

**Submission
No 278**

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

Name: Ms Janice Haviland and Mr Martin Derby

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Submission- Animal Experimentation – use of primates and other animals in research

There is a Parliamentary Inquiry into medical experimentation on animals. Millions of animals including primates, cats, dogs, pigs, sheep, mice, guinea pigs, rabbits, hamsters, ferrets, birds, fish, reptiles, and native animals are still being bred and used for cruel research and experimentation NSW, which has the largest quota of research animals across all states in Australia.

Medical experimentation using animals is totally unnecessary and cruel and is well overdue for debate and discussion. I do not want MY taxes funding cruel animal experiments.

I am strongly opposed to use any animal in exploitive medical research because of the inherent cruelty and suffering involved. My reasons are-

1. Medical experimentation is one of the most hidden animal-use industries. Animal experimentation remains a multi-billion-dollar global industry, yet it is *hidden behind a veil of secrecy to avoid public scrutiny*. There is **no transparency** to the public by these medical companies as to how many animals are kept on site, for how long, the different species of animals (rabbits, primates, companion animals, mice, guinea pigs etc) and what becomes of the animals in the end of their tortuous ordeal. According to the latest figures from the NSW Department of Primary Industries, **194 dogs and 15 cats were used in testing for biological products including hormones and drugs in 2017, with a further 134 dogs and 87 cats** used to test products to meet requirements for bodies like the Australian Pesticides and Veterinary Medicines Authority. These figures are already over 4 years old. This is an industry that has incomplete data at best that is not even current. HRA (Humane Research Australia) CEO Rachel Smith questions: 'Animal research in Australia is approved on a 'cost-benefit' assessment. We are assured that there is stringent regulation ensuring the highest standards. However, such statements are meaningless without genuine transparency, which begs the question, what is being hidden, and why?'

2. Because it is hidden there is **no accountability** to the public as to what is happening in these research facilities. This means that uncontrolled, mismanaged, cruel experiments on voiceless animals behind closed doors exist because there is no oversight by any regulatory authority. The Federal Government also maintains no national data on the use of animals in medical experiments, and even at state and territory level reporting on animal experimentation is extremely inconsistent, with some states and territories not even collecting data at all. This makes it incredibly difficult for both the public and organisations working to end animal testing to know the truth about what is really going on behind closed doors. If animals are being treated humanely these research facilities and universities have nothing to hide. So why is there so much secrecy? If animals must endure this pain and suffering shouldn't there be records as to what experiments are taking place and why and the numbers and species of animals involved. The result for most animals after a life of pain and suffering is death, either through the experimentation process or being euthanised. Records for the rehoming of animals that survive experimentation appear to be sketchy at best. Instead, the killing of animals at the end of experiments after they have fulfilled their purpose, appears to be the norm. Records for each animal from start to finish of their life must be kept and be available to the public. **This industry MUST have a complete overhaul and be made accountable to the public as it is funded through our tax- payer money.**

Every industry must have accountability through regulations, governance, and compliance standards to meet. Often industries are audited to meet these standards by government officials- for example 'spot checks' by compliance officers in child- care. No outside independent governance or proper regulation exists in medical research. **Independent regulation of this industry is recommended to protect animals used in research. If medical research is to continue it must have the benchmarks of compliance, transparency and accountability established.** Compliance codes of practice to minimise animal suffering and cruelty is essential, and if humane alternatives can be used instead of animals these methods must be sought in the first instance. Otherwise with no accountability, transparency and regulation, this industry will continue unchecked in their abuse and cruelty of animals. **This industry must be reformed now. If this industry continues to operate with complete autonomy and in secret, animal experimentation and research MUST cease.**

3. **Community expectations** on animal welfare standards have changed over the years. We now question the inherent cruelty of factory farmed animals, animals involved in the live export trade, dairy farm cows and calves, racehorse, and greyhound industry to name a few. The ACT have established laws that recognise all animals are **sentient beings**. They feel pain, fear, suffering, cruelty, and abuse as well as positive emotions. Animals used in

experimentation live tortuous lives, and they have no protections in place to ensure basic animal welfare standards, rights and freedoms are adhered to such as freedom from hunger and thirst, freedom from discomfort, freedom from pain, injury, and disease, freedom to express normal behaviour and freedom from fear and distress. *On all counts animals used in medical research are **denied the five basic freedoms** throughout their lives.*

They are kept in small cages, inside with no opportunities to be outside and experience normal behaviours for their species. They are denied companionship, friendship and love from caring humans or other animals of their species. They suffer alone and in silence with pain, fear and discomfort awaiting the next time they will be used and abused in medical research. Imagine their life during the experimentation process and when they are continually returned to their cage to await the next time they will be hurt.

