1. Minutes

Agreed: That the minutes of the meeting held on 19 August 2021 were approved subject to correction of a typographical error in item 7.2.

2. Applications for New Project Licences

2.1. Animal Models of Fibrotic Diseases

Considered: A completed AWERB form, and PPL application

Interviewed: 

Discussed: 
- The committee were highly concerned with the standard of the application.
- On reaching the decision for AWERB not supporting the application, the Chair stated that the revised application cannot come back to
another AWERB meeting if the members of the pre-AWERB group were not satisfied with the revisions. The submission to AWERB of such a poor level of application is inappropriate.

Feedback: The following information was provided in a letter to the applicant signed by the Chair given the outcome that AWERB would not support the application.

The committee members do not support your application in its current format and require a major rewrite. The new draft will need to be considered at another pre-AWERB meeting and the application will only be taken forward to an AWERB meeting once it is in an appropriate format and of a higher standard. That being said, AWERB had concerns deeper than just the quality of the paperwork which are summarised below.

- Whilst the committee acknowledge your prior experience of working with fibrosis models, they were concerned that you are working independently and planning on working on a number models which you do not have experience of. The committee would suggest that the number of protocols is reduced so that you can gain experience of a smaller number of protocols in the first instance. In addition, the committee are aware that at the pre-AWERB meeting you were advised to contact colleagues at the University of Manchester who have experience of working on fibrosis models within the BSF however this does not appear to have happened. AWERB encourage you to look at ways of increasing the support you have whilst working on any future Project Licence application that you submit relating to fibrotic diseases.
- The humane end points for the studies were not adequately included in the application. Rigorous proof reading is required to ensure that the humane end points listed are appropriate for the protocol.
- The committee require greater assurance that animals will not be allowed to progress into a severe banding of suffering.
- The committee had serious concerns that the wider adverse effects for the animals had not been thought about and included in the application. For example, when you state the adverse effects of injecting LPS you focus on the discomfort due to injection and there is a lack of information on the adverse events the animal may experience directly from LPS including for example fever as discussed in the meeting.
- AWERB require greater assurance that animals will be monitored appropriately including the frequency of monitoring and that monitoring will take place for the full duration of experiment. For example, on page 92 of your application there is up to an 8 week period (up to 4 weeks modified low-calcium diet followed by up to 4 weeks of control chow-diet feeding) but on page 95 you state that mice will be checked every day for 5 weeks of the experiment.
- The numbers of animals listed in your application do not add up correctly. However more broadly than this, it became evident in the meeting that the information provided by you to the statistician which informed discussions about sample sizes was lacking and you
were aware of further studies which could have been useful to those discussions. You will need to contact the statistician to talk about your experimental designs for the new draft.

- The application in general looked like a lot had been copied and pasted without in-depth thought given to the specific question being asked.

- The committee understand that as a company provide a service to customers and there are considerations around publications relating to IP, for example, however AWERB, inline with the University’s Policy on the use of Animals in Research, expect that all data is published in a timely manner when it’s appropriate and possible. AWERB will require assurance from you that you relay this to your customers.

- The Non-Technical Summary (NTS) is not written in an appropriate manner for a lay reader. When redrafting your application in ASPeL please ensure you take note of the sections that are highlighted to be part of the NTS and ensure you write in a non-scientific manner.

Some specific comments about the NTS made by AWERB members are listed below and should be taken into account when drafting the new application.

  o Any abbreviations used should be explained the first time they are used, not at a later stage.
  o The section ‘Typically what will be done to an animal used in your project?’ is far too detailed and the use of a table, and the scientific information, is not appropriate for an NTS.
  o The section ‘What are the expected severities and the proportion of animals in each category (per animal type)?’ is again too detailed and includes information not appropriate for an NTS.
  o On page 6 you list the National Centre of Animal Research. Do you mean the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs)? If so, this needs correcting if you refer to NC3Rs in your future draft.
  o AWERB suggest you look at NTSs on granted licences which can be found at the following website:

  https://www.manchester.ac.uk/research/environment/governance/ethics/animals/research/

AWERB have considered and approved a number of Project Licences and are surprised that the quality of your application did not match those previous studies. The Chair of AWERB strongly advises that you contact other licence holders to get advice and guidance on the process of licence application.

Prior to you going ahead and re-drafting your application AWERB suggest that you speak with the Named Persons in the BSF for advice on how to proceed with the rewrite and your plans to reduce the number of protocols on the licence based on the feedback from AWERB.
Outcome: The study was not supported by AWERB. A major rewrite is required and the application will need to be seen by the pre-AWERB members and should only be put on the agenda for a full AWERB meeting when the application meets the revisions outlined above.

2.2. Vascular Calcification in Kidney Dysfunction

Considered: A completed AWERB form, and PPL application

Interviewed: 

Discussed: The committee thanked the applicant for providing an extremely clear application and well written Non-Technical Summary.

