Writing Constructive Reviews for Scientific Journals

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I guess most of you experience the same these days. You open your email account and you find several e-mails bombarding you with requests to publish in or to review for a new open-access journal sometimes not even active in your field of expertise. These journals kindly ask you to submit your work often within days and they promise safe and fast publication against a fee. You clearly wonder whether the fee is more important than the scientific quality.

Eventually you may obtain an e-mail from HemaSphere in which we kindly ask you to act as a reviewer for our journal. HemaSphere is the official open-access online journal of the European Hematology Association (EHA) focusing on high-quality research in basic and clinical hematology. Manuscripts submitted to HemaSphere undergo peer review and when accepted are published for a modest publication fee with reductions for EHA members. HemaSphere is a young journal that just got accepted for indexing in PubMedCentral and we are working hard to obtain our first impact factor soon.

I am deeply convinced that the quality and long-term sustainability of a journal like HemaSphere stands on several pillars, including scientific excellence of the research papers, a highly professional editorial board but clearly also on high quality reviewers. As an associate editor of HemaSphere, I see the review process as a team effort with the goal to honestly evaluate whether the work has the potential to be published in the journal and to improve the quality of a submitted manuscript.

Why do we ask you for being our reviewer? Selection of reviewers is in the editor hands, so my colleagues may do this slightly different. I start by carefully reading the submitted manuscript before interrogating publication databases or search machines asking “who is the most suitable expert in the field?” Did the potential reviewer publish connected to the subject of the submitted work but independently of the authors of the submitted manuscript? Do I eventually know the performance of a potential reviewer from my professional experience as an associate editor? In the ideal setting, I can identify about 5 to 6 candidate reviewers and hope that 3 of them will accept our request to review. As we aim to keep the time from submission to the first decision and eventually publication as short as possible, finding suitable reviewers can be tricky. Depending on the content of a given manuscript, I find them within 24 hours, however, sometimes, particularly during holidays or summer vacation it can take substantially longer.

Once you accepted being our reviewer, you may ask yourself: “What do I do I really expect from me?” A recent interview-based study addressed what 56 editors from biomedical journal expect from their peer reviewers.1 Although influenced by their journal’s unique context, there was a consensus that peer reviewers should be: (i) proficient experts in their field, (ii) dutiful towards scientific community, (iii) reliable professionals who should respond promptly to peer reviewer requests, (iv) able to see improvement of the manuscript as the primary purpose of peer review, (v) respectful communicators, and (vi) advisors to the journal’s editors (Table 1). So, when starting to review a manuscript, it is important to keep in mind that the primary goals are to provide feedback to the authors, so that they can improve the manuscript, and to give advice to the editor(s), so that they can make a thoughtful decision. Most of us learned reviewing of scientific manuscripts simply by doing, which often brings a very personal and individual note. Although there are plenty of guidelines and checklists defined by many leading publishers, it appears to me that not many of us follow them.

This is not the place to provide you a detailed “reviewers guideline”, but there are nevertheless some key points that can be followed to help the editors to come to a reasonable verdict and to improve the quality of the submitted work. First, I think it is always useful if the reviewer provides a short summary of the key points of the manuscript, just to show the authors that he thoroughly read it and understood the message. Second, the reviewer may then comment on the overall quality and potential limitations of the submitted work, without telling this should be published or not. The reviewer may also identify major flaws that need to be addressed or make the work unacceptable for publication. Third, after these more general assessments, reviewers should then list the most important points (eventually divided into major and minor points) that are not clear, should be improved and eventually need additional experiments to further support statements made by the authors. It can also be very helpful, if reviewers address the content of each section of the manuscript, and also address (if applicable) ethical aspects of a given study. These can include ethical aspects about animal experiments, but also more technical aspects like the identification...
neither help the editor to evaluate nor will it improve anything. Similarly, it is useless for the review process if the editor has to read several pages indicating why this study is “so bad” and the authors are even “worse than bad”. To avoid this, we use a double-blind review process at *HemaSphere*, where the reviewers do not see the names of the authors. Second, reviewers should remain polite, an overall aggressive and negative tone will neither make the authors nor the editor happy. Finally, please keep the given time frame as good as possible, you can always request for an extension. Intentionally delaying the work from others to get your own work published is simply unfair. We all have busy schedules and reviews for new journal appear often more a burden and not something one can immediately profit from. Logically, well-experienced leaders in a given field prefer to review for high impact journals, while more junior faculty, although often lacking the experience, have less requests, they however, may deliver nice and more detailed reviews. Therefore, it may also help to involve senior post docs from the lab in the review process. I remember being a very proud postdoctoral fellow when my mentor asked me the first time to help him reviewing an important paper. This was a truly unique opportunity for learning from a master how to review scientific papers!

**Why should you then review for HemaSphere, a journal that currently has no impact factor?** Constructive and honest reviewing will not only help to improve the quality of the published papers but also improve the overall reputation of our journal. As a consequence, we will attract more highly qualified researchers to publish their work in *HemaSphere*, which should help to obtain a good and steadily increasing impact factor. Either way, I would like to end these lines by thanking all the reviewers that worked with us in the past and constructively contributed to the journal to make *HemaSphere* one of the leading journals in clinical and experimental hematology!

**References**

1. Glonti K, Boutron I, Moher D, et al. Journal editors’ perspectives on the roles and tasks of peer reviewers in biomedical journals: a qualitative study. *BMJ Open*. 2019;9:e033421.
2. Drexler HG, Eberth S, Nagel S, et al. There is a scientific need for the right leukemia-lymphoma cell lines. *HemaSphere*. 2019;3:e315.

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**Table 1**

| Characteristics of a good reviewer. |
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| (i) Proficient expert in his/her field |
| (ii) Dutiful towards scientific community |
| (iii) Reliable professional (respond promptly to peer-reviewers requests) |
| (iv) See improvement of the manuscript as the primary purpose of peer review |
| (v) Respectful communicator |
| (vi) Advisor to the journal’s editors |

...of a cell line model used in the study.2 Reviewers for *HemaSphere* should expect scientific excellence and should particularly evaluate if any statement by the authors is indeed supported by sufficient and significant data. We also expect from our reviewers to be critical and not to apply very different scales for *HemaSphere* than for other more established hematology journals. Finally, the reviewer should also list more editorial issues such as typos, language issues, unclear legends, or issues to clarify figures and tables. These should not change at all the message of the manuscript, but need to be corrected or clarified to improve the manuscript.

Depending on the nature of a submitted manuscript, a review can be rather short or more extensive. However, I am convinced that reviewers like authors should focus on the “overall message” of a manuscript. The goal is to improve and strengthen the main message rather than distracting from it by developing completely other messages. It cannot be the goal to make a “Rolls Royce” out of a “Volkswagen”, if the message is “how can we bring people from A to B”. If any additional experiments are necessary, they should be doable within a reasonable time frame. Additional experiments should really be focused on the message of the study and not primarily address a personal wish list of the reviewer. If significantly more experiments are needed, then it is most likely often more honest to reject the paper due to its preliminary state and give the authors the opportunity to either extend their work or to publish it elsewhere.

Although this editorial is also not the place to provide you a “to do” and “not to do” list, I would like to point out certain things that we should avoid. First, reviewers should always evaluate the work and not the authors. For example, avoid writing that “the author is the best, and this work reflects his/her genius” as it will...