4. Using tax- payer money to fund cruel animal experiments is appalling. We have no say and our money funds animals to be put through unnecessary tests to suffer all in the name of 'research'. Medical experimentation is simply hidden animal cruelty and abuse! Despite the use of public funds, there is no information from the NSW Government how **much** taxpayer money is being given to this industry or **what** sort of experiments are being funded. ***The secretive nature of animal experimentation and the lack of public information available heightens suspicions from the community about this industry.*** Medical research is funded by taxpayers through the National Health and Medical Research Council. Even though many in the community consider this to be a huge waste of public resources, our NSW government continues to support and endorse these experiments going ahead. **The taxpayer must be given a say on this issue.**

In NSW animal research is jointly overseen by both the Minister for Health and the Minister for Agriculture. According to the Animal Research Act 1985 animals here in NSW may be used for:

- *Experimental research*
- *Surgical, medical, psychological, biological, chemical, or physical treatment*
- *Abnormal husbandry or dietary conditions*
- *Collection of blood, tissue, or other body samples*
- *Teaching*
- *Diagnosis*
- *Product testing*
- *Production of biological products*
- *Feeding trials*
- *Field surveys*

Safety product testing is a large driver of animal experimentation - one of the most horrific forms of animal research as the experiments often involve poisoning and later death. Here in Australia the human safety of medicines, agricultural chemicals, and various other chemical products, is assessed by testing the products on animals and this legislation needs to change.

5. This industry must source other methods to test products or conduct experiments not using animals. The use of **animal testing** in the beauty and cosmetic industry is widespread. There has been strong public support to ban cosmetic testing on animals. **Cosmetic testing on animals is banned in Australia.** The EU and other countries have introduced a ban on using data from tests on animals **for determining the risks of new cosmetic ingredients.** While the Australian Federal Government passed legislation banning the use of animals for cosmetic testing (which came into effect on July 1, 2020) there is a *significant loophole in this legislation*: only chemicals intended for use in cosmetics will be affected, with chemicals in household cleaning products which are found in many cosmetics not being impacted by the new legislation. This means they can still be tested on animals. ***This loophole must be closed to ensure that no new ingredients that are used in cosmetic products can be tested on animals.***

There are already more than 20,000 chemical ingredients already considered safe and available to producers of cosmetics products, so there's no excuse for any more animals to suffer in the beauty and cosmetics industry. *It is almost as if cruel animal experimentation continues despite it being often unnecessary in the cosmetic industry, to support medical research and jobs in universities and research facilities, which are funded by the NSW government using our taxpayer money.*

According to RSPCA Australia, 85% oppose the testing of cosmetics on animals. However, many of the cosmetic products used by Australians have been tested on animals overseas. Experiments on animals to test cosmetics or household products is cruel and outdated.

6. The different types of testing and experimentation often causes acute animal suffering, pain, and distress. Most animal research and experimentation can be replaced with alternative ethical practices that do not use animals. Reviewing the different types of tests highlights the cruelty of this industry, and why these tests are unnecessary when results do not always translate as reliable data to relate to humans. The hidden, dark truth behind medical research is reflected in the different types of cruel animal experimentation which innocent animals must endure in the name of 'science'.

-Acute Toxicity Testing- Animals in the highest-dose groups often endure **severe abdominal pain, diarrhea, convulsions, seizures, paralysis, or bleeding from the nose, mouth, or genitals** before they ultimately die or are killed. In pointless and painful product tests animals are left to languish for days without pain relief. This tells us nothing about toxicity to humans and violates the 'refinement' principle of the 3 R's.

