



## London School of Hygiene & Tropical Medicine

### Policy on the use of animals in biomedical research

The mission of the London School of Hygiene & Tropical Medicine is:

To improve health and health equity in the UK and worldwide; working in partnership to achieve excellence in public and global health research, education and translation of knowledge into policy and practice.

Achieving some of these aims requires the use of animals for research into the causes and prevention of infectious diseases of global importance. Animal research at the School focuses on:

- defining the basic mechanisms of how pathogens cause disease
- developing new chemotherapeutic drugs to combat infection
- developing novel vaccines to prevent infection

These approaches are applied to infections such as malaria, tuberculosis and many others, which together cause the death of over 3 million people each year as well as affecting long term illness, childhood development and considerable social and economic burdens, particularly in developing countries.

The School is committed to conducting research involving animals at the highest standards of humane care and treatment. Purpose bred laboratory rodents and insects are the only species used for research at the London School of Hygiene & Tropical Medicine. Rodents are not used for teaching purposes. All research involving animals is guided by the principles of the 3Rs: Replacement, Reduction and Refinement.

The School supports the development, validation and adoption of appropriate alternatives to the use of animals in order to eliminate, or if not, reduce the need for animals in biomedical research. *In vitro* alternatives to whole animal experiments are promoted and frequently used. However, due to the complexity of the infection process and the need to rigorously evaluate candidate drugs and vaccines for protective efficacy, it is still necessary for *in vivo* studies to be performed.

Research involving animals only occurs when the following criteria are met:

- no other non-sentient alternative is available
- the research proposed is peer-reviewed, of the highest scientific quality and likely to provide knowledge critical for improving human health
- the investigations are performed using the smallest number of animals to guarantee a statistically valid and biologically meaningful result (thus reducing the number of times each experiment must be performed)

All animals obtained for research at the London School of Hygiene & Tropical Medicine are purpose bred at establishments licensed by the Home Office or other international regulatory

agencies and subject to inspection and approval by the Named Veterinary Surgeon (on call 24 hours a day, every day of the year).

All research involving animals is governed by the Animals (Scientific Procedures) Act 1986, Amendment Regulations 2012, which controls how animals are obtained, housed and treated. All individuals who perform experiments with animals have undergone an approved training course, have appropriate experience in the procedures required, hold a Personal licence and operate under the additional guidance of a Project licence awarded by the Home Office.

Compliance with this legislation is actively and rigorously monitored at several complementary levels:

1. Animal care staff including the Named Animal Care and Welfare Officer are responsible for the daily health assessment of every animal held in the School. Collectively, these individuals have over 75 years of experience in the care and maintenance of these species and are registered members of the Institute for Animal Technology, the national agency which regulates and ensures the proficiency of animal care staff in the UK, and members of the Laboratory Animal Science Association.

2. Independent Reviewers: The Home Office inspector appointed to our facility visits unannounced, on average every month, and the Named Veterinary Surgeon also visits routinely once a month, and at any time additional care or review is needed.

3. Formal ethical review: this review is performed before any research is started at the School by the local Animal Welfare and Ethical Review Board. This includes independent experts in ethics and animal welfare, who are not members of School staff. This panel reviews all animal research under the responsibility of the London School of Hygiene & Tropical Medicine, including applications for new project licences prior to their submission to the Home Office, as well as interim reviews of existing licences, to ensure compliance with the best possible standards of animal care for the duration of the research project.

The London School of Hygiene & Tropical Medicine, together with more than 60 other leading research institutes and funding agencies in the UK, is a signatory to the Concordat on Openness on Animal Research. An important objective of our research is the publication of statistically valid data of the highest scientific merit and importance in publicly available, peer-reviewed journals. The School endorses and uses the ARRIVE (Animal Research: Reporting of In Vivo Experiments) guidelines, developed to improve the design, analysis and reporting of research using animals, in order to maximise the information published and to minimise unnecessary studies.

Further information about the use of animals in biomedical research can be found at the following sites:

- [Understanding Animal Research](#)
- [ARRIVE](#)
- [Concordat on Openness on Animal research](#)
- [The Home Office](#)