

Submission  
No 217

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

**Organisation:** The University of Sydney

**Date Received:** 31 March 2022

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**Duncan Ivison**

Deputy Vice-Chancellor (Research)

31 March 2022

The Hon. Greg Donnelly MLC  
Chair, Portfolio Committee No. 2 - Health  
Parliament of NSW  
Macquarie Street, Sydney

By email: [portfoliocommittee2@parliament.nsw.gov.au](mailto:portfoliocommittee2@parliament.nsw.gov.au)

Dear Mr Donnelly,

**Inquiry into the use of primates and other animals in medical research in New South Wales**

Thank you for the opportunity to make the attached submission to the NSW Legislative Council inquiry into the use of primates and other animals in medical research in New South Wales.

I thank the Portfolio Committee No. 2 - Health for the opportunity to comment on the invaluable contribution that research involving animals has made, and continues to make, to developments to improve human health and treat disease, and the adequacy of the current framework governing animal research.

Yours sincerely,

**Professor Duncan Ivison**

Deputy Vice-Chancellor (Research)

**Attachment**

**A:** The University of Sydney submission to the NSW Legislative Council inquiry into the use of primates and other animals in medical research in New South Wales, March 2022

## Attachment A

### The University of Sydney submission to the NSW Legislative Council inquiry into the use of primates and other animals in medical research in New South Wales, March 2022

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**ToR(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.**

#### The purpose of animals in medical research

Medical research involving animals has historically played a critical role in medical breakthroughs and continues to underpin developments to improve human health, lifespan and to treat disease. Animal research has been, and continues to be, critical to understanding how biological systems function at a cellular and subcellular level as this cannot be studied in humans. Both the Therapeutic Goods Association (TGA) and United States Food and Drug Administration (FDA) also require pre-clinical testing of therapeutic goods involving animals to ensure their safety and efficacy before conducting clinical trials on human patients.

The most recent example of the value of medical research involving animals is the contribution to our understanding of the progression of COVID-19 and the development of COVID-19 mRNA vaccines<sup>1</sup>, including the Comirnaty (Pfizer) and Spikevax (Moderna) vaccines used in Australia. The development of these vaccines was made possible by previous mRNA vaccine<sup>2</sup> research involving animals, and the genetic modification of mice to make them susceptible to COVID-19 for testing of potential vaccine candidates. Syrian hamsters, ferrets and non-human primates all helped to explore important aspects of COVID-19 such as disease transmission and progression,<sup>3</sup> and the Pfizer<sup>4</sup> and Moderna vaccines<sup>5</sup> were tested on non-human primates (rhesus macaques).

The following interactive map by the European Animal Research Association illustrates how research involving animals contributed to COVID-19 research:  
<https://public.flourish.studio/visualisation/1698667/>

#### Other examples of impactful medical research involving animals at the University of Sydney

Medical research involving animals continues to be impactful with the following examples of recent breakthroughs at the University of Sydney:

##### **Development of a bionic eye**

Professor of Biomedical Engineering, [Professor Gregg Suaning](#), has developed a bionic eye (the Phoenix<sup>99</sup> Bionic Eye) that has the potential to help restore vision in people living with profound vision loss due to degenerative retinal diseases.<sup>6</sup> The researchers used a sheep model to observe how the body responds to and heals when implanted with the device and proved the bionic eye to be safe and stable for long-term implantation. The researchers are now applying for approval to perform clinical trials in human patients.