- Animals are also commonly used in medical research, despite most drugs tested 'successfully' on animals, failing when they are tested on humans. Testing on species who differ from humans in their metabolism of toxins, absorption of chemicals, mechanisms of DNA repair and lifespan has a profound effect on the efficacy of drugs - a key example of this being the horrific consequences of 'successful' thalidomide testing on rats in the 1960s which proved an utter failure, when taken by women which led to severe birth defects in thousands of children. Humans and animals are very different, so outdated animal experiments often produce results that cannot accurately predict human responses. PETA (People for the Ethical Treatment of Animals) says that "Reports say that 92 out of every 100 drugs that pass the animal tests fails on humans." Feb 2017

- **Animals are deliberately sickened with toxic chemicals or infected with diseases, live in barren cages, and are typically killed when the experiment ends. The harmful use of animals in experiments is not only cruel but also often ineffective.** Animals do not get many of the human diseases that people do, such as major types of heart disease, many types of cancer, HIV, Parkinson's disease, or schizophrenia. 92% of experimental drugs that are safe and effective in animals fail in human clinical trials because they are too dangerous or don't work. Using animals in research can be a waste of time, taxpayer money and a waste of an animal's life.

- Agricultural research is another key area of animal testing, with a strong focus given to increasing the productivity of animals used for food and food products. Often this research involves the study of animals kept in intensive housing systems, including battery hen cages, sow stalls and farrowing crates, to reduce the skill level needed to 'produce' the animals without compromising on productivity. Governments and animal industries focus on 'how far can we go to exploit animals cruelly to make the most profits with the lowest animal welfare standards in place.'

-Animals are exploited in physiological research and psychological research- *It is known that animals here in NSW have recently been forced to undergo studies into the effects of long-term starvation - most likely ending in death. What type of research is this proving?*

Animals also are experimented on using genetic engineering. Animals are used for a vast amount of research and procedures - all of which can be replaced with humane, non-animal methods.

7. The negatives of animal testing are inhumane treatment in animal experimentation, animal testing is costly and time-consuming and not very effective. There is a lack of applicability to humans as we are very different. "**Animal testing is a waste of money, time and resources that could have been spent on human relevant research,**" said PETA.

8. Negative consequences of animal testing are **soil contamination and runoff of animal waste and other debris related to drug and chemical testing may result in ground water contamination.** Animal waste containing drugs and chemicals that may have unknown toxicities due to their experimental nature exacerbates the growing problem of drugs in public water supplies, thereby affecting humans and also wildlife.

9. Few animals are adopted out as **most animals are euthanised.** This is usually because certain information, such as organ samples, can only be taken after the animal is euthanised and the body is subjected to further analysis.

Animals should be rehomed after experimentation. Especially cats and dogs – they should not be 'euthanised' when they could be adopted out. They need to be given a chance of a loving home after what they have endured and survived.

10. Unbelievable cruel acts of live dissections, experiments on primates like monkeys having their skulls drilled into and their brains inserted with electrodes to measure their attention spans. How is this justified? Yet the NSW government gives approvals because they are time poor to examine the submission applications. Wasted tax-payer money and a tormented life of pain and death for the primate. Results of these tests are useless as fundamentally our brains are different as well as our visual processing, so test results cannot be applied to humans anyway. The inherent cruelty of experiments such as near drowning and forced smoking where mice in experiments approved by the University of Newcastle are forced to inhale cigarette smoke whilst restrained in small inhalation chambers, is unethical, unnecessary, and unreliable. *Although modern alternative test methods exist, some companies continue to poison and harm animals in tests that aren't even required by law. Increased government regulation and monitoring of research facilities is needed to reduce testing levels and ban unlawful tests. **Self-regulation of this industry by research facilities and universities appears to have led to unnecessary cases for experimentation, to acquire government funding. Animals are being abused. This industry is out of control.***

11. Researchers must prove the potential benefits to humans outweigh the dreadful impact on the animals involved for an experiment to pass an 'ethics test.' The Australian Code for the Care and use of animals for scientific purposes poses significant judgements to be made by researchers. "A judgement as to whether a proposed use of animals is ethically acceptable... must balance whether the potential effects on the wellbeing of the animals involved is justified by the potential benefits." Are these questions being carefully considered by researchers involved in animal experimentation?

Despite this clear governing principle, it is questionable whether many invasive and lethal experiments have directly benefited human health. The NSW government relies on accurate information submitted by researchers to warrant such use of animals in experiments. ***Simply are these experiments using defenceless animals justified to inform research appropriately, that will benefit humans, at the expense of extreme animal suffering?***

The magnitude of the **information** submitted by researchers means NSW Department of Primary Industries is not able to verify everyone's **research** project submission. So many projects are being passed with minimal checking to verify whether the tests are even necessary. Stricter monitoring of tests and approval processes within the NSW Department of Primary Industries should and must be investigated. The public cannot assume that the NSW government are making the right decisions in these approvals- animal lives are at stake. Their accountability is also questionable here.

