



# The ARRIVE guidelines 2.0: author checklist

## The ARRIVE Essential 10

These items are the basic minimum to include in a manuscript. Without this information, readers and reviewers cannot assess the reliability of the findings.

| Item                                    |    | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Section/line number, or reason for not reporting |
|-----------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| <b>Study design</b>                     | 1  | For each experiment, provide brief details of study design including: <ul style="list-style-type: none"> <li>a. The groups being compared, including control groups. If no control group has been used, the rationale should be stated.</li> <li>b. The experimental unit (e.g. a single animal, litter, or cage of animals).</li> </ul>                                                                                                                                                                                                                                                              |                                                  |
| <b>Sample size</b>                      | 2  | <ul style="list-style-type: none"> <li>a. Specify the exact number of experimental units allocated to each group, and the total number in each experiment. Also indicate the total number of animals used.</li> <li>b. Explain how the sample size was decided. Provide details of any <i>a priori</i> sample size calculation, if done.</li> </ul>                                                                                                                                                                                                                                                   |                                                  |
| <b>Inclusion and exclusion criteria</b> | 3  | <ul style="list-style-type: none"> <li>a. Describe any criteria used for including and excluding animals (or experimental units) during the experiment, and data points during the analysis. Specify if these criteria were established <i>a priori</i>. If no criteria were set, state this explicitly.</li> <li>b. For each experimental group, report any animals, experimental units or data points not included in the analysis and explain why. If there were no exclusions, state so.</li> <li>c. For each analysis, report the exact value of <i>n</i> in each experimental group.</li> </ul> |                                                  |
| <b>Randomisation</b>                    | 4  | <ul style="list-style-type: none"> <li>a. State whether randomisation was used to allocate experimental units to control and treatment groups. If done, provide the method used to generate the randomisation sequence.</li> <li>b. Describe the strategy used to minimise potential confounders such as the order of treatments and measurements, or animal/cage location. If confounders were not controlled, state this explicitly.</li> </ul>                                                                                                                                                     |                                                  |
| <b>Blinding</b>                         | 5  | Describe who was aware of the group allocation at the different stages of the experiment (during the allocation, the conduct of the experiment, the outcome assessment, and the data analysis).                                                                                                                                                                                                                                                                                                                                                                                                       |                                                  |
| <b>Outcome measures</b>                 | 6  | <ul style="list-style-type: none"> <li>a. Clearly define all outcome measures assessed (e.g. cell death, molecular markers, or behavioural changes).</li> <li>b. For hypothesis-testing studies, specify the primary outcome measure, i.e. the outcome measure that was used to determine the sample size.</li> </ul>                                                                                                                                                                                                                                                                                 |                                                  |
| <b>Statistical methods</b>              | 7  | <ul style="list-style-type: none"> <li>a. Provide details of the statistical methods used for each analysis, including software used.</li> <li>b. Describe any methods used to assess whether the data met the assumptions of the statistical approach, and what was done if the assumptions were not met.</li> </ul>                                                                                                                                                                                                                                                                                 |                                                  |
| <b>Experimental animals</b>             | 8  | <ul style="list-style-type: none"> <li>a. Provide species-appropriate details of the animals used, including species, strain and substrain, sex, age or developmental stage, and, if relevant, weight.</li> <li>b. Provide further relevant information on the provenance of animals, health/immune status, genetic modification status, genotype, and any previous procedures.</li> </ul>                                                                                                                                                                                                            |                                                  |
| <b>Experimental procedures</b>          | 9  | For each experimental group, including controls, describe the procedures in enough detail to allow others to replicate them, including: <ul style="list-style-type: none"> <li>a. What was done, how it was done and what was used.</li> <li>b. When and how often.</li> <li>c. Where (including detail of any acclimatisation periods).</li> <li>d. Why (provide rationale for procedures).</li> </ul>                                                                                                                                                                                               |                                                  |
| <b>Results</b>                          | 10 | For each experiment conducted, including independent replications, report: <ul style="list-style-type: none"> <li>a. Summary/descriptive statistics for each experimental group, with a measure of variability where applicable (e.g. mean and SD, or median and range).</li> <li>b. If applicable, the effect size with a confidence interval.</li> </ul>                                                                                                                                                                                                                                            |                                                  |