



Ramirez Lab Journal Club Format¹

Time Breakdown

- 1) Very simple presentation of figures and findings (20 minutes)
- 2) Review the paper (25 minutes)
- 3) Time for discussion (15 minutes)

Format for Reviewing the Paper (Part 2 above)

1) Overview:

- Summarize the major finding in the paper to show you understand.
- What does this finding add to the field (put the finding in context of what is was previously known and discuss the impact of the new information)?
- Summarize your opinion of the paper and whether you want particular points addressed in a revision.

2) Major Points:

- List major points that must be addressed (by rewriting) by the authors in order to proceed with publication.
- List major points that must be addressed (by further experiments) by the authors in order to proceed with publication.
- Make any suggestions that might significantly improve the manuscript

3) Minor Points:

- List minor points that must be addressed (typos, incorrect labeling of figures etc.)
- List minor points that might improve the manuscript (rewording for clarity, additional work/citations that are relevant to the discussion)

4) Recommendation:

- Accept without revision?
- Accept with minor revision?
- Accept with major revision?
- Reject?

¹ Taken and adapted from Avasthi Lab

Considerations for Review (taken from Elsevier reviewer guidelines)

Originality: Is the article sufficiently novel and interesting to warrant publication? Does it add to the canon of knowledge?

Structure: Is the article clearly laid out? Are all the key elements present: abstract, introduction, methodology, results, conclusions? Consider each element in turn.

- **Title:** Does it clearly describe the article?
- **Abstract:** Does it reflect the content of the article?
- **Introduction:** Does it describe what the author hoped to achieve accurately, and clearly state the problem being investigated? Normally, the introduction is one to two paragraphs long. It should summarize relevant research to provide context, and explain what findings of others, if any, are being challenged or extended. It should describe the experiment, hypothesis/es; general experimental design or method.
- **Methodology:** Does the author accurately explain how the data was collected? Is the design suitable for answering the question posed? Is there sufficient information present for you to replicate the research? Does the article identify the procedures followed? Are these ordered in a meaningful way? If the methods are new, are they explained in detail? Was the sampling appropriate? Have the equipment and materials been adequately described? Does the article make it clear what type of data was recorded; has the author been precise in describing measurements?
- **Results:** This is where the author/ s should explain in words what he/ she discovered in the research. It should be clearly laid out and in a logical sequence? You will need to consider if the appropriate analysis has been conducted? Are the statistics correct? If you are not comfortable with statistics advise the editor when you submit your report. Any interpretation should not be included in this section.
- **Conclusion/Discussion:** Are the claims in this section supported by the results, do they seem reasonable? Have the authors indicated how the results relate to expectations and to earlier research? Does the article support or contradict previous theories? Does the conclusion explain how the research has moved the body of scientific knowledge forward?
- **Language:** If an article is poorly written due to grammatical errors, while it may make it more difficult to understand the science, you do not need to correct the English. You may wish to bring it to the attention of the editor, however. Finally, on balance, when considering the whole article, do the figures and tables inform the reader; are they an important part of the story? Do the figures describe the data accurately? Are they consistent, e.g. bars in charts are the same width, the scales on the axis are logical.

Previous Research: If the article builds upon previous research does it reference that work appropriately? Are there any important works that have been omitted? Are the references accurate?

For how not to be a jerk and extract the best out of a manuscript, see MBoC article: Any jackass can trash a manuscript, but it takes good scholarship to create one.