12. In February 2020, 3 baboons escaped from a truck while being transported from a primate breeding colony to the Royal Prince Alfred Hospital in Sydney. The ensuing media attention brought the previously hidden industry into the public limelight, raising the question as to just what research was being conducted in baboons.

The Australian Senate responded calling on the Federal Government to:

- (i) ensure national transparency and accountability in the use of animals in research, and
- (ii) invest in the methods and technology needed to end the use of animals for research purposes.

In NSW we must also have transparency and accountability and use alternative methods of research that do not include innocent animals. In NSW primate research continues under a shroud of secrecy. There is no national mandatory system for the collating and publishing of animal use in research statistics, and it is not clear just how many primates are being used. The National Health and Medical Research Council (NHMRC) are unable to confirm the number of baboons killed or caused harm or taken to the Royal Prince Alfred Hospital between March 2019 and March 2020.

Data from the Wallacia Primate Breeding Colony in NSW has been equally challenging to be disclosed. All papers on animal research in NSW must be released. HRA (Humane Research Australia) recently profiled HIV research conducted at the CSIRO facility. Through freedom of information requests, it was disclosed that 24 macaques were

killed in this research, with an additional macaque dying for an undisclosed reason. Much of the detail has not been released, which means no evaluation of animal welfare implications and research outcomes, despite the research receiving over \$1 million of public funding. HRA spokesperson Rachel Smith stated: *'It is not acceptable for 25 macaques to die and for the research institution involved to obstruct the release of documentation, arguing it is not in the public interest. The Australian public are concerned about the use of primates in research, and it is our money that is funding this research'. From my perspective, how dare CSIRO decide it is 'not in the public's interest'. It is in my interest, using my taxes and I want to know!*

In addition to these primate breeding facilities, Australia has imported many macaques from Indonesia for research purposes. Data obtained from CITES (Convention on the International Trade in Endangered Species – to which Australia is a signatory), has shown that between 2000-2015, Australia has imported: pig-tailed macaques and crab-eating macaques and under the International Union for Conservation of Nature (IUCN) they are a Red List of Threatened Species as vulnerable to extinction (from Indonesia). How hypocritical for Australia to be a signatory to CITES yet be part of the trade to import these threatened macaques for primate research in Australia and used in NSW.

Through unnecessary primate experimentation, we are contributing to the demise of certain species and fuelling a disgusting trade. We should ban the import of macaques as they are being captured and exploited for horrific experiments here in NSW as part of this sordid industry. Shocking brutality and inhumanity towards primates occur in their capture. *This is the reality of a global testing research industry that relies on information and video footage being kept in the dark away from the community.* **The NSW government have a moral responsibility to inform the community as to what is happening in this trade.** If primate research was ended in NSW this would help to shut this trade down and protect some macaques in Indonesia as well as send a clear message to other states and countries that it is wrong to capture these endangered animals and destroy their family groups as well as cruelly experiment on them for so-called 'medical research'. **I wholly support an end to the international trade in primates. There is NO justification for NSW to support this international trade through their experimentation on primates.** NSW researchers should not be using these animals in their study of human disease. *Replicating a disease in a species that is genetically different to our own and expecting to achieve accurate or indicative results in humans is wrong.*

NSW should lead the way and eliminate the use of primates in research, close the breeding facilities and stop importing more from Indonesia that is causing these species to become extinct in the wild.

13. It is important to note that the NSW Government states that the Act, along with the Animal Research Regulations, incorporate a system of "enforced self-regulation". Due to the inclusion of self-regulation these mechanisms fail to prevent suffering and cruelty to animals because there is no independent assessment, little transparency, and very little accountability within the industry practiced at universities and in research facilities (CSIRO).

The NSW government website refers to medical research and raises **difficult moral questions**. In a survey 64% of people do not believe humans have the moral right to test on animals (Animals Australia). Has animal experimentation benefited humans? There are three principles central to the humane conduct of animal research: the **replacement** of animals with other experimental techniques; the **reduction** of the number of animals used in experiments; and the **refinement** of procedures to minimise the impact of experiments on animals. These principles guide the continuing efforts to develop alternatives to animal experiments. The extent to which existing alternatives can replace animal experiments is a controversial question. **I believe that testing of animals is inhumane and there are alternatives. Regarding the 3 R's we must replace animals in medical research.** The reduction in the number of animals used in NSW medical research along with replacement needs to improve. There has **not** been a notable reduction in animals used in medical research, indicating that more alternative methods need to be explored further.

