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THE UNIVERSITY OF BIRMINGHAM

ANIMAL WELFARE AND ETHICAL REVIEW BODY (AWERB)

23rd July 2020 (via Zoom)

MINUTES

Present:

20/07-11	<u>Apologies</u>
20/07-12	Minutes The minutes of the meeting held on 2 nd July were considered by the Committee and were approved subject to some minor amendments.
20/07-13	Matters Arising 20/01-05 Suggestion of including a statistician. No-one has yet been identified, and this will remain on the agenda. 20/06-04 Chair to send a reminder email to all licence applicants regarding the expectations of the AWERB Committee for presenting their licence application focussing on ethical issues. This is being undertaken on a one-to-one basis. 20/07-07-2 The applicant was asked to discuss with a statistician about the number of animals used. Following consultation with a statistician, the applicant has moved to a unilateral model rather than bilateral model.
20/07-14	Chairperson's Items It was queried whether there is anything members can do to raise the profile of AWERB and associated working groups relating to the credit allocated in the University Workload Allocation Model. Action: Chair to write to the Pro-Vice Chancellor for Research and Knowledge Transfer
20/07-15	Verbal Reports from the Director of BMSU and Named Persons BMSU is now operational with around 50% capacity following changes in the mode of operation. The transition to a new way of working is progressing well. BMSU is starting to get busier and coping with workloads. Users and NACWOs are more involved in the research from breeding through to experimental work. Current working environment is improving communication between BMSU and researchers. Social distancing is the limiting factor with activity and everyone is working within the guidelines. Minor localised health issue with parasites which has been addressed, but no other health and welfare issues.
20/07-16	Report from the Fast Track Procedure Fast track procedures are in progress as normal and no queries had been raised.
20/07-17-1	 Project Licence Applications a) The role of genes in blood vessel formation Summary: The aim of this project is to assess the role of genes in the formation of blood vessels. Blood vessel formation is an essential process in the development of organisms and plays a pivotal role in a number of diseases including cancer and inflammatory disease Vessel formation is strongly driven by low levels of oxygen. As new vessels form, blood flow increases and increases oxygenation of tissues. This project has the potential to yield novel therapeutic interventions for diseases where vessel formation contributes to the pathology of the disease e.g. CIDs

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The Committee stated that the application uses the term development in two different ways and this issue needs to be resolved. The issue of ulcer formation was discussed, and it was stated this this is a potential problem, but it has not been seen in the previous work of this group. The tumours grow in a way that is dependent upon blood vessel formation. The model proposed looks at vessel formation rather than tumour growth.

The model was queried and whether the mechanism works in a subcutaneous model as it does in other organs such as the lung.

The Committee stated that the objectives are very broad and clear aims and justifications need to be included. It was confirmed that this project is a basic science application looking at blood vessel formation in a young mouse, as well as looking at vessel formation in adult mice. There is a need to increase details of the models proposed and a justification for each model need to be made clear.

The Committee found the project title fairly generic, and this should be made specific for the project.

Decision: Committee agreed that further discussions are needed between the NVS, BMSU, NACWO and PI. The project will be re-circulated for electronic approval and then sent to the HOI.

20/07-17-2

b) Beta cell metabolism and vitamin B3 Summary:

- There is a need to understand the mechanisms by which nutrients in our diet are used by biochemical processes in cells to maintain health.
- NAD is synthesised from the vitamin B3 intake in the diet and this compound takes part in more biochemical reactions than any other vitamin-derived molecule.
- The aim of this project is to study how the metabolic stress response of beta cells (insulin producing cells) in the pancreas can be influenced by providing vitamin B3 precursors to increase NAD provision.
- Impaired beta cell function is an underlying cause of diabetes, and this study aims to provide a better understanding of diabetes and may give rise to new possibilities to treat diabetes

The Committee asked whether the application brings any new information relating to Type 1 Diabetes rather than Type 2 Diabetes. It was confirmed that this application only considers Type 2 Diabetes and this will be amended in the application. The 24 week high fat diet protocol needs to set out the adverse effects. Allowance need to be made for a healthy weight.

The presentation showed three pathways demonstrating optional steps, and it was stated that these pathways should be used to produce three protocols. The control groups were queried, and whether two control groups are needed for each protocol. Control groups are to be re-considered. It was confirmed that the pheno-master cages are working well, and no adverse effects are seen. The Committee commended the applicant on the engagement with NC3Rs and BMSU in the application.

Decision: Committee agreed that further discussions are needed between the NVS, BMSU, NACWO and PI. The project will be re-circulated for electronic approval and then sent to the HOI.

20/07-18

Matters relating to the 3Rs

- The NC3Rs Training Fellowship scheme is open to applications with a deadline of 15 September. Potential applicants are advised to watch the webinar on the NC3Rs website: www.nc3rs.org.uk/training-fellowships
- On 28 July, the NC3Rs is holding a 90 minute webinar on 'Best practice in experimental design' for both *in vivo* and *in vitro* experiments. The webinar is aimed at PhD students and post docs and will cover reproducibility, randomisation, sample size and ARRIVE 2.0. www.nc3rs.org.uk/webinars
- The revised ARRIVE Guidelines (ARRIVE 2.0) have now been published in PLOS Biology and other journals, along with a dedicated website at www.arriveguidelines.org

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	explaining the importance of each of the items for assessing the reliability of the research findings and for improving reproducibility. The items have been organised into the essential 10 and recommended items, to help support a stepwise approach to their implementation. The University has endorsed the ARRIVE Guidelines and reporting in accordance with ARRIVE is a condition of most research funding awards. To find out more about the revision, register for the NC3Rs webinar, 18 August. • A survey about organ-on-a-chip technology is currently open – researchers who have used or are considering using this technology are encouraged to participate – details are in the July NC3Rs newsletter. • The next free e-learning module coming online in August will be focused on post-anaesthetic care (EU21-6). • The BMSU Director has joined a new short-term NC3Rs working group to develop guidance on mouse colony management post-COVID lockdown, to help researchers and technical staff nationally to deal with some of the challenges they currently face. • There is no update from the 3Rs Working Group as it has not met since the last AWERB. • The BMSU Assistant Director has attended the NC3Rs' webinar '3Rs advice for PPL applicants'. • Information about the NC3Rs' webinar 'Best practice in experimental design' has been circulated to all BMSU users, across institutions as appropriate by 3Rs champions, and to post-graduate students via Postgraduate Tutors. So far 42 individuals from Birmingham have registered, indicating that the pathways of dissemination are successful and that there is an appetite for this subject.
20/07-19	Any Other Business Home Office Established Licence Holders Committee. The Home Office financial model is based around the number of PPLs and during lockdown, they are 1000 licences down.
20/07-20	Date of Next Meeting The date of the next meeting will be 20 th August 2020

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GLOSSARY

3Rs	Replacement, Reduction and Refinement
AWERB	Animal Welfare and Ethical Review Body
BMSU	Biomedical Services Unit
CIDs	Chronic Inflammatory Diseases
NAD	Nicotinamide Adenine Dinucleotide
NC3Rs	National Centre for the Replacement, Refinement and Reduction of Animals in Research
NACWO	Named Animal Care and Welfare Officer
NTS	Non-Technical Summary
NVS	Named Veterinary Surgeon
PI	Principal Investigator
PPLs	Project Licences
UoB	University of Birmingham