Civil, sensible, and constructive peer review in APS journals

Hershel Raff1 and Dennis Brown2

1Departments of Medicine, Surgery, and Physiology, Medical College of Wisconsin and the Endocrine Research Laboratory, Aurora St. Luke’s Medical Center, Aurora Research Foundation, Milwaukee, Wisconsin; and 2Center for Systems Biology and Program in Membrane Biology/Division of Nephrology, Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts

PUBLICATION OF OUR SCIENTIFIC WORK is our currency: unpublished results are invisible to the community at large and are, therefore, equivalent to work that has never been done. Because of this requirement to publish sound science, the process of peer review is part of our culture and has been integral to ensuring the highest quality of our publications since the 18th century (9). However, this concept has been questioned repeatedly over the past few decades (2, 6, 10, 12, 13), and some have even advocated eliminating prepublication peer review altogether (1, 7). The underlying premise of this initiative is that anything in the correct format is publishable, and that postpublication scrutiny using blogs and comments, a vox populi of sorts, will ultimately expose the truth. This was called “scholarly skywriting” almost two decades ago (5) and more recently “trial by twitter” (11). While proponents of this school of thought have increased in number and influence, the Publications leadership of the American Physiological Society (APS) continues to believe that prepublication peer review is worth the effort and cost and is critical to maintaining the scientific integrity of our publications.

That being said, it is also vital that the peer review process be fair, equitable, and civil. There is no room for ad hominem comments in peer review, nor should self-serving or inappropriate motivations be allowed. Our Editors and Publications Committee occasionally receive complaints from authors that unreasonable demands and impossible requests for new experiments are articulated in reviews. We have probably all experienced such unnerving comments at one time or another. Requests for numerous new experiments, extensive new data analyses, or an unreasonable extension of the original hypothesis based on reviewer bias can be discouraging and inappropriate. Our Editors-In-Chief and Associate Editors handling a manuscript know that it is within their prerogative to modify or even discard such extensive and sometimes impossible requests by reviewers.

So, what can be done to address these issues and improve the peer review process? To reduce the types of inappropriate behavior mentioned above, it has been proposed that revealing reviewer identities to authors might be helpful (3). It has also been suggested that removing author names from submitted manuscripts (and for that matter, grant applications) may improve the process. The APS Publications Committee has discussed and rejected both of these tactics and disagrees with the idea that they would improve peer review. This decision has been confirmed consistently by several thorough scientific analyses that failed to find a beneficial effect of blinding reviewers to authorship or of asking reviewers to sign their reviews (4, 8, 14, 15). It is virtually impossible to disguise authorship of well-known scientists within an area of focus (8), and many highly qualified and sought-after reviewers would not agree to participate in the process if they could not maintain anonymity (15).

Instead, we prefer to be persistent in the education of our reviewers and editors alike, urging them to be sensitive to the needs and expectations of our author base. Most of those responsible for the review process are, of course, authors themselves. We ask them to wear their author hats when they are working on the other side of the fence performing the peer review process. The ethic of reciprocity should always come to mind; we should treat others as we expect to be treated.

This editorial is intended to alert participants in the publication process that they have the responsibility to ensure that review procedures are rapid, fair, and equitable. This includes reviewers who should not let their personal feelings or experimental bias influence reviews; it includes editors who should strive to function not as administrators who simply pass along reviewers’ comments to authors without guidance; and it includes authors who should realistically assess the comments of the reviewers and determine whether the remarks are justified. In this way, we hope to continue to transform the APS publication process into one that satisfies the dual requirements of ensuring scientific rigor as well as providing authors with a satisfying and constructive experience that will encourage them to submit their best work for consideration in our journals.

DISCLOSURES

H. Raff is chair of the Publications Committee of the APS. D. Brown is Editor-in-Chief of Physiological Reviews.

AUTHOR CONTRIBUTIONS

Author contributions: H.R. and D.B. drafted manuscript; H.R. and D.B. edited and revised manuscript; H.R. and D.B. approved final version of manuscript.

REFERENCES