The value of peer review

The December issue of CSP has a tradition of acknowledging all those who have contributed their precious time to reviewing papers submitted to the journal. We wish to take advantage of the opportunity in this Editorial to assess the peer review process.

Peer review has been used for more than three centuries to sustain quality standards for publication and plays an important role in scientific communication. Reviewers are the "guardians" of scientific publication, filtering out low-quality and poorly reported contents. Only the periodicals that use this system are included in the most important bibliographic databases. However, the system is far from perfect [1], beginning with the identification of who truly constitutes a "peer". Frequent problems include clashing reviews, very superficial evaluations that contribute little to the publishing decision, and delays in issuing reviews. The system is based essentially on peer trustworthiness and is vulnerable to ethical violations by reviewers, such as stealing ideas, plagiarism, and blocking work by others in order to delay publication. Although such events are rare, they can occur even in highly prestigious periodicals, as evidenced in a recent episode involving *Lancet Infections Diseases* [2]. More recent reports have denounced fraud by authors taking advantage of flaws in electronic article submission systems to maneuver in order to obtain favorable reviews for publishing their articles [3].

Manuscript review is a quasi-invisible task, scarcely acknowledged and poorly paid. It is also painstaking for reviewers, due to the hours they "waste" anonymously reviewing manuscripts, and tiresome for authors, who often complain (with good reason) about the time elapsed between the article's submission and its final approval. The growth in the number of journals and article submissions has spawned an increase in the demand for reviews, thereby overloading the system.

CSP will have received approximately 1,900 manuscripts by the end of 2014. The majority of these are refused after evaluation by the Editors-in-Chief immediately after submission, thereby reducing the volume of articles passed on to reviewers. Even so, in 2010, for each of the 607 articles referred for review, two reviewers either failed to reply or claimed they were unavailable. For the 315 articles referred as of late October 2014, we received 5.4 refusals per article. The high refusal rate occurs despite the fact that we adopt a policy of sparing our consultants: of the 1,052 consultants that issued reviews between 2013 and 2014 (18 months), only 20% wrote more than 2 reviews. Two simple issues reveal the problem's size. If we continue at the same pace until the end of the year, we will refer only about 400 articles for review. Meanwhile, to obtain three reviews per article, considering the current refusal rate by reviewers, we will have to send an average of 15 invitations per article.

Challenges to the peer review process are a central theme today among experts debating trends in science [4,5]. Alternatives are discussed, such as open review, collective review, or pre and post-publication review [6]. We plan to further develop the discussion in 2015, while implementing some changes in the process: decreased turnaround time between the invitation to reviewers and their reply; quality assessment of the review by the respective editor; ease of access to the manuscript by the reviewer; and mainly our recognition of the reviewer's cumulative efforts at the end of each year, by means of a certificate listing how many reviews he or she issued. Within the scope of evaluations on graduate studies pro-

grams and individual researchers' output, we plan to demand that review work be properly acknowledged and valued as a relevant research activity.

We hope that this Editorial will touch those who were not able to collaborate in reviewing manuscripts submitted to CSP in 2014 in order for them to collaborate in the future, since we all depend on this collaboration in order to publish. To all of those who rose to the task in 2014, MANY THANKS!

Marilia Sá Carvalho
Claudia Travassos
Cláudia Medina Coeli
Editors

1. Smith R. Classical peer review: an empty gun. Breast Cancer Res 2010; 12 Suppl 4:S13.
2. McConnell J. Editor's note. Lancet Infect Dis 2014; 14:182.
3. Ferguson C, Marcus A, Oransky I. Publishing: the peer-review scam. Nature 2014; 515:480-2.
4. Wagner W, Steinzor R, editors. Rescuing science from politics: regulation and the distortion of scientific research. New York: Cambridge University Press; 2006.
5. Gould THP. Do we still need peer review? An argument for change. Lanham: Scarecrow Press; 2012.
6. Wikipedia. Peer review. http://en.wikipedia.org/w/index.php?title=Peer_review&oldid=634728550 (accessed on 23/Nov/2014).