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CONFIDENTIAL MATERIAL

THE UNIVERSITY OF BIRMINGHAM

ANIMAL WELFARE AND ETHICAL REVIEW BODY (AWERB)

11th August 20222 (via Zoom)

MINUTES

Present:

22/08-01	Apologies Apologies had been received
22/08-02	Minutes The minutes of the meeting held on 30th June 2022 were considered by the Committee and were approved.

22/08-03	Matters Arising Both applications from the last meeting have been submitted to ASRU. AWERB Committee members should now have been allocated points in the Workload Allocation Model.
22/08-04	Chairperson's Items There were no Chairperson's Items
22/08-05	Verbal Reports from the Director of BMSU and Named Persons UoB is hosting the AWERB-UK meeting on 6th October - more info here: https://science.rspca.org.uk/sciencegroup/researchanimals/meetings As UoB are hosting this event, there will be some free places available with AWERB members encouraged to attend. Everything is running smoothly in BMSU and it is "business as usual". BMSU is also up-to-date with training people. There will be individual meetings with all PPL holders to discuss what is working well / what they would like etc. and this will feed into the next Users Forum. There are no animal health issues or concerns and no problems were raised by the NVS. The PIL AB and PIL C courses have run this week and the next ones will be run in October. The next induction session will be in September. Whilst the UoB Establishment Licence does not permit work involving dogs, for awareness of AWERB, a commercial supplier has been put in the spotlight on BBC News regarding concern about conditions in a dog breeding facility in the USA and consequent rehoming of 4000 beagles.
22/08-06	Report from the Fast Track Procedure Fast Track Committee requested that one application (PPL Amendment) be considered by the full AWERB Committee. (see 22/08-07-01 below)
22/08-07-1	Project Licence Applications *a) PPL Amendment: Understanding mechanisms of organ-specific anti-fungal immunity* Summary: The stated aim of this project is to provide fundamental new insights into antifungal immunity that will help reduce the mortality rate for infections. • Invasive fungal infections kill more people worldwide each year than breast cancer or malaria and there is a limited selection of available antifungal drugs and lack of vaccines. • The aim of this project is to gain a better understanding of the role of organ-specific immune cells in the brain and gut during invasive fungal infections. • A greater understanding of the immune mechanisms controlling organ-specific immunity would be beneficial since it should lead to the development of immune-based therapies that target these mechanisms and provide specialised protection. Proposed amendments include: 1. Are T-cells in the brain in the tissue or stuck in blood vessels? Injecting antibodies to label cells will be an optional step in Protocol 2 and 8.

	2. What signals T-cell entry? Injecting antibodies to block inhibitory signals and / or inhibit stimulatory ones will be an optional step in Protocol 8 3. Do T-cells protect against infection when formed into the brain? Inject immune boosting agents to promote T-cell entry to the brain will be optional steps in Protocols 2 and 8. The Committee raised the following points: It was queried whether proposed amendments 2 and 3 would become redundant if proposed amendment 1 showed that T-Cells are stuck in the blood vessels rather than in brain parenchyma. It was explained that proposed amendments 2 and 3 would still be required as they are aimed at establishing whether the T-cells need to be activated or just need to move across the blood vessel walls. The use of blocking antibodies was discussed, and whether the use of these blockers would make the animal's response to infection less efficient, with concerns over whether this may negatively impact on the number of animals required for the study. It was argued that a balance needs to be achieved as too many T-cells can cause undesirable immune pathologies. The committee felt this needs to be clarified in the scientific justification section of the amendment. In Protocol 8, rather than referring to earlier sections where information is repeated, it needs to be re-written in full to ensure clarity and remove any avoidance of doubt. A concern was raised as to whether the administration of cytokines alongside infection could cause unexpected adverse effects, and whether the cytokines would be given in combination or singly. It was confirmed that pilot studies would first be undertaken to monitor for any unexpected adverse effects prior to a larger study, and if a number of cytokines are to be combined then they will first be piloted in smaller combinations to minimise the likelihood of unexpected adverse effects. **Decision: Committee agreed that further discussions are needed between the NVS, BMSU, NACWO and PI prior to returning to the Fast Track Working Group and then onto ASRU.**
22/08-07-2	*b) Breeding and maintenance of genetically altered fish* <u>Summary:</u> The stated aim of this application is to provide breeding authority for users who only require pre-protected stage zebrafish larvae or wish to perform post-mortem tissue analysis. • Genetically altered zebrafish can be used to increase our understanding of the importance of specific genes in a range of human diseases. • An early zebrafish larva does not become a protected animal under ASPA until it is capable of free feeding (typically 5 days post fertilisation) • In the majority of cases, understanding of gene function can be using larvae before they become a protected animal. • The service licence will bring the work of individual fish research groups together under this one central licence which will centralise expertise and allow for optimisation of the 3Rs. The Committee raised the following points: The current service licence expires in December 2022 and covers the supply of zebrafish larvae and embryos up to day 5 in non-regulated procedures, and the use of adult tissue obtained post-mortem following a Schedule 1 killing method. The licence also permits the transfer of genetically altered fish (usually as embryos) to other facilities and licences. The current PPL permits up to 31,000 fish to be used, whereas this five-year application is for 20,000 fish. One change to the new application is to allow for gamete collection on up to 3 occasions. The NVS provided an explanation and reassurance as to what this involves. The only question raised was as to whether skin swabbing could be used to obtain a sample for genotyping rather than fin clipping as this may represent a refinement. It was explained that swabbing has been tried previously and was not successful, and currently the majority of users were able to genotype either by non-invasively observing larvae under a microscope to detect fluorescence, or by taking a small fin sample from larvae prior to free feeding stages. It was also discussed that a ZEG-Machine (Zebrafish Embryonic Genotyper) is another option, but the success rates are not clear. It was agreed that skin swabbing would be trialled again at BMSU. As part of a wider discussion, it was also noted that the RSPCA have produced a paper on welfare indicators for zebrafish in relation to different types of enrichment. In particular, enrichment for