##### **Treatment of opioid-use disorder**

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<sup>1</sup> <https://www.niaid.nih.gov/news-events/role-animal-research-mrna-covid-19-vaccine-development>

<sup>2</sup> Pardi, N. *et al.* (2018). mRNA vaccines – a new era in vaccinology. *Nature Reviews Drug Discovery*, 17, 261-279. <https://doi.org/10.1038/nrd.2017.243>

<sup>3</sup> Muñoz-Fontela, C. *et al.* (2020). Animal models for COVID-19. *Nature*, 586, 509-515. <https://doi.org/10.1038/s41586-020-2787-6>

<sup>4</sup> <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-data-preclinical-studies-mrna>

<sup>5</sup> Corbett, K. S. *et al.* (2020). Evaluation of the mRNA-1273 Vaccine against SARS-CoV-2 in Nonhuman Primates. *The New England Journal of Medicine*, 383(16), 1544-1555. <https://doi.org/10.1056/NEJMoa2024671>

<sup>6</sup> Eggenberger, S. C. *et al.* (2021). Implantation and long-term assessment of the stability and biocompatibility of a novel 98 channel suprachoroidal visual prosthesis in sheep. *Biomaterials*, 279, 121191. <https://doi.org/10.1016/j.biomaterials.2021.121191>

[Associate Professor Michael Bowen](#) of the Brain and Mind Centre and the Faculty of Science has found that a novel molecule, KNX100, has considerable potential to treat opioid addiction and other brain disorders. Rodent models used by Associate Professor Bowen have been critical to this breakthrough.<sup>7</sup> The first human clinical trial for KNX100 is scheduled to commence in early 2022.

#### ***Enhancing our understanding of nutrition***

Faculty of Science Senior Research Fellow, [Dr Samantha Solon-Biet](#), is currently using rodent models to research the influence of a mother's protein intake on a child's susceptibility to obesity. Prior to this, Dr Solon-Biet has used rodent models to discover nutritional interventions that can delay the development of age-related disease, improve health and reproduction, and increase healthy lifespans.<sup>8</sup>

#### ***Development of a highly sensitive radar to monitor vital signs***

Director of the University of Sydney Nano Institute, [Professor Benjamin Eggleton](#), has developed a highly sensitive 'advanced photonic radar' that can be used to monitor millimetre changes in human movement.<sup>9</sup> The technology has the potential to be used to monitor people's vital signs, such as breathing, in the case of burn victims with sensitive skin and in babies. The researchers plan to test their system on cane toads and ultimately human participants.

### **ToR(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.**

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 can be provided by funding bodies, with additional funding sometimes sourced from philanthropic agencies and industry providers. However, the University notes that the costs associated with animal research are substantial, and include housing, food, and animal welfare, care and husbandry. Research grants often do not cover the full cost of research involving animals, and universities and research institutions are required to subsidise the cost. Given the value that this research provides (ToR(a)), the University considers that insufficient funding is being provided to animal research.

The University also encourages its researchers to use alternatives to animals where possible and where it would not compromise the validity of the research or potential value of the research outcomes. As will be discussed below in our response to ToR(c), we believe that funding bodies should make grants available specifically to encourage research into the development of alternatives to animal research.

### **Potential closure of the Animal Resource Centre, Western Australia (WA)**

There is an unfortunate failure to understand the importance of animal research to human health, both in the community and in the political arena, and the inherent costs associated with this activity in order to facilitate high quality research that serves the public wellbeing. As a recent example of this failure, in mid-2021, the WA Government endorsed the decision to close the Animal Resources Centre (ARC WA) in Perth. This laboratory animal production facility has been providing high calibre research mice and rats to the research community across Australia for more than 30 years. The financial viability of the facility had come under question by Treasury and as the underwriter of this facility, the WA Government decided this was not sustainable. This decision was reached without consultation with key stakeholders or clients of the ARC WA, nor with a full understanding of the impact of this decision. Once advised, the ARC WA's clients across Australia mobilised to inform the WA Government of these consequences. Research, including animal research, is a long-term process, so the short notice of production cessation could have had grave results on critical time sensitive research activities across the nation. Importantly, it would have resulted in cessation of the pre-clinical studies

<sup>7</sup> Patent Cooperation Treaty Patent Application PCT/AU2020/050941 (Published 2021): <https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2021042178>

<sup>8</sup> Solon-Biet, S. M. *et al.* (2015). Macronutrient balance, reproductive function, and lifespan in aging mice. *Proceedings of the National Academy of Sciences*, 112(11), 3481-3486. <https://doi.org/10.1073/pnas.1422041112>

<sup>9</sup> Liu, Y. *et al.* (2022). 11-GHz-Bandwidth Photonic Radar using MHz Electronics. *Laser & Photonics Reviews*, 2100549. <https://doi.org/10.1002/lpor.202100549>

needed for vaccine development in the midst of a COVID pandemic.

