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THE UNIVERSITY OF BIRMINGHAM
BIOMEDICAL ETHICAL REVIEW SUB-COMMITTEE (BERSC)

17th August 2017

MINUTES

Present:

17/08-01 Apologies

17/08-02 Minutes

The minutes of the meeting held on 25th May 2017 were considered by the Committee and were approved subject to minor amendments.

It was noted that the Committee had no business to consider in July and therefore the meeting was cancelled.

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17/08-03

Matters Arising

All matters arising from the previous minutes were dealt with in the following agenda items.

17/08-04

Chairperson's Items

There were no Chairperson's items to report.

17/08-05

Verbal Reports from the Director of BMSU and Named Persons

Report from the Director of BMSU:

- The service area within BMSU is currently undergoing refurbishment. The installation of the bedding disposal system will start shortly and the installation of the new autoclave is expected to commence at the end of August 2017. Whilst it had been anticipated that the disruption caused by the work might increase litter losses, an analysis of figures from ARMIS has shown no such increase. This is possibly because previous reported instances have involved open caging, whereas BMSU uses IVCs. A poster will be prepared outlining these observations. It is hoped that the building work will be complete by the end of September 2017 and that it will result in a much improved working environment and workflow for the service technicians.
- The Home Office Inspector has cleared the majority of the outstanding applications in the system and as long as future applications are kept focused, sufficiently detailed and are submitted via the electronic system, it is anticipated that they will be dealt with more quickly going forwards.
- There are two project licences shortly due to expire and it will not be possible to renew them in time to avoid a break in the work undertaken. There are no welfare concerns involved as the animals for breeding will be transferred onto the BMSU Service Licence and no experiments will be started which will be due to run beyond the expiry date of the current licences. When the new licence applications are ready they will be submitted for consideration by BERSC.
- The Director of BMSU and the Committee Chair led the Committee in offering thanks and best wishes to a NACWO who has worked within BMSU for 35 years and who will shortly be standing down from BERSC and will be leaving the

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University to pursue other interests.

- Thanks were also given to a member of BMSU who will be standing down from the Committee due to a change in role.
- The Director of BMSU has met with one of the Heads of Institute within the Medical School to discuss animal work to be carried out by the recently appointed Birmingham Fellows.

Report from the Named Veterinary Surgeon (NVS):

- The Committee was reminded that outbreaks of worms have previously occurred within BMSU. There is a possibility that during the current ongoing building work, pinworm eggs might be dislodged from the fabric of the building and animals will therefore continue to be routinely treated for worms every 6 months and will be treated again when the building work is complete.
- The Xenopus frogs held within BMSU are producing a number of immature eggs which is problematic for the researchers using them. On expert advice, stocking density has been reduced, the frogs' food has been increased and their housing conditions are being scrutinised. There is no welfare issue involved and the Committee will be kept informed.
- It was reported that the NACWO covering the non-recovery area is doing an excellent job and the NVS is very happy with how the area is being run. The NACWO will be invited to join BERSC and will be asked to attend meetings which include the review of intravital microscopy work.

Report from the Named Animal Care and Welfare Officers:

No items to report.

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Report from the Fast Track Procedure

The fast track procedure is up-to-date and a record of matters discussed is stored on the Committee's Collaborate pages.

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Application Ref TBA – Effects of hypoxia on the cardiovascular and respiratory systems

The overall aim of this project is to investigate the effects of intermittent hypoxia and heart function and how this induces changes in the control of blood glucose levels.

This is an early draft of the application and comments from the PI's recent meeting with the Home Office Inspector are currently being incorporated into the application.

The PI gave a presentation explaining the application to the Committee.

The Committee requested clarification on the timescales for the experiments under terminal anaesthesia. For the experiments involving the removal of the heart, the PI explained that the animal would continue to breathe right up to the point of tissue collection, and that the removal process would take approximately 30 seconds. Experiments involving the excision of carotid bodies will take slightly longer but are still very quick. The experiments requiring whole body recording will take place over a longer time scale and an infusion pump will be used to ensure stable anaesthesia over a number of hours – it is anticipated that such experiments will take place over less than 6 hours, with the majority taking less than 3 hours. The animals will be constantly monitored as part of the experiment. It was felt that further detail should be added to the licence application about the nature and timing of the anaesthesia to be used for each type of experiment.

The application should be amended to include the refinements discussed in the presentation and the NC3Rs Midland Programme Manager will also work with the PI to strengthen the 3Rs section.

It was felt that the PI should make clear the prevalence of the conditions involved (OSA, hypertension, diabetes, etc) to illustrate the extent of these problems within society and therefore the potential value of this research.

