

**3Rs subgroup for the
ANIMAL WELFARE AND ETHICAL REVIEW BODY**

Minutes of the meeting held on 14 September 2022

Present:



Apologies:



1. Minutes

Agreed: That the minutes of the meeting held on 22 June 2022 were approved.

2. Retrospective reviews of Project Licences requiring licence holder attendance at meeting

2.1. [REDACTED], Evaluation of cognitive function in animal models

Considered: A completed Retrospective review form and presentation

Interviewed: [REDACTED]

- Discussed:*
- Some nice potential refinements were reported which are being taken forward in the recently approved new licence. The group are interested to see how these go and how they can be incorporated into the standard protocols for care and use of the rats.
 - The negative effects of an open top play pen were outlined including how rats became more nervous, shy and showed increased aversion to handling. The play pens currently in use are not open topped.
 - The group discussed with the researchers if pilot tests are performed with rats to see if food restriction is required for the behavioural tasks. The researchers said that they will see how the rats respond to each task before doing any food restriction. The literature may report food restriction is needed but the researchers reported they have found this is not always the case.

- A limitation of using the play pens was outlined by the researchers. For tasks where a memory deficit has been caused for the experiment, this may be reversed by use of the play pen which would confound the results of any treatment given.
- Research is currently being undertaken to look at the effects of playpens and the results will be disseminated when available.
- The snood restraint was discussed; this is discussed in a later agenda item.

2.2. [REDACTED], Understanding inflammasome dependent inflammation

Considered: A completed Retrospective review form and presentation

Interviewed: [REDACTED]

- Discussed:*
- In vitro work plays a large part in the groups research.
 - Both sexes of animals are used which minimises breeding and tissues are collected for ex vivo analysis.
 - Most experiments are done in vitro first and then they will try to replicate them in vivo. The results do match up.
 - A discussion took place about the inflammasome in non-mammalian species.
 - The production of the knockout was discussed. The researchers reported it wasn't a whole body knockout and no overt phenotypes were observed. The knockout is currently on 'tickover' while a publication is being finalised in case further work is required.
 - The Project Licence holder discussed the term 'neutral results' rather than negative results and the group agreed that even though a hypothesis may not have been proven the work has still provided information so is not 'negative' in that sense.
 - The group asked what dissemination had taken place of the reduction in time length post treatment (4 hours to 2 hours) before the animals were humanely killed. It was included in a publication but the Chair thinks that wider dissemination would be useful.

3. Retrospective reviews of Project Licences not requiring licence holder attendance at meeting

3.1. [REDACTED], Circadian mechanisms underlying organ rejection

Considered: A completed mid-term review form

- Discussed:*
- No work had been carried out on this licence since submission of the mid-term review therefore the Chair agreed that completion of the retrospective review form was not required.

4. Mid-term reviews of Project Licences not requiring licence holder attendance at meeting

4.1. [REDACTED], Mechanisms of breast development and tumourigenesis

Considered: A completed mid-term review form

Discussed: • The group were pleased with the method of breeding, i.e. back crossing. The group discussed how this benefits the science and ways that this can be disseminated to other groups.

Outcome: The subgroup supported continued work on this licence.

4.2. [REDACTED], Novel targets for anti-epileptic drug design

Considered: A completed mid-term review form

Discussed: • The group discussed the issue with the high pH of a compound and how they can disseminate this in general terms to other uses of the BSF.
• The group were interested in the use of fruit flies and how this has reduced the number of protected animals on the licence. The Chair will ask [REDACTED] if he could estimate the number of animals he thinks he has reduced by using the fruit flies.

Outcome: The subgroup supported continued work on this licence.

4.3. [REDACTED], Regulation miR-29 targets in wound repair

Considered: A completed mid-term review form

Discussed: • The group were interested to learn more about the 3D model and [REDACTED] will be invited to a subsequent meeting to present on this.

Outcome: The subgroup supported continued work on this licence.

4.4. [REDACTED], Anti-cancer therapy validation

Considered: A completed mid-term review form

Discussed: • The group discussed the possibility of ex-vivo work by the licence holder.

Outcome: The subgroup supported continued work on this licence.

5. Heat pads

A survey has been carried out on the heat pads as some animals were experiencing inflamed and damaged tails. A report has been circulated for this. The Chair will ensure this information is disseminated in the newsletter so people are aware of the new equipment and how to minimise risk of injury to animals when using the heat pads.

6. Alternatives to CO2 euthanasia

[REDACTED] spoke about the training she is carrying out with researchers on alternative methods of S1. Data on the S1 method used to cull animals will be obtained for a future meeting so that comparisons can be made with previous data.

The group expressed appreciation for all the work that [REDACTED] has done with re-training and raising awareness.

7. Rat restraints

Tubes for handling rats are currently not ideal. The tubes can be too narrow for the rats to breathe and they can become sweaty in them.

The prototype rat restraints made from mesh appear to be successful. A video was shown of a rat being placed into the mesh sleeve/snood and it appears calm and relaxed once inside. A hole at the front allows the animal to poke its nose out and the tail is still accessible for injections. Further sleeves/snoods will be made that have a drawstring on them.

The restraints were not suitable for mice as their claws would get stuck in the mesh. A finer material could be used.

The sleeves/snoods are machine washable. The possibility of them being autoclaved will be explored.

8. Any other business

8.1. Retrospective review form

The NVS would like to have breeding and surplus number added to the retrospective review form. The Chair will explore if this information is readily accessible for project licence holders, but agrees that for oversight of breeding inclusion of this information would be beneficial.

8.2. 3Rs strategy

The Chair will be talking about the new 3Rs strategy and exactly what it means for research at Manchester on October 26, from 11.30-12.30. Professor John Ioannidis (Stanford University) will be talking on 'Reproducibility in Science' afterwards.

8.3. Mid-term review backlog

There is a backlog of mid-term reviews which the Chair would like people to review via email. These will be circulated by the Secretary.