The WA Government reconsidered, and while it still wishes to divest itself of the facility, it also recognises that this decision would constitute a very serious threat to public health for COVID-19 and many other important research projects directed at improving human health. A process has begun to enable transfer of ownership of the ARC WA to another organisation or consortium and there has also been a concerted push to seek national funding through the Federal Government's National Research Infrastructure to support this and other essential animal research supply facilities into the future. Governments need to recognise that the value of animal research far outweighs the need for financial profit. The 'profit' comes in improved human health and wellbeing.

### **ToR(c) - the availability, effectiveness and funding for alternative approaches to animal research methods and technologies, and the ability of researchers to meet the 3Rs of Replacement, Reduction and Refinement.**

As mentioned above, the University supports the use of alternatives to animals where possible, however, we are concerned that no government funding is currently being provided for 3Rs research in Australia. Such research is required for researchers to meet the 3Rs more fully and to develop alternative research methods and technologies that will enable the transition away from animals in medical research. Animal research has provided the understanding of biological systems that has already seen many viable alternatives<sup>10</sup> developed that are now in regular use. Unfortunately, currently alternatives like cell cultures and 3D modelling cannot fully replace animal research as there is still a need in some areas to gauge the effects of the research in a complex organism to then improve human and animal health and wellbeing.

#### **Examples of government-funded initiatives to meet the 3Rs in other countries**

The following are examples of government-funded initiatives to meet the 3Rs in other countries:

<b>Country</b>	<b>Initiatives</b>
UK	The <a href="#">National Centre for the Replacement Refinement &amp; Reduction of Animals in Research</a> (NC3Rs), funded by UK Research and Innovation (UKRI), was established in 2004 to work with the research community to replace, refine and reduce animals used in scientific research. The NC3Rs awards several prizes, project grants and PhD scholarships for 3Rs research annually. The best known of these is the <a href="#">International 3Rs prize</a> for a paper that describes outstanding and original work that has, or could have, major impacts on the replacement, reduction and refinement of animals in research. The NC3Rs has also partnered with industry to offer <a href="#">CRACK IT Challenges</a> , where up to £3.9 million in funding is available to support projects aimed at solving specific 3R challenges.
Switzerland	The <a href="#">Swiss 3R Competence Centre</a> (3RCC), funded by Switzerland's State Secretariat for Research, Education and Innovation (SERI), provides grants for research into the development and refinement of 3R methods and their implementation.
Norway	<a href="#">Norecopa</a> , which receives funding from Norway's Ministry of Agriculture and Food and Ministry of Trade, Industry and Fisheries, is a platform offering information on the 3Rs and provides an inventory of alternatives to the use of animals.
New Zealand	The New Zealand Ministry of Primary Industries' <a href="#">Sustainable Food &amp; Fibre Futures</a> (SFF Futures) program provides funding for research involving the 3Rs.

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<sup>10</sup> NC3Rs alternatives: <https://www.nc3rs.org.uk/3rs-resources/search?topic%5B0%5D=504>

While the current expenditure of other countries on 3Rs research is unknown, a 2008 review of national public funding programs in 16 European countries estimated the total annual expenditure on 3Rs research to be €17 million.<sup>11</sup> In 2017, the UK NC3Rs also reported that they had awarded £5 million in 3Rs research grants.<sup>12</sup>

### Current initiatives for 3Rs research available to Australian researchers

Compared to other countries, there is a paucity of funding for 3Rs research, including research into alternative research methods and technologies that is needed to transition away from the use of animals where possible.

