

## 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:<br>a. The groups being compared, including control groups. If no control group has been used, the rationale should be stated.<br>b. The experimental unit (e.g. a single animal, litter, or cage of animals).                                                                                                                                                                                                                                                      | Materials & Methods<br>89 - 123 line                  |
| <b>Sample size</b>                      | 2 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.<br>b. Explain how the sample size was decided. Provide details of any <i>a priori</i> sample size calculation, if done.                                                                                                                                                                                                                                              | Materials & Methods<br>89 - 123 line                  |
| <b>Inclusion and exclusion criteria</b> | 3 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.<br>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.<br>c. For each analysis, report the exact value of <i>n</i> in each experimental group. | Materials & Methods<br>89 - 92 line<br>108 - 113 line |
| <b>Randomisation</b>                    | 4 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.<br>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.                                                                                                                                                | Materials & Methods<br>89 - 92 line<br>108 - 113 line |
| <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).                                                                                                                                                                                                                                                                                                                                          | Material & Methods<br>89 - 152 line                   |
| <b>Outcome measures</b>                 | 6 a. Clearly define all outcome measures assessed (e.g. cell death, molecular markers, or behavioural changes).<br>b. For hypothesis-testing studies, specify the primary outcome measure, i.e. the outcome measure that was used to determine the sample size.                                                                                                                                                                                                                                                                            | Materials & Methods<br>148 - 152 line                 |
| <b>Statistical methods</b>              | 7 a. Provide details of the statistical methods used for each analysis, including software used.<br>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.                                                                                                                                                                                                                                                                            | Materials & Methods<br>148 - 152 line                 |
| <b>Experimental animals</b>             | 8 a. Provide species-appropriate details of the animals used, including species, strain and substrain, sex, age or developmental stage, and, if relevant, weight.<br>b. Provide further relevant information on the provenance of animals, health/immune status, genetic modification status, genotype, and any previous procedures.                                                                                                                                                                                                       | Materials & Methods<br>89 - 92 line<br>108 - 113 line |
| <b>Experimental procedures</b>          | 9 For each experimental group, including controls, describe the procedures in enough detail to allow others to replicate them, including:<br>a. What was done, how it was done and what was used.<br>b. When and how often.<br>c. Where (including detail of any acclimatisation periods).<br>d. Why (provide rationale for procedures).                                                                                                                                                                                                   | Materials & Methods<br>89 - 147 line                  |
| <b>Results</b>                          | 10 For each experiment conducted, including independent replications, report:<br>a. Summary/descriptive statistics for each experimental group, with a measure of variability where applicable (e.g. mean and SD, or median and range).<br>b. If applicable, the effect size with a confidence interval.                                                                                                                                                                                                                                   | Results<br>154 - 228 line                             |