

Animal Research at the University of Sussex – Annual statement 2017

Animal research is currently a vital component of research into diseases and conditions such as cancer, infection, cardiovascular and neurological disorders, and into fundamental biological processes. Animal research is also a significant contributor to the understanding and treatment of major animal and human health problems. While alternative methods are increasingly enabling researchers to replace many studies involving animals, some animal use must continue for further advances to be made, but only after weighing the potential benefits of the research against the harm to the animals concerned. Where the use of animals can be justified, ensuring good care and welfare of those animals used in scientific research is critically important.

The University of Sussex is committed to meeting all external ethical and regulatory requirements. This commitment is reflected in the University's [*Code of Practice for Research*](#). We seek to provide accurate and accessible information about how our scientific and medical research includes animal experiments and the standards of animal care and welfare we uphold. We are a signatory to the [*Concordat on Openness in Animal Research*](#), which aims to help the public understand how and why animals are used on its behalf in scientific, medical and veterinary research in the UK. This includes acknowledging that animal related research has limitations as well as benefits. Animal 'models' of human diseases are not perfect, and potential treatments that show promise in pre-clinical studies sadly do not always translate to humans. We will therefore seek ways to make available negative findings as well as support the translation of positive results into practical outcomes. Openness also means being honest about the fact that animal experiments can cause suffering, which the University takes very seriously. Minimising suffering, and obtaining maximum benefit from animal use, are both very important to us and the steps we take to achieve these are set out below.

We are committed to replacing animal experiments wherever possible, reducing animal numbers and suffering, and improving welfare

The University is committed to the principles of [replacement, reduction and refinement \(the 3Rs\)](#). The University supports the principle of developing alternative methods such as computer modelling, tissue culture, cell and molecular biology, and human clinical research. Animal procedures are replaced with non-animal techniques wherever possible and researchers must justify

requests to use animals instead of humane alternatives. For each project we check and review that the number of animals used is justified and set at the minimum necessary to give meaningful results. We review scientific procedures, care routines and husbandry to reduce suffering and improve welfare.

The University is committed to the [Animal Research: Reporting of In-Vivo Experiments guidelines \(ARRIVE\)](#), which are intended to improve the reporting of research using animals, to maximise information published and reduce the risk of duplication of studies. ARRIVE guidance is disseminated to staff and students through an online research integrity programme, directly to relevant schools and is blended into learning for postgraduate students.

The Home Office produces [annual statistics](#)¹ relating to scientific procedures performed on living animals in accordance with Animals (Scientific Procedures) Act 1986 (as amended 2012) (ASPA). The Named Animal Care and Welfare Officer ensures that standards of husbandry and care are in place that meet the provisions of the ASPA and we ensure that we house animals according to legal guidelines for that species. We also fulfil requirements to allow animals to express a range of behaviours, for example by providing nest boxes and nesting material for rodents and by group-housing social animals. We require sound scientific and animal welfare justification if any of these provisions are to be withheld; for example, some animals may need to be individually housed for a period following surgery.

[We are committed to achieving a high quality standard of animal care and welfare](#)

Concerns and consideration of the care and welfare of animals are vitally important within the ethical review of a project proposal and continue to be so during the research activity. Veterinary and animal care staff are actively involved in the welfare and care of animals, ethical review of research, and in providing on-going advice and support to researchers. The University ensures that those working with animals are aware of their responsibilities and are appropriately trained, licensed and competent to undertake relevant procedures.

¹ The Home Office produces [annual statistics](#) relating to scientific procedures performed on living animals in accordance with Animals (Scientific Procedures) Act 1986 (as amended 2012) can be found at the following webpage: <https://www.gov.uk/government/collections/statistics-of-scientific-procedures-on-living-animals>

The University's Named Animal Care and Welfare Officer is expected to take steps to maintain high standards of husbandry and care. The establishment licence holder is responsible for ensuring that the University complies with the ASPA, including making sure the 3Rs are applied and there are sufficient staff to care for the animals. Veterinary support is provided by the Named Veterinary Surgeon (NVS) and a team of professional, qualified animal technologists monitors animal welfare in the facilities. Scientific procedure establishments and breeding and supplying establishments are required to name a Veterinary Surgeon in their licence schedule, who accepts responsibility under legislation to provide advice on the health, welfare and treatment of animals within these establishments.

