### DRAFT

# **CONFIDENTIAL MATERIAL**

### THE UNIVERSITY OF BIRMINGHAM

### ANIMAL WELFARE AND ETHICAL REVIEW BODY (AWERB)

2<sup>nd</sup> September 2021 (via Zoom)

#### **MINUTES**

#### **Present:**

21/09-01	Apologies Apologies had been received
21/09-02	Minutes The minutes of the meeting held on 22 <sup>nd</sup> July 2021 were considered by the Committee and were approved subject to some amendments.
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21/09-03	Matters Arising No matters arising
21/09-04	<u>Chairperson's Items</u> There were no Chairpersons Items
21/09-05	Verbal Reports from the Director of BMSU and Named Persons All project licence holders have been informed of the reopening of BMSU following lock down. All competencies will need to be re-checked as procedures have not been carried out by researchers for over 12 months. If people have not been into BMSU since lock-down, they will need to undertake the induction process again. The operational situation with the HO is still unclear and is challenging for all concerned. All PPL holders in ASpEL should receive the ASRU Operation Newsletters. Proposed response times are: 40 days to review a new licence 20 days for amendments to licences 10 days for 'urgent' cases  Activity is gradually increasing in the IVM suite as more researchers return to the labs.
21/09-06	Report from the Fast-Track Procedure Fast Track procedures are progressing.
21/09-07-1	<ul> <li>Project Licence Applications <ul> <li>a) Understanding the role of the carotid body in causing high blood pressure and heart rhythm disturbances in response to chronic hypoxia</li> </ul> </li> <li>Summary: <ul> <li>The stated aims of this licence were:</li> <li>To provide new information about the mechanisms that leads to carotid body overactivity that is responsible for producing a high blood pressure and an irregular heartbeat. This will pave the way towards novel drug discovery or repurposing aiming to reduce carotid body mediated cardiovascular disease.</li> <li>The carotid body is an important organ located in the neck that constantly monitors the blood supply to the brain. When blood oxygen level drops (hypoxia), the carotid body activates a protective reflex which includes an increase in breathing and heart rate.</li> <li>In patients with COPD, blood oxygen is always low which causes the carotid body to become hyperactive.</li> <li>There is currently no treatment that directly targets a hyperactive carotid body. Part of the reason for this is that the mechanism of carotid body hyperactivity in response to</li> </ul> </li> </ul>

COPD/CH is poorly understood

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	The Committee raised the following points: Humane end points were discussed. Once the animals experience a reduced oxygen environment, there is an initial reduction in activity, however the majority of animals should resume normal behaviour. The maximum weight loss humane end point should be 15% rather than 20% and this needs to be amended. Further information should be included around gasping, breathing rates and animal experiences. The protocols need to be amended regarding the drug administration and which drugs can be ingested rather than injected. IP injections should only be used when there is no alternative method. The impact on animal welfare is not clear in the application, specifically around oxygen and carbon dioxide levels in relation to the negative experiences of the animals such as stress and fear. The oxygen levels were discussed and animals would experience a minimum of 10% oxygen for a maximum of 28 days. A defence response is not normally observed until 6% oxygen levels. Animals will experience physiological adaptations so when the animals are removed from the low oxygen environment they will not need to reacclimatise following measurements. Justifications for high carbon dioxide levels should be included. The injection protocol needs to be reviewed and the Committee stated that a mini-pump would be preferable. It was stated that respiratory reflexes in hypoxia will be measured and observed. The measurements taken are based on published data. The wording of the NTS needs to be reconsidered so that it reflects the actual fundamental research outcomes rather than being therapeutic outcomes.  Decision: Committee agreed that further discussions are needed between the NVS, BMSU, NACWO and PI prior to obtaining Chairperson's approval to send to ASRU.
	NACWO and F1 prior to obtaining Chairperson's approval to send to ASKC.
21/09-08	Matters relating to the 3Rs
	<ul> <li>The NC3Rs has recruited a new Regional Programme Manager for the Midlands, Dr Nicola Foster, who starts on 20 September, supporting the universities of Birmingham, Leicester and Nottingham.</li> <li>The Committee's attention was drawn to the NC3Rs/IAT Animal Technicians' Symposium (11-12 Oct), virtual demonstrations of the Experimental Design Assistant (EDA) (14 Sept and 10 Nov), and web resource on animal-free reagents – details are available on the NC3Rs website. The NC3Rs project grants scheme should open in November.</li> </ul>
	<ul> <li>Dr Jan van der Valk (Director, 3Rs-Centre of Utrecht University) has been invited to give a replacement-themed webinar. This will take place on 8th October and will focus on the use of alternatives to foetal calf serum in cell culture.</li> <li>Five BMSU technicians have registered to attend the LASA/UFAW 3Rs Section (9th September).</li> <li>Four BMSU technicians have registered to attend the NC3Rs' Animal Technicians Symposium (11-12th October).</li> <li>The BMSU induction pack has been updated to include contact details for the 3Rs Focus Group, and to further embed the use of routine refinements such as the single use of needles and use of refined handling techniques for mice. This information will be delivered to both new users, and as a refresher for current users.</li> </ul>
21/09-09	Review of AWERB Terms of Reference A few minor amendments were discussed and the ToR were agreed by the Committee.
21/09-10	Condition 18 Reports Two reports have been submitted.
21/09-11	Any Other Business There was no further business.
21/09-12	Date of Next Meeting

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The date of the next meeting – 14 <sup>th</sup> October 2021

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#### **GLOSSARY**

3Rs	Replacement, Reduction and Refinement
ASRU	Animals in Science Regulation Unit
AWERB	Animal Welfare and Ethical Review Body
BMSU	Biomedical Services Unit
COPD	Chronic Obstructive Pulmonary Disease
СН	Chronic Hypoxia
НО	Home Office
HOI	Home Office Inspector
IP	Intraperitoneal injection
IVM	Intravital Microscopy
LASA/UFAW	Laboratory Animal Science Association / Universities Federation for Animal Welfare
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 licence (Procedure Project Licence)
ToR	Terms of Reference
UoB	University of Birmingham