

**ANIMAL WELFARE AND ETHICAL REVIEW BODY**

**Minutes of the meeting held on 15 December 2022**

Present:

[REDACTED]

Apologies:

[REDACTED]

**1. Minutes**

*Agreed:* That the minutes of the meeting held on 17 November 2022 were approved subject to minor amendments.

**2. Retrospective Assessments of Project Licences requiring full committee review**

**2.1. [REDACTED], Advanced Education in Pharmacology**

*Considered:* A completed Retrospective Assessment form.

*Interviewed:* [REDACTED]

*Panel discussion:*

- Section 12 asks 'What harms were caused to the animals, how severe were those harms and how many animals were affected?' This maps directly onto a question asked by ASRU in their Retrospective Assessment.

*Discussed with applicant:*

- The committee said that it was a shame that this course was not proceeding.

- Given the changes to the student experience AWERB would be interested to review the course in a few years to determine if students are getting the same standard after the course has had to change. The review would consider how any changes to the course could take place to introduce more 'hands-on' in vivo skills that you are no longer able to offer since the licence has ended.

- Revisions:*
- A list of pedagogic objectives is mentioned. Unfortunately, it is very difficult to attach these objectives with the content of the 3Rs section. It would be important that in the 3Rs section, the harm/benefit balance should be more transparent for the eyes of the lay public. The objectives represent the benefits (for student and globally for society) and the 3Rs relate to the harms and how you have mitigated them by the implementation of the 3Rs.
  - Section 11 (refinement). This document is subject to Freedom of Information and hence could be released to the public so further details can be required to reassure the public, like ensuring the student hold a PIL (reflecting they have been through the mandatory training including ethic) and they were appropriately supervised during the practical session. Having a PIL (while mandatory) is different to be competent in a (anaesthesia, surgery, injection) and as result supervision should be appropriate to ensure that any deviation from good practice was immediately corrected. So a good ratio of staff:student is a mean to safeguard the animal welfare during these experiment.
  - Page 5 - An adverse effect related to drug administration is stated. It is unclear if this was unexpected and if this had required a SC18 report of this situation.
  - Page 7 - The anaesthesia protocol is unclear. Please can you explain why you swapped from volatile to injectable a little more.

*Outcome:* AWERB endorse submission of the Retrospective Assessment subject to the revisions above being made and reviewed and approved by [REDACTED] on behalf of AWERB.

### 3. Applications for New Project Licences

#### 3.1. [REDACTED] Dynamics in Tissue Mechanics, Gene Transcription & Signalling During Tissue Formation & Regeneration

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

*Interviewed:* [REDACTED]

- Panel discussion:*
- The discussion with the statistician has not been completed but needs to be prior to any approval being given. The statistician does not think animal numbers will change significantly following the discussion. If there was a significant change in numbers then the application should come back to an AWERB meeting.
  - The committee understand timeframes are often tight but ideally statistical sign-off prior to applications coming to an AWERB meeting should happen, and in the case of any licences containing severe

protocols statistical sign-off must have been received prior to applications coming to an AWERB meeting.

*Discussed with applicant:*

- The number of amputations an animal would receive was discussed with the applicant clarifying it would only be one. The protocols need some revision to reflect this to make clear there will only ever be one injury.
- The ability for tadpoles to swim after spinal transection was discussed.
- A discussion took place about why regeneration in mammals has not evolved to take place and how animals that do regenerate limbs know when it should stop growing.

*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.

- Please ensure the discussion with the statistician is completed to their satisfaction and sign-off.
- There are many abbreviations some of which are not given in full. Please can you ensure all abbreviations are explained at their first usage.
- Page 6 - 'What steps did you take'. Please refer to PREPARE guidelines.
- Page 13 – please explain what 'cell division dysregulation 6' is. Is inclusion of the 6 an error?
- Page 19 – please check the expiry date of the licence. If the end date was 16/04/21 then we assume the animals cannot be carried over to this licence.
- Page 26 - Step One – misspell 'if' for 'of' in *Xenopus laevis*, one of
- Page 26 - Are the doses too restrictive? Please review these with the NVS and BSF staff.
- Page 27 – A general comment re adverse effects – if it's less than 1% should they be recorded? Please seek advice to try and minimise the inclusion of ultra-rare events if not required.
- Page 44 - Protocol 3 – specifically should steps 1 and 2 be combined and the use of an OR clause added? It appears there is potential for tail/limb and cord transection perhaps as it is currently written. As discussed in the meeting, please revise the application so that it is clear the animals will only be undergoing one injury. Please seek advice from the BSF if steps 1 and 2 should be combined with the inclusion of an OR clause so that it becomes the mandatory step.
- More generally for Protocols 4 and 5, please seek further advice from the BSF if these should be optional steps in a revised protocol 3? Or, is it that there is a sham drug only requirement?
- Page 46 - In the adverse monitoring section it is mentioned the animals will be Schedule 1 if deviation of the wellbeing, but the animal will be unable to swim due to spinal cord transection. This needs to be reviewed and clarified. The use of local anaesthetic is mentioned however the administration by immersion is maybe not the most refined way to administer it, the local application would be

more appropriate to prevent systemic intoxication. If needed, please speak with the NVS about this revision.