Australian researchers are able to apply for the UK NC3Rs [International 3R prize](#) or may be listed as collaborators on NC3Rs Project Grants. However, there are currently no 3Rs initiatives that are funded by the Australian Government.

The lack of government funding means that universities are instead required to proffer funds for 3Rs research. The University of New South Wales has made available \$250,000 for its [3Rs Grant Scheme](#) to support science-based projects with the goal of replacing, reducing or refining the use of animals in biomedical research. The University of Sydney also offers a \$4,000 3Rs Award to recognise original work contributing towards the replacement, reduction or refinement of the use of animals in research and teaching. Although additional government funding is required to support Australian researchers in meeting the 3Rs, there have still been many successful discoveries supporting the 3Rs, for example, through advances in imaging technology reducing the number of animals required and 3D modelling and computer simulation to replace animals in research and teaching.

The 3Rs award at our University has encouraged the following advancements:

- 2020: Development of a computer simulated animal-based neuropharmacology experiment, which replaced the use of mice in a 3rd-year neuropharmacology practical at the University.
- 2019: Development of a novel pre-clinical model for testing brain cancer therapies grown from human embryonic stem cells, to replace the use of mouse models.
- 2018: Introduction of a new method for delivering 2nd-year pharmacy practical classes using abattoir-sourced bovine trachea, significantly reducing the number of animals required for teaching these classes at the University.
- 2017: Development of a computer simulation of host-diet-microbiota interactions, which can be used to simulate large experiments that would otherwise require thousands of mice.
- 2016: Development of a functional 3D-bioprinted liver model that mimics the in vivo environment for screening of nanoparticles and drug toxicity testing.
- 2015: Improvement of methods for identifying the microRNA content of cerebral malaria microparticles, which substantially reduces the number of experimental mice required for these studies.
- 2014: Development of an in vitro airway epithelium model for testing drug delivery to the lungs.
- 2013: Development of a synthetic model of a canine abdominal tissue, to assist in surgery training of veterinary students.

### Funding opportunities

Given the above, the NSW Government could consider providing funding for 3Rs research and training by establishing a body similar to the UK NC3Rs or through an established body such as the National Health and Medical Research Council (NHMRC), Australian Research Council (ARC) or the [Australian and New Zealand Council for the Care of Animals in Research and Teaching](#) (ANZCCART)<sup>13</sup> which has a vision to be the leading source of information and advice concerning the ethical and scientific use of animals in research and teaching.<sup>14</sup> For example, the New Zealand branch of ANZCCART currently offers the [Aotearoa New Zealand John Schofield 3Rs implementation award](#) and various other awards and prizes.

<sup>11</sup> Devolder, T. *et al.* (2008). A review of national public funding programmes in European countries. *ALTEX*, 25(3), 233-242. <https://doi.org/10.14573/altex.2008.3.233>

<sup>12</sup> UK NC3Rs Annual Report 2017: <https://nc3rs.org.uk/sites/default/files/2021-09/NC3Rs%20Annual%20Report%202017.pdf>

<sup>13</sup> The ARC currently contributes funds toward the operation of ANZCCART.

<sup>14</sup> <https://anzccart.adelaide.edu.au/about-anzccart/mission-statement>

### Other opportunities for 3Rs implementation

Another opportunity for improvement not mentioned above is the possibility of the NHMRC and ARC incorporating consideration of the 3Rs as part of the application process for National Competitive Grants Program funding. The NHMRC and ARC could also consider including the assessment of whether the proposed research has adequately considered the 3Rs as part of its peer review process.

### ToR(d) - the ethical and animal welfare issues surrounding the importing, breeding and use of animals in medical research;

All parties working with animals in research and teaching in Australia are required to comply with the [Australian code for the care and use of animals for scientific purposes](#) (the Code). The Code provides an ethical framework for animal research and teaching, balancing the potential effects on the wellbeing of the animals with the potential benefits to humans, animals and/or the environment. The Code also sets out the responsibilities of those involved in the care and use of animals for scientific purposes, including that of institutions, researchers, animal carers and animal ethics committees (AECs).

