



# FACT OR FICTION?

Mapping  
perceptions of  
animal testing

Survey report  
Summer 2020



### **A report into the findings of a study into current public attitudes and perceptions of animal testing and research for medical, chemical, and cosmetic purposes.**

Study commissioned by FRAME (Fund for the Replacement of Animals in Medical Experiments).

FRAME is an independent medical and scientific charity with the ultimate aim of the replacement of animals in medical experiments.

### **Foreword**

Even though there have been scientific advances in recent years and some improvements in regulation, there are still many misconceptions about the use of animals in testing and research.

In order to gather current public attitudes and perceptions of animal testing and research, and map the nature of some of those misconceptions, FRAME commissioned a global study. This survey represents an important part of FRAME's wider philosophy and commitment to finding human-relevant alternatives to animal testing, and to improving public understanding of the issues this raises.

The results of the survey have given us fresh insights into public perceptions and attitudes that in turn, help us provide accurate information about how animals are used in research and testing, and the legislation that is currently in place.

We will use the findings to inform the direction of our education and outreach work with the public and policymakers, and to support our ongoing work with partners to seek to improve existing legislation around the use of animals in experiments and testing. We would like to see more funding available for the development of human-based alternatives to animal models, and this is something that was echoed by the survey respondents.

But it's not just about funding. Stopping the use of animals in all research and testing is not something that is going to happen overnight, and developing improved, validated human-relevant models, and ensuring their mainstream use, is not a quick process. Scientists in both universities and industry need tools, training, and support to make the change, and we hope our study will serve to inform this process. We are working to influence the system in the long term, improve public understanding of the scale of animal use in research, and help shape legislation.

This report summarises and presents the findings of the survey. We hope you will find it useful and thought-provoking, and we extend a huge thank you to everybody who took part in the survey and shared their thoughts and opinions.

Celean Camp  
Chief Executive Officer (CEO)  
FRAME

## Technical: about the survey

FRAME is an independent scientific research charity with the ultimate aim of the replacement of animals in medical experiments.

### The aims of the survey:

FRAME commissioned the survey to:

- Further its understanding of public awareness of, and attitudes towards, the use of animals in testing and research for medical, chemical and cosmetic purposes.
- Gather insights and information to support FRAME's work to replace the use of animals in scientific and medical research, and in safety testing of cosmetic and household products.

### Objectives and outcomes:

- To collate insights and data to inform and further FRAME's position as a medical research charity committed to replacing the use of animals in scientific experiments, and dedicated to the development of new and scientifically valid methods that will replace the need for laboratory animals in medical and scientific research, education, and testing.
- To understand the general public's perception of animal testing in scientific research and alternatives to animal use.
- To inform FRAME's outreach strategy and focus our key messages for the public, the education sector, and policymakers.
- To support FRAME's engagement with UK and global businesses with an interest and/or role in the use of animals in testing and research.

Primarily, the online survey sought responses from the general public, but it was also shared within FRAME's own networks which include academics and industry professionals from across the scientific community.

The survey was conducted via an online questionnaire and was open to responses from 1 November 2019 to 31 January 2020.

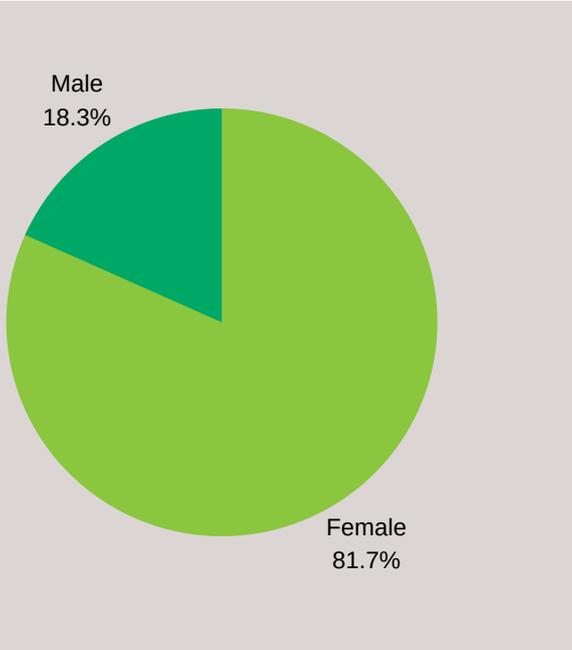
During this time, the survey garnered detailed responses from over 400 people in a range of job roles across the world.

All responses were anonymous.

