



# **Petition of Tara Jackson on behalf of the NZ Anti-Vivisection Society, SAFE, and 7,861 others: End the use of the Forced Swim Test in New Zealand**

Report of Economic Development, Science and Innovation Committee

March 2020

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Jonathan Young  
Chairperson

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## **Recommendation**

The Economic Development, Science and Innovation Committee has considered the petition of Tara Jackson—End the use of the Forced Swim Test in New Zealand—and recommends that the House take note of its report.

## **Request for a ban on the Forced Swim Test**

The petition was presented to the House on 7 October 2019. It requests:

That the House of Representatives pass legislation to immediately ban the Forced Swim Test to prevent it from being conducted nationwide; conduct a formal review and evaluation on the validity of all animal-based psychological tests used in New Zealand; and note that 17,015 people have signed an online petition to this effect.

## **About the Forced Swim Test**

The forced swim test (FST), also called the Porsolt test, is a test used on animals, primarily rodents, and is centred on their response to the threat of drowning.

In the test rodents are placed in a small, confined space, such as a large graduated cylinder filled halfway with water. Initially, there is a period of vigorous activity during which the animal tries to escape. Eventually, the animal ceases vigorous activity and exhibits an immobility in which it only moves to maintain its head above water. Investigators measure the amount of time between when the animal is placed in the chamber and the onset of immobility.

This measure is interpreted by some to be an indication of behavioural despair and to measure susceptibility to negative mood. For this reason the test has been used to trial the effectiveness of antidepressants. The interpretation of the results of this test, and the use of the test itself, has generated criticism from some academics.

Although the FST is no longer used by Kings College London, and many pharmaceutical companies such as Johnson & Johnson, Roche, Pfizer, and Bayer have committed to banning the test, it has not been banned in legislation.

## **Use of the test in New Zealand**

Under the Animal Welfare Act 1999, animal use in research, testing, and teaching is strictly controlled. Every project that uses animals for approved purposes must be approved and monitored by an animal ethics committee. To be approved, every project must demonstrate that the benefits of undertaking any test are not outweighed by the likely harm to animals.

We heard that three universities have had applications to use the test approved in the past five years, although only two universities have performed the test. The petitioners highlighted that it is difficult to know the full extent to which this test is currently used in New Zealand because private companies are not subject to the Official Information Act.

## **Comments from the petitioners**

The petition was presented by Tara Jackson on behalf of the NZ Anti-Vivisection Society, SAFE, and 7,861 others. The written and oral submissions were also contributed to by Dr Emily Trunnell from PETA (People for the Ethical Treatment of Animals).

### **Efficacy of the test**

The efficacy of the test is debated by researchers and scientists. The petitioners believe that the FST holds little to no validity as a measure of depression or human antidepressant efficacy and does not benefit drug development. They told us that superior, human-relevant research methods are available to replace the FST in depression research.

The petitioners highlighted that, even though the efficacy of the FST has long been questioned, it has still been used recently in New Zealand. They expressed concern that the test also results in worse outcomes for humans. They believe that there is a high probability that antidepressants thought to be of potential use for humans will be abandoned during development based on the misleading results of the FST.

### **Treatment of animals**

As well as believing the FST is not effective, the petitioners believe that the test is cruel. We heard that the FST inflicts stress, anxiety, and fear on animals and the petitioners believe this must be stopped. New Zealand law now recognises animals as sentient, and the petitioners do not believe this is how sentient beings should be treated.

### **Banning the Forced Swim Test**

The petitioners believe that banning the FST is necessary. Although the test is not widely used in New Zealand, the petitioners believe a ban would send a signal and push scientists to use better methods to test anti-depressants.

Given the global move away from using this test, the petitioners believe that New Zealand should ban the test. There is strong local support for a ban. For example, students from Victoria University of Wellington have urged their ethics committees to end the use of the test, and a public poll conducted by Horizon in October 2019 indicated that 54 percent of respondents supported a ban on the use of the FST.

## **The Forced Swim Test in research, testing, and teaching**

We also heard from Craig Johnson, Professor of Veterinary Neurophysiology, Animal Welfare Science, and Director of Research Ethics at Massey University. Professor Johnson is also Co-chair of the Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART).

Professor Johnson told us that the FST is not a great test in terms of efficacy, and it has an ethical cost. We heard that in the past the test has been used inappropriately, and inappropriate conclusions have been drawn from the test. In Professor Johnson's opinion the decline in the use of the FST in the last decade, and the fact it is uncommonly used in New Zealand, is evidence of its lack of utility.

Professor Johnson's view is that ethics boards should not be approving the test except in very specific circumstances where the net benefit of the test is much higher than normal. He believes that the decline in the use of the test will continue, and would be surprised if the test is still being used in ten years even without legislative action. The decision of many large pharmaceutical companies to no longer use the test is a strong indicator that it will not be used in the future.

Professor Johnson is opposed to banning any individual test due to the challenge of defining it, and also because it would complicate what is otherwise a clear regulatory space. He believes that New Zealand has some of the best animal welfare legislation in the world and that part of what makes it good is how clear it is.

We heard that the best way to effect the change in the use of the FST is through education for ethics committees, in particular the external members of committees, to ensure they are informed of current best practice. Professor Johnson believes that this would be the best way to ensure the test is no longer used.

## **Our response to the petition**

We were pleased to hear that the test is not widely used in New Zealand, and that many pharmaceutical companies, universities, and research institutes no longer use the test.

We do not believe legislation is necessary to end the use of the Forced Swim Test. The test is used infrequently in New Zealand, and we heard that its use in academic studies is not likely to continue into the future.

We support the continuing education of the ethics boards of universities and research institutes. We believe that communicating the disadvantages of the Forced Swim Test, and providing education on alternative research techniques, will assist in the transition away from the use of the test.

We also acknowledge the call for a formal review and evaluation on the validity of all animal-based psychological tests used in New Zealand. While we cannot recommend a full review at this time, we encourage the validity of animal testing to be continuously examined.

## Appendix

### Committee procedure

The petition was referred to us on 7 October 2019. We met between 17 October 2019 and 5 March 2020 to consider it. We received written submissions from the petitioners and heard oral evidence from Tara Jackson, NZAVS, Dr Emily Trunnell from PETA, and Professor Craig Johnson, Director of Research Ethics at Massey University.

### Committee members

Jonathan Young (Chairperson)  
Tamati Coffey  
Andrew Falloon  
Brett Hudson  
Gareth Hughes  
Melissa Lee  
Clayton Mitchell  
Dr Deborah Russell  
Stuart Smith  
Hon Poto Williams