



Maffia, P. (2018) Why we should reward peer reviewers. *Cardiovascular Research*, 114(5), e30-e31.

There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.

<http://eprints.gla.ac.uk/157700/>

Deposited on: 21 February 2018

Enlighten – Research publications by members of the University of Glasgow\_  
<http://eprints.gla.ac.uk>

## **Why We Should Reward Peer Reviewers**

Pasquale Maffia<sup>1,2,3</sup>

<sup>1</sup>Centre for Immunobiology, Institute of Infection, Immunity and Inflammation, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, UK; <sup>2</sup>Institute of Cardiovascular and Medical Sciences, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, UK; <sup>3</sup>Department of Pharmacy, University of Naples Federico II, Naples, Italy

**Correspondence to** Dr Pasquale Maffia, Centre for Immunobiology, Institute of Infection, Immunity and Inflammation, Veterinary and Life Sciences, University of Glasgow, Sir Graeme Davies Building, 120 University Place, Glasgow G12 8TA, UK; [Pasquale.Maffia@glasgow.ac.uk](mailto:Pasquale.Maffia@glasgow.ac.uk)

## Brief bio sketch



Pasquale Maffia received his BSc (HONS) in Pharmacy in 1994, MPhil in Pharmacology in 1996 and Ph.D. in Pharmacology in 2000, all from the University of Naples Federico II (Italy), where he became Aggregate Professor of Pharmacology in 2006. He then joined the University of Strathclyde as a Lecturer in Integrative Mammalian Biology, before moving to the University of Glasgow where he is currently Senior Lecturer at the Institute of Infection, Immunity and Inflammation and the BHF Centre of Excellence in Vascular Science and Medicine. He is the Senior Honours Immunology degree programme coordinator in Glasgow and serves on the Executive Committee of the International Union of Basic and Clinical Pharmacology (IUPHAR) Immunopharmacology Section and the British Pharmacological Society Policy & Public Engagement Committee. He is an Editorial Board Member of the *British Journal of Pharmacology* and *Frontiers in Immunology*, Associate Editor of *Pharmacological Research* and Executive Deputy Editor of *Cardiovascular Research*. Dr. Maffia has a major interest in the immune response in cardiovascular disease. He has authored over 60 scientific papers in peer-reviewed journals including *Immunity*, *Circulation*, *PNAS*, and *Blood*. He is an elected fellow of the Royal Society of Biology, the British Pharmacological Society and the European Society of Cardiology.

Peer review is a fundamental process used to identify the strengths and weaknesses of a research article and is at the core of *Cardiovascular Research*'s activities.<sup>1</sup> It ensures that misinterpreted or misleading data are not published and enhances the general quality of published papers. I have to admit, that although some of the comments received on my own manuscripts have not always been welcome, the peer-review process has improved the overall quality of my scientific outputs. As a general principle, getting critical feedback can help us appreciate our work with fresh eyes, and may lead to new analysis, experiments and occasionally to interesting and unexplored research avenues. Therefore, the peer review process is key to improve the quality of scientific research.

The peer review process has been used for centuries since its formal implementation by the Royal Society of London in the 18th century; however, it is far from being perfect. One of the major problems is the lack of standardization in the critical evaluation of the scientific data. As a consequence, peer review is highly subjective and therefore not scientifically objective. Improving the standard and consistency of the peer process is of the utmost importance. Scientists rarely receive formal training on how to approach peer review, making the introduction of standardized training for all researchers a necessity to achieve consistent and appropriate reviewing. The number of published articles is rising each year,<sup>2,3</sup> increasing the pressure on editors to identify suitable and available reviewers to meet the demand. The number of scientists in the life sciences far exceeds the demand for peer review,<sup>4</sup> however, the problem is not to find available reviewers, but to find expert and qualified reviewers able to deliver consistent, critical evaluation of manuscripts in a short time frame. In addition, recent cases of fraudulent review, where authors impersonated fake reviewers in order to have their work accepted for publication,<sup>5</sup> highlighted the importance of establishing a system where reviewers are traceable, properly trained and evaluated over time.