In accordance with the Code, all research involving animals must be approved by an AEC. The composition of an AEC is defined by the Code, and requires at least four people, one from each of the four categories of membership, with at least one-third of the members present being category C and D members:

Category	Description
Category A: Veterinarian	A person with qualifications in veterinary science that are recognised for registration as a veterinary surgeon in Australia, and with experience relevant to the institution's activities or the ability to acquire relevant knowledge.
Category B: Investigator	A suitably qualified person with substantial and recent experience in the use of animals for scientific purposes relevant to the institution and the business of the AEC. This must include possession of a higher degree in research or equivalent experience. If the business of the AEC relates to the use of animals for teaching only, a teacher with substantial and recent experience may be appointed.
Category C: Animal Welfare Member	A person with demonstrable commitment to, and established experience in, furthering the welfare of animals, who is not employed by or otherwise associated with the institution, and who is not currently involved in the care and use of animals for scientific purposes. Veterinarians with specific animal welfare interest and experience may meet the requirements of this category. While not representing an animal welfare organisation, the person should, where possible, be selected on the basis of active membership of, and endorsement by, such an organisation.
Category D: Independent Member	A person not employed by or otherwise associated with the institution and who has never been involved in the use of animals in scientific or teaching activities, either in their employment or beyond their undergraduate education. Category D members should be viewed by the wider community as bringing a completely independent view to the AEC, and must not fit the requirements of any other category.

AECs review every aspect of a proposed research project including the transportation, breeding and use of the animals in research and teaching. During the review, the AEC considers each application without bias towards one species over another but also ensures it is the appropriate species for the research being performed. Irrespective of their species, every animal is considered so that their welfare is a primary concern and that their care and wellbeing is at the



required standard to address all aspects of the Code, legislation and associated guides. When applying for ethical approval, researchers are also required to address the 3Rs (Replacement, Reduction, Refinement) as part of the application process.

In addition, AECs and animal welfare veterinarians inspect animal holding facilities throughout the year and all researchers working with animals are required to submit annual reports outlining, for example, the number of animals involved in the research; what the outcome of the research is to date; what steps were taken to implement the 3Rs; and what steps will be taken in future projects. The inspections and the reporting to the AEC ensures transparency and holds the researcher accountable.

Researchers also need to comply with relevant Australian state and territory legislation. In NSW, this is the [Animal Research Act 1985](#) and the [Animal Research Regulation 2021](#).

The [NHMRC's Animal Welfare Committee](#) advises on the care and use of animals in biomedical research and provides national leadership on the ethical, humane and responsible care and use of animals for scientific purposes through provision of guidance in [the Code](#). The NHMRC provides additional resources to help people ensure that animal research and teaching is ethical and humane, complies with all relevant legislations and the Code, and meets the highest possible standards. Some examples of these resources are below:

- [Use of animals for testing of cosmetics](#)
- [Ensuring quality in animal studies](#)
- [Australian native mammals](#)
- [Non-human primates](#)
- [Genetically modified and cloned animals for scientific purposes](#)
- [The 3Rs](#)
- [Use of animals in NHMRC funded research](#)

In addition, the transport of live animals by air is governed by the International Air Transport Association (IATA). However, not all animals are transported live – animal tissue is also transported and shared between collaborating organisations where possible, reducing welfare implications of live transport and the overall number of animals used in research through tissue sharing.

### **ToR(e) - the adequacy of the current regulatory regime regarding the use of animals in medical research, particularly in relation to transparency and accountability.**

The University considers the current regulatory regime (summarised above in ToR(c)) to be adequate, however, we recognise that further work can be done in relation to transparency and accountability as described below.

#### **Openness agreements**

The New Zealand branch of ANZCCART has published an [Openness Agreement on Animal Research and Teaching in New Zealand](#) that sets out the commitment of the signatories to communicate clearly to, and proactively engage with, the public regarding the use of animals in research and teaching. Similar openness agreements exist in [other countries](#) including the UK, Spain, Portugal, Belgium, France, Germany and the Netherlands.