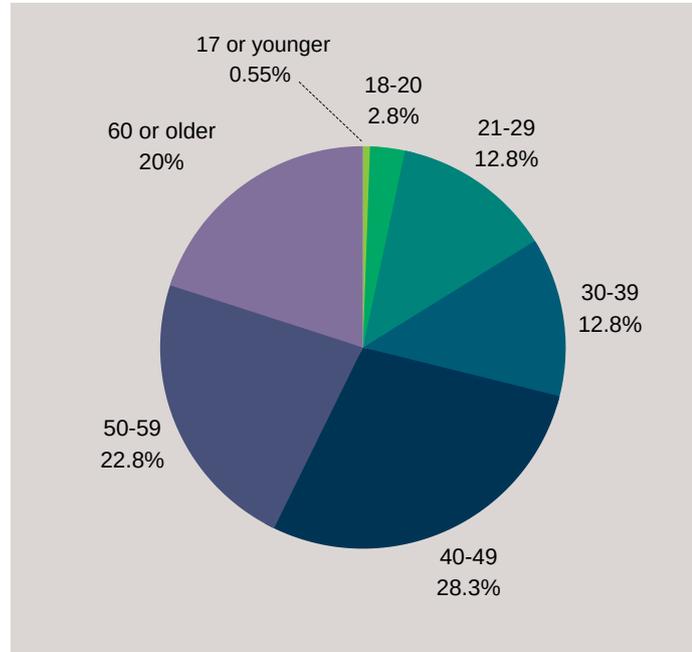


Technical: about the survey

Gender of respondents



Age of respondents



Occupations of respondents include:



# Key Findings

93%

of survey respondents think more needs to be done to replace and reduce the use of animals in testing and research.

42%

of people see greater funding of alternatives as the most important factor in helping to end the use of animals in testing and research.

52%

of people think stopping the use of animals in all types of research and testing could happen immediately.

75%

of survey respondents see the pharmaceutical industry as the biggest user of animals for research and testing.

## Themes

The survey set out to drill down into the detail of public understanding and perceptions – as well as misconceptions – around animal testing and animal use in research for medical, chemical, and cosmetic purposes.

To achieve this effectively and provide valuable information and insights, the survey and its findings were structured around three themes:

### 1. Awareness and regulations, to measure:

- a. Public perceptions of the use of animals in testing and research and the level of knowledge of the regulations that control it.
- b. Ending the use of animals in testing and research.
- c. Public awareness of alternatives to using animals in testing and research.

### 2. Cosmetics and household products

### 3. Ethics and trust



## Findings

### Theme 1: Awareness and regulations

#### A: Public perceptions of the use of animals in testing and research

Do you think more needs to be done to replace and/or reduce the use of animals in testing and research? If yes, why?

More than half of respondents think stopping the use of animals in all types of research and testing could happen immediately. This incorporates the use of animals in medical, chemical and cosmetic product testing, as well as scientific and medical research into human disease and treatments.

Banning the use of all animals in testing and experimentation overnight would mean halting some basic medical research and safety testing. However, we can ensure that existing non-animal alternatives are more widely used, and more time and funding is invested into developing human-relevant models where these are still missing. Our survey confirmed that the majority (over 90%) of people agree and believe more needs to be done to replace and reduce the use of animals in testing and research.

Based on the study's findings, 61% of respondents said they feel well informed about animal testing in the UK, and yet nearly a quarter (24%) of people believe it is still legal to test cosmetics on animals in the UK and EU, although the practice has in fact been illegal since 2004 when the EU cosmetic regulation was updated.

There is a ban on using animals for consumer safety tests on all finished cosmetic and household products in the UK and EU. The introduction of the EU cosmetic regulations was an overdue, but important, milestone. However, despite the ban, testing of chemicals including cosmetics, continues in order to provide information required under the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) legislation<sup>1</sup>. For example, this may be to identify potential harm to workers exposed to the chemicals during manufacture or assess harm to the environment. Obtaining data and assessing the potential risks of chemicals used in products such as cosmetics, cleaning products, food additives and pesticides is complex and unfortunately still relies heavily on animal tests. This is something that many people continue to be unaware of.

"Data from historic experiments should be shared to prevent duplicate experiments. All non-drug testing should be banned immediately. Scientists know if something is toxic because of existing data. Computers can run drug combinations to determine the outcomes. Improvements to this tech should be funded and developed."

"The potential to develop non-animal-based testing is there. However, people are used to testing on animals, and it is cheaper/easier than taking the time to develop alternatives."

"There's widespread poor adherence to the 3Rs. Often poor research is done for the wrong reasons e.g. career advancement."

## Survey Statistics

- 61.4% of respondents feel informed about animal testing and the use of animals in research in the UK.
- 93.4% of respondents think more needs to be done to replace and reduce the use of animals in testing and research.
- Almost half of respondents (49%) think the UK has strict rules on animal testing and the use of animals in testing and research.
- 60% of respondents think the laws around the use of animals in testing and research are outdated.
- 94% of respondents who think that the laws around the use of animals in testing and research are outdated believe that effective non-animal alternatives should be encouraged.
- Just under a quarter of respondents (23.7%) do not think it is illegal to test cosmetics on animals in the UK and EU.

## Facts

### Theme 1: Awareness and regulations

#### Public perceptions of the use of animals in testing and research

The UK has some of the best welfare legislation in the world through the Animals (Scientific Procedures) Act 1986 (ASPA)<sup>2</sup>. This legislation regulates all procedures, research and testing that requires animal use in the UK. Three different licenses must be granted from the Home Office before a project involving animals is authorised. The application must pass an ethical review panel and the applicant must explain why animals are needed and the research cannot be conducted using non-animal methods such as in vitro (in a laboratory using cells or tissue) or in silico (using computer modelling and simulation).



