The University of Manchester

ANIMAL WELFARE AND ETHICAL REVIEW BODY

Minutes of the meeting held on 22 September 2022

Present: [redacted]

Apologies: [redacted]

In attendance: [redacted]

1. Minutes

Agreed: That the minutes of the meeting held on 21 July 2022 were approved subject to the correct of a typographical error on page 5.

2. Applications for New Project Licences

2.1. [redacted], Genetic & External Influences on Regulation of the Immune System

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

Interviewed: [redacted]

Discussed:

- The committee raised the inclusion of the severe protocol with the researcher and discussed ways in which the experiment design could

be changed in order to minimise the number of animals that are requested for use under this severity banding.

- The researcher explained that while the infections can be extremely nasty for mice, they are mild in humans. That being said, the researchers working under the licence would take appropriate infection prevention and control measures to minimise any risk to researchers or other animals in the facility.
- The BSF staff assured AWERB that the research group do monitor the animals very closely and as soon as they enter the severe category they are immediately humanely killed.
- The NSV reported that she had spoken with the researcher regarding a scoring specific to respiratory disease to ensure animal health and welfare is monitored as closely and as accurately as possible for the infections being used.
- A general discussion took place regarding monitoring of animals including telemetry implanted on animals and technology within cages. This will be discussed further at a separate meeting.

Revisions:

- As discussed in the meeting, please speak with the statistician and/or other researchers who have applied such approaches regarding alternate experimental designs. Given the severity limit (severe) and the large number of animals which are on this protocol, AWERB feel strongly that reduction of the number of animals requested for use in the control arms of the study should be explored.
- Page 26 - Continued use from protocol 1: are they going to protocol 7 as well?
- page 41 and also 63, 84 and 101 - Where will animals be "reconstituted" from?
- Page 100 - Under "Humane endpoints" it is not clear whether humane end points have been copied from other parts of the licence or are specific to this Protocol (which is severe). Please can you review this.
- Page 121 - Under "Group sizes" it suggests that power calculations are given in Protocols 2, 5 and 6, however it would appear that they are only in protocol 2. Please can you review this.
- Page 126 - Radiation: are the levels based on therapeutic doses in humans or above/below?
- Page 129 - Under "Likely Adverse effects…" Should the first paragraph be headed "Intestinal Parasites"?
- A number of comments were made regarding your Non-Technical Summary which are listed below however overall it was felt that this was well written for the lay reader. Please update your NTS based on the comments and send it to the following lay members for their review [redacted]
    - This is something of a model NTS. It is clearly written, and when it needs to use a technical term, the term is clearly explained. No prior knowledge is assumed on the part of the non-technical reader. Two small comments:
        - Page 5 - "…in the main, all mice recover" needs to be more precise

        - Page 6 - "killed" ? Better something like "humanely culled", "culled using schedule 1 methods"?
    - Project Harms - It seems that there is an excess of information; it would benefit by being succinct.
    - Page 6 - Expected Severities: - Would it be possible to express this more clearly, in particular it would be useful to know how many animals would be in the severe category and could this be minimised.
    - More detail would be important on exactly what is going to be done in terms of whether the experiments are, say, blood tests, post-mortem, etc.

Outcome: The application should be resubmitted to another AWERB meeting so that a further review can take place regarding any alternate experimental designs you include relating to the severe protocol.

2.2. [redacted], Control on Matrix Homeostasis in Health & Disease

Considered: PPL application, and minutes from Local Management Committee Meeting

Interviewed: [redacted]

Discussed:
- The need for some additional support for the researcher given this is their first PPL was discussed.
- Further information is required on the growth rate of the animals.

Revisions:
- Details regarding growth rate should be included for the animals. At present there is no indication about how small you expect the animals to be.
- Given that the homozygous mice have not been bred before, AWERB request enhanced monitoring of the animals, however are reassured that the animal technicians will be observing the mice for any behaviour that is different in general not just what you are expecting to observe.
- It was not clear from your application how you would proceed if you were not able to breed the homozygous mice. Please speak with the Named Persons in the BSF about how to incorporate this information into your application.
- Page 13 - typo: wshowing.
- Page 14 – You stated that “There are no interdependencies”: can you emphasize some other shared characteristics, otherwise the Home Office may suggest the application being split in two. Please obtain advice from the Named Persons on this.
- A number of comments were made regarding your Non-Technical Summary which are listed below. **Please update your NTS based on the comments and send it to the following lay members for their review** [redacted]
    - The NTS has too much scientific detail which makes it difficult for the lay reader.

