

The use of animals in immunological research

Summary

The British Society for Immunology (BSI) supports the use of animals in research providing the following criteria are met

- Any use is fully compliant with Home Office legislation
- Proper consideration has been given to refine the research under the principles of the “3 Rs”

The importance of animal research

Research using animals has been a critical component of nearly every advance in immunological science in recent decades. For example, the development of vaccines for many of the deadliest infectious diseases has depended on research in animal models. We also owe the development of antibiotics such as penicillin, the use of insulin to treat diabetes, the success of anti-retroviral drugs to delay the onset of AIDS, and the recent accomplishments of cancer immunotherapy to ground-breaking scientific endeavor that would have been impossible without the use of animal models.

Without these advances there would be no vaccination against many common diseases, no drugs available to treat infections, and no effective way to control diabetes or HIV/AIDS. Whilst alternatives should always be pursued, the use of animals remains essential for future scientific breakthroughs. The BSI is therefore fully convinced of the need for continued responsible use of animals in scientific research.

The three Rs

We believe that any research using animals should adhere to the principles of the “3Rs”. This means that any research should where possible seek to:

- Replace the use of animals with alternative techniques, or avoid the use of animals altogether

- Reduce the number of animals used to obtain the necessary information
- Refine the experiment in such a way as to reduce animal suffering as much as possible.

Every scientist using animal models has to demonstrate they have given due consideration to these principles.

Regulation

Animal research in the UK is governed by the [Animals \(Scientific Procedures\) Act 1986](#) which has recently been revised to transpose the [EU Directive on the Protection of Animals Used for Scientific Purposes](#).

This legislation requires any person, project, and facility undertaking animal research to be licensed by the Home Office. The requirements of licensing are strict and ensure that the animal's welfare is taken extremely seriously. The licensee must demonstrate that they have taken into consideration the use of animals against the expected benefits from their research. As part of the licensing arrangement Home Office inspectors can visit any research establishment without notice and can take strong action against breaches of the regulations. These regulations are far stricter than those used in farms or during food production.

Concordat on Openness on Animal Research

The BSI, along with 95 other organisations that includes major universities, charities, commercial companies, research funders, and other learned societies, is a signatory to the [Concordat on Openness on Animal Research](#). The Concordat sets out a commitment for signatories to be as open as possible about the use of animals in scientific research to help foster a better public understanding of the need for the continued use of animal models in science.