

ANIMAL WELFARE AND ETHICAL REVIEW BODY

Minutes of the meeting held on 26 January 2023

Present:

[REDACTED]

Apologies:

[REDACTED]

In attendance:

[REDACTED]

1. Minutes

Agreed: That the minutes of the meeting held on 15 December 2023 were approved subject to correction of a typographical error for the spelling of ‘premetamorphic’.

2. Applications for New Project Licences

2.1. [REDACTED], The interactions of innate and adaptive immunity

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

Interviewed: [REDACTED]

Discussed with applicant:

- The level of weight loss for the colitis model was discussed as the Humane End Point for this was 20% but other protocols have 15%.
- A diagram of the heart transplant was requested by the committee.

Revisions:

It was explained to the applicant that the committee had provided comments to the Secretariat prior to the meeting and while some would be discussed in the meeting, the list below includes all the comments whether they were raised in the meeting or not.

- Protocols 3,4 and 6 - The method of blood sampling is not stated, and this is also the case for the glucose tolerance test. Please include this information.
- p17, Section 'Given the controls and limitations in place, what is the highest severity that an animal could experience in this protocol?' Please include a number instead of stating 'few'.
- p19, 'Do you expect any of these GAAs to show a harmful phenotype with welfare consequences?'. Please can you list which strains you expect rather than state 'yes'.
- P24, please seek advice from the BSF if Protocol 2 requires renaming to differentiate it from Protocol 1.
- P49, please seek advice from the BSF is the use of the phrase 'case by case' needs to be more specific.
- p50, please include a reference to the colitis score sheet.
- P51, in protocol 4 there is mention of the BCS - will this be included in appendices?
- P73, the last sentence in the Section "How will you monitor for, control, and limit any of these adverse effects?" requires an ending.
- P73, please answer the questions for "What are the humane endpoints for this step?"
- P73, please can you provide some information on how obese will the mice be allowed to become and what effect will that have on their mobility. Is there a required level of obesity which needs to be achieved?
- p76, Under "What are the humane....." the sentence should read "....so, no specific humane endpoints apply".
- P78 - Protocol 5 Step 6 - modulation of the microbiome. Can antibiotics be given in drinking water? The table suggests oral administration will be gavage only.
- P81, please seek advice from the BSF on if the time of day is standardised.
- P87 and p107, please re-read as the second paragraph does not appear to be linked to anything prior.
- P96, please consider including a diagram discussed in the meeting to aid in the understanding of this procedure.
- p98, At the end of "Describe the procedures..." section "3 veins per tail of mouse" seems unnecessary.
- There were a number of typographical errors noted in the application which require correction:
 - p4, Typically, what will be done to an animal used in your project? The content requires a full stop after "...growth or infection"
 - p7, Home Office requires capitals.

- p44, Three lines from the bottom it should be "our" not "or".
- P46, Typo in Adverse Effects section "mid" should be "mild"
- P51, Typo "bringing brining"
- p69, Under "Why are you proposing....." the fifth word should be "as".
- p103, Under "Why Scientifically do...." it should be "and" in the last line.
- p112, Under "What are the likely" it should be "complication" not "complicated"
- 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



- Is it possible to mention for clarity that you are investigating colorectal cancer rather than merely cancer? Also would it be possible to add perhaps under 'How will you refine the procedures' on page 7 that mice undergoing immunosuppressive treatments would be maintained in a barrier environment to limit exposure to infection?
- P3, pathogenesis - is a technical term. A lay reader may not follow - is there another way to express this? such as development of disease?
- P3, You state "We will be using exclusively adult animals for experimental work." but do not explain why this choice has been made - the question prompts a short explanation?
- P4, the section "What are the expected severities and the proportion of animals in each category (per animal type)?" needs some editing to ensure it reads correctly.
- P4, is radiation sickness likely leading to lethargy, inappetence, diarrhoea and weight loss? If reasonably likely, perhaps that should be noted.
- p4 of 127, "Mouse diet may also be modified" - lacks something - perhaps "The mouse diet may also be modified."?
- P4, "Generally samples" and next sentence "Animals are generally" - may wish to not repeat the word generally - perhaps substitute for mostly, largely, commonly or something?
- P4, Would it be possible to add to the NTS that endoscopy may be performed under 'Typically, what will be done to an animal used in your project?'.
- p4 of 127, " tumour growth or Infection sometimes" - infection is capitalized - should it be?
- p5, para 1: "organ on a chip" needs some explanation for the non-technical reader.
- P5, under the "Reduction" heading: the two paragraphs here probably need some clarifying/expansion - the non-technical reader will not be familiar with e.g. "experimental effect sizes", "number of replicates", "optimal signals".

- p5 of 127, from a lay reader perspective I am not sure "innate and adaptive" is required - just immune system is enough to get the point.
- P6, under "Refinement": para beginning 'Mice are the preferred species' needs some small amendments, particularly in the first sentence.
- p6 of 127, "immediate use , thus reducing" - an extra space here?
- p6 of 127, I am not sure the lay reader will know what a "tick over" colony is? Could this be expressed in another way?
- p6 of 127, should Colitis and Cancer be capitalized? heart disease is not?
- P7, "as well as to day to day" perhaps the day to day?
- P7, please explain the abbreviations in this section.