EU Directive 76/768/EEC<sup>3</sup> was amended in 2004 to ban the marketing of cosmetic products tested on animals within the EU. Further changes banned the testing of ingredients and the sale of any animal-tested cosmetic products.



Legislation requires that companies prove the safety of drugs, medicines, and chemicals. These are specified in national and international guidelines which currently advise animal use to prove safety in line with the respective legislative requirements.



REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)<sup>4</sup> is an EU-wide regulation to protect human health and the environment from chemicals manufactured, imported, distributed or used in large amounts (over 1 tonne a year). Whilst non-animal methods are advised where possible to collect safety information for REACH, animal tests are allowed as a last resort and this applies to chemicals used in cosmetics and household products, despite the bans.



A 2018 study<sup>5</sup> by MIT (Massachusetts Institute of Technology) showed that 13.8% of drugs that reach clinical trials in the US gain market approval. This equates to a failure rate of 86.2%. Whilst this failure can be for many reasons, these drugs have passed safety and efficacy tests using animals.



**Theme 1: Awareness and regulations**  
**B: Ending the use of animals in testing and research**

Do you think the use of animals in all testing and research could be stopped immediately? If no, why?

More than half of the survey’s respondents think stopping the use of animals in all types of research and testing could happen immediately.

Sadly, this is simply not possible at this moment in time. Animals have been used in mandatory product safety testing since the 1930s, during which time much data has been collected about animal responses. Despite flaws in using animals to predict human reactions, it is not safe to halt the use of certain animal tests without valid, proven alternatives. Whilst there are some areas of testing and research where animal tests have been, or are being, replaced, there are many where they are not.

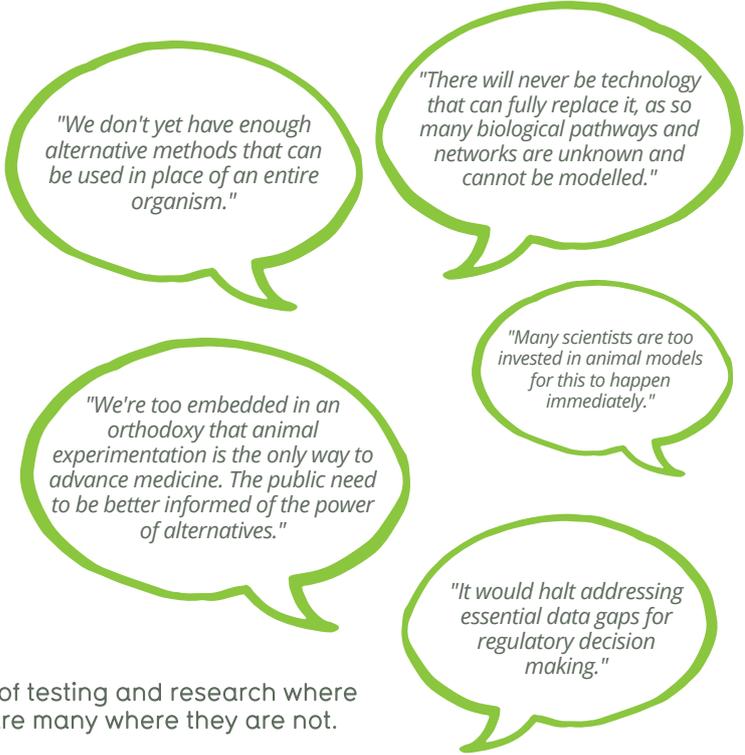
Human-relevant alternatives being used and developed include computer modelling to predict human responses and growing human cells for in vitro testing. Methods such as these have the potential to, and already are, predicting human responses to drugs and chemicals.

These modern culture techniques have developed to include multiple cell types to represent whole organs, and organ-on-a-chip techniques to study whole body systems. Such methods are complex and can be validated through a lengthy process, taking many years to gain approval to replace currently used animal tests.

In line with one of the most common misconceptions, three-quarters of survey respondents believe it is the pharmaceutical industry that is the biggest user of animals for research and testing, when it is in fact academia and university-led research. In 2018, basic research in the UK into the structure and function of living things, used twice as many animals as all regulatory testing.

A lot of this research uses genetically modified (GM) animals. These are animals that have been modified to have particular human genes or biology, or to try to replicate a human disease. The number of GM animals used in research has increased massively in the past 20 years as advanced genome editing techniques have evolved. Along with this, thousands more animals are being used to create and breed these new lines. In many cases, studying a disease in a human or on human tissue will provide more answers than ‘humanising’ a mouse or fish.

Scientists in both universities and industry must be educated, trained and supported, to develop the skills to make the change to alternative, human-based testing and research systems where they are available. The acceptance and validation of non-animal methods must evolve to ensure new techniques are approved and implemented quickly.



