Free access to scientific publications: contrasting the *JCI* approach to Plan S

The JCI has made all of its research freely available to readers since 1996. As open access mandates from funders, such as Plan S, gain momentum, it's worth revisiting how the JCI has created a durable publication model for free access to research and the benefits that society journals provide to the research community.

I'll borrow from Rodney Dangerfield and opine that we get no respect. Since 1996, the *JCI* has made all of its research articles freely available online from the moment they are published, several years ahead of other journals often cited to be first in open access, such as the journals of BioMed Central (1999) and *PLOS Biology* (2003). The American Society of Clinical Investigation (ASCI), which publishes the *JCI*, strongly supports the idea that the research we publish needs to be accessible to researchers, physicians, teachers, and the broader public.

Open access has gained much momentum over the last 20 years and recently received a major push from a coalition of European funders, who unveiled a project called Plan S. This initiative mandates that publications resulting from research funded by the coalition must be published in open-access forums (1). Plan S, which was announced in July 2018 and formally launched in September 2018, gives publishers until January 1, 2020, to comply with its requirements.

As a leader in open publishing, we have ample experience to inform what works about the model as well as issues that the proposed "Plan S" may impose upon the publishing and research communities. We are deeply committed to making our research articles freely available and have found a sustainable path for doing so. Moreover, as a journal published by a not-for-profit association of physician-scientists, many of whom work at academic medical centers, we truly approach the process from an academic view point, with

a goal of selecting the most scientifically rigorous work in the field, as evaluated by our board of active researchers. Not only is this model possible, we have successfully implemented it for 23 years.

The goals of Plan S are certainly laudable; the devil is in the details. Some funders, such as Wellcome and the Bill and Melinda Gates Foundation, already have mandates requiring that researchers publish their article under an open license (CC-BY). Plan S would require not only that the specific article funded by its coalition members be open access, but that the entire journal must be open access as well. So-called hybrid journals, which charge additional article processing fees for open access, would no longer be allowed. In addition, Plan S calls for a cap on author fees for publication.

On the surface, Plan S may seem like it should be a win for the JCI, and yet we find ourselves not being in full compliance at this time. Although all of our research has long been free, a subscription is required to access reviews and commentaries published by the journal. We don't charge publication fees to the authors of reviews and commentaries, as they are doing us a great service by providing timely coverage of topics of interest to our readers. Instead, we have provided access to these articles with a subscription from individuals or institutions, which represent a larger community than just our authors. This model provides us with some diversity in our revenue stream while also enabling us to deliver impactful content to the readership. Plan S doesn't accommodate our unique version of a hybrid model, even though our research content is all free. The goals for the community should be to make research more accessible, not to prescribe a specific business model.

JCI publishes individual articles with a CC-BY license upon request by authors whose funders require it; however, the ASCI holds the copyright to the majority of articles published. By our copyright agreement, the authors may reuse their own work, but others must request permission to use *JCI* content and sometimes also pay a licensing fee. Why do we do this? There are two reasons. First, it's not clear whether the authors are really best served by the CC-BY license, which allows anyone to distribute, reuse, or adapt the work, with attribution to the author, for any purpose, including commercial purposes. Neither the authors nor the journal has control over how that work is reused. Second, holding the copyright for the article provides us with an additional, albeit small, revenue stream for inclusion in databases of journal articles. While this is not a major revenue source, along with subscriptions, this helps us to defray some of the costs paid by authors, which are our primary source of revenue.

What was conspicuously missing from the initial Plan S announcement was any specification of what was deemed reasonable as an author publication fee. It's difficult to imagine demanding the publishers change their funding model without providing this key parameter. JCI is at least well positioned in that our business model is structured around open access to research; for journals that rely on subscription fees this would be an even larger shift in model. At this stage, we are in the dark as to whether the JCI's fees would be viewed as acceptable or not. Without knowing this key piece of information, it's impossible for the JCI to determine whether it is even feasible to adapt to the Plan S requirements.

I certainly appreciate the complaint that scientific publishing is far too profitable, hence the major incentive for large commercial publishers to dominate the landscape. The problem is that Plan S could have an unintended consequence of pushing researchers funded by the coalition toward commercial publishers rather than society journals (2). Commercial publishers operate at a scale that is more permissible to slimming down margins, and they may elect to simply roll out subsidiary journals that are compliant with Plan S, while leaving major venues untouched. On the other hand, society journals have a mandate to support their parent organizations, which are typically scholarly organizations centered around a particular research community and may have only one or few journals in their repertoire. Revenue from the ASCI's two journals, JCI and JCI Insight, is an important source of funding for the ASCI, including support for the annual meeting, the Young Physician-Scientist Awards program, and the Korsmeyer Award, and other activities. Publishing in society journals ensures that the funding supports the scientific community rather than being funneled to for-profit publishers. It would be unfortunate to see publishing even more monopolized by commercial enterprises, and I believe it is the best interest of researchers to have the academic community as stewards of the literature.

JCI is unique in that we are entirely self-published; many societies rely on larger commercial publishers for the actual production of their journals. Our model gives

us great freedom to operate in a principled manner and allows us to truly approach publishing from a scientific rather than commercial vantage point. I hear a lot of lip service to the perils of commercial publishing, but if you are a researcher wanting change, you must vote with your feet. You have many choices of how to disseminate your work, from instant posting on preprint servers to publication in journals of varying standards and models. If you think Springer, Elsevier, and Wiley-Blackwell have an outsized role in determining what gets published, don't submit there. If you think it is important to support scholarly societies and to let the research community determine its own standards for publication, submit to society journals. When you are on hiring committees, tenure committees, awards committees, and grant committees, make sure that you recognize excellent work published in society journals and speak up for it.

I applaud the Plan S initiative for trying to steer scientific research toward greater accessibility. It seems that there are some facets of the plan that may have unintended negative consequences on its own researchers and on society publishers. I dare say that the largest juggernauts in publishing simply won't bend, forcing researchers out of some venues and potentially being more harmful to some of the smaller publishers. We want open access to research. Most work is supported by government agencies and nonprofit organizations, and surely funders want the output of their investment to be made public. When patients agree to be part of clinical studies, surely their goal is to further research in hopes of better treatment options, which means opening any results to the full community. We want the same thing, but it's not yet clear if Plan S is the means to accomplish these goals. Until then, I hope the research community will consider where their publication dollars are going and what publication models they are supporting with their choice. The one certainty in the current publishing climate is that changes are afoot. Let's make sure that the changes benefit the scientific community.

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