National Centre
for the Replacement
Refinement & Reduction
of Animals in Research

NC3Rs gateway – Guidance for preparing a Brief Report

The aim of this guidance document is to guide NC3Rs-funded researchers through the process of preparing a Brief Report for the gateway. This document should be used in conjunction with the guidance for authors provided by F1000Research on 'Preparing a Brief Report'.

Scope

Brief Reports can describe small studies, unexpected or unexplained observations, brief lab protocols or modifications to lab protocols, or provide a summary of a conference poster. Both null/negative data and confirmatory results are permitted, and the research data should be reported in a few illustrations, or even a single figure.

Articles should be written with a target audience in mind, typically mammalian/vertebrate model users. The 3Rs model/tool/technology should be described in sufficient detail to encourage adoption by the target audience and wider scientific community. The 3Rs relevance and impact of the model/tool/technology should be embedded throughout the article; from the abstract through to the discussion, and where appropriate, be supported by metrics.

Format

A Brief Report should be no more than 2,500 words. For most Brief Reports, the following standard format will be the most appropriate:

- Research highlights (this will be a stand-alone box)
- Abstract
- Introduction
- Methods
- Results
- Conclusions/Discussion

Brief Reports can, however, be as short as a single-figure paper. In such cases, the figure (with underlying data) would replace the Results section, and the Conclusion section is optional.

Important details to include

Research highlights (stand-alone box)

A separate, stand-alone, 'Research Highlights' box should be included in the manuscript. This feature will provide the reader with a quick, structured overview of the 3Rs approach described in your article and will illustrate why they should adopt your 3Rs approach both from a scientific and a 3Rs perspective.

Provide concise bullet-point responses to the following questions (multiple bullet-points can be listed for each question, and if some questions are not applicable to your article they may be omitted):

- What are the scientific benefits?
- What are the 3Rs benefits?
- Are there any practical benefits? For example; cost effectiveness, time, difficulty/complexity.
- What can the approach be applied to currently?
- What are the potential future applications?

Box template

Research highlights	
Scientific benefit(s):	
3Rs benefit(s):	
Practical benefit(s):	
Current applications:	
Potential applications:	

Abstract

Abstracts should be up to 300 words long and provide a succinct summary of the article. In addition, summarise in two sentences; 1) who the target end-user(s) are, and 2) why they should adopt your 3Rs approach both from a scientific and a 3Rs perspective.

Introduction

- Describe the background and rationale for the study.
- Clearly describe the 3Rs relevance of your approach, and clearly define who the potential end-users of your 3Rs approach are.
- Where appropriate, include metrics that support the need for 3Rs research in this area.
  Consider the following questions:
  1. How many animals are used locally for this work, and how many would be affected/no longer used?

2. How many groups in the UK or overseas use the animal model and could benefit from the approach?
3. How many papers published annually use this model, and how many animals are used in a typical publication.
4. What is the severity classification of the procedure as defined under the EU Directive (2010/63/EU); non-recovery, mild, moderate or severe?

Methods

Provide full details of the materials, methods and equipment used so that the work can be reproduced/repeated by others.

- Include supporting images and videos, where appropriate.
- Consider including a 'Notes' section to supplement the 'Materials and Methods' with practical considerations or tips for implementation.
- If you are presenting any comparative data, consider addressing the following points about experimental design:
    - Include a discussion of allowances made (if any) for controlling bias or unwanted sources of variability. Any limitations of the datasets should be discussed.
    - Include the number of experimental and control groups, and sample size per group.
    - State how the sample size was calculated; showing power calculations, if these have been performed, and including justification of effect size. Mention circumstances in which power calculations were not appropriate in determining sample size.
    - Provide a description of the statistical analyses used in relation to the primary outcomes that were assessed.
- Where applicable, we also encourage authors to deposit a step-by-step description of their protocols on protocols.io, where they obtain a persistent digital object identifier (DOI), which can be included in the Methods section of the article, using https://doi.org/10.17504/protocols.io.[PROTOCOL DOI] as the format (e.g. https://doi.org/10.17504/protocols.io.hrkb54w). Authors should note that the protocol is only made public once they select "Publish" on protocols.io.
- For articles that describe the use of animal models, including invertebrate models (such as Drosophila or *C. elegans*) or non-protected immature forms of vertebrates (such as embryonic or foetal forms), the article must comply with the ARRIVE guidelines.
- For articles that describe the use of animal tissues following a Schedule 1 procedure, the article must comply with the 'Housing and husbandry' section of the ARRIVE checklist.
- Abbreviations, if needed, should be spelled out.
- Add Research Resource Identifiers (RRIDs), where available, to unambiguously identify the following types of resources: antibodies, genetically modified organisms, software tools, data, databases and services. More information on this project is available from the Resource Identification Initiative and RRIDs can be obtained from the RRID portal.

Results

A detailed description of the data should be provided, including specific information regarding the data and statistical analyses performed. In addition, the results should be clearly explained both a scientific and 3Rs perspective.

- Supporting videos and the use of interactive figures, where appropriate, is encouraged.
- All articles reporting new research findings must be accompanied by the underlying source data, together with details of any software used to process the results. Please include details of how the data were analysed to produce the various results (tables, graphs, etc.) shown (i.e. what statistical tests were used). If a piece of software code was used, please provide details of how to access this code (if not proprietary). See also F1000Research Data Preparation guidelines for further guidance on data presentation and formatting.
- If you have already deposited your datasets or used data that are already available online or elsewhere, please include a 'Data Availability' section, providing full details of how and where the data can be accessed, including the DOI. Please also provide details of the license under which the data can be used.
- If you are describing new software, please make the source code available on a Version Control System (VCS) such as GitHub, BitBucket or SourceForge, and provide details of the repository and the license under which the software can be used in the article.
- The F1000Research team will assist with data and/or software deposition and help generate this section, where needed please email F1000Research who will be happy to advise.

Discussion

- Describe the transferability of your 3Rs model/tool/technology. Include a careful consideration of the barriers to uptake for other potential end-users and the potential solutions to address/overcome these.
- Describe the translatability of your 3Rs model/tool/technology. To which types of scientific question/remit/discipline could the 3Rs approach be (or not be) applied?
- Address why it is important for your 3Rs approach to be adopted by others; summarise the scientific and 3Rs benefits of taking up your 3Rs model/tool/technology.
- Quantify the achieved and potential 3Rs impact of the model/tool/technology described, where appropriate. For example, how many animals have been affected/are no longer used locally (e.g. in your laboratory, department or institution) or in the UK/internationally? Has the severity classification of the procedure or model been affected (e.g. from severe to moderate)?