We follow the [Home Office Code of Practice](#) for the Housing and Care of Animals used in Scientific Procedures. We take our duty to recognise and minimise any potential suffering of animals used in our research very seriously. If a condition or procedure has the potential to cause pain or discomfort we carefully consider how we will detect behavioural and physical signs of suffering, agree on how often animals will be monitored, and what limits we can place on suffering to ensure that the scientific question can be answered without causing avoidable pain or distress. We consider what appropriate environmental conditions and enrichment, such as litter, nesting material, nest boxes, forage feed, space and chew blocks, should be in place so the animals are able to display normal behaviours including social behaviour and exercise. This is important for good science as well as good animal welfare.

Appropriate action is always taken if the suffering of animals is found to be approaching the pre-defined limits that are in place for each experimental procedure or genetically-altered strain; for example, animals are given pain relief, removed from the study or humanely killed. Our Animal technologists are trained in correct handling and husbandry and in the recognition of signs of pain, discomfort, distress and disease.

Research Integrity training is available to all staff and postgraduate research students, which involves training on research with animals in order to encourage a culture of professional integrity, and to raise awareness of good standards of ethical practice. Researchers at the University of Sussex are supported by the [Code of Practice for Research](#) and our policy on [Research Integrity](#). In addition to this, researchers are encouraged to follow their professional or discipline-specific code of ethics and conduct, for example the Association for the Study of Animal Behaviour, the British Society of Animal Science or the International Society for Applied Ethology.

We are committed to robust ethical review and meeting legislative standards

In the UK, research and teaching activities involving animals are regulated by the ASPA, and there are also good practice standards and guidelines set by a number of professional bodies, such as the Laboratory Animal Science Association. Compliance of animal care and use with these requirements and guidelines is monitored by University staff, and by the Home Office Animals in Science Regulation Unit through its inspectors, who visit on a regular basis.

To be allowed to undertake research regulated by the ASPA, researchers are required to obtain ethical approval by the University's Animal Welfare and Ethical Review Body (AWERB)², a Project Licence for the programme of work and a Personal Licence, authorising a suitably trained and competent person to carry out defined procedures on the named species, such as injections, surgery, blood sampling or giving animals diseases such as cancer or diabetes.

All research projects are reviewed by the AWERB, which applies a local perspective when reviewing the harms, limitations and benefits of a new project or alterations to an existing project. The University's AWERB involves lay and independent representation, including a member from an animal welfare organisation, and other members both external and internal to the University.

The Named Veterinary Surgeon, Named Animal Care and Welfare Officer, representatives of licence holders and veterinary and animal care staff are on this committee. Beyond ethical review, veterinary and animal care staff provide on-going advice and support to researchers on husbandry, care, welfare and housing.

Some animal research proposals are not covered by the ASPA, for example because they involve types of animal whose use is not regulated or simple behavioural observations that are not expected to cause harm. In these cases, the Principal Investigator, or Supervisor (in the case of student projects), is still required to apply for approval through the University's AWERB, which considers study design, care and welfare and involves the same group of reviewers who review projects that are covered by the ASPA. This is not a legal requirement, but we believe that ethical review and the 3Rs should be applied to all animal use.³

² http://www.sussex.ac.uk/staff/research/governance/erp_overview/animals

³ This excludes use of invertebrates that is not regulated by the ASPA, unless a funder requests ethical review. The use of some invertebrates (cephalopods, comprising octopuses, cuttlefish and squid) is regulated by the ASPA and any proposed projects involving these species would be subject to full ethical review.

The total number of animals potentially subject to the auspices of the ASPA that were used in 2017 by the University of Sussex are shown in the table below⁴.

Total Animals Used/ by Species		Total Used By Severity Banding			Total animals Used by %	
Species	Total	Severity Banding	Total	Species	Numbers Used by %	
Mice	7291	Sub Threshold	3794	Mice	46	
Zebra Fish	7672	Mild	10561	Zebrafish	48	
Rats	962	Moderate	1125	Rats	6	
		Severe	330			
		Non-recovery	115			
Total Number used	15925		15925		100	

Related links to follow for more information:

[Understanding Animal Research](#)

[The Concordat on Openness in Animal Research](#)

[RSPCA - Research Animal Science](#)

[UK Government - Research and testing using animals](#)

[Home Office - Science Research statistics](#)

[National Centre for the Replacement, Refinement and Reduction of Animals in Research](#)

[ARRIVE](#)

[Animals \(Scientific Procedures Act\) \(as amended in 2012\)](#)

[The Institute of Animal Technology](#)

[Laboratory Animal Science Association](#)

[Universities Federation for Animal Welfare](#)

[The Concordat to Support Research Integrity](#)

[Fund for the Replacement of Animals in Medical Experiments \(FRAME\)](#)

⁴ Latest available information.