Royal Veterinary College
University of London

Minutes: AWERB

Status: Chair approved

Meeting held: 20 July 2017 at 2pm in F82 Hawkshead videolinked to U5 Camden/LBIC VC Room

Attendees: 10 members present; 3 in attendance; 8 apologies sent.

1 WELCOME

A PhD student who was attending the meeting as an observer was welcomed. She was interested in the work of AWERB and how the Committee assesses project licences.

2 PRESENTATION FROM PPL HOLDER

A project licence application relating to the treatment of urinary incontinence that was as a consequence of damage to the spinal cord had been received. Trauma to the spinal cord causes permanent paralysis and incontinence. In the United Kingdom, around 50,000 people live with spinal cord injury (SCI), with about 1,000 new cases every year amounting to a total annual cost of approximately £1 billion or approximately 1% of the total NHS budget. Worldwide, SCI affects about 2.5 million people with approximately 130,000 new cases each year. For patients, having a satisfactory method of bladder management is the highest priority for paraplegics and the second highest, after restoration of the hand, for tetraplegics.

At present, in Britain, the most popular method for bladder management following SCI is intermittent catheterisation supported by the use of anticholinergic drugs. This is expensive (£6k/annum per patient) and the drug side effects are unpleasant. As an alternative, the Brindley neuroprosthesis is manufactured by Finetech Medical Ltd and approximately 4,000 have now been implanted worldwide. However, due to the need for destructive surgery to ensure its successful function (cutting certain sensory neural pathways called 'rhizotomy'), the method is not generally popular.

The new prosthesis that was being investigated would avoid the need for a rhizotomy and so remove the main obstacle to the device being widely adopted by patients and clinicians. A successful outcome to the proposed project would allow the new neuroprosthesis to be designed, tested in SCI patients and become the treatment of choice for complete spinal lesions (~40% of SCI patients have no residual sensation from the sacral region). This would have a significant impact on society, as people living with SCI would benefit tremendously from the developed technology and experience a better quality of life. Economically, too, the impact of the research was likely to be high, as the amount of NHS budget going towards people living with SCI would be dramatically reduced.

The aim was to design and demonstrate the remaining systems that would enable the specification and design of a future complete closed loop bladder prosthesis for use in humans. This was very important and also timely as a method to improve the quality of life of patients by providing an attractive alternative to sterile catheterisation and at the same time reducing the lifetime cost of care.

AWERB discussed the project licence in detail. It was recognised that urinary incontinence was a major issue and could significantly influence quality of life. The consensus was that if this research resulted in an acceptable treatment that improved people's quality of life, then this benefit would

outweigh having to use animals for its development.

This project licence would be a development project to get the system up and running. The project proposed using very few animals, but as a proof of concept study, the justification seemed sound.

3 PRESENTATION FROM SECOND PPL HOLDER

The project licence holder explained that she was working on Lysomal storage diseases (LSDs). These were a group of approximately 50 rare inherited metabolic disorders that result from defects in lysosomal function. Lysosomal storage diseases affect mostly children who often die at a young and unpredictable age, many within a few months or years of birth. Many other children die of this disease following years of suffering from various symptoms of their particular disorder. They were classified as rare diseases.

The project licence holder had previously been doing work on a zebrafish model of CLN2, one of the LSDs, and found a compound that alleviated seizures. This compound was as effective as sodium valproate at controlling seizures in the zebrafish but it was not known if these findings could be replicated in mammals. It was also not known if a combination of this compound and sodium valproate or other therapies (such as enzyme replacement therapy) would provide a synergistic therapeutic effect, as seen when other experimental therapies were combined. The next stage was therefore to quantify and characterise seizures in mouse models of NCL. Quantitative assessment of relevant signs in mouse models would better enable establishment of the relative merits of novel single or combined treatments and help the community to prioritise which experimental therapies should be tested in patients. Knowing that the treatment worked in two animal models (zebrafish and mouse) would improve confidence that the treatment would work in human patients. With no effective therapies available, all children affected by one of these disorders will die prematurely after a protracted period of disability. Given that these disorders were the largest cause of childhood dementia, the LSDs represent a substantial burden upon the NHS. Therefore any discovery of a means to prevent, or slow down the course of these devastating diseases would be of enormous benefit. Indeed, treatments which could significantly improve the quality of life for affected individuals would represent a tremendous breakthrough for these children, their families and the healthcare professionals who support them. Furthermore, the burden on the health and care services, and hence the economy, would be reduced.

AWERB discussed the project licence after the project licence holder had left. The consensus was that the diseases that aiming to resolve, caused the patients to lead a horrible life – plus their families also suffered. Using this mouse model might result in improvements, and was associated with a mild to moderate level of suffering so justified the animal use involved.

4 ETHICALLY SOURCING ANIMALS FOR ANATOMY CLASSES

Following concerns raised by AWERB at a previous meeting about transporting ponies to be used for teaching, the anatomy team had been looking into alternatives. One option had been identified which they presented to AWERB for their consideration. After discussion AWERB's consensus was that the alternative option was still not acceptable and that sources that were closer to the College should be identified or alternative methods for delivering the practicals should be looked into.