**Survey Statistics**

- 52% of respondents think the use of animals in all testing and research could be stopped immediately.
- 75% of survey respondents see the pharmaceutical industry as the biggest user of animals for research and testing.
- 66% of those who do not think the use of animals in all testing and research could be stopped immediately fear that reducing or replacing the use of animals in research will halt medical research, demonstrating there is some reluctance to change embedded practices.
- 43% of those who do not think the use of animals in all testing and research could be stopped immediately believe that we don't have other alternative methods to use.
- More than a quarter (27%) of respondents think it will be over 20 years until animals are no longer needed in testing and research.
- 22% of respondents think animals will never be replaced in testing and research.

## Facts

### Theme 1: Awareness and regulations

#### B: Ending the use of animals in testing and research

The number of scientific procedures using animals in the UK has fallen every year since 2007.



3.52 million scientific procedures were carried out in Great Britain in 2018. 1.72 million procedures were for the creation and breeding of genetically altered (GA) animals to use in research.



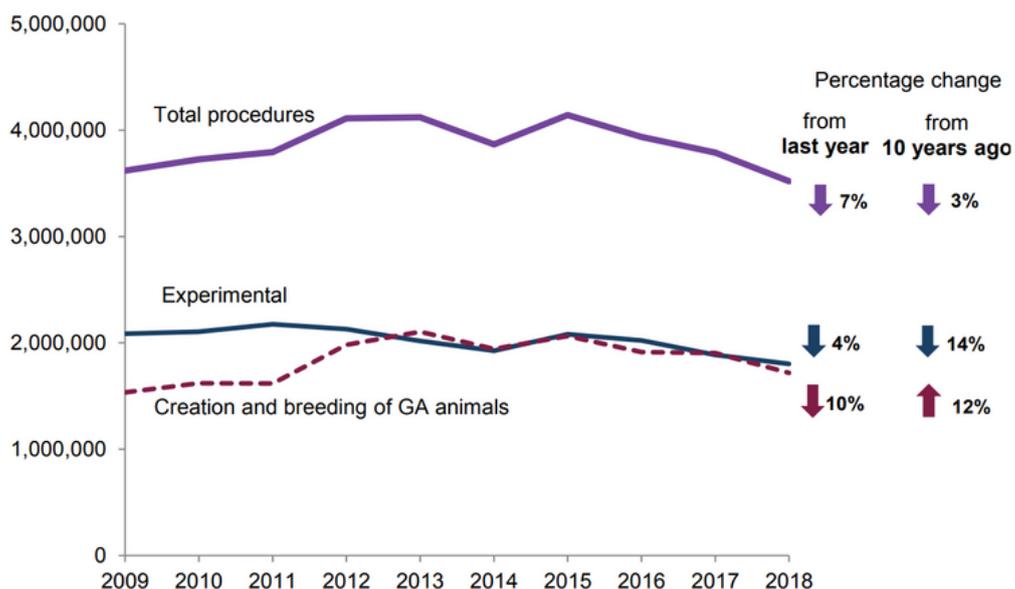
In 2018, around 1.80 million of the total number of procedures were carried out for experimental purposes, only 28% of these were for regulatory purposes.



Over half (56%) of experimental procedures were for basic research, with the top three targeted areas being the immune system (22%), the nervous system (21%) and oncology (12%).



**Figure 2. Total scientific procedures by type, 2009 to 2018**



**Source:** Home Office, Annual Statistics of Scientific Procedures on Living Animals, Great Britain 2018: data tables, Table 1.2 and Annual Statistics of Scientific Procedures on Living Animals, Great Britain 2017: time series tables, Table 1

**Theme 1: Awareness and regulations**

**C. Awareness of alternatives**

Is there anything else that you feel is important in ending the use of animals in testing and research?

In the UK, scientists carrying out research or regulatory testing have a legal responsibility to search for non-animal research methods before applying to the Home Office for licenses to use animals. These are referred to as 'Alternatives' (to animals) or 'Replacement' methods.

Sadly finding an alternative, non-animal method is not simple or straightforward in some areas of testing. To prove the safety of a drug or chemical as required by EU regulation, scientists must follow guidelines set out by the relevant regulatory body, and these often require animal tests. In these instances, 'alternative' tests must be officially validated and accepted before they can be used, which is often a lengthy process. In addition, the proposed alternative, non-animal test must be proved to be as reliable (if not more so) than current animal tests; this is significant because the animal tests themselves were never validated in such a way.

However, there are opportunities across research to find and implement alternatives that meet research objectives. The majority of these alternative methods focus on human rather than animal biology, and therefore have the potential to provide more relevant information than using a different species, such as a rat.

There is a wealth of historic animal data available from many years of testing, and this is another resource that is increasingly utilised in many areas. For instance, this information has helped with the implementation of the EU cosmetic ban and the achievement of 'cruelty-free' status by some cosmetic companies. This data must be utilised wherever possible to avoid repeat animal tests in all fields.

