CONFIDENTIAL MATERIAL

THE UNIVERSITY OF BIRMINGHAM

Animal Welfare and Ethical Review Body (AWERB)

23rd February 2023 (via Zoom)

### MINUTES

### Present:

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| 23/02-01 | Apologies |
| 23/02-02 | MinutesThe minutes of the meeting held on 12th January 2023 were considered by the Committee and were approved. |

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| 23/02-03 | Matters Arising23/01-07-1 The application for *Preparation of Xenopus laevis egg extract for DNA replication and damage research* has been resubmitted to AWERB. Please see 23/02-07-2 below.23/01-07-1: Chair of AWERB to write to all PPL holders to remind them of their responsibilities regarding timelines for applications and renewal of licences. This has been completed |
| 23/02-04 | Chairperson’s ItemsThere were no Chairperson’s Items |
| 23/02-05 | Verbal Reports from the Director of BMSU and Named PersonsAll of the animal returns were submitted on time. Whilst records are accurate, around 60% of project licence holders required advice from the Director of BMSU to ensure that they were correctly summarised for submission.An internal systems audit has been undertaken by UoB and the relevant sections of the final report, including any recommendations and commendations will be circulated at a future meeting.The new cage washer is scheduled for installation in July and this work is being undertaken at the same time as work on the lift so that there is only one disruptive period over the summer. Measures are in place to ensure that the work does not detrimentally impact on the animals.All AWERB members have been invited to visit BMSU and to take a tour of the facility.There is a long-term diabetic mouse model currently housed in BMSU that is reaching its scientific endpoint. This is an excellent example of the technicians and Named Persons working closely with the PI to ensure that additional husbandry measures are put in place to support the changing needs of the animals, whilst monitoring them closely to identify any that are approaching humane endpoints. There are no health screening issues. |
| 23/02-06 | Report from the Fast Track ProcedureA number of fast track applications have been received and all are being progressed.A request was also presented to the committee for a current Project Licence to be transferred to another project licence holder to permit the completion of a long-term project. The committee approved this request and so the amendment will be submitted to the Home Office. |
| 23/02-07-1 | Project Licence Applications1. *Investigating the role of platelets in thrombosis and inflammation during sepsis.*

SummaryThe stated aim of this project is to understand the role of platelets in inflammation and clotting during pathological conditions which can progress to sepsis.* Sepsis leads to a life-threatening, severe dysregulated inflammatory response associated with multiple organ damage, which affects over 19 million patients worldwide annually.
* In the UK, sepsis is responsible for 40,000 deaths per year.
* During bacterial infection-mediated sepsis, immune cells are essential to clear pathogens. However, uncontrolled immune cell activation leads to excessive inflammation and thrombosis (clotting) which can damage different organs
* One of the challenges in treating sepsis-associated thrombosis is the concomitant risk of increased/uncontrolled bleeding
* Therapeutic strategies targeting inflammation and clotting during sepsis must preserve the beneficial role of the inflammatory reaction in clearing bacteria and reduce clotting without increasing the risk of bleeding

The Committee raised the following points:The application includes two different models of sepsis, and so the need for both was questioned. It was explained that the models will be used sequentially. The first model (Lipopolysaccharide (LPS) based) provides a setting in which to study the role of platelets during inflammation without the confounding presence of bacteria. However, if promising results are obtained with this model, then the second (bacteria-based) model is required to confirm that having successfully reduced the number of clots in the tissues, that the clots weren’t in fact preventing the bacteria from travelling further into the tissues.The applicant presented a clinical scoring sheet based upon previous knowledge and published guidance. The applicant confirmed that they intended to use this as part of the welfare assessment, and it was agreed that this would be further reviewed in conjunction with BMSU and aligned with the humane end points stated in the application itself. The severity of the protocol was discussed to ascertain what was the likely severity for the majority of animals and whether a severe classification was scientifically necessary. It was explained that based on previous data, there was a scientific need to maintain the animals for longer to allow the development of multiple thrombi in the target tissues and whilst not expected, animals entering into a severe category could not be ruled out. Reassurance was provided in that pilot studies will be performed before full studies commence, and the bacterial sepsis model will not be used unless positive results are obtained using the LPS model.It was also agreed that the clinical score sheet will help in monitoring progressive adverse effects and identify humane endpoints as early as possible.Further information is required regarding experimental design, including how the experiments will be randomised and blinded and the parameters used in the power calculations to obtain group sizes.It was stated that there have been a lot of studies on sepsis, and it was queried why this research is novel. Further explanation was provided including that there are a number of platelet receptors that have potential for therapeutic targeting which have not yet been investigated. This needs to be included in the NTS.**Decision: The Committee agreed that further discussions are needed between the NVS, BMSU, NACWO and PI prior to the application being circulated electronically for approval and being sent to ASRU.**  |
| 23/02-07-2 | 1. *Preparation of Xenopus laevis egg extract for DNA replication and damage research*

