

Reviewer Best Practices: Why and How?

Kelly A. Hadsell
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Editorial Director, KWF Editorial
Chairperson, CSE Editorial Policy Committee

Peer review when done right.....

Tells fact from opinion

Assesses value

Improves the paper

Improves science



Reviewer Responsibilities

Peer reviewer responsibilities toward authors

- Provide written, unbiased feedback in a timely manner on the scholarly merits and the scientific value of the work, together with the documented basis for the reviewer's opinion
- Indicate whether the writing is clear, concise, and relevant and rating the work's composition, scientific accuracy, originality, and interest to the journal's readers
- Avoid personal comments or criticism
- Maintain the confidentiality of the review process: not sharing, discussing with third parties, or disclosing information from the reviewed paper

<https://www.councilscienceeditors.org/resource-library/editorial-policies/white-paper-on-publication-ethics/2-3-reviewer-roles-and-responsibilities/>

Peer-reviewer responsibilities toward editors

- Notify the editor immediately if unable to review in a timely manner and provide the names of potential other reviewers
- Alert the editor about any potential personal or financial conflict of interest and decline to review when a possibility of a conflict exists
- Comply with the editor's written instructions on the journal's expectations for the scope, content, and quality of the review
- Provide a thoughtful, fair, constructive, and informative critique of the submitted work, which may include supplementary material provided to the journal by the author
- Determine scientific merit, originality, and scope of the work; indicating ways to improve it; and recommending acceptance or rejection using whatever rating scale the editor deems most useful
- Note any ethical concerns, such as any violation of accepted norms of ethical treatment of animal or human subjects or substantial similarity between the reviewed manuscript and any published paper or any manuscript concurrently submitted to another journal which may be known to the reviewer
- Refrain from direct author contact

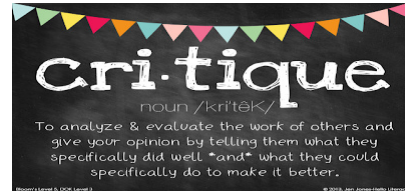
<https://www.councilscienceeditors.org/resource-library/editorial-policies/white-paper-on-publication-ethics/2-3-reviewer-roles-and-responsibilities/>

Peer-reviewer responsibilities toward readers

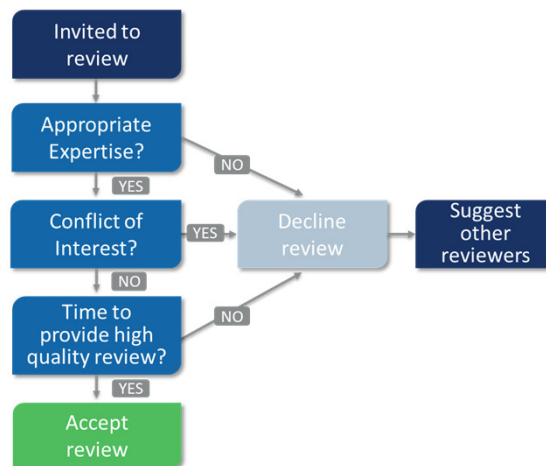
- Ensure that the methods are adequately detailed to allow the reader to judge the scientific merit of the study design and be able to replicate the study, if desired
- Ensure that the article cites all relevant work by other scientists

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Ethical responsibility of reviewers



Reviewer responsibilities: a quick summary





Ensuring Reviewer Best Practices

Clear and accessible policies

- Journal website
- Links from review form to journal policies
- Detailed instructions

Detailed journal scope

Scope

Cancer Research publishes original studies, reviews, and opinion pieces offering significance and broad impact to a diverse audience. *Cancer Research* seeks manuscripts that offer pathobiological and translational impact to inform the personal, clinical, and societal problems posed by cancer. The main scope of the journal is captured in its primary subsections:

- Genome and Epigenome
- Metabolism and Chemical Biology
- Molecular Cell Biology
- Tumor Biology and Immunology
- Translational Science
- Convergence and Technologies
- Population and Prevention Science

The following criteria provide an overview of the types of studies considered by the journal:

- Findings that have not been previously published in another tumor model.
- Studies performed in multiple cell lines.
- Conclusions that are not representative of incremental findings.
- Studies that include a clearly written title and abstract that communicate the study's impact of significance to non-experts.
- An incisive rationale that could interest a broad audience.
- Manuscripts containing *in vivo* data. Although *in vivo* data is not required, studies containing this data are preferred.
- A potentially generalizable, broad impact conclusion.
- Studies that describe RNA interference (RNAi) must contain one non-specific control and two specific siRNAs for each knockdown target of interest. Additional data is required that demonstrates knockdown achievement at the level of protein expression (not just mRNA).

www.cancerres.aacrjournals.org

Clear review criteria

Applied Optics Review Criteria

Applied Optics publishes peer-reviewed articles related to applications-centered research in optics, photonics, imaging, and sensing. Articles should concentrate on moving the potential of science and technology to the practical. Articles introduce new science or technology in an optics discipline in the form of increased understanding or a novel application of an existing topic. Articles are in-depth and should include the development and performance of technologies when applying theories.

To meet *Applied Optics* goal of publishing timely and high-impact research, submitted papers are subjected to critical review according to the criteria listed below.

Appropriateness for Applied Optics

Does the subject material fall within the scope of the journal? Will the paper be of interest to the applied optics community?

Rating Options: Very high, High, Moderate, Low, Very low

Quality, Depth, and Completeness of Content

Does the manuscript provide increased understanding related to the applications of optics, photonics, sensing, or imaging? Is the paper an original and significant contribution to the field? Is the topic covered in depth? Is the topic covered completely, e.g., theory, simulation, experimentation, and analysis?

Does the topic provide design guidelines or explain limitations on implementations of theory? Are the conclusions supported by the data presented, and is the work placed in proper context? Is prior or related work adequately referenced? Note that papers considered to be incremental, incomplete, or lacking in scientific or technical relevance are likely to be rejected. Does the work warrant publication in an archival journal?

Rating Options: Very high, High, Moderate, Low, Very low

https://www.osapublishing.org/submit/review/pdf/Applied_Optics_Research_Article_Letter_criteria.pdf

Focused questions on review form

- Is the work an original contribution?
- Is the technical content of the manuscript sufficient?
- Is the author's approach reasonable?
- Are the conclusions adequately supported?
- Is the manuscript appropriate for the journal?
- Is the research interesting and important?
- Does the manuscript advance the field in a substantive way?
- Is the author's use of the English language sufficient?
- Overall, is the manuscript publishable?
 - If not, write a narrative with your reasoning, providing clear evidence to support it, and conclude your review here.
 - If so, continue with a detailed review. Your comments should convince the editor that the manuscript is worthy of publication.

Provide educational resources

Links/access to reviewer tutorials

- Publisher websites
- ACS Reviewer Lab
- Publons Academy

Links to guidance documents

- CSE White Paper
- COPE
- ICMJE
- ISMPP

Reviewer training opportunities

- Reviewer mentoring programs
- In person opportunities at society meetings

Thank you!

Kelly A. Hadsell
Editorial Director, KWF Editorial
Chairperson, CSE Editorial Policy Committee
Kelly.Hadsell@kwfco.com
(609)413-2250