

Introduction

This toolkit follows a joint workshop on funding research involving animals, co-hosted by Science Europe, NC3Rs and the Wellcome Trust. The information is produced from suggestions throughout, and from all attendees.

This diagram is intended to inform thinking when reviewing processes for research involving animals. It intends to be a model of *good* practice and not *best* practice and is open to development.

It sits alongside our joint principles as funders to ensure a collaborative and effective method for assessing research involving animals.

Using the diagram

The process is a complete loop. This represents the need to review policies and processes regularly to ensure their effectiveness in supporting fast-moving science.

Each box presents an action, with points to consider. Three concepts should be considered throughout: animal welfare, the advancement of science, and openness and transparency.

The position of public engagement represents the need for this action to happen throughout the process.

The resources act help guide actions to achieve good science and animal welfare.

Resources

Policy

- [Commission Documents](#) supporting the Directive

Applications/Guidance

- [EDA](#)
- [ARRIVE Guidelines](#)
- [ILAR Guidelines](#) provides recommendations on standards of animal care and use in the United States, and is also used by [AAALAC International](#) in its global accreditation programme. It can be used a reference for assessing standards for research in the US and other countries, but it is important to note that the standards in the ILAR Guide for some species are lower than those mandated in the European Union under Directive 2010/63/EU.
- [RSPCA Welfare Guidance](#)
- [Responsibilities in Animal research document](#)
- [European Commission 3Rs](#)
- [Norecopa Database](#) has a large volume of searchable content regarding the 3Rs

Publication

- ARRIVE Guidelines

Potential strategies to meet our goals

Participants at the conference discussed these actions that funders could take to improve science and animal welfare

- Promoting relevance and the 3Rs
 - Adopting the [ARRIVE Guidelines](#) to help improve good reporting and reproducibility
 - Improvements in the assessment of experimental design and statistical power e.g. sample size, randomisation, blinding, sex bias or husbandry
 - Recommending applicants use the [Experimental Design Assistant](#)
 - Supporting refined techniques in surgery, anaesthesia, identification, genotyping, handling, husbandry, humane killing and transportation to maximise animal welfare
 - Knowledge and promotion of the latest and most effective research models
 - Sign-up to the joint funders document [Responsibility in the Use of Animals in Bioscience Research](#)
 - For funders of research involving non-human primates, sign up to the guidelines [Primate Accommodation, Care and Use](#)
 - An expectation that grant holders will actively maximise the benefits of their projects, by publishing and actively promoting their results, including negative data, liaising with external colleagues and sharing 3Rs developments
- Working collaboratively and sharing good practice
 - We are exploring options for a central repository for resources relating to the 3Rs & funding research involving animals
 - Improving discussion with other funders, and stakeholders
 - A shared model of 'good practice' in funding processes to aspire to
 - Regular conferences or meetings to update and progress on our goals
- Openness and Transparency
 - Measures to increase Open Access publication
 - Measures to increase access to scientific data
 - Promoting the publication of negative findings
 - Publication of statistics on animal use in funded research
 - General public engagement and dialogue, education on research involving animals and alternatives
 - Expressing commitment to openness e.g. the Concordat for Openness