

Manuscript writing and review process

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Manuscripts: outline

- Title page
- Abstract (summary)
- Introduction
- Materials/methods
- Results
- Discussion
- Figures/tables
- References

Title Page: Title

- Declarative statement
- Something “flashy” to catch the reviewer’s and readers’ attention (e.g. A novel interaction between X and Y)
- Usually a limit of words/characters for title

Title Page: Authors

- Acknowledge co-authors
- Incorporate collaborators from other labs

Title Page (Continued)

- Running title: brief version of title
- Key words: usually 4-6 (choose general words....)

Abstract

- Summary of manuscript, usually 150-250 words
- Organize as synopsis of manuscript:
 - Introduction
 - Results
 - Conclusions
 - No need to mention methods, except as approach to carry out experiments

Introduction

- Can be tough, but shouldn't be!
- Break up into “thirds”, that is, 3 sections with total length about 2-2.5 pages
 - First 1/3: Background (literature review)
 - Second 1/3: Significance of problem/issue
 - Third 1/3: Hypothesis and brief synopsis of results, emphasizing what is novel and implications

Materials and methods

- May follow introduction or end of manuscript, depending upon journal guidelines. About 4-6 pages
- Be somewhere between brief and exhaustive; can reference papers with well accepted methods but add what may have been modified.
- Organize:
 - Study design
 - Study population
 - Data collection
 - Laboratory methods (if applicable)
 - Statistical analysis

Results

- Use subheadings, if journal allows
- Build a story
- Use figures as a guide in results section. Thus, plan figures according to outline.
- Figures: positive/negative controls; scan high-quality. Okay to say “data not shown” for some figures.
- Figure legends and results section should be complementary, not duplicative.
- Aim for 6-8 pages

Discussion

- Many parallels to introduction
- Use subheadings, if journal allows
- Rule of “thirds” can be re-applied
- First 1/3 section: Synopsis of results, emphasizing what is novel
- Second 1/3 section: Place in perspective of literature.

How has work added to literature (lit. review)?

How has work shed new insights?

Discussion (Continued)

- Third 1/3 section
 - Bring it all together
 - How has work led to new model? Okay to speculate
 - What might be future impact and directions?
 - Aim for length of 3 pages

Figures and Figure Legends

- Journal will dictate how many figures and tables allowed
- High-quality figures (“self-explanatory”)
- Tables can summarize numerical data
- Can have figure that shows model from work
- Figure legends: avoid duplication with results and methods. However, should explain data and mention methods (general fashion)

References

- Journal will dictate the format
- How many?
 - Probably 30-50
- Which ones?
 - Original publications are good
 - Seminal or key publications are good
 - General concepts can be supported by review articles (here choose, recent ones and those in top journals)

When Should I Submit Manuscript?

- Outline of literature, experiments/results and conclusion is important
- Outline of figures needed and build around that
- Timing is important.
 - Want to get as complete a story as possible, but also, not delay (others may finish before you)
- Okay to submit and can still do additional experiments as review process takes time
- Set goals and deadlines!

How Do I Choose a Journal for Submission?

- Work will influence choice of journal. Look through journals. Talk to people.
 - If work is very focused, then select a journal that is focused as well
 - If work is broad-based, then select a journal that is more general
- If work is very novel, then would try top journal initially.
 - Mechanism(s) is(are) important.
- Regardless, choose as high-impact journal as possible in the initial submission
- If necessary, have a “list” of journals to follow, if original submission doesn’t work.

Review Process-1

- After manuscript submission, Editor/Associate Editor decides whether to review or not.
- If sent for reviewer, typically 2 or 3 reviewers will review. They are asked to submit review within 3 or 4 weeks (can take longer, however, if reviewer(s) not compliant)
- Reviewer will score the manuscript in different categories (significance, originality, quality of data, validity of conclusions, overall score). Submits comments to editors and separately, to authors. Reviewer should not recommend to authors whether manuscript is accepted/rejected, as this is editorial decision.

Review Process-2

- Editor considers all reviews and makes decision. Usually, this is relatively quick (24-96 hours)
- Decision has different flavors
 - Accept as such (Joy)
 - Accept with minor revisions (Joy)
 - Reject with opportunity to resubmit, but not guaranteed acceptance (Tears, then joy). This usually means additional experiments. Time limit on resubmission.
 - Reject (Tears). Appeal is usually not met with change of mind by Editor. Can take comments from reviewers and incorporate on resubmission to another journal.

My Manuscript Has Been Accepted!

- Once manuscript has been ultimately accepted, what happens? Deal directly with production staff.
- Proofs are sent. Corrections within 48-72 hours. Can recommend figure for cover.
- Most papers now on-line as soon proofs are in to journal. Actual paper will appear in 2-6 months, depending upon journal.

My Manuscript Has Been Declined!

- This never happens to me.
- It is the fault of my PI and/or my colleagues.
- The world is a strange, bitter place and I don't wish to participate in the human race anymore.
- Dear Editor: may the plague hit your family and friends!!
- Importantly, don't give up, persist and regroup
 - Plan what is needed--experimentally and practically--for next submission
 - What have I(we) learned for next time?

Manuscript Writing

Questions??