Animal use figures in NSW tend to vary from year to year. **New South Wales was reportedly the biggest user of animals in experiments and surgery training with a total number of 2,699,532.** The published statistics do not inform people about critical aspects of the research being conducted, such as how invasive the animal research procedures are, their justification, or their potential to cause pain or distress. Criticisms have also been made about a lack of publicly available information on how many animal experiments are producing valuable results. Obviously with these numbers, NSW are not reducing animal numbers in experimentation.

The **Australian Code of Practice for the Care and Use of Animals for Scientific Purposes** has governing principles. These are using animals only when it is justified; supporting the wellbeing of the animals involved; avoiding or minimising harm, including pain and distress to those animals; applying high standards of scientific integrity; applying Replacement, Reduction and Refinement (the 3 Rs) at all stages of animal care and use, the *Replacement* of animals with other methods, the *Reduction* in the number of animals used, the *Refinement* of techniques used to minimise the adverse impact on animals; and knowing and accepting one's responsibilities. The 3 Rs provide a supposed framework for an ethical and 'humane' approach for using animals for research. The Animal Ethics Committee (AEC) approve projects deemed ethically acceptable under the Code. AECs are also responsible for monitoring animals, including their housing conditions and care in facilities. Institutions generally host an established AEC, but projects can be reviewed by an external AEC. I believe all facilities **must be reviewed and monitored regularly by an external AEC to protect animals in experimentation. Relying on an internal AEC only in any medical research facility could compromise standards of animal care. If the government is committed to the 3 R's above more external proactive processes need to be put in place to monitor these medical facilities. After all they are receiving taxpayer funding, so accountability and transparency that the 3R's are being rigorously applied is needed.**

Underpinning these principles is the scientist establishing the need of the proposed study; the requirement to make an ethical judgment that it is justified, its scientific and educational value; treating animals with respect and to consider their welfare. Unpacking this information, many research studies do not seem justified eg the swim test in mice to test their stress levels. Drilling inside a monkey's brain or starving an animal to death to record psychological effects is **not considering their welfare – it is cruel and unnecessary experimentation on animals and is not justifiable.** When we review the figures of primates used in medical research that are imported or bred, we are failing in the 'reduction' aspect also and even more in NSW as the highest user of animals for experimentation purposes. In the cases I have read scientists, universities and research facilities are not making justified ethical decisions and the worth of conducting these horrid experiments in the first place I challenge. The animal's welfare is being compromised and considered second to the needs of scientists to access funding by the government to participate in often useless experiments. Data gathered from animals does not always translate to humans. Taxpayer money is wasted and so are these animal's lives! Despite most drugs tested 'successfully' on animals they fail when they are tested on humans. Testing on species who differ from humans in their metabolism of toxins, absorption of chemicals, mechanisms of DNA repair and lifespan has a profound effect on the efficacy of drugs - a key example of this being the horrific consequences of supposed 'successful' thalidomide testing on rats in the 1960s.

The Code includes guidelines on protecting and maintaining animal welfare, such • Ensuring sufficient food, water and shelter is provided; • Ensuring the physiological and behavioural needs of animals are met; • Living conditions and facilities must be checked daily; • Isolation of animals that normally live in social groups must be avoided or minimised, unless approved by an AEC; • Extended removal of water, food and social interaction must not be used to force an animal to alter their behaviour; • Drugs such as anaesthetics and sedatives must be considered to relieve pain and suffering where necessary; • The killing of animals must be 'humane', avoid prolonged pain and suffering and be in a clean and quiet space away from other animals; • At the conclusion of projects, the rehoming of animals, return of animals to normal husbandry environments or the release of wildlife, should be considered where possible.

Where is the data on these aspects of the Code? It is not available to the public- so how do we know that the Code is being applied. Simply having it written into a Code does not mean it is practiced by research facilities. Many experiments do stave animals, do not meet their behavioural needs, do isolate them, do deprive them of painkillers and do allow prolonged suffering. Data on the number of animals rehomed or wildlife released is not available.

Finally, the Code does not guarantee best practice. Difficulty in maintaining transparency among research establishments, including instances where care for animals' needs has been inadequate or facilities have been unwilling to divulge information on the basis that they constitute trade secrets, are significant issues that have been raised in Court. (Law Society of NSW Young Lawyers-)

14. Humane Research Australia (HRA) has a wealth of information detailing alternatives to animal testing – cruelty-free options that showcase human ingenuity, and compassion, at their best.