5 STUDY 13

AWERB noted that a new commercial supplier of defibrinated blood had recently been identified and tests undertaken to validate this as an alternative to the blood that had been supplied by the RVC. AWERB were pleased to hear that an alternative source had been identified and checks had been done to see that it did in fact work.

6 INFORMATION DISSEMMINATION

6.1 RSPCA/LASA/LAVA/IAT AWERB-UK FORUM

A member of AWERB had attended this event. As part of the event he had attended a rare diseases workshop where it had been debated whether research using animals should be done on these types of diseases as rare diseases only affect a small amount of the population. How valuable should the research be classed as? Did it depend on the age of the people generally affected and how debilitating the disease was? For example Duchenne muscular dystrophy generally only affected young boys – should research on this disease be prioritised over research on diseases that just affected the elderly, as this disease affected the quality of life very early on, so from an ethical perspective these individuals do not currently get much of a chance in life. Or should research concentrate on cardiovascular diseases where the returns could be massive as a lot of people were affected.

7 PRESENTATION FROM 3RD PPL HOLDER

Duchene muscular dystrophy (DMD) is an X-linked muscle disease that is both progressive and fatal that also affects the heart and brain. The use of this dog model of DMD (DE50-MD dog) would assist in the translation of studies that showed therapeutic promise in the mdx mouse into a clinical protocol suitable for human treatment. A successful therapy that simply arrests the progressive decline in the arm muscles would have a massive impact on the quality of life in patients with DMD and achieving the same body-wide would have a dramatic impact on longevity as well. This research aimed at both these outcomes.

This project licence application was continuation of work from a previous project licence that was due to expire in the autumn. A discussion was held about modifications to protocols to improve the welfare of the dogs as much as possible.

8 WORKING GROUP UPDATES

8.1 Environmental Enrichment Working Group

This group now had its own intranet page. Feedback and suggestions for further content was welcomed.

A letter had been sent to all project licence holders informing them of the upcoming enrichment audit. This would start once the data collection form had been completed.

8.2 Euthanasia working group

Members of the group had been in contact with a company who have recently reviewed all of their Schedule 1 methods with the intention of either phasing out or reducing the use of CO_2 dispatch of rodents. This had resulted in a couple of ideas that the College could potentially use.

9 NVS UPDATES

9.1 Camden

There were no veterinary or welfare issues to report.

9.2 Hawkshead

It was important to ensure that all technicians regularly had their competencies assessed particularly if they had been trained elsewhere, to ensure that they all knew to follow standard procedures.

It was also important to ensure that someone was designated to do regular stocktakes of drugs to make sure that there were sufficient drugs on site for all species that were being looked after and that there was a deputy to cover when the designated person was away.

10 CONDITION 18 REPORTS

It was reported that 3 condition 18 reports had been submitted to the Home Office. No comments had yet been received back.

10.1 Project Licence Standard Condition 18 notification

ASRU have produced a draft advice note in relation to Project Licence Standard Condition 18. This advice note had been circulated to AWERB and project licence holders for them to comment on by the end of August.

11 ESTATES ISSUES

11.1 BSU Camden

There have been some issues with response time to temperature/humidity problems in the BSU unit. This would be raised at the next estates meeting.

11.2 BSU Hawkshead

There was an issue with pigeons getting into the barns. Possible solutions were being discussed including speaking to a pigeon racing club to see how they deterred wild pigeons from their lofts.

12 PROJECT LICENCE – NEW LICENCES GRANTED

AWERB noted that there had been one new project licence granted.

13 PROJECT LICENCE – MID TERM REVIEW

AWERB noted that there had been one mid term review.

14 SCHEDULE 1 LIST REVIEW

As the meeting had run out of time, it was agreed that the managers would review the list and provide any updates. Checks would also be done to make sure that everyone was up to date with their training.

15 MINUTES

The minutes of the meeting held on 13 June 2017 were agreed to be an accurate record.

16 MATTERS ARISING

16.1 Item 3.1: Student project

Enquiries had been made whether it was possible for the analysing of the salivary cortisol to be done as part of a student project, but it was decided that it was not practical as the student would need to be involved in the collection as part of the learning experience.

16.2 Item 3.2: Rodent Health Manual

The manual had now been formally approved and would be placed on the intranet and copies placed in all the Rodent animal rooms.

16.3 Item 4.1: CPD

The NVS team had been contacted to see if they could help with developing a CPD programme for the animal technicians. The plan was to record the procedures on video and teach the practical side with the support of video.

The NTCO had also started to produce a list of procedures from project licences that it would be useful to have an assessment form for (for both Camden and HH).

16.4 Item 10.2 (April meeting): Animals used at Camden poster

The marketing team have provided input to the poster. A final check would be done before it was sent for printing.

Secretary
08 August 2017