*"All products that are tested should be marked as such - like the warnings you get on cigarette packets. That way, people have to make the choice to opt for a product of cruelty and they can't turn a blind eye."*

*"Older academics must be helped to understand, as it is they who usually bring in the funding for projects and can often be very set on using animal models because that is what they have always done."*

*"More funding for alternatives is needed. Regulators should be trained in evaluating data obtained from alternatives."*

*"People need to be more informed about the alternatives of animal testing. So much is hidden and needs to be exposed so people understand where all of their products are coming from."*

*"Having a reliable source of information on the companies who test on animals for cosmetics that is shared widely, will allow people to choose ethical products."*

*"It is important to recognise the distinction between research and testing. Tests by their nature are mechanistic and could be replaced. Research is more complicated and harder to replace. It may be possible to replace animal testing in the next 20 years, replacing animals in research will be much harder and potentially impossible. This is not to say that it isn't ethically justifiable, just that it is unrealistic."*

*"Convince regulatory authorities that alternatives give more human-relevant data."*

*"Shift the status quo in science; people use animals because that's how things have always been done and how they were taught, that needs to change."*

*"Product labels should advertise that animal testing HAS been used and at what level, ingredients and/or product."*

*"Educate scientists about alternatives - break down their assumptions that they unquestionably know best - educate scientists about all current failure points using animal research."*

*Mandatory publication of all results from research using regulated procedures (according to ASPA)<sup>2</sup> - via a dedicated, peer reviewed but publicly funded, open access online journal. This would prevent unnecessary repetition of dead-end experiments and improve transparency."*

## Theme 1: Awareness and regulations

### C. Awareness of alternatives

Alternative methods include:

- In vitro testing – these are methods that use human cells and tissue within a laboratory setting, and might include tissue obtained from patients, lab-cultured tissue, or stem cells.
- In silico – these methods use computer and mathematical models and simulations, to predict human responses to a chemical, or to model disease and treatments within a population.
- Organ-on-a-chip – this is a type of in vitro technique that can use a range of human cells in small ‘microfluidic’ chips to enable the study of a whole organ, a whole system, or (theoretically) an organism, by using many chips together. These systems can replicate the flow and diffusion of nutrients, waste products and drug metabolites, to give more detailed and realistic models of a human response.
- Human volunteers – this method includes micro-dosing, for example, where people are given very small amounts of a chemical to enable testing for the study of skin sensitivity.
- Human patient studies – this method uses, with patient consent, data or tissue obtained directly from human patients. Often where GM animals lines are being created to mimic a human disease, more insight can be gained by using data obtained from patients themselves.

Where alternative methods cannot provide outcomes in a test or research study, scientists have a legal responsibility to use the minimum number of laboratory animals possible, and ensure animal welfare by refining the procedures, housing and husbandry of animals, to minimise pain, distress or lasting harm.



### Survey Statistics

- 79.6% of respondents are aware of computer modelling as an alternative to the use of animals in testing and research, closely followed by laboratory-produced human tissue (79%), in vitro testing (77.4%) and human tissue (72.6%).
- Organ-on-a-chip is also frequently cited as an alternative in the comments of the survey.
- 41.5% of respondents view greater funding of alternatives as most important in helping to end the use of animals in testing and research.

### What FRAME is doing to raise awareness of alternatives to animal testing

The aim of the FRAME Alternatives Laboratory (FAL) is to produce human-based systems that are better and more relevant to humans than current animal models. FRAME makes an annual donation to support work carried out at FAL.

When the FAL was established in 1991 at the University of Nottingham Medical School, research concentrated mainly on replacements for acute toxicology testing such as the notorious LD50 test and the Draize eye irritancy test in rabbits. The FAL also historically took part in validation studies for in vitro tests that are still used today. Many of its findings are now accepted in mainstream research, contributing to a significant reduction in the number of animals used for toxicology testing.

The work of the FAL currently concentrates on four main areas to demonstrate how focusing on human tissue and data can drive research outcomes more efficiently, effectively and relevantly than by using animal models:

1. **Direct replacement science** - developing cell lines from human tissue that can replace animals.
2. **Disease modelling** - producing models of disease that are closer to the human condition and more relevant than animal models.
3. **Research advocacy** - producing research which highlights that human-based studies are essential for better science and can increase profit/productivity.
4. **Research carried out using patients or volunteers** - demonstrating the essential differences between human subjects and animals, and promoting the use of humans rather than animals where practically and ethically possible.

Through the FRAME annual Summer Studentship Programme and FRAME's collaborations and work with other organisations, graduate scientists are given opportunities to train in techniques and methods that replace and reduce animal use.

In addition, FRAME funds laboratory and desk-based research, both externally and via the FAL. It remains committed to promoting, sharing and disseminating research into alternatives to animal testing with the scientific community through the publication of the international, peer-reviewed scientific journal ATLA (Alternatives to Laboratory Animals).

Education and information sharing of available techniques across industry and research areas is key. We can help by raising awareness with future generations of scientists, encouraging them to use human data and methods where possible and giving them the tools to search for alternatives and historical animal data. Where animals are still being used, the 3Rs (Replacement, Reduction and Refinement) must be correctly applied, and any research using animals must use adequate experimental design and statistical analysis to produce useful outcomes.



