

Animal Research: 3Rs Principles - Guidance for Peer Reviewers*

As a member of the Association of Medical Research Charities (AMRC), Encephalitis International follows AMRC guidance and policy on the use of animals in research.

AMRC guidance outlines how, “...whilst not all AMRC members fund research using animals as part of their strategy, they all support the principle of using animals in research in order to advance understanding and treatment of serious health conditions, but only **when necessary**, and **where there is no alternative that can be used**.¹

No AMRC charity takes the decision to fund animal research lightly. AMRC and its members are committed to the 3Rs of reduction, replacement and refinement, as basic principles of humane animal research.

In response to this, this guidance is to help the Scientific Advisory Panel and external peer reviewers consider the replacement, refinement and reduction of animals in research (the 3Rs) in a grant application.

The medical and scientific community looks for ways to minimise the use of animals in research. Charities, pharmaceutical companies and the government support the NC3Rs (the National Centre for the Replacement, Refinement and Reduction of Animals in Research), which promotes the 3Rs and develops ways to replace animal research and improve animal welfare.²

The 3Rs help to develop ways to replace animal research and improve animal welfare.

Definitions of the 3Rs (www.nc3rs.org.uk):

Replacement: Replacement refers to technologies or approaches which directly replace or avoid the use of animals in experiments that typically use animals. Based on the latest science and technologies, new models or tools can be used to address scientific questions without the use of animals, for example: human volunteers, tissues and cells, mathematical and computer models, and established cell lines.

Reduction: Reduction refers to methods that use as few animals as possible per experiment or study, without compromising the quality of the data. This also includes sharing data and resources, and increasing the information gathered per animal in order to reduce the use of additional animals.

Refinement: Refinement refers to methods that minimise the pain, suffering, distress or lasting harm that may be experienced by the animal. This applies to all aspects of animal use, from housing and husbandry to scientific procedures performed on the animals, in order to allow animals to perform their natural behaviours

Please be aware that Encephalitis International does not fund research using animals which takes place outside the UK.

All applicants must include in their applications information about using animals in their research. Please consider “**Information about the use of animals and animal home office licenses**” section on the Grant Application Form when assessing if the applicant complies with the 3Rs principles. The applicant must provide an answer to the following questions if the research involves using animals:

- *If there are approvals from: The Home Office (in relation to personal, project and establishment licences), Animal Welfare and Ethical Review Body?*
- *Severity of the procedures (including details of moderate/ severe procedures), and justification for moderate to severe procedures.*
- *Justification for animal use (including other possible approaches, species/model appropriate, number of animals, sample size calculations, statistical advice)*

In order to establish if the application supports the principle of the 3Rs to refine, reduce and replace the use of animals in research you should consider the following questions:

- Can the use of animals, and the use of these species, be justified in terms of the likely outcomes of the research?
- Is there potential for improvement in the research approach which would replace the use of animals, reduce the number of animals used, and/or reduce animal suffering? Might changes in the research approach allow the researchers to derive significantly greater scientific benefit from their use of animals?
- Would any of the studies not be considered acceptable in your laboratory; if not, why not?

If, based on the questions above, animal use is necessary, other questions you might consider are:

- Whether modern, less-invasive methods can be used in place of traditional, invasive approaches to procedures?
- Whether appropriate humane endpoints will be used to limit unnecessary suffering?
- Whether animals can be sourced locally to avoid long, multi-staged transport?
- Whether too many dose groups, or recovery animals, have been included in regulatory toxicology studies?
- Whether requests for additional animals as a contingency are adequately justified?

Where the use of non-human primates, cats, dogs or equines is proposed by the applicant, Encephalitis International must send the application to NC3Rs for additional review.

Research funded outside of the UK must be carried out in the spirit of UK legislation as well as being compliant with all local legislation and ethical review processes.¹

**This guidance has been adapted from AMRC Peer Reviewer's 3Rs Handbook.*

Updates taken from: [Use of animals in research | Association of Medical Research Charities \(amrc.org.uk\)](#) and the AMRC "Position statement on the use of animals in research" (published January 2014 and updated September 2020).

¹ [Position statement on the use of animals in research | Association of Medical Research Charities \(amrc.org.uk\)](#)² <https://www.amrc.org.uk/Handlers/Download.ashx?IDMF=8860d37a-abdb-43ea-8595-08ddb9f4fbd3>

Approval

Before approving ensure version number is V5 or above.

Approved by the CEO in January 2025

Document Change Control

Version	Date	Review Date	Changes by	Summary of changes
V1-2				Old versions unavailable
V3	Feb 2019		A Ellerington	
V4	May 2021	May 2022	L Bricio-Moreno	Reviewed, updated and formatted
V5	January 2025	January 2028	E Collins Angela Vincent	Updated AMRC statement Branding