DRAFT

CONFIDENTIAL MATERIAL

THE UNIVERSITY OF BIRMINGHAM

ANIMAL WELFARE AND ETHICAL REVIEW BODY (AWERB)

24th February 2022 (via Zoom)

MINUTES

Present:

22/02-01	Apologies Apologies had been received
22/02-02	Minutes The minutes of the meeting held on 13th January 2022 were considered by the Committee and were approved subject to some minor amendments.

22/02-03	Matters Arising A proposal has been submitted to the Workload Allocation Model (WAM) Committee for AWERB Committee membership to be allocated a WAM tariff.
22/02-04	Chairperson's Items There were no Chairperson's Items
22/02-05	Verbal Reports from the Director of BMSU and Named Persons • The AWERB is seeking an additional external member. A potential candidate has been identified and will be formally invited by the Director on behalf of the committee. • The structure of ASRU is undergoing a review, with the intention of creating a Policy Unit that will undertake the policy role currently performed by ASRU. ASRU has announced a significant extension to the maximum time allowed for ASRU to review PPL applications prior to authorisation (now 9 months). The stakeholders have raised this with ASRU as there are concerns as to whether this could become prohibitive for UK-based science. Whilst under discussion, the BMSU is supporting applicants to ensure that high quality PPL applications continue to be submitted as soon as reasonably possible to ensure PPLs are in place in a timely manner to prevent delays in research. • BMSU has recently switched the format of the standard rodent diet to a harder pellet to overcome issues with the diet crumbling and leading to a lot of dust. The AWERB was assured that whilst it appears different, the composition has not changed and so there will be no impact on intake or the science. • Two NTCOs have undertaken Named Training and Competency Officer training (one as a refresher, and one as a new NTCO). • A commercial supplier has identified mouse pneumonia virus (MPV) in a room from which BMSU has received rats. The BMSU put pre-cautionary measures in place to prevent the spread to other rooms whilst the rats recently received from that supplier were tested; they have since been confirmed as positive for MPV. Further screening of other animals in that room, and elsewhere in the BMSU is planned. • The issue of overseas animal work was discussed, and it was agreed that the AWERB approval process should be raised across all Colleges via Research Committees.
22/02-06	Report from the Fast Track Procedure One fast track application had been escalated to AWERB (see point 22/02/-07-1)
22/02-07-1	Project Licence Applications *a) Evaluation of galectin family members as targets for the treatment of inflammatory bowel disease* This is for research involving animals conducted outside of the UK in collaboration with the university. It has been referred to AWERB for discussion from the Fast-Track group. Summary of points raised and discussions: The PI has obtained in vitro data and now needs to gather in vivo data, hence the reason for submitting this request. The Contract Research Organisation (CRO) to be used for this work was

	selected by the Industrial funder and is one of two such organisations approved to perform work on behalf of the funder. The committee queried whether the CRO was undertaking any work on behalf of other UK organisations. It was also queried whether the work could be carried out within the UK rather than overseas. It was explained that specialised techniques were required to obtain the required cells in a suitable format for downstream analysis and this expertise was held by the company. This CRO has been used by the funder previously and the PI explained that the proposed work had undergone ethical approval by the CRO. The Committee requested that the CRO supply the documentation to evidence ethical approval, along with study guides that included information regarding adverse effects and humane endpoints in place, so the AWERB could establish the likely severity. It was confirmed that the animals will be transported from the University of Birmingham to the CRO, and animals will be housed for 7 days to allow acclimatisation prior to any procedures being undertaken. The method of killing was queried to ensure that a Schedule 1 method was being used, and the PI is to confirm this with the CRO. The requested paperwork needs to be resubmitted to AWERB Committee members for consideration. **Decision: Committee agreed that the PI provide the relevant documentation requested prior to circulating to the AWERB Committee for comment.**
22/02-07-2	*b) Mapping mechanisms for energy homeostasis in rodents: communication between brain and peripheral tissues via the action of fuel sensing protein kinases* <u>Summary:</u> The stated aim of this licence is to investigate how fuel sensing in the hypothalamus influences energy homeostasis via action in peripheral tissues. • Metabolic disorders (such as Type II diabetes and obesity), manifest with dysregulation of energy intake and expenditure. These disorders ultimately have a significant impact on the quality of life of patients. • While there is good understanding of the role of the hypothalamic region of the brain in the active control of energy regulation, it is not currently clear how the hypothalamus detects nutrient levels in the body in order to operate adaptively • The core focus of the project is to investigate the role of the novel cellular fuel sensor (PAS-domain containing protein kinase; PASK) in the detection of nutrient status to control energy use in the hypothalamus. • Preliminary data indicate that PASK may be a target for more effective anti-diabetic and anti-obesity drugs, so the studies in this project will allow us to understand the mechanism of action of PASK, and to inform future drug development. The Committee raised the following points: The university has refined the fasting periods used for some of the tests in the application; this information will be provided to the PI for inclusion. There was a query regarding brown adipose tissue and how translatable this information is to humans. It was confirmed that both brown and white adipose tissue are to be considered. The applicant provided scientific justification verbally as to why the intercranial injection is required as opposed to a less invasive method; this information needs to be added to the application itself. The success rate of targeting the hypothalamus was discussed and based on past experience it is anticipated that 80% success will be achieved. This will be validated and confirmed first, before further work is undertaken. It was queried whether the work would be more translatable if rats were to be used rather than mice There was some discussion as to whether the overarching purpose of the research was truly translational as stated, or if it would be more appropriate if the purpose stated was basic science. Following some discussion, it was confirmed that it would be more appropriate to state that the purpose was basic science, particularly as this is a relatively small, short application intended to permit initial studies to provide the pilot data required for further funding. The application would be amended to reflect this. It was confirmed that the applicant had the expertise to undertake the complex surgery proposed in this application.

