PEER-REVIEW
Why, How-To, and What Not To Do

OVERVIEW
After attending “Peer-Review: Why, How-To, and What Not To Do,” attendees should be well versed in how the peer-review process is carried out at ACS Publications, what editors look for when reviewing submissions, qualifications needed to become a reviewer, strategies to evaluate a manuscript, and tips for responding to reviewer reports.

KEY POINTS
Definition
Peer-review is the evaluation of a manuscript by people with relevant expertise and is intended to determine a manuscript’s relevance and suitability for publication in a journal.

To warrant peer-review, a manuscript should have:
• Appropriate scope (resonate with the journal’s target audience)
• Technical validity (have well-designed experiments, high level data interpretation)
• High quality writing (be clear, concise, free of grammatical errors)

Reviewers should have:
• Broad knowledge
• Technical expertise
• Ability to provide an unbiased opinion

Handling editors:
• Invite reviewers suggested by the author and chosen from an independent pool to ensure a fair review process
• Carefully review each manuscript before and after external peer-review
• Analyze reviewer comments and make a decision about the manuscript

Upon receiving reviews, authors should:
• Carefully read the decision letter and comments
• Evaluate the relative importance of the comments
• Perform necessary experiments and include the results in the revised text
• Be timely if a revision or resubmission is requested

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Remember to:
• Be professional in responses to the reviewer comments
• Respond to each comment noting if/what changes were made
• If a reviewer misunderstood the content, provide scientific support or rewrite text for clarity

What to do if a manuscript is declined:
• Step back for a few days to regain perspective
• Refocus on the science and examine the editors’ and reviewers’ comments again
• Use the comments constructively to improve the manuscript
• Submit to a new journal with an appropriate scope that reaches the target audience

To become a peer-reviewer:
• Publish high quality work in reputable journals
• Attend conferences and network to enhance your standing within the scientific community
• Let your interest be known to colleagues and advisors, who might suggest you as a reviewer
• Let your interest be known to the journal office if you hold an independent research position

Additional Resources
Publishing your Research 101, Episode 6: The Review Process
Mastering the Art of Scientific Publication
To access these resources and more, visit acsoncampus.acs.org/resources