

## How Peer Review Works

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Susan Baker, PhD  
Professor of Microbiology & Immunology  
Loyola University Chicago, Stritch School of Medicine  
[sbaker1@lumc.edu](mailto:sbaker1@lumc.edu)  
Thanks to Andy Pekosz, PhD for slides!!

## What we want to avoid...



## Review Criteria

- Do the data actually support the conclusions?
- Do the conclusions significantly advance our understanding of the topic?
- Are the data clearly and precisely presented?

The answers to these questions can vary greatly between journals/editors/reviewers

## Who is your peer?

- Individuals in your field of research
  - Does the study significantly advance the field?
- Individuals with technical expertise in key methods or approaches
  - Are the approaches valid and used correctly?
- Individuals in related but relevant fields of research
  - What is the impact of the research on other, related areas of research?
  - Is this research of general interest to journal readers or only to a small subgroup?

## How do editors choose reviewers?

- Editorial boards – scientists who have committed to reviewing articles for a specific journal
- Author suggestions – the author should be the best sources of scientists that have appropriate expertise
- Citations – the papers you cite in your manuscript are often used to find names of reviewers
- Other contributing authors – an editor may be responsible for a number of papers in a related field and call on those authors to review.
- Other reviewers – when a reviewer declines to review an article, they are often asked to suggest other potential reviewers
- Pubmed searches, etc.

Your reviewer may not be completely immersed in all the background literature in your specific field but is part of your target audience



## Questions to address before submitting your manuscript...

(Hint: this list may look familiar...)

- Do the data actually support the conclusions?
- Do the conclusions significantly advance our understanding of the topic?
- Are the data clearly and precisely presented?

Identify your target audience/journal

## The review process: Journal of Virology

- What does the author see...
  - Editors comments/decisions
    - Summarize the points made by the reviewers that carried the most weight
    - Accept/modify minor/modify major/reject
      - A good editor will clearly convey what are critical points that need to be addressed in a resubmission
      - Others have four form letters...
  - Reviewer's comments
    - Summary of the manuscript
    - Comments/criticisms/compliments
      - Major/minor points
    - 2 or 3 reviews are standard but specialty journals may bring up to 5 reviewers

## The review process: Journal of Virology

- What does the editor see...
  - The narrative that will be seen by the authors
  - A separate narrative that will only be seen by the editor
  - Numerical rankings for specific aspects of the manuscript

## The review process: Journal of Virology

### EDITORIAL POLICY

To best serve its readership, JVI must accept papers that are most significant to the field of virology. Thus, editors will reject manuscripts that, while scientifically sound, represent only incremental extensions of other studies, are mainly confirmatory, or do not pursue a question in sufficient depth. Many manuscripts will be more appropriate for one of the many specialty journals. Reviewers are asked to assign a numerical score, as indicated below, to assess the priority of each manuscript and to more precisely transmit their opinion to the editors.

If the manuscript is not sufficiently significant to justify publication in JVI, please be sure to review the manuscript in sufficient detail for the authors to understand your point of view.

### Recommendation and Comments

Please rate the latest version of the manuscript under review.

Your Recommendation is - [Click Here to Select](#) -

Accept, major modification, minor modification, reject

## The review process: Journal of Virology

### CONFIDENTIAL ASSESSMENT FOR THE EDITOR

1. Can this manuscript be shortened without loss of clarity? (If so, please make detailed suggestions in your review.)

- Yes  
 No

## The review process: Journal of Virology

- What factors are scored:
  - Quality of the results
  - Significance to the field
  - General interest to JVI readers

Scale of 1 (best) -5 (least)  
3 or lower in any category is justification for rejection

## The review process: Journal of Virology

### SUPPLEMENTAL MATERIAL INTENDED FOR PUBLICATION EDITORIAL POLICY

Supplemental information intended for posting by ASM may NOT simply include additional figures or tables that support the authors' conclusions. It must be restricted to large or complex data sets or results that cannot be readily displayed in printed form because of space or technical limitations. Such material may include data from microarray, structural, biochemical, or video imaging analyses (see Instructions to Authors). Material that has been published previously (print or online) is not acceptable for posting as supplemental data. Instead, the appropriate reference to the original publication should be made in the article text.

The decision to publish (post online) supplemental material when the manuscript is accepted will be made by the editor. It is possible that the article will be accepted but that the supplemental material will not be.

Complete this section of the review form only if the editor has indicated to you that supplemental material is to be reviewed for posting. If there is no supplemental material associated with this manuscript or if supplemental material has been provided as an aid to the reviewers only, leave this section blank.

Your recommendation regarding the supplemental material is

- Click Here to Select -

## The review process: Journal of Virology

Review Comments

Confidential Notes to Editor

Click Here to  
Rev Form: 02/03/2009  
Rev. Version: 08/09/2009

## Becoming a good reviewer

- Practice writing reviews which focus on the key points an editor is interested
  - This is distinct from rewriting/writing a paper
  - Work with mentors and advisors to “co-review”
- Make it a learning experience
  - Read additional papers in a related area
  - Read the editor's letter and other reviewers critiques critically.
    - What items were important to the other reviewers
    - What did the editor find compelling about the reviews
- Put your “reviewer hat” on and look at your own articles before you hit the submit button

## References

- Ushma S. Neill. How to write a scientific masterpiece. J. Clinical Investigations 117:3599-3602, 2007.
- Robert A. Day. How to Write and Publish a Scientific Paper. 1998. 5<sup>th</sup> edition. Oryx Press