

ANIMAL WELFARE AND ETHICAL REVIEW BODY

Minutes of the meeting held on 19 September 2024

Present:

[REDACTED]

Apologies:

[REDACTED]

In attendance:

[REDACTED]

1. Minutes

Agreed: That the minutes of the meeting held on 25 July 2024 were approved subject to a minor correction that an item for future discussion is taking place at an away day rather than a future AWERB meeting.

2. Applications for New Project Licences

2.1. [REDACTED], Regulation of Inflammation in Tissue Repair & Regeneration

Considered: A completed AWERB form, PPL application and presentation.

Interviewed:

[REDACTED]

- Committee discussion:*
- Chair invited members to raise areas of concern or clarification which were subsequently discussed.
 - The committee decided which of the pre-submitted questions could be addressed in the feedback letter and which matters they wished to discuss in person and in depth with the applicant.

Discussed with applicant:

- The members considered a version dated 4 September 2024, and the page numbers below reflect the comments made in that document which has been provided to you. AWERB are aware that you submitted a version dated 13 September 2024 which included revised

information for the question 'How will you determine group sizes?' as part of section 'Protocol 2: Experimental design' following input from a statistician. Please ensure this revised information remains in the licence.

- Please speak with the NVS about the type of bedding you will use.
- When you talk about non-human animals, rather than say it would be unethical to use humans, please instead state that there are practical and regulatory reasons why you cannot take the research straight into humans.

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.

- We note you have used the PREPARE guidelines in planning experimental design, but no reference is made to any intended use of the ARRIVE guidelines for reporting of research. This is a requirement of obtaining support from AWERB.
- Please can you check that the numbers of animals to be used is consistent throughout the licence. The numbers are listed in the Reduction section (page 6 of 42) as Mice: 500 Rats: 100, however on page 16, the maximum number of animals used in Protocol 1 is stated as 800. Any changes to the numbers should also be updated in the Cat A form as this form is the one that contains signatures once all the revisions are made.
- Discussions with the Compliance and Licensing Manager should take place regarding the severity of the procedures to ensure that it is clear what would be classed as mild or moderate. AWERB were however reassured that the cumulative effects of the procedures listed in Protocol 2 would not be more than moderate given the listed monitoring and Humane End Points.
- Page 2 – The usual length of time for project licences that AWERB sees is 5 years. Please can you discuss with the Named Persons, if you have not already, if the stated 3 Years 6 Months is appropriate for your licence.
- Page 27 – Please include information on if you notice piloerection (etc) do you automatically check the animals again within 48 hours.
- Page 27 – the enrichment mentioned here could also be included in the NTS.
- Page 28 - When is the fasting being performed? If the 16 hours includes overnight then please can you consider if any adverse effects for fasting should be stated or not.
- Page 28 – In Step 3 protocol 2 - administration of Streptozotocin. The licence says body condition will be monitored and mice with a score of 2 or less will be flagged, but information on how body condition is scored may be missing.
- Page 30 – Please get advice from the Named Persons if there should be adverse effects mentioned for tamoxifen injections.
- Page 31 - "mice will be given cells iv following irradiation" is written twice with slightly different wording but no change in meaning is this a grammatical error?

- Page 31 - with regard to the chimera generation - should mice not be placed on ABX water prior to irradiation to decrease bacterial load? Text implies as irradiated?
- Page 32 – For BrdU please include the route of administration.
- Page 32 - For administration of substances, please get advice from the Named Persons if there should be a mention of how often injections will be given. The licence states daily but no information is provided on how long, e.g. days/weeks.
- Page 36 - Individual housing. AWERB members were interested to hear the steps you take to reduce the stress of single housing and feel information could be included in the licence.
- Page 37 – Information on what would be the maximum number of procedures one mouse would have should be included.
- 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])
 - Page 3 – “we also will” - may read better as ‘we will also’.
 - Page 3 – ‘described in this document’ cut as unnecessary
 - Page 3 – ‘program of work’ cut as unnecessary
 - Page 3 – what is chromatin biology? The term is technical. Can it be expressed in lay language or explained concisely? or removed if not necessary?
 - Page 3 – ‘chromatin modifications’ and possibly ‘activation state choice’ are technical – can you please change to non-technical language, or an explanation be provided.
 - Page 3 – Who or what will benefit from these outputs, and how? - what are the timescales and likelihoods for these benefits / outputs? For instance, will this project produce new diagnostic assays directly or is this something for the long-term that future work may develop?
 - Page 3 – Collaborations across the Establishment will be supportive in facilitating studies of gene regulation by being able to obtain genetic “toolkit” resources such as mouse and cell lines.’ - unclear. Are other supporting this project or is this project supporting others’ work via the toolkit? Should supportive be supported? Can meaning here be clarified?
 - Page 4 - “least sensitive animals” - do you mean least sentient? Throughout you use sensitive. However, it may be confusing as ‘least sensitive’ may be taken erroneously to mean least sensitive to whatever is being measured. Least sentient would be consistent with ASPA language (if I am understanding your intended meaning correctly)
 - Page 4 - “The answer to ““Explain why you are using these types of animals and your choice of life stages.”” is a bit garbled; the opening sentences almost repeat each other to justify use of whole organism - could be clarified.
 - Page 4 - Why may you wish to validate your ageing findings in rats as well as mice if both valid? Is this related to the differences in diabetes type 1 and 2? Or a different rationale? ”