Earlier this year, a [draft Australian Openness Agreement on Animal Research](#) was released for public consultation. As with similar agreements in other countries, the Australian Openness Agreement will be a voluntary pledge in which signatory institutions commit to greater transparency and public understanding of animal research.

Australia and New Zealand are unique in their Openness Agreement as all other countries hold their Openness/Transparency Agreement for biomedical research only. In Australia and New Zealand, the definition of 'animal research' covers a broader range of activities, for example, animal research may be observational or non-invasive studies in wildlife conservation or veterinary care and agricultural research and teaching activities aimed at improving animal welfare. These research and teaching activities are all required to undergo the same scrutiny as animal research designed to improve human health or investigate fundamental biological processes.



## Reporting of animal usage statistics

The University considers that the current method for reporting animal usage statistics requires revision and would advocate for a federally unified system of reporting that differentiates between the use of animals for different purposes/areas of research and teaching. There are also interpretative differences between the states and territories that make the administrative process challenging, and more importantly, fail to provide a consistent picture of animal research and teaching across Australia. For example:

- South Australia does not request animal statistics; NSW does not require mandatory reporting for cephalopods, while Victoria is the only state that includes decapod crustaceans.
- NSW requires mandatory reporting on the fate of domestic cats/dogs (including pets involved in research and teaching); Victoria includes voluntary reporting on the fate of all animals and several reports require data on the source of animals.

Currently, universities and other research institutions are required to report their animal usage statistics to each Australian state and territory in which they conduct animal research and teaching. In NSW, the Department of Primary Industries' Animal Research Review Panel (ARRP) publishes [annual reports on animal use statistics](#) – fulfilling the need for transparency – however, the report fails to adequately differentiate between animals used in medical research and animals used for other purposes, such as observational research involving wildlife and research involving livestock for the purposes of animal welfare, management or production. This has led to overinflated animal usage numbers and the potential for misinterpretation.<sup>15</sup>

Differences between the UK and Australian methods of counting animal usage are as follows:

### UK

Only animals that are involved in biomedical research are counted.

#### Within medical research:

Only animals that may feel pain, suffering, distress or lasting harm are counted.

If animals are humanely killed with no procedure performed (e.g. tissue collection or excess breeding stock), then animals are not counted.

If a study runs from November 2020 to January 2021, the animals used are counted once in 2021.

### Australia

All animals involved in any form of research or teaching are counted, e.g., 10,000 bats flying past an observational camera; or 60,000 chickens being monitored on a commercial farm.

#### Within medical research:

All animals involved in any form of research or teaching are counted.

If animals are humanely killed with no procedure performed (e.g. tissue collection or excess breeding stock), then animals are counted.

If a study runs from November 2020 to January 2021, the animals used are counted twice - in 2020 and 2021.

The US does not include any rodents in their animal usage statistics.

The University would advocate for a reporting system that differentiates between the use of animals for different purposes and is specific to animal usage in biomedical research only as in other countries. This would provide greater clarity and enable more effective and accurate benchmarking of Australian performance in animal research against other countries.

## ToR(f) - overseas developments regarding the regulation and use of animals in medical research.

<sup>15</sup> <https://www.humanerresearch.org.au/statistics-2018-animal-use-in-research-and-teaching-australia/>

### The organisation of legislation on animal research

Australia currently lacks federal legislation that is specific to animals in research and teaching. Rather, each state and territory has its own legislation governing animal welfare more broadly. Internationally, however, there is a tendency for countries to have a specific act governing the use of animals in research. For example, the [Animals \(Scientific Procedures\) Act 1986](#) in the UK and [Directive 86/609/EEC](#) in the European Union each set out the provisions for the protection of animals used for experimental or other scientific purposes. The University would encourage the adoption of a separate Act governing animals in research and teaching, as the care and use of animals in research is highly specific.

