Minimizing the "Re" in Review

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There is a troubling trend in scientific publishing for manuscripts to undergo multiple, often lengthy, rounds of review, resulting in significant delays to publication. JCB is announcing new procedures to streamline its editorial process and eliminate unnecessary delays.

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It is exceedingly rare that a manuscript is published as originally submitted to a journal. Revisions are an integral part of the publication process, and both editors and scientists agree that the review process often improves and strengthens a body of work. However, there is widespread, and justified, concern in the community that it has become increasingly common for submitted manuscripts to go through multiple rounds of review, prolonging the time to publication. This can cause anything from a nuisance to authors to consequences affecting job applications, grants, and tenure decisions (Robertson, 2009, 2011; Petsko, 2011; Ploegh, 2011; Leptin, 2012). Although some revisions are essential to eliminate technical concerns or to substantiate the conclusions of a study, other requested experiments do not strengthen a manuscript but merely fatten it. These nonessential revisions are a significant burden to authors and do not benefit journals or scientific advancement on the whole.

Our position at *JCB* is that Editors need to play an active role in guiding authors on which revisions are essential and which ones are not. Consistent with this, our Monitoring Editors who oversee the review of individual manuscripts—and who are themselves active scientists—do not just act as collators of referees' comments but rather use their own scientific expertise to guide the editorial process. In that spirit, *JCB* has a long tradition of encouraging our Monitoring Editors to provide detailed feedback to authors about which revisions are necessary and which superfluous.

JCB recently took an additional step to clarify for authors what is essential to reach acceptance and to expedite the editorial process. In September of 2011, we launched a new article type called Tools and with it an expedited review process, which we refer to as Single Round Review. We now have extended Single Round Review to include submissions in the Report format. We also now limit the number of rounds of rereview for Articles, as described below.

How does Single Round Review for Reports and Tools work? The initial steps follow our traditional submission process: a manuscript is assessed by a Monitoring Editor from our Editorial Board and, if considered potentially competitive for publication, is sent to referees for full external review. The Monitoring Editor then makes an initial decision based on the referees' comments. Importantly, the specific points raised by the reviewers that require attention—as opposed to those that are optional—are articulated in the decision letter so that the Monitoring Editor's expectations are clear. The most noticeable change imposed by Single Round Review lies in the handling of a revised

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manuscript. Once the revised manuscript is submitted, it is not returned to the referees. Rather, the Monitoring Editor makes a final, and rapid, decision regarding whether the essential points have been addressed and, thus, whether to accept or reject the manuscript.

This streamlined editorial process takes advantage of one of the strengths of *JCB*: the fact that all decisions on our manuscripts are made by active scientists in the field, who are intimately familiar with both the intellectual context as well as the methodology used in the manuscripts they handle. This allows them to make informed decisions based on the science in the manuscript rather than simply acting as middlemen between reviewers and authors. Their engagement in the process ensures that the authors' efforts during revision are focused on the most important questions, increasing the transparency of the process and weeding out unnecessary experiments.

Cases of prolonged review are often associated with another trend in publishing: the requirement to present a "full story" for a paper to be publishable. There can be tremendous value in simple observations that may have the potential to open up new lines of investigation in a budding field without providing all the mechanistic details. The quest for the full story may hinder and delay rapid communication of important results. The Reports format was introduced in 1999 to address this issue, and adopting Single Round Review for Reports ensures that these cutting-edge submissions of outstanding interest reach the cell biology community even more rapidly.

We also have streamlined the review process for Articles, which are often longer and more complex bodies of work than Reports and Tools. For Articles we now strictly enforce a limit of a single round of substantial experimental revision and a second round of external review by referees. As a result, revised Articles that address in a single round of revision all of the issues that the Monitoring Editor articulated as essential reach acceptance more quickly. On the other hand, revised Articles that fail to address all of the experimental concerns are rejected—rather than allowed to undergo further rounds of revision and review—so that the authors can move on quickly to a more suitable publishing venue.

The advantages of these policies are obvious. Multiple, lengthy rounds of review are avoided, and final decisions often are made within days rather than weeks. Based on our experience with Tools submissions, we are confident that these changes will effectively address many of the concerns that members of the cell biology community have expressed about prolonged editorial processes. The experience and feedback from authors to date for Tools submissions has been overwhelmingly positive, and *BMC Biology* has had a similarly positive response since it began offering authors the choice to opt out of a second round of referee review (Robertson, 2011).

The purpose of a scientific journal goes beyond simply communicating science. It is also our duty to improve how science is communicated, to facilitate the process, and to promote improvements in scientific culture. By adopting these limits on rereview, we are taking practical steps to eliminate a significant weakness in the peer review process and to better serve the needs of today's scientists while also continuing to maintain the integrity and quality of publications in *JCB*.

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