The stated aim of this project is to induce egg laying in frogs so as to generate sufficient material in the form of egg extract for the in vitro study of the process of DNA replication and DNA damage repair. Stimulation of sperm production and maturation in male frogs prior to post-mortem collection of sperm will also be required.The NVS, BMSU, NACWO and PI have reviewed this application and it was recirculated for comment with two alterations. One is to allow microchipping to be undertaken with the option of either with or without anaesthetic depending on which approach is the most refined for the animal. The second alteration is to add the option to microchip males for scientific purposes if needed. **Decision: The Committee agreed that the application should now be sent to ASRU.**  |
| 23/02-08 | Matters relating to the 3Rs* 3Rs Focus Group met on 18th January
* The work undertaken by a BMSU technician on zebrafish enrichment will be featured in the next issue of Tech3Rs. We’re hoping to implement the identified enrichment in the aquatics facility once we are sure we have found a suitable material.
* There are some changes to the membership of the 3Rs Focus Group.
* The annual NC3Rs international 3Rs prize, sponsored by GSK, is now open. Award is £28k grant and £2K personal award. Deadline Wednesday 5 April. See website for details. [International 3Rs prize | NC3Rs](https://www.nc3rs.org.uk/international-3rs-prize)
* Wednesday 1st March 12:00-12:45, webinar on Evaluations of Environmental Enrichment for technicians. [Webinar: Evaluations of environmental enrichment | NC3Rs](https://nc3rs.org.uk/events/webinar-evaluations-environmental-enrichment)
* Wednesday 15th March 14:00-15:00 there is a webinar on the OsteoChip CRACK IT challenge, which is about an *in vitro* model of cartilage/OA platform developed by Alycomics. [CRACK IT Challenge webinar: An in vitro model of the human osteoarthritic joint | NC3Rs](https://nc3rs.org.uk/events/crack-it-challenge-webinar-vitro-model-human-osteoarthritic-joint)
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| 23/02-09 | Condition 18 ReportsNo condition 18 reports submitted since the last AWERB meeting. |
| 23/02-10 | Retrospective ReviewThe Home Office Retrospective Assessment for *PDA7B4CC6: Repairing the Damaged Spinal Cord* has been completed. |
| 23/02-11 | Any Other Business. There was no further business |
| 23/02-12 | Date of Next MeetingThe date of the next meeting – Thursday 6th April 2023 via Zoom |

**GLOSSARY**

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| 3Rs | Replacement, Reduction and Refinement |
| IAT | Institute of Animal Technology  |
| ASPeL | Animals Scientific Procedures e-Licencing |
| ASPA | Animals (Scientific Procedures) Act 1986 (as amended, 2013) |
| ARRIVE | Animal Research: Reporting of In Vivo Experiments |
| ASRU | Animals in Science Regulation Unit  |
| AWERB | Animal Welfare and Ethical Review Body |
| BMSU | Biomedical Services Unit |
| FOI | Freedom of Information |
| FRAME | Fund for the Replacement of Animals in Medical Experiments |
| NC3Rs | National Centre for the Replacement, Refinement and Reduction of Animals in Research |
| NCTO | Named Competency and Training Officer |
| NACWO | Named Animal Care and Welfare Officer |
| 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 |
| UoB | University of Birmingham |