

Clinical Chemistry Views and Policy on Preprints

Nader Rifai,^{1*} Thomas M. Annesley,² and James C. Boyd³

Recently, funders including the National Institutes of Health, Howard Hughes Medical Institute, Wellcome Trust, Cancer Research UK, French National Alliance for Life Sciences and Health, and the Chan Zuckerberg Initiative have encouraged the practice of using preprints to speed up the dissemination of scientific findings, capitalize on the use of crowd sourcing to evaluate the merit of the presented work, and broaden the availability of reported findings to other than journal subscribers.

This approach, however, has not been universally accepted by scientists, particularly in cases of potential commercial applications from the work or in very competitive disciplines. For example, the repository ChemRxiv for organic chemistry is poorly used because of the highly competitive nature of that field (1). Furthermore, only 11% of posted papers receive comments from the scientific community (1); thus, feedback appears to be minimal and certainly not equivalent or comparable to the peer-review process.

The policies of journals for preprints fall into 4 categories⁴:

1. Outright rejection: If a paper is posted on either a commercial or noncommercial archival server, it will be considered as a duplicate publication and therefore rejected without evaluation. Currently, a majority of biology journals refuse to consider manuscripts posted as preprints (1) (e.g., *New England Journal of Medicine*).
2. Rejection unless the paper provides new information: If a paper is posted on a noncommercial archival server such as bioRxiv, the paper will be examined on a case-by-case basis to determine whether the submitted version of the manuscript has substantial new information compared with the already posted one. Thus listing a manuscript on a preprint server will reduce its chances of being considered (e.g., *Journal of Clinical Oncology*, *British Medical Journal*, and the *Journal of the American Medical Association*).

3. Consider without prejudice: If a paper is posted on a noncommercial listing server, it will be considered without prejudice. Some commercial publishers accept the listing on their own servers (e.g., *The Lancet*, *Journal of Biological Chemistry*, *Cell*, American Heart Association journals, *Science* and *Nature*).
4. No policy: Journals have not yet formulated a policy on this matter.

The practice of using preprints is generally more widely accepted in basic science than in the medical field. Findings from clinical trials may be sought after and read by caregivers, patients, and other laypersons who lack the ability to critically evaluate the information. Therefore, editors of medical journals, rightly so, are more hesitant to encourage the availability of such information before the appropriate vetting during the peer review process. This conservative approach, in their view, will decrease the possibility of causing harm.

Clinical Chemistry is a translational science journal in the laboratory diagnostics field. The journal presents a broad spectrum of topics including novel technologies, critical evaluations of laboratory diagnostic applications and approaches, and multicenter clinical trial findings demonstrating the optimal utility of laboratory tests in various pathologies. Thus *Clinical Chemistry* bridges the basic and medical sciences. With this in mind and after careful deliberation that took into account the interests of the journal, authors, readers, the scientific community and the general public at large, we have formulated the following 7 policy items that may be revised in the future as events unfold in this area:

1. In principle, posting a manuscript on institutional websites and/or recognized noncommercial community preprint servers is acceptable. However, the editors will examine submissions with existing preprints on a case-by-case basis and will consider such factors as whether the submitted manuscript will add meaningful new information to the literature.
2. Authors must declare to the journal in their cover letter to the editor and in the required fields in the submission system whether the manuscript has been deposited as a preprint. Authors must provide the digital object identifier (DOI) number, the name of the repository, and the link to it. Failure to do so will result in the rejection of the manuscript.
3. Editors will not look favorably on work generated by a particular methodology that has only been described

¹ Boston Children's Hospital, Boston, MA; ² University of Michigan, Ann Arbor, MI; ³ Department of Pathology, University of Virginia Health System, Charlottesville, VA.

* Address correspondence to this author at: Boston Children's Hospital, Department of Laboratory Medicine, 300 Longwood Avenue, Boston, MA 02115. Fax 617-730-0383; e-mail nader.rifai@childrens.harvard.edu.

⁴ Check the specific journal's website for detailed information; various journals' websites were last accessed on March 14, 2018.

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in a preprint and has not gone through the peer-review process.

4. Authors must maintain ownership of copyright for the preprint and grant it to the journal upon acceptance of the manuscript and before publication.
5. Authors cannot deposit their manuscript on a preprint server after it has been formally submitted to *Clinical Chemistry* nor redeposit a revised manuscript on a reprint server as a result of the editorial process. If the submitted manuscript is declined by *Clinical Chemistry*, then the authors are free to deposit their manuscript on a preprint server.
6. The preprint version cannot itself be indexed in PubMed or MEDLINE. On publication, it is the authors' responsibility to update the archived preprint with the journal-assigned DOI and link it to the published article.
7. Authors are allowed to list preprints in the reference list for their submitted article. However, the editors will determine their suitability on a case-by-case basis. The format for citing preprints can be found in the journal's Information for Authors.

In formulating these policies the Editors of *Clinical Chemistry* have sought to achieve an appropriate balance between authors' desire for rapid dissemination of their findings and the need to maintain the integrity of the editorial process. Given the rapid evolution of

approaches for scientific information dissemination, the policies will be subject to periodic review and modification.

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Reference

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