Approximately 90% of drugs found to be safe and effective in preclinical research, of which animal testing is currently mandatory, fail to make it to human clinical use. Is this just a co-incidence or is it time to face reality? Animal testing just doesn't work.

As new technologies emerge, the range of non-animal methods continues to grow. Despite claims by some researchers that those alternative methods are not yet sophisticated enough to replace animal tests, these alternatives are more dependable and produce more accurate results than tests on species.

Humane Research Australia advocates for the replacement of animals, not just because of the unethical and cruel treatment, but just as importantly for the ability of science to advance in delivery of vital drugs and other treatments to humans. Testing on animals belongs in the past because it is inefficient and unethical. There are new methods now that validate the efficacy of drugs much better and provide an accurate and effective results.

According to HRA there are alternatives to animal testing. The NSW government must investigate and commit to alternatives to gain more valid results, save taxpayer money, and save animals from a cruel life of painful experimentation that usually ends in their death. This simple action may show the community that the NSW government are being guided by the principles of the 'Australian Code of Practice for the Care and Use of Animals for Scientific Purposes'. As a community member I would like to see a better commitment to alternatives rather than test on animals. Apart from the moral issue involved you would not have to collect, import, breed, house, feed animals which would save taxpayer money. Results would be more reliable. ***The self-regulation process for scientists is not working as the numbers of animals involved in scientific experiments is still far too high. If it was working, we would see more visible evidence of the 3R's being applied- replacing animals with other methods, reducing the number of animals used and a refinement in techniques to minimise their suffering. The medical researchers should be proving that they have applied these principles in the first place before application to use animals in experiments is requested for government /taxpayer funding.***

Instead of drug testing on dogs:

- ***Microdosing*** – involves giving research participants miniscule doses of an experimental drug then tracking the drug's movement through the body by radio labelling. Its distribution and metabolism in bodily fluids is measured and enables researchers to quantify its concentrations in blood, urine, saliva, and ***white blood cells***.
- ***Microfluidic chips*** – consist of a network of interconnected reservoirs mimicking the organ systems of a living being. Researchers can place lung, liver, fat, gastric or heart cells inside the reservoirs, add a particular drug and quickly evaluate how the chemical is distributed, metabolised, and excreted.

Instead of invasive brain research on marmosets:

- ***Non-invasive imaging techniques*** – such as Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET) allow us to visualize internal structures of the human brain.
- ***Transcranial Magnetic Stimulation (TMS)*** – a non-invasive treatment using a magnetic field to stimulate nerve cells in areas of the brain. It has been shown to affect mood, motor, and cognitive functioning. TMS has few side effects, and is also used as a treatment for mental illness

Instead of eye irritancy and skin abrasion tests in rabbits:

- ***Eytex(TM)*** – uses a vegetable protein extracted from jack beans. Like the cornea of the eye, this clear protein gel becomes cloudy when in contact with an irritating substance. The degree of cloudiness ("damage") is measured with a spectrophotometer, which is much more accurate than assessing the damage to a rabbit's eyes.
- ***Reconstructed human epidermis*** – involves a multi-layered human skin grown in the laboratory. Cells can be examined under the microscope, membrane damage can be assessed by leakage of enzymes, or inflammation can be determined by release of proteins and molecules called interleukins.

Instead of antibody production in mice:

- ***Phage Display*** – is the interaction between a virus and a bacterium to produce antibodies, which can be produced in a much shorter time than traditional animal methods.

There is the growing opinion that use of animals for research is outdated, inhumane and unnecessary. Cruelty-free scientific methods that produce far more accurate outcomes are increasingly endorsed by the medical field, including the use of:

- *Computer-based methods*
- *Clinical trials with human volunteers*
- *Simulators: based on virtual reality or physical models*
- *In-vitro testing: test tube experiments performed with micro-organisms, tissues, whole cells or parts of cells*

One of the most successful new technologies now available is the development of organoids – miniature and simplified versions of a (human) organ. Organoids are grown in-vitro in three dimensions from a biopsy of an individual patient and allow researchers to study disease and treatments in the laboratory using an ethical, human model.

15. The examples above of **non-animal methods already available can eliminate animal suffering and are also more predictive of human outcomes**. It's imperative that we move away from archaic animal tests and instead embrace new technologies. Other nations are already doing this, with government-funded centres in the UK, Europe and the United States dedicated to the development and validation of non-animal methods. Sadly, **Australia has no such commitment, and this must be addressed federally and with the NSW government**.

