Reply to Inna Sokolova

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Reply to: **IM Sokolova** (in this issue)

The key argument made by Inna Sokolova in her commentary on our article is that “The peer-review system plays a key role in ensuring quality control of the published works and lending credibility to the published research”.

This is of course correct. However, the real question is: who should be the peer reviewers? A handful of somewhat arbitrarily selected scientists asked by journal editors to evaluate a paper, or the entire scientific community who is concerned by the paper? The latter would be clearly more powerful. We do not agree with the

assertion that this is akin to throwing the baby out with the bathwater. Harnessing the power of the community in reviewing papers prior to publication, while achieving instant dissemination of knowledge, is more like having your cake and eating it. This is not “wild-west” publishing. Physicists have routinely announced major discoveries, such as the Higgs boson, on arXiv. A glance at the biology equivalent, bioRxiv, reveals excellent papers from well-established scientists in highly competitive fields. These will no doubt ultimately find good homes in traditional peer-reviewed journals, which is fine. Yet, the added value of the review process in those

journals is likely to be minimal: Experience shows that the majority of reviews are flawed and genuinely helpful insights from reviewers are rare. Meanwhile, the results are freely available on a preprint server and science can move forward, along with the authors’ careers. Authors are the reason we can read about great science, not the peer-review system.

Finally, blaming a handful of traditional “luxury” journals—an ironic term for “prestigious” journals—for the current system is wrong. Peer-review problems are endemic. As Sokolova concedes “It is not perfect, and like any evaluation system implemented by humans is prone to bias”. Yes, indeed.