Further justification should be provided for the use of 'Pitx2' deficient GA mice – it was noted that the PI already has some data related to this which could be referenced. The relevance of oxidative stress should also be explained.

The Committee queried whether funding is in place for the work outlined in the licence. It was explained that some researchers within the group have been awarded funding from BHF, but it is still to be determined how this will relate to the work outlined in the current licence application. There is also a self-funded PhD student who will be undertaking the carotid body work. It was agreed that funding sources should be more clearly explained in the application.

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In the section on study benefits, it is stated that, 'The majority of techniques required to conduct these experiments have been successfully used by us and/or developed under the previous licence or are well established within the field'. It was clarified that the statement applies to all of the techniques to be used rather than 'the majority' and that it should be amended accordingly. It was also noted that this statement doesn't belong in the 'benefits' section of the application as it is not a benefit in itself.

Concerns were expressed that the title of the study is too general and should be amended to better reflect the focus of the work. It was also felt that the stated objectives of the work do not clearly follow through into the project plan; this was also noted by the Home Office Inspector and the PI will be amending the application to strengthen the link between the objectives, the sub-questions and the data outputs.

Regarding the use of a high fat diet to induce obesity, the required level of obesity should be made more specific within the application (e.g. % body fat).

The Committee noted that diabetes is only mentioned once at the beginning of the licence application and is then neither mentioned within the protocols nor are there any diabetes models included. The PI explained that if the work will focus more upon diabetes at a later stage, an amendment will be submitted to cover this. The Committee suggested that it may be more appropriate to remove the mention of diabetes from this application to avoid any confusion; if it will be retained, there should be clearer explanation within the application that glucose levels and any changes to them over time will be monitored.

It was queried whether the anaesthetic used during terminal anaesthesia is likely to have a significant cardiovascular effect. The PI reassured the Committee that little effect is usually seen and this will be explained within the application.

In the non-technical summary, the term 'sympathetic activity' should be explained in lay terms.

After the PI left the meeting, the Committee continued its discussions.

The NVS requested that the PI amend the application to further explain the potential costs of plethysmography to the animals and how these costs will be minimised.

It was felt that protocol 1 should be classified as moderate rather than mild.

Resolved that:

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It was agreed that a revised version of the application should be circulated to the NC3Rs Midland Programme Manager and the Named Persons for further input and then resubmitted to BERSC for further consideration.

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Matters relating to the 3Rs

Joint 3Rs day

The previously discussed joint 3Rs day will take place on 19th September 2017. All of the spaces are now full with the exception of those allocated to one external institution. The Home Office Inspector and the NC3Rs Midland Programme Manager will be attending and the agenda has now been finalised.

NC3Rs Summer School

A number of Birmingham researchers recently attended the NC3Rs Summer School. Feedback on this will be provided at future meeting.

17/08-09

Any Other Business

- A retrospective assessment is currently being undertaken for a severe licence and this will be circulated to the Committee once it is complete.
- Through the Support4RS network, information has been received to suggest that there will be a Campus Without Cruelty demonstration by the Animal Justice Project during the University's Welcome Week.
- Representatives from the Journal of Visualized Experiments (JoVE) are due to visit BMSU soon to film some experiments taking place.
- BMSU is supporting the Chair of BERSC to attend the forthcoming RSPCA Lay Members' Forum and is also willing to fund one additional place. In particular, BERSC's newer lay members are encouraged to take up this opportunity.
- It was noted that the ASC's 'Hub and Spoke' system for AWERBs is not working as effectively as was hoped. It was suggested that this might be because the members of the Hubs are too diverse – it may be better if the ASC considered a move to 'themed' Hubs (e.g. University Hubs, Pharmaceutical Industry Hubs, etc).

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Date of Next Meeting

The date of the next meeting is 28th September 2017.

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GLOSSARY

3Rs	Replacement, Reduction and Refinement
ARMIS	Automated biological service unit management system
ASC	Animals in Science Committee
AWERB	Animal Welfare and Ethical Review Body
BERSC	Biomedical Ethical Review Sub-Committee
BHF	British Heart Foundation
BMSU	Biomedical Services Unit
GA	Genetically Altered
IVC	Individually Ventilated Cages
NACWO	Named Animal Care and Welfare Officer
NC3Rs	National Centre for the Replacement, Refinement and Reduction of Animals in Research
NVS	Named Veterinary Surgeon
OSA	Obstructive Sleep Apnea
PhD	Doctor of Philosophy
PI	Principal Investigator
Pitx2	Paired-like homeodomain transcription factor 2
RSPCA	Royal Society for the Prevention of Cruelty to Animals
Support4RS	Company offering security-related support on animal research issues
TBA	To Be Announced