Revisions:
- Page 35 and after. Is the phosphate to be used 2% or 1.5%? Page 8 mentions pilot studies using 1.5% but 2% is listed on page 35.
- Page 41. In the last sentence of the paragraph in section ‘Animal Experience’ it should read "will" and not "with".
- Page 50. Please can you clarify if 20% or 15% of mice are expected to meet the humane endpoint following the surgical procedure. Page 50 states 20% but 15% is listed in other places.
- A couple 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:

  - Page 7 of 53. In line 2 you mention ‘in silico modelling’. Please can you briefly explain this. The suggestion was made to remove the last two sentences as the first sentence may be sufficient which would mean no explanation of ‘in silico modelling’ would be needed.
  - The refinement section may benefit from being shorter.

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. Report on licences processed from 30/07/2021 to 15/09/2021

The following amendments were approved by the executive committee.

3.1. Amendments to Project Licences

Mechanisms of Diabetes-Associated Heart Disease, Radiolabelled Molecules for Cancer Imaging & Therapy, Cellular Homeostasis & Brain Development, Zebrafish Models of Haemorrhagic Stroke, Melanoma Formation, Immune Responses & Evaluating Novel Therapeutic Approaches & Agents
3.2. Amendments to Project Licence: Generation, Breeding and Maintenance of Genetically Altered Rodents

- Generation of a TB-Prlhr Mouse Line Using CRISPR
- Generation of a TB-Npffr2 Mouse Line Using CRISPR

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

4.1. A verbal update was given in addition to the submitted paper.
4.2. A licence was granted without changes from the Home Office.
4.3. Some applications are with the Home Office.
4.4. A group has submitted their AWERB approved draft to the Home Office.
4.5. A group is still making changes based on the comments from AWERB.
4.6. Each meeting up to April 2022 has three PPLs scheduled instead of the preferred two per meeting.
4.7. The BSF are working with researchers from an earlier stage to provide guidance before they create a full draft.

5. NACWO report

5.1. No more major incidents since last meeting.
5.2. The BSF now have 10 fully qualified NACWOs. Each NACWO has a species they are responsible for. This increase in NACWOs is in line with ASRU advice.
5.3. The new monitoring system is being installed soon, most likely in November.
5.4. An internal audit will be taking place.
5.5. A full systems audit of the BSF governance systems by ASRU will be taking place with an on-site visit on Wednesday 13th and Thursday 14th October 2021.

6. NVS report

6.1. Everyone thanked everyone for being so welcoming.
6.2. A discussion took place regarding the benefits of using oral analgesia.
6.3. Queries relating to the Health monitoring section in the August report were raised including Multiplexed Fluorometric ImmunoAssay (MFIA) and ‘sentinel animals’. It was explained that dirty bedding is put into the cage of sentinel animals who then undergo testing for pathogens. The use of MFIA means that testing is done on airborne pathogens rather than those found in faeces but the reduction in the need to maintain sentinel animals is both a Reduction and Refinement.
7. **Standard Conditions 18s and non-compliances**

7.1. Only one Standard Condition 18 was submitted since the last AWERB meeting, which could be due to the summer period and less research happening.

7.2. One non-compliance was reported which is currently being dealt with by the ASRU Compliance Assurance team. The range of responses that ASRU could give were outlined. Ian Millar reported that irrespective of what ASRU reply the University of Manchester can still go through their own process for investigation the incident. An update will be provided at the next meeting.

8. **NC3Rs Regional Programme Manager update**

8.1. The NC3Rs have convened a working group which will address revision of the Workman guidelines for rodent models of cancer research. As part of this, the NC3Rs and the National Cancer Research Institute are running an online survey for researchers and technicians who work with these models. The survey will influence the guidelines revision so please encourage all to take part. The survey can be found [here](#); the closing date is 29 October 2021.

8.2. The CAMARADES group will be holding a workshop addressing how to conduct a preclinical animal systematic review and meta-analysis. The workshop is free and will be held online over 3 mornings from 25 October to 27 October 2021. Through a combination of lectures, practical activities and tutorials, this online workshop will focus on the major steps required to undertake a systematic review and meta-analysis of preclinical animal studies using the freely available online platform **Systematic Review Facility** (SyRF). Limited spaces are available, **please register in advance**.

9. **Any other business**

9.1. **Manchester Culture of Care workshop 2021**

A workshop on the culture of care with the RSPCA is being planned for November. It would be beneficial if AWERB members took part in the workshop. Details will be circulated nearer the time.

9.2. **stepping down**

[ ] thanked everyone for their work on AWERB since he has been Chair and said that will be a great Chair. [ ] led the thanks for the changes that [ ] has implemented since being Chair.

The next meeting will be on 11 November 2021 at 10am-12pm, via Zoom.

**Dates of meetings for the 2021/2022 academic year are:**

11 November 2021
16 December 2021
10 February 2022
17 March 2022
28 April 2022
9 June 2022
21 July 2022
1 September 2022