	singly housed fish can reduce stress of fish e.g. plastic plants. It was pointed out that BMSU already use various kinds of enrichment in the tanks, having carried out a study to determine which tank items the fish choose to engage/interact with the most. The NVS also raised that there were ongoing discussions within the BMSU to ensure that the types of analgesia and anaesthesia being used continue to represent current best practice based on the latest information available. **Decision: Committee agreed that for the application to be sent to ASRU.**

22/08-08	Matters relating to the 3Rs
	
	• NC3Rs strategy is published – only Replacement-focused PhD studentships will be funded going forward
	• BBSRC/NC3RS joint funding call – deadline for submitting via Je-S is 8th September
	• The NC3Rs Regional Programme Manager (Midlands) has worked with one researcher to help with EDA for MRC grant application
	• Use of both sexes webinar is now available online: https://nc3rs.org.uk/3rs-resources/mrcnc3rs-webinar-using-both-sexes-animal-experiments
	• NC3Rs have just launched our 2022 CRACK IT challenges. They are focused on *in vitro* safety assessment of CAR-T cell therapies and *in silico* tools for endocrine disruption. There is £1.2M available in total.
	  ○ T-ALERT launch webinar is on Tuesday 6 September, 14:00 – 15:30.
	  ○ Thyroid Tox launch webinar is on Wednesday 7 September, 14:00 – 15:30.
	• PREPARE for Better Science Course
	  ○ Collaborative effort between Responsible Research in Practice and NORECOPA
	  ○ Designed to support laboratory animal researchers to enhance the rigour and reproducibility of their studies by putting the PREPARE guidelines into practice
	  ○ Tue, Sep 13th 2022, @ 09:30; Thu, Sep 15th 2022, @ 13:00
	• Responsible Research Webinar: Statistical Analysis for In Vivo and In Vitro Scientists Course
	  ○ Organised by Responsible Research in Practice
	  ○ Mon, Sep 19th 2022, @ 09:00; Wed, Sep 21st 2022, @12:30
	• RSPCA Lay Members' Forum
	  ○ Thu, Dec 8th 2022
	  ○ Annual meeting for AWERB members, focusing on self-assessment and fulfilling tasks that relate to replacement.
	
	• The committee would like to extend its thanks to the NC3Rs Regional Programme Manager (Midlands) for organising an excellent Midlands 3Rs Symposium. The University was well represented, with our technicians and researchers winning both the 3Rs prizes, while the talk from the BMSU Director on the University's 3Rs activities was particularly well-received, based on the written feedback provided.
	• The 3Rs Focus Group is preparing a new 3Rs Strategy document that will be presented to AWERB in due course.

22/08-09	Condition 18 Reports There have been no Condition 18 Reports since the last meeting.
22/08/10	Any Other Business. The RSPCA Annual Rodent Welfare group meeting will take place at the University of Newcastle on the 4th November 2022. More details will follow soon.
22/08/11	Date of Next Meeting The date of the next meeting – 13th October 2022 via Zoom

GLOSSARY

3Rs	Replacement, Reduction and Refinement
ASRU	Animals in Science Regulation Unit
AWERB	Animal Welfare and Ethical Review Body
BBSRC	Biotechnology and Biological Sciences Research Council
BMSU	Biomedical Services Unit
EDA	Experimental Design Assistant
Je-S	Joint Electronic Submissions
MRC	Medical Research Council
NC3Rs	National Centre for the Replacement, Refinement and Reduction of Animals in Research
NACWO	Named Animal Care and Welfare Officer
NORECOPA	Norway's National Consensus Platform for the Advancement of the 3Rs.
NTS	Non-Technical Summary
NVS	Named Veterinary Surgeon
PEL	Establishment licence
PI	Principal Investigator
PIL	Personal licence (Procedure Individual Licence)
PPLs	Project licence (Procedure Project Licence)
PREPARE	Planning Research and Experimental Procedures on Animals: Recommendations for Excellence
RSPCA	Royal Society for the Prevention of Cruelty to Animals
UoB	University of Birmingham