Checklist: Writing a Research Article

☐ The title emphasizes what is most important about the paper (often the main conclusion but sometimes also the methods used)

☐ The abstract reads like a mini-version of your paper, complete with statements on the background, scientific question or goal, approach, results, interpretation, and conclusion

☐ The abstract contains keywords that other scientists are likely to enter into searchable online databases

☐ The introduction allows a reader to understand the relevant work that preceded your paper, your scientific question or goal, your approach to achieving your goal and a brief summary of your main findings

☐ The introduction does not contain any information that is irrelevant to the rest of the paper

☐ The abstract and introduction clearly state why your research is important and novel

☐ The methods section is detailed enough to allow another scientist in your field to duplicate your experiments with exactly the same reagents, equipment, computer software, and strains of model organisms

☐ Each experiment described in the results section contains its own rationale, statement of methods, result, and conclusion

☐ The results are described in a logical order that fits into a scientific narrative (and not necessarily the order with which you performed the experiments)

☐ Figures and figure legends contain all information necessary to understand the major experiments without a reader having to consult the main text

☐ The discussion highlights the contributions of your experiments to your field and analyzes results that readers are likely to find most puzzling or interesting

☐ The discussion does not read like a recapitulation of your results section

☐ The discussion contains a final conclusive paragraph or statement that serves as a final “take-home” message for your readers

☐ The references you cite are the most appropriate for describing previous studies in the field, usually primary research articles instead of reviews

☐ The references cite multiple authors within your field and investigators likely to be asked to review your submission

☐ The manuscript follows all directions specified by the journal to which you are submitting

☐ The manuscript is completely free of errors, typos, and grammatical mistakes

☐ You have solicited and received feedback from multiple colleagues on both content and style