- It may be beneficial for you to look at example non-technical summaries which have been approved and can be found here.
- Page 3 - "extracellular matrix protein" - for the non-technical reader this is not self-explanatory.
- Page 3 - "collagen-associated rare diseases (e.g. osteogenesis imperfecta, ehlers-danlos syndrome)" - it would be helpful for the reader to have some indication of what these involve.
- Page 3 & 4 - "Who or what will benefit" section: this has a number of technical terms which need either explanation or substitution. As examples: " collagen-trafficking in fibroblasts, monocytes, and macrophages", " fibrillogenesis", "transcriptional/translational expression", "the immuno-matrix", etc.
- Page 4 to 6 - "Project harms" section. On my first reading, I thought that this section had been lifted from a technical description, but on re-reading, this appears not to be the case. But for the lay reader for whom this section is written - that is, a member of the general public accessing the appropriate University website - it is hard going, in part because it contains too much detail. It also uses a good number (too many to list here) of technical terms that are not explained or defined.
- Page 5 – please remove the reference to Manchester. The non-technical summary is publically available once the licence is granted and should not contain details specific to where the work is taking place.
- Page 6 to 9 - The same comments apply as above: too much detailed information is provided, and there are unexplained technical terms. The NTS is intended to allow the non-technical reader to understand what happens to the animals involved in the research, without having to have any technical or scientific background. I found it very difficult to work out just what this research involves "from the point of view of the mice": the information is in fact there, but it needs to be expressed in a much simpler manner, without much of the detail provided.
- Page 8 - In the second paragraph of the "Refinement" section I read "The mice may mimic human rare diseases (e.g. osteogenesis imperfecta) without additional suffering." I don't think this important information is available earlier in the NTS: if it is, I didn't pick it up. I quote this as an example of how the amount of detail and technical complexity make it difficult for the general reader to understand the NTS.
- Page 10 & 11 - The Abbreviations (MS and GEU)need to be explained.
- Protocol 1 & 2 - The titles of these Protocols could be improved as they are currently very non-specific.

Outcome:

- The study was given provisional approval based on the applicant making the changes/clarifications listed above to the satisfaction of the Chair/AWERB.
- AWERB noted that this Project Licence was the first held by the researchers and asked that they seek mentorship for support.

3. Retrospective Assessments of Project Licences requiring full committee review

3.1. [redacted], Gene function in cardiovascular disease

Considered: A completed Retrospective Assessment form.

Interviewed: [redacted]

Discussed:
- There are a large number of Standard Condition 18 reports on the licence. Some of them are due to the wording used on the licence which informed the recently submitted and approved continuation licence from the researcher. This is being incorporated into all pre-AWERB meetings by the Named Persons.

Revisions: None

Outcome: AWERB support submission of this retrospective review to ASRU.

4. Update on Retrospective Assessment of Project Licences seen at previous meeting

4.1. [redacted], Modulation of inflammation in the GI tract

Considered: An updated Retrospective Assessment form.

Discussed:
- The previous version of the form contained incorrect information regarding the number of animals requested for each protocol and those actually used. The updated form corrected this error.

5. Report on licences processed from 04/07/2022 to 09/09/2022

The following amendments were approved by the executive committee.

5.1. Amendments to Project Licences

[redacted], Development & Validation of Animal Models for Neurodevelopmental Disorders
[redacted], Assessing Novel Treatments for Endometriosis
[redacted], Modelling Therapies for Congenital Voiding Dysfunctions
[redacted], Regulation of Inflammation in Wound Repair
[redacted], Studying Cognitive Function in Animal Models of CNS Disorders
[redacted], Genes and Essential Nutrient Influences on Behaviour
[redacted], Circadian Regulation of Chronic Inflammation
[redacted], Understanding Vision & Developing Therapies for Blindness
[redacted], Modulating Inflammation in the GI Tract

5.2. Amendments to Project Licence [redacted] Generation, Breeding and Maintenance of Genetically Altered Rodents

[redacted], Generation of Ramp3-Cre Mouse Line Using CRISPR

6. Update on applications outstanding from previous meetings and upcoming Project Licence applications

6.1. The committee were provided with a document showing the status of applications considered previously and those pencilled in for future meetings.

7. NACWO and Directors report

7.1. No comments were made on the report submitted.

8. NVS report

8.1. No comments were made on the reports submitted for July and August or the report regarding the heat mat review.

9. Standard Conditions 18s and non-compliances

9.1. The committee were provided with a table of reports submitted to ASRU along with the reports for each incident.

9.2. [redacted] updated AWERB on the automatic lighting failure. This is now fixed and the BSF are exploring ways in which this can be automatically monitored. They are working with estates to come up with something that could be incorporated into the smart view system.

10. Update on actions from previous away day

10.1. All actions are now completed.

11. Any other business

11.1. Culture of Care

[redacted] encouraged AWERB members to complete the padlets for the culture of care strategy which was discussed at the away day.

11.2. [redacted]

[redacted] will no longer be an NVS for the BSF. They thanked AWERB for welcoming them and the good work that AWERB has done. AWERB thanked the NVS and wished them all the best for the future.

The next meeting will be on 20 October 2022 at 10am-12.30pm via Zoom.

Dates of meetings for the 2022/2023 academic year are:
22 September 2022
20 October 2022
17 November 2022

15 December 2022
26 January 2023
23 February 2023
23 March 2023
27 April 2023
25 May 2023
22 June 2023
20 July 2023
August break