Back in 2009, the European Union banned cosmetics testing on animals, later extending the ban to imports in 2013. Israel, India, New Zealand, Norway, South Korea, Turkey, Taiwan, Switzerland, and Guatemala have all followed suit by introducing bans on cosmetic testing on animals, with more US states and regions in Brazil coming on board.

There are EU reports on alternatives to animals in testing for breast cancer, neurodegenerative and respiratory disease. There are plenty of companies using readily available alternatives to animal testing which show that there are no more excuses to torture animals. The use of animals in experimentation is declining worldwide following public outcry over the horrific treatment of animals, and the growing number of humane alternatives that are becoming available.

In conclusion, societal acceptance of animal experimentation has largely assumed that these tests, as distressing and ethically distasteful they may be, will ultimately benefit humans. But do they really? This is the argument used by medical researchers. However, the community concerns and the arguments we present **MUST** also be considered.

Dogs, cats, rabbits undergo irritancy tests that cause severe chemical burns to their sensitive skin; others will be forced to ingest harmful chemicals that can lead to fatal poisoning. Toxicity tests blind, burn, poison, and kill millions of rabbits, dogs, cats and other animals every year. Not only are these tests cruel, but they are also completely unnecessary. And the differences in animal physiology means that even brand-new ingredients can't be accurately tested for human safety on anything other than on humans.

The harm that is committed against animals should not be trivialised or minimised simply because they are not considered to be "human." **Animal testing should be eliminated because it violates animals' rights, it causes pain and suffering to the experimental animals, and other means of testing product toxicity are available right now.**

In Australia every year some 6.5 million animals are subjected to experiments in the 'name of science.' We should and must investigate other ways to conduct research without continually inflicting intentional suffering of animals.

I believe that we as humans can do better than this, just because we have dominance over animals does not give us the right to intentionally abuse and hurt them cruelly so that they suffer. Most animals in experimental research are euthanised, but what they endure in pain and suffering to be finally killed or die because of the experiment, is unwarranted and we should be ashamed of ourselves. Most are killed anyway even if they can be rehomed.

The sheer scale of animal experimentation in Australia would shock most people.

Testing on animals is unethical and unnecessary. Ultimately, it's animals who are paying the high price for humanity's failure to utilise progressive, and readily available, animal-free tools for scientific and medical experimentation. Other methods and techniques of testing must be explored further by research facilities and scientists, that do not torment innocent animals and expose them to this horrendous cruelty.

We live in a truly remarkable age where 3D printers can restore mobility and dignity to people who have lost their limbs, and research groups are well on their way to being able to make body parts and organs. Animal experimentation is an ethical embarrassment that belongs in the past. The reason it exists now is because it is *easy* to conduct experiments on animals that are made to be compliant through developed constraints to contain their body movements. This causes heightened stress for animals also waiting to be injected, prodded, poked, drilled or chemically dowsed. Imagine if we had to endure this process!

Morally and ethically, this is wrong to subject any animal to a planned, methodical approach of cruelty and suffering and to witness their agony and pain. Often results cannot even be transferred correctly to reflect human reactions, as we are still fundamentally different to animals.

The failure to use alternatives such as organoids is often caused by a lack of funding or a laboratory's reluctance to change its established methodology. With increasing public awareness of the cruel experiments that occur behind closed doors, facilities are now feeling the pressure to eliminate the use of animals in research and teaching. **The NSW government have a moral responsibility and MUST reduce the number of animals exposed in this cruel industry and commit more government investment and funding into these non-animal alternatives.**

The NSW government MUST actively assist the research industry in the transition and commit to ending the use of animals for cruel research experiments.

Legislation to ban this outdated, unreliable, and inhumane animal research is long overdue. No animal should be subjected to cruel animal experimentation. They deserve so much better than the horrors that we continue to put them through. Appalling practice by this industry condoned legally by the NSW government to cruelly torment, terrorise and inflict pain on innocent animals! This is a disgusting industry with no transparency or accountability, funded by taxpayers that urgently needs reform and a rethink of using humane alternatives that are available now.

Yours sincerely

Janice Haviland

Other Signatories

Martin Derby Marie Humphries Ruby Hardie Gemma Hardie Mandy Caple

Lucia Smith Katie Wynter