The University would also encourage a shift from state- and territory-based legislation to federal legislation, as the current approach has resulted in discrepancies in the requirements and therefore additional administrative burden. For example, an individual permit is required should a University of Sydney researcher wish to carry out research involving animals in the Northern Territory, however, different notification forms must be submitted should a researcher wish to carry out research in Victoria, Tasmania and Western Australia. The administrative burden this creates detracts from time and resources that could be spent on supporting the research community with the 3Rs and animal welfare.

### Recent attempts to ban animals in medical research

The University notes that recent attempts to ban animals in medical research have been met with firm opposition. In February 2022, 80 per cent of Swiss citizens voted 'no' in response to an initiative attempting to ban all experimentation on animals. Voters recognised the impact that a ban on animal research and testing would have on medical and scientific research in Switzerland, and ultimately human health.<sup>16</sup>

In 2021, the European Union Commission also rejected calls by members of the European Parliament for a faster phase-out of scientific research involving animals.<sup>17</sup> The Commission recognised that the transition to using alternatives to animals in research is a common goal in the current legislative framework for the protection of animals used for scientific purposes (EU Directive 2010/63/EU). However, the Commission emphasised that continuing research into scientifically valid alternative methods to replace the use of animals is needed, and outlined its initiatives for doing so.

### ToR(g) - any other related matters.

The University wishes to reiterate the key points raised in the previous sections of this submission, namely that:

- research involving animals continues to play a critical role in developments to improve human health and treat disease (ToR(a));
- the University supports the use of alternatives to animal research where possible, however, further government support is needed for 3Rs research (ToR(c));
- the current method of reporting animal usage statistics requires revision (ToR(e)); and
- federal legislation that is specific to animals in research and teaching is required (ToR(f)).

### Training and a culture of care

Another deliberation the Committee could consider, which falls under a culture of care<sup>18</sup> for animals in medical research, is the training of the animal technicians who care specifically for the animals involved in research and teaching. Animal technicians embark on this career as they have a love for animals, concern for their wellbeing and a commitment to supporting animal welfare while also producing robust scientific quality and outcomes. It is well known that if an animal's husbandry and wellbeing requirements are not being met then this can affect the outcomes of the science.<sup>19</sup> However, although there is a national qualification, [ACM50117 - Diploma of Animal Technology](#), this qualification is not offered at any TAFE in NSW. This course

<sup>16</sup> <https://www.swissinfo.ch/eng/swiss-voters-reject-animal-testing-ban/47343764>

<sup>17</sup> [https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2021/2784\(RSP\)&l=en](https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2021/2784(RSP)&l=en)

<sup>18</sup> <https://norecopa.no/more-resources/culture-of-care>

<sup>19</sup> First highlighted by Trevor Poole in 1997 and the evidence base for this relationship has been steadily growing. Poole, T. Happy animals make good science. *Lab. Anim.* **31**, 116–124 (1997)

requires NSW Government support so it can be funded to be delivered, once again, in NSW.

The other shortfall that the University has commenced addressing is the number of veterinarians with highly skilled knowledge and understanding of animal research. To rectify this and draw more qualified veterinarians to the sector, the University has implemented an internship program for veterinarians, which includes additional training from the University of Edinburgh, and is also currently developing a work placement initiative for our students studying Doctor of Veterinary Medicine (DVM).

**Title of this inquiry – use of primates and other animals**

During the review of this inquiry, members of the University community had concerns regarding its title and the speciesism it raises. All animals that fall under the definition of an animal within the Code and the NSW Animal Research Act are given equal consideration for their wellbeing, environmental enrichment and care, whether it is a fish or a non-human primate. There are also specific guidelines that focus on the housing and care of all animals involved in research and teaching, as listed in ToR(d), which the AECs follow when making decisions on approving research and teaching applications. The NSW Government may consider working with the NHMRC to synthesise these guides into one clear-to-follow document like the UK's [Code of practice for the housing and care of animals bred, supplied or used for scientific purposes](#).