

Four more reasons to be skeptical of open-access publishing

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We are clearly in the midst of a revolution in academic publishing. Many scientists find compelling reasons to publish open-access papers with traditional journals or to follow in the new wave of open-access-only e-journals, the latter of which typically place emphasis on scholarship that is sound, not on novelty, rigor, or likely impact. Making our work accessible to all and letting readers decide the impact of individual papers is an attractive proposition. Nonetheless, in addition to a flood of bogus journals [1], many scientists seem to be uncritically jumping on the open-access bandwagon. Given that funding agencies are beginning to require supported work to be published as open-access, at the very least, we should investigate the following before submitting articles:

- (i) Know your publisher's business model; most are for-profit enterprises. For-profit is not necessarily bad, but it is important to recognize that many publishing venues are not 'for the scientists, by the scientists' as advertised. Even not-for-profit publishers are using high open-access fees as a means to fund other activities, a business model that creates a conflict of interest to publish more papers at the expense of rigorous evaluation.
- (ii) Know what you are getting. Most open-access journals entirely forgo copyediting and improving illustrations. What you submit is what is printed, with little professional handling.
- (iii) Open-access papers are not cited more. On-going randomized studies find that after 5 years, despite higher downloads, open-access articles (in traditional journals) do not have more citations than non-open-access articles [2]. Additionally, despite the general notion of journal impact factors no longer being important (it is the individual paper's performance that matters!), some open access journals have enjoyed tremendous success in their initial impact factors. Nonetheless, this trend has reversed, and it is

predicted that their impact factors will continue to decline (<http://scholarlykitchen.sspnet.org/2013/06/20/the-rise-and-fall-of-plos-ones-impact-factor-2012-3-730/>).

- (iv) Consider the risks. Because it typically takes some years for most articles to achieve citations, evaluators of academic CVs often use journal metrics as a proxy for quality or likely impact. Although nothing can replace reading and directly evaluating a study, removing the standards associated with selective journals introduces ambiguity to a publication record, especially for young scientists looking for jobs. In other words, when a hiring committee examines a junior scientist's CV, a publication in a traditional journal carries with it the weight associated with the journal's reputation for selectivity, rigor, novelty, and yes, likely impact. On the surface, a publication in an open-access journal only imparts 'not scientifically flawed'.

Authors who wish to avoid rejection and join a movement of open-access science for all are potentially unaware of the implications: little quality control, conflicts of interest, and no stamp of rigor or potential impact. Nobel Prize winner Randy Schekman has recently espoused a radical and different view than mine (<http://theconversation.com/how-to-break-free-from-the-stifling-grip-of-luxury-journals-21669>) and I certainly respect his position. Of course I support open-access of our work to all readers that are interested. My main goal here is to stimulate discussion and awareness, and to suggest that we have not yet arrived at an alternative model of publishing that suits the primary goals of scientists.

References

- 1 Bohannon, J. (2013) Who's afraid of peer review? *Science* 342, 60–65
- 2 Davis, P.M. (2011) Open access, readership, citations: a randomized controlled trial of scientific journal publishing. *FASEB J.* 25, 2129–2134

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