted the redacted minutes of the London AWERB Hub meeting that had been held on 17 July 2018.

The following points were raised:

Were there examples of practice carried out at the RVC that could be shared with the Hub for comment? Managing late drafts for PPL applications: this was a common problem for despite reminding
project licence holders that their project licences were due to expire, new replacement licences
were being submitted very late in the process.

#### 6 NVS REPORTS

AWERB noted the reviews that had been circulated.

#### 7 MID TERM PROJECT LICENCE REVIEWS

AWERB noted that one mid term review had been submitted. It was unclear whether work under this project licence would be continuing. This would be checked.

### 8 STUDY REQUESTS

AWERB noted that there had been one study request approved since the previous meeting. This was for work that if it had been carried out in the UK would have required a Home Office project licence, however as it was being done in Spain, the researchers had been asked to provide a summary of the work that was being done for approval.

#### 9 WORKING GROUP REPORTS

#### 9.1 Rehoming

AWERB noted that the rehoming approach was being standardised so that it followed RSPCA guidelines. The technicians who were implementing these guidelines would be invited to a future AWERB meeting to report back on the changes they have made.

## 10 2018-19 CPD PROGRAMME

This was an ongoing project. The Deputy Managers were keeping a tally on the training that they were sending their staff on. They were also arranging for researchers to give talks to the technicians on their research. The Deputy Managers were working on compiling a rolling programme for the next 12 months. A copy of the programme would come to AWERB.

It was suggested that animal technicians could attend the BSc stunning/slaughter teaching module taking place in 2019. There would be space for up to 5 staff.

## 11 TRAINING RECORDS

It was reported that the training records have recently been audited and were up to date for the technicians. A more contemporaneous training record system for users was being implemented.

### 12 FISH

It was reported that the Home Office Inspector had inspected the fish facility that week. Routine husbandry and care of the fish was being transferred to BSU. The fish facility was also being completely serviced and any malfunctioning parts would be replaced. Stocking densities also needed to be reviewed as they were higher than the generally accepted level. Animal technicians were also going on an intensive training course in September. This would cover health and welfare, breeding, euthanasia and general information about zebrafish best practices.

### 13 PIGS

One of the pigs had bacterial endocarditis, which was possibly associated with the chronic catherization. Results of sensitivity were pending. Discussions were being held with the project licence holder about different preparations and the adjustments that might be needed.

# 14 STOCKPILING OF ANIMALS

It was reported that a couple of project licence holders were building up a stockpile of animals and did not have a plan for how they would be used. An action plan was therefore needed. This would be put together for discussion with the Establishment Licence Holder.

# 15 AWERB FEEDBACK

AWERB members were asked for feedback about what they would like to have discussed at these meetings. Lay Panel members were also encouraged to feed in what they would like to see on the agendas.

# 16 DATE OF NEXT MEETING

This was scheduled for 2<sup>nd</sup> October 2018.

Secretary 31 August 2018