

## Advice for Trainees, Junior Faculty, and Mentors

Peer review, meaning a critical assessment by experts within a discipline, is both a privilege and the responsibility of all scientists who seek to publish their research and compete for funding. Peer review also contributes to professional development: Many institutions consider peer review activities in performance and promotion reviews, and peer reviewers learn to write better manuscripts and grants.

### For Graduate Students

*Learn about reviewing and get some experience*

- » When your faculty members review your work, pay attention to how they edit, and see what you find particularly helpful.
- » Where appropriate, volunteer to proofread academic papers, manuscripts, and dissertations written by your peers.
- » Get practice through Journal Club by reviewing a paper as if it was being submitted for publication. Then ask your mentor or another faculty member to give feedback on your effort.



### For Post-Doctoral Fellows

*Build your expertise as a reviewer*

- » Learn from reviews of your manuscripts and proposals (or ones you helped prepare). Note how the reviewer approached the critique and whether it was helpful.
- » Attend career workshops such as those sponsored by the American Physiological Society that are designed to train participants in peer review.
- » Help junior members of your group edit their dissertations and papers.
- » Look for opportunities at your institution to help review abstracts, requests for internal funding, etc.
- » Offer to help your mentor review journal manuscripts subject to approval from the assigning editor. This will give you experience and let you start building your reputation as a reviewer.
- » The way to acquire experience is through networking and referrals so if you know any journal editors, offer to review manuscripts for them.

## Becoming a Good Peer Reviewer

*A good review requires motivation, scientific expertise, a helpful attitude, and time.*

- » **Put yourself in the editor's/funding agency's position:** Get the review done on time and provide clear reasons to back up your recommendations.
- » **Put yourself in the author/applicant's position:** Make your feedback constructive. Take time to think: Read the paper once, then wait at least a day and re-read it before you write your review.
- » When you are on a review panel, listen attentively and make eye contact with the presenter.
- » State your opinion, but try also to contribute to consensus building through comments that reflect upon what others are saying. Those who contribute constructively are most likely to be invited back.
- » Whether you are peer reviewing in person or via teleconference, focus on the discussion, and do not multi-task.
- » Learn more about Peer Review at [the-aps.org/peerreview](http://the-aps.org/peerreview)

# Peer Review 101 Continued

## For Junior Faculty Members

*Get more peer-review experience with editorial peer review and start reviewing grants*

- » Accept invitations to review journal articles, and complete your reviews promptly. Strive to make your comments specific and constructive.
- » Let your pre- and post-doctoral supervisors and mentors know you want reviewing experience.
- » Participating in an Institutional Review Board or Animal Care and Use Committee is a good way to learn about experimental design, but be aware that it can be a significant time commitment.
- » Apply for agency programs designed to provide peer review experience such as NIH's Early Career Reviewer Program (<http://public.csr.nih.gov/ReviewerResources/BecomeAREviewer/Pages/Overview-of-ECR-program.aspx>)
- » Both government and private funders look to their grantees to serve as peer reviewers. When you receive a new award, let your program officer know you are willing to serve, and accept invitations to sit on review panels whenever possible.

## For Senior Investigators

*Help students and trainees to appreciate peer review as a scientist's responsibility and help them gain competence as peer reviewers*

- » Recognize that by providing constructive feedback to students, trainees, and junior colleagues you can demonstrate how peer review helps scientists improve their work.
- » Encourage graduate students and post-doctoral fellows to hone their skills by "reviewing" papers for journal club, editing each other's work, and serving on internal panels to review abstracts for poster sessions, requests for internal funding, etc.
- » Enlist trainees' help to review manuscripts with prior approval from the journal editor. Be sure that trainees understand the confidentiality of the review process. Summarize their comments in your review, and give them credit so they can add this to their CVs.
- » Recommend experienced trainees and junior faculty to serve as journal and funding agency peer reviewers.

**Download this from [the-aps.org/peerreview101](http://the-aps.org/peerreview101)**

Find more Science Policy resources at [the-aps.org/sciencepolicy](http://the-aps.org/sciencepolicy)

Follow us on Twitter [@SciPolAPS](https://twitter.com/SciPolAPS)

Scan for more Peer Review Resources from [the-aps.org/peerreview](http://the-aps.org/peerreview)



The American Physiological Society was founded in 1887 to advance understanding of the organs and systems of the body. Today the APS has 11,000 members who teach and conduct research at institutions of higher learning, in government, and in industry.