## FRAME Training School

Good experimental design is one of the most effective ways to reduce and refine the use of animals. The FRAME training schools, which are held in association with universities across the world, provide training in experimental design and statistics. The training schools are open to scientists and researchers worldwide and provide the knowledge to ensure experiments are designed to get the maximum information with minimal animal use.



## Facts

The 3Rs stand for Replacement, Reduction and Refinement and were first suggested by William Russell and Rex Burch in their landmark paper 'The Principles of Humane Experimental Technique' in 1959. The 3Rs principles are still the most effective way to help end laboratory animal use. UK law, ASPA (1986), requires these principles to be implemented in all scientific procedures using animals.

Replacement – Animal experiments must be avoided or replaced with alternative, non-animal methods if they exist.

Reduction – If animals are used the number should be reduced to the minimum required to obtain valid data.

Refinement – When animals are used methods must be in place to reduce suffering, distress or lasting harm. This includes maintaining welfare through husbandry, handling, housing, training and use of painkillers during procedures if possible.



The Government funds research into the 3Rs via the National Centre for the Replacement, Reduction and Refinement of Animals in Research.

## Survey Statistics

- Sustained funding of research into human-relevant, alternatives to testing and research that uses animals is essential. 42% of the survey's respondents agree that greater funding of alternatives is the most important factor in helping to end the use of animals in testing and research.
- FRAME is dedicated to promoting the 3Rs as a way forward for animal experimentation – encouragingly over two-fifths (44%) of respondents know what the 3Rs stand for, but the remaining 56% don't know or are unsure of what it means.

## Theme 2: Development of cosmetics and household products

There are still many misconceptions and gaps in public knowledge about the use of animals in testing and research for cosmetic and household products, and the findings of our survey confirm this.

In the UK, the cosmetics industry currently employs more than 200,000 people and is valued at over £9.6 million (Source: Cosmetic Toiletry and Perfumery Association).

The EU cosmetic regulation bans the use of animal tests on finished cosmetic products or their ingredients. However, if a chemical used as a cosmetic ingredient is imported in large quantities, or used for non-cosmetic purposes as well, there are exceptions where some cosmetic ingredients may have to undergo animal tests to assess potential harm to meet EU REACH regulation<sup>4</sup> requirements, as mentioned earlier in this report.

A lot of chemicals used in cosmetics today, even in cruelty-free products, will have been proven safe through data from historical animal tests.

### Cruelty Free and the Leaping Bunny

If a cosmetic or household product promotes itself as ‘cruelty-free’ or features a ‘cruelty-free’ logo, it is likely the company has signed up to a certified scheme (such as those from Cruelty Free International, or PETA, the People for the Ethical Treatment of Animals).

These schemes allow consumers to make informed choices about buying products not tested on animals, and may have different eligibility and quality control criteria.

Perhaps the best known example of such certification is the ‘Leaping Bunny’ logo that is awarded through the Cruelty Free International programme. To be able to use the logo, companies have to prove their products’ formulation meets the requirements set out by the scheme, and this includes ensuring their suppliers have not tested ingredients on animals so that they meet REACH regulations<sup>4</sup>.

Companies that do not meet the requirements of a certified scheme may make changes to enable them to do so, whilst also remaining compliant with REACH regulations<sup>4</sup> – for instance, changing where they source ingredients, or withdrawing products from markets such as China where some animal testing on cosmetics is still required.

What the EU ban on the testing of cosmetics on animals has shown, is that it is possible to test for toxicity, skin irritation and sensitisation without using animals.

Whilst non-animal tests are developing and improving all the time, they are not ready to be applied to each and every chemical or drug safety test. If this change is to happen, communication and information sharing across industry around alternatives must be encouraged and improved, along with specific funding of the development of human-relevant tests, education to help the uptake of non-animal methods globally, and support to ensure the 3Rs are implemented correctly so alternatives are used.



## Theme 2: Development of cosmetics in household products

### Survey Statistics

24%

of respondents don't realise it is illegal to test cosmetics on animals in the UK and EU . However, there has been a ban on testing cosmetics on animals since 2004 and cosmetic ingredients since 2009.

84%

of those taking part in the survey, say they wouldn't buy cosmetics if they knew it (or one of its ingredients) had been tested on animals.

81%

of respondents say they would not buy a household product if they knew it (or one of its ingredients) had been tested on animals.

77%

of respondents cite 'not tested on animals' as a factor in their decision to buy a cosmetic or household product.

81%

would not buy a household product if they knew it (or one of its ingredients) had been tested on animals.

40%

of people would not buy or take a medicine if they knew it or an ingredient in it had been tested in animals.



## Facts

### Theme 2: Development of cosmetics and household products



REACH<sup>4</sup> is an EU-wide regulation to protect human health and the environment from chemicals manufactured, imported, distributed or used in large amounts (over 1 tonne a year). Whilst non-animal methods are advised where possible to collect safety information for REACH, animal tests are allowed as a last resort and this applies to chemicals used in cosmetics and household products, despite bans.