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

3. Response from [REDACTED] regarding his Retrospective Assessment for [REDACTED]

3.1. [REDACTED]

Considered: An updated completed Retrospective Assessment form.

Outcome: AWERB supported submission of the updated Retrospective Assessment answers.

4. Report on licences processed from 29/11/2022 to 11/01/2023

The following amendments were approved by the executive committee.

4.1. Amendments to Project Licences

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

[REDACTED], Melanoma Formation, Immune Responses & Evaluating Novel Therapeutic Approaches & Agents.

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

[REDACTED], Understanding Vision & Developing Therapies for Blindness

[REDACTED], Anti-Cancer Therapy Validation

[REDACTED], [REDACTED], Genetically Altered Rodent Generation, Breeding & Maintenance

4.2. Amendments to Project Licence [REDACTED], Breeding and Maintenance of Genetically Altered Rodents

[REDACTED] Creation of C57BL/6J.Muc5ac^{m1Uman} Mouse Line Using CRISPR

[REDACTED] Creation of HsCD146ecto Mouse Line Using CRISPR.

4.3. Application for additional availability for imaging purposes

██████████, Combination Immunotherapy for the Treatment of Cancer.

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

- 5.1. The committee were provided with a document showing the status of applications considered previously and those pencilled in for future meetings.
- 5.2. █████ flagged that given the volume of licences coming through three Project Licence applications may have to be seen at some meetings. Now that some standing items have moved to being considered quarterly there should be time on the agenda for the more Project Licence applications to be seen per meeting.

6. NVS report

- 6.1. A discussion took place regarding the ulcerative pododermatitis reported in the October 2022 NVS report. The NVS explained that the flooring can be a factor so changes were made to the flooring and bedding and the issue has not been seen since. The ulcerative pododermatitis was in one group of animals.
- 6.2. A discussion took place about the Rhabdomys with dystocia. It was queried if an obstetric intervention could have taken place. The NSV explained that this would have required a high level of observation prior to the event which had taken place unexpectedly as the animal was bright, active and responsive on observation. Questions would then have arisen regarding how to care for the pup. In addition, should a c-section have been carried out the dam would then have been experimental different to others which would then have probably required the animal being removed from the breeding programme. Therefore the decision to euthanise the female had been made.

7. 3Rs AWERB subgroup report

- 7.1. The committee were provided with the minutes and papers from the most recent 3Rs AWERB subgroup meeting in December 2022.
- 7.2. The Chair of the 3Rs AWERB subgroup highlighted that some researchers had said that the ARRIVE checklist had not been completed as the journal did not request it. The committee discussed that funders require it to be completed in addition to them being required as part of the AWERB approval. █████ will take this forward to ensure completion of the checklist is promoted and happens.

8. SOP Process for animal keep alive and reuse on a project licence_2022-11-04

- 8.1. The committee discussed a draft Standard Operating Procedure for keeping animals alive and for re-use. There were concerns about the current wording.
- 8.2. █████ will ensure the advice from the Home Office is circulated.
- 8.3. The item will be brought back to a future meeting so that people have more time to consider the document and how it could be revised to ensure that researchers at the University of Manchester understand the document and what they can and cannot do.

9. Environmental Enrichment Guide and 3Rs update

- 9.1. ■ presented the Environmental Enrichment Guide. An observation was made that more detail was included for mice than the other animals. ■ explained that enrichment used in the BSF is based on science and more research has been done on the benefits of the enrichment with mice.
- 9.2. The possibility of using enrichment at night was discussed in the context of studies that have a circadian component. ■ will look at how this could be adopted given that ideally BSF staff are around in the day and can ensure nothing happens, such as animals getting tangled in any enrichment, which would not be the case overnight.
- 9.3. The benefits of enrichment for reducing caecal torsion was discussed.

10. AOB

10.1. Food for Thought

■ talked about this event and invited people to join. BSF technicians and researchers will be talking about their work.

10.2. Away day

At the next away day (19 April 2023) training and CPD for AWERB members will be discussed along with induction materials for new members.

10.3. BSF Continuity plan

■ reported that the BSF Continuity plan is underway and is being taken to the Establishment Assurance Group (EAG) after which it will be circulated to AWERB.

10.4. Forced swim test

The University recently received a request from People for the Ethical Treatment of Animals (PETA) regarding the forced swim test. PETA were asking for assurance that the University of Manchester would not permit this test in the future. The response has been that the model is not used at the University.

The next meeting will be on 23 February 2023 at 10am-12.30pm.

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

Dates of meetings for the 2023/2024 academic year are:

21 September 2023

19 October 2023

16 November 2023

14 December 2023

25 January 2024

22 February 2024

21 March 2024

25 April 2024

23 May 2024

20 June 2024

25 July 2024

August break