

# **INQUIRY INTO USE OF PRIMATES AND OTHER ANIMALS IN MEDICAL RESEARCH IN NEW SOUTH WALES**

**Organisation:** University of New South Wales

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The Hon. Greg Donnelly, MLC  
Chair, Portfolio Committee No. 2 – Health  
NSW Parliament House  
SYDNEY NSW 2000  
***By online submission***

Dear Mr Donnelly,

**Response to the inquiry into the use of primates and other animals in medical research in New South Wales**

I write to you as Pro Vice-Chancellor Research at the University of New South Wales to provide input into this inquiry.

**Introduction**

The University of New South Wales is a research-intensive university with a large Biomedical Sciences portfolio. We conduct world-class research on 21<sup>st</sup> century challenges, including ageing, biomedical engineering, neurosciences, cancer, brain science and mental health, cardiovascular diseases and infectious diseases, amongst others. We are affiliated with prestigious Medical Research Institutes, including the Garvan Institute of Medical Research, Neurosciences Research Australia, the Victor Chang Cardiac Research Institute, the George Institute for Global Health, the Children's Cancer Institute and others. In 2021, UNSW received \$121M in research funding from the National Health & Medical Research Council (NHMRC) for 83 grants and \$39M from the Medical Research Future Fund (MRFF) for 17 grants. Our research outcomes are reported in prestigious journals such as Nature and Science and we recently launched the UNSW RNA Institute in collaboration with the New South Wales government and other partners. Our substantive research efforts are underpinned in part by animals other than non-human primates and we would like to submit our contribution to this important inquiry.

**UNSW response**

***a. The nature, purpose and effectiveness of medical research being conducted on animals in New South Wales, and the potential public health risks and benefits posed by this research.***

As outlined in the **Introduction**, the diversity of applications using animals for scientific research at UNSW is broad and includes much of the spectrum defining medical research. The purpose of each, individual research proposal to use animals is reviewed by our Animal Care & Ethics Committees (ACECs) considering aspects of scientific rigour such as sample size, statistical methodology, the context of other research conducted in this field and whether funding and facility space is available. Each research proposal is also reviewed in the context of benefits of the research and the justification to use animals.

Even prior to ACEC deliberations, projects funded by bodies such as the NHRMC and the MRFF have already undergone peer review as per scientific validity and the relevance of the proposed research. Oversight over the research is covered in e. below. As for public health risks, UNSW views the potential public health risks through institutional health and safety as well as risk processes to reduce the chance of animals transferring zoonotic diseases to the humans involved in animal research and potential dangers posed by the escape of animals for human health or the environment. A significant proportion of animal research is conducted on genetically modified mice or rats to provide specific models for a particular disease. This research is additionally overseen by our institutional biosafety committee, at UNSW termed the Gene Technology Research Committee (GTRC), working hand in hand with animal facility management, the ACECs and the Commonwealth Office of the Gene Technology Regulator (OGTR) to ensure containment. Animals imported for research may also need to be held in Approved Arrangements, or quarantine facilities, if they are deemed a potential biosecurity risk by the Commonwealth Department of Agriculture, Water and the Environment (DAWE). DAWE certifies each Approved Arrangement and inspects compliance on an annual basis. In summary, UNSW and other universities evaluate the benefits of the use of animals for medical research carefully and take their containment and risks serious.

***b. The costs associated with animal research, and the extent to which the New South Wales and Federal Government is commissioning and funding the importing, breeding and use of animals in medical research in New South Wales.***

Medical research involving the use of animals is funded by a variety of national and international research bodies as referenced above and below. The costs of animal research, including the importing, breeding and use of animals in medical research in New South Wales are aligned with the funding for each individual research project as supported by the relevant funding body. The university sector is forced to provide institutional co-investment for inadequately funded external research grants ranging from salary gaps to lack of any infrastructure support. This issue impacts laboratory intensive research in general and in particular costs associated with animal research that can range to more than \$1 co-investment for every externally funded \$1 income through research grants. We obtain most animals used for medical research from the Australian BioResources Centre (NSW) and the Animal Resource Centre (WA). It may be the latter and recent controversies about the shut-down of the Animal Resource Centre (WA) that could stimulate the national debate on regulation of animal welfare to ensure the continuation of supply of animals for medical research where deemed justified. Other sources of animal colonies do include the importation of specific, genetically modified strains to target a particular disease and involve our close monitoring of animal breeding, and the lack of excess numbers of animals, as part of the institutional ACEC oversight in compliance with the Australian code for the care and use of animals for scientific purposes 2013. The combined oversight of ACECs and animal facilities over animal breeding, and the general financial constraints involved in every research project, so far seem to point towards a system where overproduction of animals for research is discouraged and the sensible use of funding towards research projects is optimised.