EU Directive 76/768/EEC<sup>3</sup> was amended in 2004 to ban the sale of cosmetic products tested on animals within the EU. Further changes banned the testing of ingredients and the marketing of any animal-tested cosmetic products.




In October 2015 the UK government banned the testing on animals of finished household products<sup>6</sup> such as detergents, cleaning products, washing powders, insecticides, solvents, furniture polish and air freshener. However, prior to this ban no animal had been used for this purpose since 2010.

This ban also included ingredients – but only those where over 50% of the product at the time of testing is planned to be used in household products. As with cosmetics, this does not apply to testing required under REACH<sup>4</sup>.




## Theme 3: Ethics and trust

There were 1.8 million experimental procedures carried out in the UK in 2018 (according to UK government figures), and over half (56%) of these were carried out for basic research purposes.

More than a third (36%) of the survey's respondents feel that the use of animals is acceptable for the development and testing of new treatments or drugs for life-limiting human conditions.

Over three-quarters of people wouldn't buy cosmetics if they knew it or one of its ingredients had been tested on animals.

FRAME believes that improving understanding of animal testing and the alternatives lies in the education of both scientists and the general public, and starting early with greater access to information through schools and higher education is vital to achieving this. In turn, this will help raise awareness of the ethical issues around animal testing, the scientific reasoning and drawbacks, the current role of alternatives, and the future benefits of using relevant human-based research and testing methods.

Where animals are being used, we need to ensure scientists have quality education in experimental design, statistics and the 3Rs, to enable them to obtain robust, reliable outcomes from minimum animal use. The checking of project license applications for animal testing, and a system for recording all animal research outcomes, are essential to solidify the ethical position when decisions are made to carry out research using animals. This transparency and information will inform the level of trust across industry, academia and communities on the reasons for and practices of using animals in research and testing.

Every establishment in the UK that uses, breeds or supplies animals for laboratory use is required to have an AWERB (Animal Welfare and Ethical Review Body) to review their project license applications.

An AWERB fulfils a requirement under EU law to have an Animal Welfare Body to oversee projects and advise on animal welfare matters or the implementation of the 3Rs. The AWERBs receive guidance from the Animals in Science Committee (ASC), a government advisory body. Together with the Home Office reviews of all license applications and reviews of grant applications by funding bodies, the AWERB is another step to ensure animal research projects are justified – and education, training and communication internally and externally is vital to support AWERB members in this role.

FRAME continues to engage with influential scientific journals to disseminate information about the ethics of animal testing, and relevant funding bodies to secure their involvement and ensure the effective and widespread implementation of the 3Rs and the focus on helping to combat the unacceptable levels of animal use in laboratories.

## Survey Statistics

36%

of respondents feel that the use of animals is acceptable for the development and testing of new treatments or drugs for life-limiting human conditions.

61%

of respondents feel there is no acceptable reason for testing products on animals or using animals in scientific research.

## Facts

### Theme 3: Ethics and trust

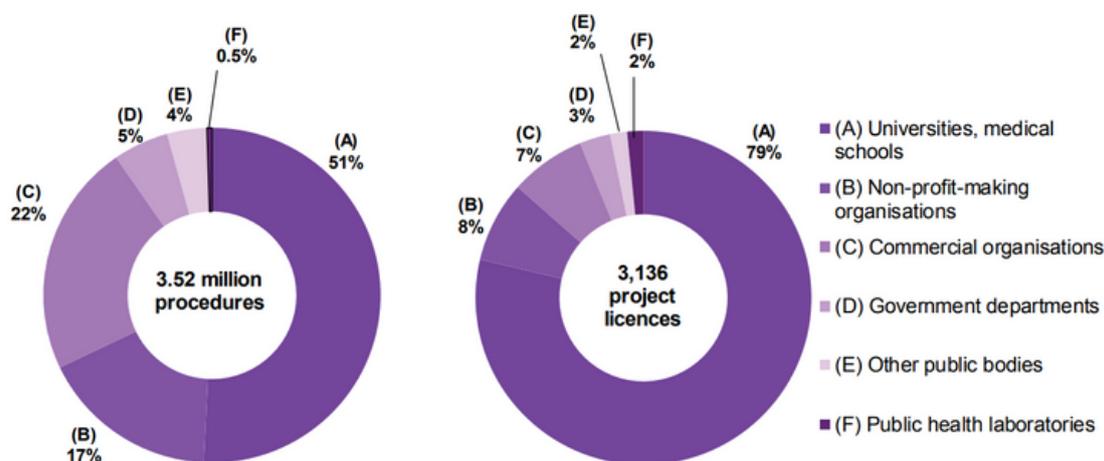
The Home Office Annual Statistics of Scientific Procedures on Living Animals Great Britain 2018 found that the majority of project licences are held by those conducting research at universities or medical schools (79%).



The pressure to publish research in a scientific journal is high due to the time and cost involved in laboratory research, but despite this the research often goes unpublished. Where animals are used in a project, this gives rise to the potential for research to be duplicated, as there is no record of ‘null’ or ‘failed’ research.



