

# Written Evidence Submitted by Cruelty Free International (RFA0102)

## Cruelty Free International

1.1 Cruelty Free International is a UK-based organisation working to end animal experiments worldwide. For over 100 years, we have championed progressive, humane scientific research and cruelty free living.

## Executive Summary

- Advances in New Approach Methodologies are delivering a variety of new research tools based on human tissues and cells with the potential for greater knowledge of human biology and disease and the development of new treatments.
- Action is needed to develop and implement these new more humane and human-relevant methods. Animal experiments are failing human health and environmental challenges – of the drugs that have entered human clinical trials, 90% fail despite having proved promising in animal trials. It is time to prioritise investment in methods that focus on human biology, to transform our understanding of human disease, develop new medicines and end decades of horrific animal suffering.
- Government support is essential to secure strategic funding to incentivise the development and uptake of human relevant science.
- The new approach to funding emerging fields of research and technology outlined by Government with a “blue skies” funding agency to fund “high risk, high reward science” is welcome but should have at its core ambitious targets for a shift from animal research to humane and human-relevant science. The agency should specifically support scientists working in small and medium-sized enterprises and initiatives who often meet significant hurdles attracting funding for what can, as a result of inherent bias, be perceived as “high-risk” animal-free work.
- A new funding agency should be clear that “blue skies” does not equate to animal experiments.

## 2.0 Introduction

2.1 We welcome the government’s commitment to contribute £800m over the next five years to fund a new research agency focused on dedicated funding to the types of “high risk, high reward science” that current funders may not wish to resource.

2.2 We very much believe, however, that this must an opportunity for the UK to invest in global leadership of the development and uptake of New Approach Methodologies to enable the replacement of cruel, outdated and unreliable animal experiments, and would argue that this stream of work must be prioritised by the new agency.

2.3 In February 2020, the first European Commission report under revised Directive 2010/63/EU on the protection of animals used for scientific purposes, covering the years

2015-2017 and all then 28 member states, was published. The report showed that the highest number of uses of animals in experiments – 2.6 million – was in the UK; with the second largest use of dogs and third largest use of monkeys. For a country that prides itself on its love of animals, this is not a league table we should be proud to top.

2.4 Recently released Home Office statistics show that in 2019, 3.4 million animal experiments were conducted in the UK and that 29% of these were for basic research.<sup>1</sup>

2.5 This consistently high number of animal experiments – which has fallen by barely 1% annually since 2010, is despite the clear concerns of the British public. The most recent publication of a bi-annual BEIS-commissioned survey on public attitudes to animal testing shows, for instance, that 86% of people oppose medical testing on dogs and large monkeys even where this is said to be of benefit to human health.<sup>2</sup>

### 3.0 High-risk, high-reward science and the importance of prioritising New Approach Methodologies

3.1 The creation of the new funding agency provides an opportunity for the UK to do better. Animals do not get many of the human diseases that present big challenges to today's health services, such as major types of heart disease, many types of cancer, HIV, Parkinson's disease, or schizophrenia. Instead, signs of these diseases are artificially induced in animals in laboratories in an attempt to mimic the human disease. Such experiments belittle the complexity of human conditions which are affected by wide-ranging variables such as genetics, socio-economic factors, deeply rooted psychological issues and different personal experiences.

3.2 It is not surprising to find that treatments showing 'promise' in animals rarely work in humans. Not only are time, money and animals' lives being wasted, with a huge amount of suffering, but effective treatments are being mistakenly discarded and harmful treatments are getting through. Support for animal testing is based largely on anecdote and is not backed up, we believe, by the scientific evidence..

3.3 Despite many decades of studying conditions such as cancer, Alzheimer's disease, Parkinson's disease, diabetes, stroke and AIDS in animals, we do not yet have reliable and fully effective cures.

3.4 There is historic bias to the status quo when it comes to animal research. The performance of non-animal methods is typically benchmarked against that of established animal tests even though these are often demonstrated to be sub-optimal. It can be challenging for scientists working with New Approach Methodologies to get funding. Their work is often represented as high risk. A focus by the new funding agency on non-animal science and research could make a significant difference.

3.5 There are also economic advantages in investing in New Approach Methodologies. Global markets forecast that cell-based assays could be worth \$18.9 billion by 2024, and in

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<sup>1</sup> Home Office, Annual Statistics of Scientific Procedures on Living Animals Great Britain 2019, 16 July 2020.

<sup>2</sup> IPSOS-MORI, Public attitudes to animal research in 2018, 24 May 2019.

vitro toxicity testing is expected to grow at a compound annual growth rate of 9% to reach \$14.4 billion by 2025.<sup>3</sup> Moreover, organ on a chip (OOC) technology, which can mimic activities, mechanics and physiological responses of entire organs and organ systems are being embraced globally. A recent study showed that OOC technologies could save up to 25% of total drug development costs.<sup>4</sup> In 2016, the Director of the US National Institutes of Health predicted that within 10 years human OOCs will "mostly replace animal testing for drug toxicity.... giving results that are more accurate, at lower cost and with higher throughput".<sup>5</sup>

3.6 Government leadership is critical. In the Netherlands, five ministries are working together with scientists, business and funders to improve research in the development of medicines, food safety and chemical risks without the need for using animals in laboratories, with a 2025 target to be the world leader in this area. Researchers involved in the initiative – which is also looking at novel funding mechanisms – stress that as the flag for the Transition Programme to animal-free Innovations (TPI) is being flown by the national government, they are more able to associate their activities with it and they have better policy and financial backing.

3.7 One of the issues that the TPI has identified is that start-ups and scale-ups are crucial in the transition. These start-ups and scale-ups are, as things stand, going out on a limb. In addition to the usual obstacles faced by start-ups, they must also overcome the obstacles of a sector that has long been structured around animal testing.

3.8 The challenge in the UK is similar and could equally be addressed by the proposed new funding agency.

#### 4.0 Conclusion

4.1 The UK is home to world-leading universities and some of the largest pharmaceutical companies in the world. The UK could position itself at the forefront of the development, evaluation and use of the New Approach Methodologies needed for a step-change in drug discovery.

4.2 A new Government-backed funding agency could significantly support the growth of human relevant science across the UK, adding to rather than taking away from bodies already working in this field, with a focus on start-ups and scale-ups.

**(August 2020)**

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<sup>3</sup> Ibid.

<sup>4</sup> ASD Reports. In-Vitro Toxicology/Toxicity Testing Market - Global Forecast to 2025, Nov 2019 Report code: ASDR-494763.

<sup>5</sup> Collins F. Hearing on FY2017 National Institutes of Health budget request. United States Senate Committee on Appropriations. 2017. Available at (34 minutes into recording): <https://www.appropriations.senate.gov/hearings/hearing-on-fy2017-national-institutes-of-health-budget-request> (Accessed 29.07.2020).