***c. The availability, effectiveness, and funding for alternative approaches to animal research methods and technologies, and the ability of researchers to meet the 3 R's of Replacement, Reduction and Refinement.***

Considerations regarding the inclusion of the 3Rs in animal research proposals are thoroughly embedded in the ethical review undertaken by our Animal Care & Ethics Committees (ACECs). They are also a central tenet in the animal care and ethics training all investigators involved in animal research need to undertake

and pass before being allowed to progress to the research itself. UNSW uniquely has identified the 3Rs initiative and provides annual grant schemes for our researchers. In 2021, for example, UNSW provided \$250K in grant funding to competitive research proposals in enhancing the 3Rs and we intend to continue this scheme to set an example of international best practice in improving the development of the 3Rs. Current, specific efforts at UNSW include in vitro techniques to test new drugs for efficacy and safety, the use of 3D printing to replace the use of animals in researcher training, computational modelling to inform on the stimulation of retinal neurons prior to proceeding to live animal work, an active animal transfer and tissue sharing program to reduce the number of animals used in research and teaching, and refinements to analgesia and anaesthesia to improve intra and post-operative recovery of animals. We extensively report these efforts on an annual basis to the New South Wales Animal Research Review Panel (ARRP). In turn, ARRP makes public the report findings in a manner de-identifying individual institutions but highlighting the efforts, and potential and real problems, across New South Wales at a whole.

***d. The ethical and animal welfare issues surrounding the importing, breeding and use of animals in medical research.***

From a UNSW perspective, all ethical and animal welfare issues surrounding the importing, breeding and use of animals in medical research are closely defined, approved, regulated and monitored by the UNSW Animal Care & Ethics Committees (ACECs). Our ACECs work closely with our animal facility managers and researchers to ensure that ethical and animal welfare issues are addressed and complied with and that novel experiences, for example those involving new genotypes, are monitored. We acknowledge that importation and transport require the high standards of animal care we expect and that this is sometimes challenging when international standards vary. However, we do set the standard that international operations need and that they, as a minimum, comply with the expectations of the Australian code for the care and use of animals for scientific purposes 2013, and we scrutinise the operations of operators breeding and transporting animals in support for UNSW medical research. We would welcome if New South Wales initiatives could contribute towards international frameworks in standards associated with the transportation of animals for medical research.

***e. The adequacy of the current regulatory regime regarding the use of animals in medical research, particularly in relation to transparency and accountability***

UNSW recently contributed to the Standing Committee on State Development's Inquiry into Animal Welfare Policy in New South Wales. We emphasised that the current regulatory regime governed by the Animal Welfare Act 1985, in concert with the Australian code for the care and use of animals for scientific purposes 2013, provides a strong framework to ensure that animal welfare is at the forefront of our considerations. UNSW has two Animal Care & Ethics Committees (ACECs) considering each proposal regarding the use of higher-order invertebrate and vertebrate animals for its scientific merit, justification and how the 3Rs are addressed. All animal research is closely monitored by the ACECs and our Animal Welfare Officers, and researchers are held accountable to adhere to the research protocol approved by the committees. We report on animal usage and welfare efforts and concerns annually to the New South Wales Animal Research Review Committee (ARRP) and other States and Territories where our research takes place and undergo the prescribed four-yearly independent reviews by external parties or the New South Wales Department of Primary Industries, with follow-up actions on any items found to require rectification. In summary, we argue that the current regulatory regime regarding the use of animals in medical and other research works well.

***f. overseas developments regarding the regulation and use of animals in medical research; and***

Research is an international effort, with most if not all our researchers collaborating with colleagues overseas and presenting their findings in international settings and journals. We also receive significant funding from international sources such as the US and EU governments and charitable organisations such as the Bill and Melinda Gates Foundation. Since most medical journals now seek confirmation that animal research has been approved by and conducted according to the conditions of an animal review body and methodologies are published to allow repeatability this leads to an international consideration of standards. Our ACECs are supported by experienced Animal Welfare Officers with veterinary backgrounds who keep track of current advances in animal research here and overseas with strong contacts with organisations such as the Council for International Organisations of Medical Sciences (CIOMS) linked to the World Health Organisation (WHO) and the International Council for Laboratory Animal Sciences (ICLAS) and feed-back their experiences to the ACECs and researchers as well as regulators.

***g. any other related matters.***

There are some specific matters that should be considered by the review panel for potential improvement towards medical research involving the use of animals in New South Wales and beyond. These include (1) realisation that the regulation of animal welfare in research is regulated at a State and Territory level albeit with the Australian code used as overarching framework. Consideration should be given to steer a discussion at the national level towards the regulation of animals used in research, equivalent to the oversight of gene technology research by the Commonwealth Office of the Gene Technology Regulator, (2) equivocal recognition across research universities that annual reporting of animal usage in research and teaching is inconsistent amongst States and Territories and that the aims to introduce transparency about the nature of research involving animals we conduct is not necessarily helpful for the public and be focused towards the expectations of the public rather than reporting per se, and (3) the need to further increase the development of international standards in the regulation of animals used in research to achieve best practice across the international research environment. (4) would be the recognition that we need to evaluate in an international effort how the repeatability of research and relevance of animal models to human health are applicable and how we can fund, from a New South Wales perspective, such research to remain to be leaders in the international scientific community.

Yours sincerely,

Professor Sven Rogge  
Pro Vice-Chancellor (Research)