Figure 16. Procedures and project licences by establishment, 2018



Source: Home Office, Annual Statistics of Scientific Procedures on Living Animals, Great Britain 2018: data tables, Table 11

#### References

1. REACH Legislation: [https://ec.europa.eu/environment/chemicals/reach/legislation\\_en.htm#legal](https://ec.europa.eu/environment/chemicals/reach/legislation_en.htm#legal)
2. Changes to legislation: Animals (Scientific Procedures) Act 1986: <https://www.legislation.gov.uk/ukpga/1986/14/contents>
3. EU Directive 76/768/EEC: [https://ec.europa.eu/growth/sectors/cosmetics/legislation\\_en](https://ec.europa.eu/growth/sectors/cosmetics/legislation_en)
4. REACH Legislation explained: <https://www.hse.gov.uk/reach/about.htm>
5. 2018 Study by MIT (Massachusetts Institute of Technology): <https://academic.oup.com/biostatistics/article/20/2/273/4817524>
6. UK Government ban on the testing on animals of finished household products, October 2015: <https://www.gov.uk/government/news/ban-will-end-testing-of-household-products-on-animals>

### Our thoughts

- Science is all about innovation and change, but the use of animals in testing and research is an area that is not challenged enough.
- There is a clear enthusiasm for, and growing awareness of, alternatives to animals.
- There is still a lot of work to do before we can replace the use of animals in all research and testing, but FRAME is helping to close this gap and aims to replace the use of animals as soon as possible.
- There is a clear need for collaboration and the sharing of information within the scientific community.
- FRAME supports the call for failures in animal tests to be published or publicly available, and for more data sharing and collaboration to reduce and replace animal use, and the survey confirms that the public wants this too.
- FRAME is exploring the potential for the establishment of a registry for all animal research projects and testing procedures that are carried out in the UK to help reduce replication.
- Education is key to improving knowledge of using and searching for non-animal alternatives within the academic sector, as well as the implementation of robust experimental design and analysis in all research, particularly where animals are being used. This can start in secondary school and should be compulsory on relevant university courses.

**“Through FRAME’s education and outreach work, we are committed to ensuring that future generations of scientists understand available alternatives to animal testing, and that the scientific industry is aware of the benefits of non-animal methods in terms of both validity and cost.**

**“Using the insights from the attitudes and perceptions survey, and taking our characteristic pragmatic approach, FRAME continues to aim to change what is an embedded practice. With the growing number of viable in vitro and in silico alternatives to animals, we are in a strong position to work with policymakers and regulators to push for the end of suffering of laboratory animals and move towards becoming a more humane society.”**

**Celean Camp, Chief Executive Officer (CEO), FRAME**



# ABOUT FRAME

FRAME is a scientific research charity committed to replacing the use of animals in scientific experiments and is dedicated to the development of new and scientifically valid methods that will replace the need for laboratory animals in medical and scientific research, education, and testing.

FRAME was instrumental in developing and establishing a validation process for in vitro assays for assessing toxicities of chemicals. The move to validated in vitro assays by the cosmetics industry has been highly successful and FRAME has collaborated with many well-known cosmetics and household product companies, including L'Oréal, Gillette, Avon, and Marks & Spencer.

Where the use of animals is currently necessary, FRAME supports the reduction of numbers involved to an unavoidable minimum and refinement of experimental procedures to minimise the impact of those experiments on animals used.

FRAME promotes the 3Rs (Replacement, Reduction & Refinement) as a way forward for animal experimentation.

FRAME's priority is the elimination of the need to use laboratory animals through activities including campaigning, publication of its scientific journal (ATLA), laboratory research and educational work.

Through its laboratory and desk-based research, FRAME is continually investigating and developing new methods at the forefront of science. It also collaborates with other organisations, industry and laboratories across a wide range of biological and medical fields.

Over half a century of work in the field, and through involvement in a wide range of projects, FRAME has developed its scientific knowledge and expertise in animal alternatives. This knowledge provides an array of vital resources for scientists in academia and industry.

Dr Andrew Bennett was appointed as Director of the FRAME Alternatives Laboratory in 2006. Its research currently focuses on using samples obtained with full ethical approval and under licence from the Human Tissue Authority, and from operations at Nottingham University Hospitals NHS Trust, to construct in vitro models of human cells and organs for biomedical research.

As an independent charity, FRAME relies on financial support from corporate partners and public donors who support the aim of eliminating animal experimentation and developing techniques which can provide better outcomes for human health.

The charity was founded in London in 1969 by Dorothy Hegarty, and celebrated its 50th anniversary in 2019.

To find out more and support our work, please visit [www.frame.org.uk](http://www.frame.org.uk).

[www.frame.org.uk](http://www.frame.org.uk) | [marketing@frame.org.uk](mailto:marketing@frame.org.uk) | +44 (0) 300 030 1016



FRAMEcharity



FRAMEpage



@frame\_charity

FRAME Fund for the Replacement of Animals in Medical Experiments  
Registered charity no: 1176266