- Page 46 and 59 – please clarify what "fed daily at low density" means.
- Page 47 – please seek advice on if the chamber needs to be detailed.
- Page 57/75 – Is the heart rate response OK or is it too lenient? Please add a bit of explanation as to what is the normal response so that you can judge if a 20% decrease is 'excessive' and an endpoint. How is heart rate being monitored through imaging in real time?
- Page 58 – "If step 3 was not performed, spinal cord injury in post-feeding stage *Xenopus* tadpoles may be carried via spinal cord transection as follows". Please can you review this as 'carried via spinal cord transection' is not clear.
- 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

- Some of the detail in the NTS could be cut to make it easier for the general reader.
- I note in the PPL that toe clipping causes transient discomfort - but does it affect the frog's mobility? Perhaps alongside microchipping it could be added to "what will be done to the animals" of the NTS? It would be good to note 'skin swabbing as an alternative if this is okayed by the NVS.
- Page 2 – There is an addition full stop (.) after the word organs
- Page 2 – In the aims section, the second sentence would be more appropriate in the 'why is it important' section. In that section the long second sentence could be replaced by 'It is important, because mammals exhibit poor regenerative capacities.'
- Page 2 - The response to the aim question could be as succinct as "The aim of this project is to uncover the key mechanisms that drive the formation, regeneration and repair of complex tissues" if the second sentence was moved as per the point above.
- Page 3 - I am not sure you need "The overarching research aim of the work covered by this project licence is to uncover the key mechanisms that underpins the formation form and regeneration of complex tissues in amphibians." as this repeats the aim as stated previously albeit inserting amphibians; you could remove this repetition and start next sentence with "This work will provide critical..."
- Page 3 – please can you provide clarity by which one would assess propriety or impropriety in relation to publishing data. Is there any reason why all the raw data cannot be made available by default? The committee commended your commitment to publishing data, but they would like some elaboration on the part that says "Where appropriate, data proven to be

statistically negative using rigorous data analysis methods will be made available."

- Page 4 - Please define 'premetamorphic'. Is it 'tadpole'?
- Page 4 - is there a less technical way to express "tissue explants" or a way to concisely explain to a lay reader what this means?
- Page 4 - the jump from referring to the animal as *Xenopus* to talking about frogs may confuse the lay reader unfamiliar with the *Xenopus*; you could use one of the other or when first mentioning *Xenopus* note it is a type of clawed frog?
- Page 5 - The main objective of this project is to investigate the mechanisms governing tissue development and regeneration. Most of the planned experiments will be conducted in embryos, tissue explants and tissue culture cells, and thus, many of the planned experiments will be performed using non-protected animal and alternative models. This could be removed as the main answer to the question of why do you need to use animals starts with "The production of frog..."
- Page 6 - may be a space missing here - "2500*Xenopus tropicalis*: 2500 "
- Page 6 – It is not clear to a lay reader what an "experimental unit" consisted of - could this term be explained? Is it a single frog embryo?
- Page 10 - Line 3 Furthermore we ('have') grants.....
- Page 10 - misspelling – Septembre

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

### 3.2. [REDACTED], Investigating New Therapeutics for Eczema

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

*Interviewed:* [REDACTED]

*Panel discussion:*

- The discussion with the statistician has not been completed but needs to be prior to any approval being given. The statistician does not think animal numbers will change significantly following the discussion. If there was a significant change in numbers then the application should come back to an AWERB meeting.
- Not all of the items raised in the pre-AWERB meeting minutes appear to have been made in the version submitted to AWERB.
- The licence appears to discuss replication of studies which AWERB would not support unless scientifically necessary. AWERB discussed the reproducibility crisis in research, where the results from studies are difficult or impossible to reproduce, and how replication of studies can be balanced with a reduction in the number of animals used in research.

*Discussed with applicant:*

- The application talks about CO<sub>2</sub> use but AWERB thought this was being phased out as a Schedule 1 method in the BSF.
- Monitoring of the animals will be daily by the researchers, in addition to that undertaken by BSF staff.

- The applicant does not expect any animals to enter the severe banding for level of suffering.
- The need for use of SPF conditions.

*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.