	The NTS is too scientific and needs to be rewritten so that it is more appropriate for the intended audience. It was understood that this is a pilot study, and the animal numbers were discussed to make sure they were appropriate. As a separate discussion, the committee noted that there were concerns regarding internal funding being used for animal studies where there were short timescales and no project licence already in place. It was confirmed that discussions are taking place at a strategic level to address this. **Decision: Committee agreed that further discussions are needed between the NVS, BMSU, NACWO and PI prior to being circulated electronically for comment and approval before being sent to ASRU.**
22/02-07-3	*c) Investigation of Thymus Degeneration and Regeneration* <u>Summary:</u> The stated aims of this licence is to study the cellular and molecular mechanisms that result in the loss and regeneration of functional thymus tissue and T cell development following damage or disease. • The thymus is the primary organ responsible for supporting T cell development. T cells form an essential component of the immune system, providing protection against both infection and tumour formation. The thymus also limits the development of T cells that may otherwise drive autoimmune disease (a process termed central tolerance). • While the thymus is critical for the recovery of T cell immunity, the sensitivity of the thymus to induced atrophy can create severe immunodeficiencies, for example dramatically heightened susceptibility to life-threatening infections following treatment for blood cancer. • In summary, this project aims to investigate the cellular and molecular networks in the thymus that control recovery after induced atrophy and examine whether such mechanisms are either shared or unique to the different atrophy-inducing stimuli of either irradiation or obesity The Committee raised the following points: The Committee agreed that this was a clear, well written application. The NTS needs to be expanded to clarify the need for two different doses of radiation and how this relates to the translational clinical work. Scientific justification for the need for different models of thymus atrophy was provided verbally; this needs to be included in the application itself. The need to undertake pilot studies to obtain the data required for power calculations was discussed, with the statistician in agreement with the approach to be taken. **Decision: Committee agreed that further discussions are needed between the NVS, BMSU, NACWO and PI prior to being sent to ASRU.**
22/02-08	<u>Matters relating to the 3Rs</u> • FRAME (Fund for the Replacement of Animals in Medical Experiments) are running their experimental design workshop in the summer of this year. The advert has been circulated to all users, and BMSU is funding a space for a member of the university (staff or student) to attend. Applications for this opportunity will be invited and reviewed by the NC3Rs Regional Programme Manager. • Following the successful review of the previous University of Birmingham's 3Rs Strategy, the 3Rs Focus Group will shortly be completing the NC3Rs 3Rs self-assessment tool for 2022. This will provide a longitudinal assessment of 3Rs activities, and help inform future 3Rs efforts. • The NC3Rs is hosting an Experimental Design Assistant workshop at the University of Birmingham on 7 April, aimed at anyone conducting/planning to conduct *in vivo* research. Details have been circulated via email. • The NC3Rs website has recently undergone a large overhaul and resources are now searchable via "audience", with an option for "ethical review bodies". There are over 20

	resources in this section which may be of interest to AWERB members. These include guidance on humane endpoints, experimental design and writing a PPL application.
22/02-09	Condition 18 Reports There have been no reports submitted.
22/02-10	Date of Next Meeting The date of the next meeting – 7th April 2022 via Zoom

GLOSSARY

3Rs	Replacement, Reduction and Refinement
ASRU	Animals in Science Regulation Unit
AWERB	Animal Welfare and Ethical Review Body
BMSU	Biomedical Services Unit
MDS	The College of Medical and Dental Sciences
MPV	Mouse Pneumonia Virus
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
PAS	Per-ARNT-Sim (protein domain)
PASK	PAS-domain containing protein kinase
PI	Principal Investigator
PEL	Establishment licence
PIL	Personal licence (Procedure Individual Licence)
PPLs	Project licence (Procedure Project Licence)
SOP	Standard Operating Procedure
T2D	Type 2 Diabetes
T Cell	A type of lymphocyte (white blood cell)
UoB	University of Birmingham
WAM	Workload Allocation Model