Publons (<https://publons.com/home/>) was created to tackle most of these issues. Founded by Andrew Preston and Daniel Johnston in New Zealand in 2012, the platform has grown steadily over the years and was recently acquired by Clarivate Analytics (<https://clarivate.com/>), the global leader which owns the Web of Science citation database focusing on scientific and academic research analytics. Together, these companies now own large data sets of scientific authorship, citation patterns and peer-review across thousands of journals.

The main goal of Publons is to turn peer review into a rewarding activity. Researchers can post profiles of their peer review history and editorial contributions and with this demonstrate in a tangible manner their contributions to the field. The service is completely free and offers

the possibility to compare your reviewing behaviour with others around the world, together with winning awards for peer reviewing such as the ‘Sentinels of Science and Research’. Ultimately, the platform should spur academics to conduct better peer reviews, and more of them. Of note, peer review *per se* is not sufficient to accelerate your career, but it is encouraging to see that at world-class universities like Harvard peer review and editorial activities must be reported in annual evaluations.

In the past five years Publons has accumulated a user-base of over 290,000 scientists, with 1.6 million reviews listed for over 25,000 journals and Publons is set to expand under the new partnership with Clarivate. On one hand, the predictable expansion of Publons members may pave the way for the creation of a global database of reviewers, which may improve the integrity, quality and timeliness of academic publishing. On the other hand, Clarivate may now develop tools that assess the quality of researchers and Institutions, based also on the peer review data collated by Publons and not only on the Web of Science’s citation records. On this note, it’s interesting to see that in the current Publons Review World Rankings two of the top UK institutions, University College London and University of Cambridge, are in the top ten list.

Training is an important aspect of Publons. Through the Publons Academy, researchers can receive practical peer review training, with sessions spanning from academic publishing to evaluating data, results and ethics. Publons already partners with the world's publishers and leading organisations (Springer Nature, Oxford University Press, Wolters Kluwer, Wiley and The Royal Society among the others) and integrates with the main peer review submission systems (e.g. ScholarOne, Editorial Manager, Open Journal System, etc.). Therefore, in the foreseeable future, we may see Publons as an integrated digital platform where reviewers are fully trained, identified via their ORCID digital identifier (<https://orcid.org/>), assessed on the quality and performance of peer review and fully rewarded for their contribution. These tools would greatly help editors to identify suitable reviewers, would favour a more transparent and fair distribution of the peer review workload and ultimately improve the quality of science communication.

An improved system may also increase speed of dissemination and stimulate new models of review. Open review, for example, has been adopted by journals like *PeerJ*, *F1000Research*, and the *Frontiers* publishing group; however, it is still considered a controversial subject in my opinion, simply because of the lack of a standardized review process. Another interesting development could be represented by preprint servers such as bioRxiv (<https://www.biorxiv.org/>), which may become the medium for quick data dissemination

allowing a lengthier and in depth post-publication peer review process.

In summary, the partnership Clarivate and Publons may assist in modernising the peer review system, providing highly trained reviewers rewarded for their service to the scientific community.

**Conflict of interest:** none declared.

## References

1. Guzik TJ. Cardiovascular Research: new challenges and new horizons. *Cardiovasc Res* 2018;**114**:1-2.
2. Preston A. The Future of Peer Review. *Scientific American Blog Network* <https://blogs.scientificamerican.com/observations/the-future-of-peer-review/>
3. Sipido KR, Gal D, Luttun A, Janssens S, Sampaolesi M, Holvoet P. Peer review: (r)evolution needed. *Cardiovasc Res* 2017;**113**:e54-e56.
4. Kovanis M, Porcher R, Ravaud P, Trinquart L. The Global Burden of Journal Peer Review in the Biomedical Literature: Strong Imbalance in the Collective Enterprise. *PLoS One* 2016;**11**:e0166387.
5. Ferguson C, Marcus A, Oransky I. Publishing: The peer-review scam. *Nature* 2014;**515**:480-2.