- Page 5 of 42 - Previously you have said that "Animals will be housed individually to avoid interference with wound healing until the specified endpoint" but when answering the question on expected impacts / adverse effects no mention is made of social harms in isolating animals. Are mice and rats not social animals? What steps may be required to minimize impact of individual housing? [is 1-2 weeks in isolation a concern? on page 35 you say on rare occasions up to 30 days would this be severe?]
- Page 8 of 42 -What published best practice guidance will you follow to ensure experiments are conducted in the most refined way?' - answer refers to sources for refinement of technique; what of general husbandry and welfare too? Particularly given isolation of animals this seems potentially important to clarify.
- Page 4 - There are a few technical terms like 'dorsum' in the Project Harms that should be removed or explained for a lay audience.
- Page - 7 of 42 - Two typos: "as well as and aged rats and mice" appears to be missing a word, and "90-95% of people are type 2 diabetics" may be better worded as "90-95% of diabetes cases are type 2".

Outcome: The Chair invited members to discuss and confirm their satisfaction with the way the 3Rs were implemented; harm-benefit and any other matters. The study was given provisional approval based on the applicant making the changes/clarifications listed above to the satisfaction of the Chair/AWERB.

Action: At a future away day the group will continue a discussion started in relation to this application on the statement that to carry out the research in humans at this stage would be unethical and to further reflect on ethics as a deliberative process as opposed to an objective status.

3. Report on licences processed from 09/07/2024 to 03/09/2024

The following amendments were approved by the executive committee.

3.1. Amendments to Project Licences

██████████, The Long Term Effects of Developmental Hypoxia on Cardiac Function

██████████, The Regulation of Whole-Body Metabolism Across the Life Course

██████████, Development & Validation of Animal Models for Neurodevelopmental Disorders

3.2. Applications for additional availability for new or current project licences

██████████, Cardiac Conduction System in Health & Disease (██████████)

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

- 4.1. The committee were provided with a document showing the status of applications considered previously and those pencilled in for future meetings.
- 4.2. The applicant that had been delayed due to the researcher waiting for funding has now been submitted to ASRU as the funding has now been received.
- 4.3. A future applicant has two project licences that are related therefore they will only be asked to do one presentation.

5. NVS reports from June and July 2024

- 5.1. The incidences of pressure sores in rats were discussed, including if there were reasons they had been happening and if there is anything that can be done to prevent them from occurring. The NVS explained that it can vary between strains and there appears to be no reason why they develop or method to prevent it.
- 5.2. The reason for the lame sheep being received was raised. The NACWO for the farm enclosure explained that it was due to the breed of sheep and the environment they had come from.

6. 3Rs AWERB subgroup minutes and reports

- 6.1. The Chair queried if there were reasons one of the mid-term reviews was briefer than the others and what has previously been reviewed. The Chair of the 3Rs subgroup explained that the licence holder is a relatively new PI who they have worked with a lot, and his model is so refined that he doesn't see the behavioural effects they require. An amendment has been submitted so there will be an increase in the number of experiments which should be reflected in the end of licence review.
- 6.2. The minutes from the subgroup stated that it was interesting that one of the recent mid-term reviews had mentioned FRAME, [REDACTED]. As explained on their website, FRAME "was set up to promote and assist research into new techniques and valid scientific substitutes to replace animal research in medical, biological and pharmaceutical research." The Chair of the 3Rs subgroup agreed that for some animal models, there are not a lot of viable alternatives therefore replacement is not always possible, however there is [REDACTED] pressure to look at replacement models [REDACTED].

7. Any other business

7.1. 3Rs symposium 14 November 2024

[REDACTED] is confirmed as one of the speakers. She is involved with the 3Hs initiative. [REDACTED]

[The 3Hs Initiative \(3hs-initiative.co.uk\)](https://3hs-initiative.co.uk)

The framework looks at Housing, Handling and Habituation, with an aim to "focus on the lifetime experience of laboratory mice and rats and methods which increase their positive affective experiences and reduce cumulative suffering."

[REDACTED], who spoke at a recent AWERB away day about his computer modelling, is also going to be speaking.

The group were asked to speak to their labs and colleagues to encourage submission of posters. There will be two poster prizes, one for researchers and one for technicians.

7.2. CRUK MI secondary availability

The process for the [REDACTED] executive committee to review and give approval for secondary availability for CRUK MI was discussed and any impact it would have on the welfare of animals. Any protocols with a severe procedure would be considered by the full AWERB. Members were reassured that the process in place ensures researchers can carry out their work across the two sites with no undue harm to any animals.

The next meeting will be on 17 October 2024 at 10am-12.30pm.

Dates of meetings for the 2024/2025 academic year are:

19 September 2024
17 October 2024
14 November 2024
12 December 2024
30 January 2025
27 February 2025
27 March 2025
24 April 2025
29 May 2025
26 June 2025
31 July 2025
August break

Dates of meetings for the 2025/2026 academic year are:

25 September 2025
23 October 2025
20 November 2025
18 December 2025