This Action Plan sets out a series of steps that universities can undertake to support researchers in improving the reporting of animal research using the ARRIVE guidelines 2.0. The Plan focuses on highlighting the importance of the guidelines across the local research community, shifting expectations to full and transparent reporting as the norm, and monitoring adherence such that the level of compliance can be effectively assessed, and resources targeted accordingly. Having a nominated individual or group with accountability for overseeing the delivery of the Action Plan – for example, the animal ethics committee or those involved with research integrity at the institution – can make a big difference to buy-in and use of the guidelines.

The items in the ARRIVE 2.0 guidelines are divided into the Essential 10 (i.e. the basic minimum that must be included in any manuscript describing animal research in order for readers and reviewers to assess the reliability of the findings) and the complementary Recommended Set (i.e. information that provides context for the study). The goal should be to ensure full compliance with the ARRIVE 2.0 guidelines, reporting in accordance with both the Essential 10 and Recommended Set.

The Action Plan is divided into three sequential levels with increasing expectation of compliance with the ARRIVE 2.0 guidelines. Many universities will already be at Level 1 and should relatively quickly be able to move on to more active use of the guidelines by researchers as the standard institutional practice.

### Level 1: Highlighting ARRIVE

The key actions at this level focus on raising the visibility of the guidelines by:

- Ensuring that the university has a public statement (e.g. on its website) endorsing the use of the ARRIVE guidelines.
- Actively promoting the resources provided by the NC3Rs on the ARRIVE guidelines to all researchers who use animals. The resources available include webinars, various translations, guidance explaining the basis for the inclusion of each item in the guidelines and examples of good practice, and a checklist for authors to submit to journals with their manuscript.
- The animal ethics committee discussing use of the guidelines with researchers seeking local approval for animal studies.
Level 2: Implementing the use of the guidelines in practice

The key actions at this level focus on active implementation of the guidelines by:

- Setting a policy requirement for all researchers who use animals to report their methods and results in any manuscript in line with the ARRIVE Essential 10. As part of the implementation of the policy, the animal ethics committee should require information on the items in the Essential 10 as part of the approval process for in vivo studies in order that experiments are conducted in a way that facilitates subsequent appropriate reporting.

- In preparation for shifting to Level 3, encouraging researchers who publish animal studies to adhere to the full ARRIVE guidelines (the Essential 10 and the Recommended Set) wherever possible, and to submit an author checklist to a journal alongside their manuscripts – ideally these expectations would be reflected in local policies.

- Providing training for early career researchers on the importance and benefits of transparent and complete reporting, including requiring PhD students to write their thesis in accordance with the full ARRIVE guidelines.

Level 3: Monitoring adherence

The key action at this level is to actively monitor or audit compliance with the ARRIVE guidelines in publications describing animal research from the university. Opportunities to monitor compliance include identifying whether an ARRIVE checklist has been submitted alongside published manuscripts, reviewing with researchers at occasions such as mid-term or end of project licence review meetings, or when collating submissions at a university-wide level, such as for the Research Excellence Framework in the UK.

Useful links for Action plan implementation

- Details of the ARRIVE Essential 10 and Recommended Set, explanations of each item included in the guidelines, and examples of good reporting from the published literature.

- Webinar

- Translations

- Author Checklists

- Compliance Questionnaire