- Please expand on the 'Source, level and period of funding for this application'
- The Cat A form states 400 animals is the approximate number of animals being requested for inclusion on this licence. The draft licence application lists 10, 400 and 400 animals for Protocols 1, 2 and 3, respectively. Please can you clarify how this tallies with the 400 listed on the Cat A form.
- As discussed in the meeting, please clarify in the application why you are using SPF conditions and explain the abbreviation SPF when it is first used.
- Please ensure the discussion with the statistician is completed to their satisfaction and sign-off.
- Please ensure all requested revisions provided to you during the pre-AWERB meeting are made to the application.
- From the application, it appears that you are repeating experiments that are taking place in [REDACTED]. While scientifically the committee understand the reason for replication of studies, ethically this requires further justification and clarification.
- As discussed in the meeting it appeared from the licence that you were only monitoring the animals every 2-3 days but you explained in the meeting that daily monitoring will take place by yourselves, in addition to that undertaken by the BSF staff. Please make sure this is clear in your licence application.
- As discussed in the meeting, the committee would prefer CO<sub>2</sub> inhalation is not used as the Schedule 1 method however understand you may be limited in the method due to the nature of your work. Please liaise with BSF staff about the most appropriate method given the concerns around animal suffering from use of CO<sub>2</sub>.
- Page 6 – please discuss with the BSF staff and the statistician if 10% contingency is appropriate given you think these will be unable to be used for analysis.
- Page 10 – please remove names in the section about grant applications. It is sufficient to say externally peer reviewed and funded by [REDACTED]
- Page 35/46 – Protocol 3 - 20% body weight loss seems at odds with 'healthy appearance' in the tables. It also does not appear to be a humane endpoint in its own right and is just part of a composite scoring sheet. Please discuss this with the BSF staff to ensure an appropriate humane endpoint is used.
- 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],

- [REDACTED]
- Page 2 - the NTS is well written for the lay reader. However the scientific references need clarification.
  - Page 2 - In the first sentence we suggest you add after eczema 'which is derived from the bacterium', Staphylococcus .....
  - Page 3 – ‘ What are the expected impacts...’ section mentions that lesions can become severe but doesn’t cover this with mentions of appropriate humane endpoints.
  - Page 4 - Line 1 'bacterium' should be singular.
  - Page 4 – “Typically what will be done”. We Suggest the addition of 'the application of a tape to the skin to collect cells'
  - Page 4 – please provide clarity if null data and all unprocessed data will be made available.
  - Page 5 - Thank you for clarifying that animals will not progress beyond the moderate category banding. Please can you ensure this is clear in the application.
  - Page 5 - Please simplify and clarify 'zero to mid phenotype', 'mild to moderate phenotype' for the lay reader.
  - Page 6 - Hardy-Weinberg equilibrium is somewhat technical. Is there another way to say this for lay reader?

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

#### **4. Report on licences processed from 04/11/2022 to 29/11/2022**

The following amendments were approved by the executive committee.

##### **4.1. Amendments to Project Licences**

[REDACTED], Targeting the Tumour Microenvironment for Anti-Cancer Therapy.

[REDACTED], Studying Cognitive Function in Animal Models of Brain Disorders

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

[REDACTED] Creation of Hibit-col1a2 Mouse Line Using CRISPR.

[REDACTED] Creation of NLRP3-mScarlet Mouse Line Using CRISPR.

#### **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. The BSF staff are going to be contacting applicants earlier to ensure they submit papers in a timely manner.

## 6. Standard Conditions 18s and non-compliances

- 6.1. The committee were provided with a table of reports submitted to ASRU along with the reports for each incident.
- 6.2. [REDACTED] **ASRU University of Manchester** [REDACTED]  
The report stated that six mice were culled after discussion between PIL, animal staff and NVS. As far as the BSF recall this was in discussion and agreement with the licence holder. The Home Office Inspector noted that the correct decision was made to cull the mice although an urgent Keep Alive Request could have been submitted with NVS support.
- 6.3. [REDACTED] reported that due to a number of SC18s under the licence for [REDACTED] [REDACTED], the Personal Licence holders had received extra training. There were no linking themes seen for the SC18s.

## 7. Any other business

### 7.1. Times Podcast

The discussion from previous meetings continued regarding the proposed Times Podcast. The journalist would like to observe parts of a meeting; AWERB discussed which parts he would be able to observe and that applicants attending that meeting would need to give consent to being observed.

AWERB discussed if they could approve the recording that is produced.

AWERB are supportive of the Podcast but would like the journalist to be invited to a meeting so that they can discuss the details of how to proceed.

### 7.2. Tenure

The tenure for a number of members are coming to an end on 31 December 2022 and the Chair has contacted these people to ask if they would like to remain on for another term.

### 7.3. Win at Understanding Animal Research

On Monday, 5 December 2022, UAR hosted the ninth annual Openness Awards. Signatories were asked to report their openness progress between May 2021 and May 2022. The University of Manchester won an award for its multi-platform approach to engagement.

The UAR website said:

The University of Manchester has an excellent series of animal research webpages and a well-developed openness programme, which has been enhanced by a brand-new video featuring the [day in the life of an animal technician](#). Led by one of the university's lab technicians, the video gives an engaging overview of the facilities, species used, and the areas of research being studied. While the video itself represents great openness, the judging panel were particularly impressed by the sharing and promotion of the video across social media using a wide variety of platforms. Producing good, tailored content for each platform, and being brave enough to share it widely is challenging for any large organisation and requires considerable expertise and effort. The university's considerable efforts were rewarded by the extent to which the video has been watched and shared widely.



---

**The next meeting will be on 26 January 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