

ANIMAL WELFARE AND ETHICAL REVIEW BODY

Minutes of the meeting held on 16 May 2019

Present:

[REDACTED]

Apologies:

[REDACTED]

1. Minutes

*Agreed:* That the minutes of the meeting held on 14 March 2019 were approved with the following changes:

*7.3 Revisions*

Please be specific about weight loss; it could be interpreted as **in** some mice **it is** going to **be** greater than 20% weight loss.

2. Applications for New Project Licences

2.1. [REDACTED], The Long Term Effects of Developmental Hypoxia on Cardiac Function ([REDACTED]).

*Considered:* A completed AWERB form, PPL application, and minutes from Local Management Committee Meeting

*Interviewed:* [REDACTED]

*Discussed:* • Due to feeding requirements the rats would need to be housed

individually; however cages are being modified in order to enable visual interaction. They are currently piloting the housing arrangements in order to monitor stress.

- A rat model is proposed for cardiomyocyte isolation because the numbers required would be less as the failure rate in mice is high. Also more work has been undertaken with antioxidant treatment in rats than mice so there are more comparators.
- A clear justification was provided for using nutrient-deprived mice.
- Antioxidants have other effects which may alter results apart from their antioxidant effect (eg Allopurinol has marked effects on kidneys). A lot of antioxidants are being trialled at the moment. They are working with [REDACTED] to find an antioxidant that works. They currently plan to use melatonin as this has been trialled with pregnant women, and have a control group to see if there are any off target effects.
- Activity level may affect outcomes – they could measure food conversion ratios (food intake against growth trajectory).

- Revisions:*
- To clarify that protocol 1 is for hypoxia that is insufficiently severe to restrict growth and protocol 2 is for hypoxia of a severity level that may restrict growth.
  - Correct reference to mice in a number of humane endpoint sections, instead of rats.
  - The NTS needs some attention.

*Outcome:* The study was given provisional approval based on the applicant making the changes/clarifications listed above to the satisfaction of the Chair/AWERB.

## 2.2. [REDACTED], Regulation of Inflammation in Wound Repair ([REDACTED])

*Considered:* A completed AWERB form, PPL application, and minutes from Local Management Committee Meeting

*Interviewed:* [REDACTED]

- Discussed:*
- They will be using a range of scanning models, PET, MRI and bioluminescence. They will use a PET scanner to track macrophages within and around a wound and find this an effective imaging approach.
  - They are using a 1 cm wound for long term wounds because it is better to assess the wound healing. 8mm wounds are only used for shorter term experiments. Where appropriate they use two wounds in one mouse to reduce the number of animals used, but not for the long term experiments.
  - Mice that have been irradiated can lose weight which suggests there are adverse effects. This is not addressed.
  - It is important to look at mouse models for types 1 and 2 diabetes as research into both is important. Type 1 is on the increase and it is not known why.
  - The STZ model has a high attrition rate, so they are using the rat model as this has less attrition.
  - They are ageing to 25 months because they found no differences in

this strain up to 18 months, but saw changes between 21 and 24 months. They have taken account of attrition as a consequence.

- Revisions:*
- There needs to be greater clarity with regards to endpoints.
  - Clarity needs to be provided with regards to the effects of irradiation on the mice.
  - The NTS requires some attention

*Outcome:* The study was given provisional approval based on the applicant making the changes/clarifications listed above to the satisfaction of the Chair/AWERB.

**2.3.** [REDACTED] afford, Devices & Therapies for Cardiovascular Interventions & Diseases ([REDACTED]).

*Considered:* A completed AWERB form, PPL application, and minutes from Local Management Committee Meeting

*Interviewed:* [REDACTED]

- Discussed:*
- They need to use a large animal model for scalability and transferability into humans. There are advantages to using sheep which include the fact that they have 20+ years' experience with sheep. It is, therefore, unlikely that they will use any pigs.
  - Experienced interventionists will be performing the ablations and administering the stents.

