CONFIDENTIAL MATERIAL

THE UNIVERSITY OF BIRMINGHAM

ANIMAL WELFARE AND ETHICAL REVIEW BODY (AWERB)

12th December 2019

MINUTES

Present:

19/12-01	Apologies
19/12-02	Minutes The minutes of the meeting held on 14th November 2019 were considered by the Committee and were approved subject to minor amendments.

19/12-03	Matters Arising There were no matters arising.
19/12-04	Chairperson's Items There were no Chairperson's Items
19/12-05	Verbal Reports from the Director of BMSU and Named Persons There has been a turnover of staff within BMSU which is not unexpected. The Home Office Inspector is retiring in March 2020. There have been a number of issues with placing orders to certain suppliers in Core Systems, although it is thought that this has now been resolved. More building work is being undertaken in BMSU. Staff are taking a proactive stance to prevent pinworm. Pinworm in July was contained to within a single room, and health screens are clear. There are now alternatives to shipping live animals, and it is now common to transport embryos or sperm. BMSU users will be contacted to complete their annual returns. BSc in Biomedical Science projects are underway, and training is ongoing. UAR hosted the Openness Awards on 3rd December 2019 and BMSU attended the Ceremony. BMSU came 2nd to Newcastle University.
19/12-06	Report from the Fast Track Procedure There were no Fast Track Procedures to be reported.
19/12-07-1	Project Licence Applications *a) Attenuating the DNA Damage Response as a Neuroprotective Strategy for Neurodegeneration* Summary: • Neurodegenerative disorders are incurable diseases that affect the nervous system such as Alzheimer's, Huntington's and Parkinson's diseases. • This project is to test whether disease can be slowed by reducing the ability of nerve cells in the brain to recognise and act on damage to the DNA • Currently 1M people in the UK are suffering from Dementia, and this is expected to rise to 2.5M by 2050, therefore new methods of treatment are urgently needed. • This project examines a new potential therapeutic strategy that has the potential to slow progression of the disease. • Findings of this project will be published regardless of outcome. A successful outcome will lead to a push to test clinical relevant inhibitors or gene therapy methods to determine the universality of the strategy for neurodegenerative conditions.

	It was stated that using refined handling methods gives more consistent and less variable results rather than tail handling. The Panel were concerned about a mixed background rather than an inbred strain. The number of animals used was queried, as the breeding protocol mentions 30 animals which is the minimum colony size. The number of animals needs to be reviewed. Only males will be able to be used for this study. It was queried whether neurodegeneration was gender specific and whether this would impact on the study. This is unclear. Initial study was 16 months, but clear changes are shown at 12 months, so there is an option of culling at 12 months. Confirmed humane end points need to be considered. The Panel asked whether there are any other groups undertaking this type of study? DNA damage in relation to neurodegeneration is quite niche. The most likely disease that could be targeted is motor neurone disease as this group of patients are easily identifiable and the progression of the disease is known, although this would be many years down the line. Regarding the restricted feeding, 2-3 days is sufficient for behavioural tasks rather than 14 days. Animal weight need to be compared to non-restricted animals of the same age as natural growth will have an effect. Once the PI had left, the Panel raised some concern regarding the knowledge of mouse work, as the PI's main area of work has been *Drosophila*. It was agreed that BMSU staff will undertake the husbandry and oversight of the animals and all tests will be undertaken in the BMSU. The Panel discussed what realistic data could be gathered in the timeframe and that there is a risk of wastage. Back-crossing of the animals was raised as an issue, and the progression from *Drosophila* to mammal models was discussed. The experimental design as a whole was queried and it was agreed that the possibility of piloting aging mice and then using inhibitors rather than trying to back-cross mice should be considered. There was a discussion around funding, and the total amount of money which is available for funding this study compared to the timeframe. **Decision: Committee agreed that this project needs considerable review of experimental design, and discussions are needed between the NVS, BMSU, NACWO and PI. The project will need to be re-submitted to AWERB for further consideration.**
19/12-07-2	*b) Research on Animals Outside of BMSU – The Griffin Institute (formerly NPIMR)* Summary: • The purpose of this study is to test new glass-based bone graft materials for safety and efficiency in a calvarial defect model. • The project involves implants, and a small number of animals • Following clinical translation benefits include faster and better quality bone formation. • Materials have been tested successfully in rat animal models; and the composition of the materials are based on other clinically available bone graft substitutes. • Project licence proposal approved by NPIMR AWERB, August 2019. • Individual project may require Griffin Institute AWERB approval. The Panel considered the proposal, and as this work is being carried out in the UK, AWERB were confident that this study will be conducted to Home Office Standards. The protocol is a standard model, and there were no concerns expressed. **Decision: Committee agreed pending receipt of the approved Project Licence / Project Licence Number.**
	c) Research on Animals Outside of BMSU – IACUC at the NEI/NIH Summary: • The purpose of this study is to develop / refine animal models of outer retinal injury caused by blunt trauma and laser injury, and to trial sub-retinal implantation of a stem cell scaffold to regenerate the outer retina. • There are currently no treatments to regenerate outer retina and patients suffer irreversible vision loss.

	• Benefits would be to develop a treatment that could improve vision, as well as being used more broadly in age-related degenerative conditions. • The IACUC at the NEI/NIH will evaluate the proposed research to ensure the research conducted is in accordance with all provisions of the US Public Health Service Policy on Humane Care and Use of Laboratory Animals The Panel had several concerns regarding this study and raised a number of questions, which were answered as follows: • Why in the USA and where is the USA would the study take place? The funder is the US Department of Defense. • What is the PI involvement? The PI has been approached by the funder as an expert in their field, and the PI will be undertaking the work in the US. • Surgical technique states lateral side, and why is this necessary, as blunt injury tends to affect the front of the eye. It was confirmed that the main method will be frontal impact to allow the review of a single point of damage. • Why is this the best model to use? What would be the suitable model in the UK? This is a translational model moving from rat to a porcine eye, which is closer in size and complexity to a human eye. • Why does this need to be scaled up to pig if there is already a rat model? It was confirmed that pig eyes are similar to human eyes as they have more barriers than rat eyes. Data obtained will be used to inform clinical applications. It was agreed that UoB reputation is key in this study, and the Panel confirmed that there is a clinical application and that the PI has been sought to collaborate as an expert in his field. **Decision: Committee agreed to this study and that concerns had been addressed**
19/12-08	Matters relating to the 3Rs The NC3Rs Regional Programme Manager was not present at the meeting.
19/12-09	<u>Any Other Business</u> There has been a FOI request from PETA around Sepsis which relates to three project licences. Redacted versions are to be provided.
19/12-10	<u>Date of Next Meeting</u> The date of the next meeting will be 23rd January 2020 at 10.00am in the Stanley Barnes Meeting Room

GLOSSARY

3Rs	Replacement, Reduction and Refinement
AWERB	Animal Welfare and Ethical Review Body
BMSU	Biomedical Services Unit
DNA	Deoxyribonucleic acid
FOI	Freedom of Information
IACUC	Institutional Animal Care and Use Committee
NC3Rs	National Centre for the Replacement, Refinement and Reduction of Animals in Research
NACWO	Named Animal Care and Welfare Officer
NEI	National Eye Institute
NIH	National Institute of Health
NPIMR	Northwick Park Institute for Medical Research
NVS	Named Veterinary Surgeon
PETA	People for the Ethical Treatment of Animals
PI	Principal Investigator
UAR	Understanding Animal Research
UoB	University of Birmingham