*Revisions:*

- The NTS requires some attention

*Outcome:* The study was given provisional approval based on the applicant making the changes/clarifications listed above to the satisfaction of the Chair/AWERB.

**2.4.** [REDACTED], Defining Critical Regulatory Pathways Controlling Local & Distal Immune Responses During Health & Inflammation of Barrier Surfaces ([REDACTED]).

*Considered:* A completed AWERB form, PPL application, and minutes from Local Management Committee Meeting

*Interviewed:* [REDACTED]

- Discussed:*
- The protocols had not been finalised so there was a lack of clarity with regards to breeding numbers, adverse effects and severity levels.
  - They are open to using opiates as analgesia if pilot studies show there are no effects that would impact on the research. Joanna Stanley can share some information with respect to this.

*Revisions:*

- Bone loss measurements require correction.
- Table numbering needs sorting out.
- Need clarity on entry point for middle block in flow diagram.
- For animals dosed with sodium sulphate, it needs to state expected numbers to go into the severe category.
- The protocols need to be finalised so there is clarity with regards to breeding numbers, adverse effects and severity levels. Without these, AWERB is unable to review the ethics of the proposed project.

*Outcome:* The study will return to the next AWERB for consideration.

### 3. Report on amendments approved from 25/02/2019 to 26/04/2019

The following amendments were approved by the executive committee.

#### 3.1. Amendments to Project Licences

[REDACTED], Circadian Regulation of Processes Underlying Chronic Inflammation.

[REDACTED], Maintenance of Barrier Immunity in Health & Disease.  
[REDACTED], Type 2 Inflammation in Health & Disease.

#### 3.2. Amendments to Project Licence [REDACTED]; Generation, Breeding and Maintenance of Genetically Altered Rodents

[REDACTED], Generation of Dib1 Promoter KO Mouse Line Using CRISPR.

[REDACTED], Generation of mCherry2a NehrIn Mouse Line Using CRISPR.

[REDACTED], Generation of C57BL/6J.GRP<sup>Em1Uman</sup> Mouse Line Using CRISPR.

[REDACTED], Generation of C57BL/6J.sh3bp1<sup>Em1Uman</sup>(Ong cko1) Mouse Line Using CRISPR.

[REDACTED], Generation of C57BL/6J.RyR<sup>CLIP/AgBP2</sup>Uman (RyRAgCLIP) Mouse Line Using CRISPR.

#### 3.3. Amendment on secondary availability project licences

[REDACTED], [REDACTED], Inflammation in Arterial Disease & Co-morbidities.

### 4. Report on amendments submitted during the period 25/02/2019 to 26/04/2019

#### 4.1. [REDACTED], Designing Therapeutic & Diagnostic Nanotechnologies for Medicine

Given that this amendment may include a severe protocol the applicant will be asked to attend the next AWERB meeting to talk through the amendment and the amendment will be considered by the full AWERB committee.

#### 4.2. [REDACTED], Immunopathology of Experimental Malaria Infection

A special AWERB meeting was convened to discuss this amendment given that it included a severe protocol. The AWERB panel all felt satisfied that the amendment should be approved.

### 5. Update on applications considered at the [REDACTED] meeting

Of the three licences that have been submitted as draft applications, the application by [REDACTED] has been granted.

### 6. NW region AWERB hub

The next meeting is taking place on 17th September at [REDACTED].

## **7. NC3Rs Regional Programme Manager update**

The Committee welcome [REDACTED] as the new NC3Rs Regional Programme Manager. [REDACTED] will begin to work with the unit on the refined mouse handling techniques and then start to work with academics to make that transition.

## **8. Any other business**

### **8.1. AWERB away day**

A date needs to be determined.

### **8.2. AWERB application form**

At the next AWERB meeting a discussion should take place about how comments from the Named Officers regarding Project Licence applications are documented. Currently comments from the Named Officers are added to the AWERB form prior to the meeting.

**The next meeting will be on 4th July 2019 at 10am-12pm  
in [REDACTED].**