

# CURRENT SCIENCE

Volume 119 Number 4

25 August 2020

GUEST EDITORIAL

## Public ownership of research journals

My first experience of working in a research lab was in 1979, when I started on PhD studies after having graduated in medicine. Looking back, one recognizes that those were innocent and uncomplicated times for publishing one's research in the life sciences. Academic investigators were content to submit their work to staid yet scholarly specialist journals owned by the learned Societies or University presses, continuing a practice that had been in existence for several centuries; the occasional sparks of more generally important discoveries were submitted to one or another non-specialist journal that enjoyed wide readership. There was perhaps only one private journal of repute in molecular biology, and publishing houses were of modest size.

However, this was also the time when the publishing waters in biomedicine were being irreversibly churned, by Benjamin Lewin as the editor of *Cell*. His philosophy was simple: identify, woo and attract the research big-wigs so as to create an exclusionary publication medium of such excellence that every researcher in the world would then aspire to be a part of its action. Lewin's knowledge of biology and of its cutting-edge research areas was nothing short of stupendous, and his ideas were matched only by the brilliance of their execution. Thus was born the twin superstar cultures, of research investigators and research journals, that were mutually enriching of one another.

Lewin's philosophy contributed majorly to the allure, at least in the eyes of scientists, of the Journal Impact Factor (JIF). This in turn led to the scramble by other journals to tweak their practices for raising their own JIF values; a metaphorical comparison of the consequences thereof can be with Darwin's theory itself – pitting scientist with and against publisher in a competitive struggle, akin to the evolutionary interplay between the two sexes of a species. It became the desire then, of individuals and entities from either side, to capture a mate of higher standing than that they may otherwise have obtained, leading to outcomes that were not dissimilar to the evolution of pecking orders, or of the peacock's plume.

Today, the norms of political correctness enjoin one to decry the JIF and to discourage its use, by individuals and

Committees and Governments, in evaluation of the quality of an individual's research. However, the unvoiced opinion from the rank and file of academic investigators – who are the people that populate the peer groups and the Committees – remains just the opposite (and sometimes surreptitiously so). Furthermore, it appears unlikely that a cultural shift in the minds of the researchers concerning use and influence of the JIF would occur any time soon. Why is this so?

The reason for JIF's perceived value is that it serves, to a first approximation, as a proxy measure for the degree of difficulty to publish in a particular journal. Such measures are important for any scientist, since individuals who may have time to read all papers in their own research area would still necessarily have to be choosy in selecting those to peruse from the other disciplines. Add to this the fact that academic investigators are not robots, but people with egos and emotions who relish their successes, and it becomes difficult to imagine how, if at all, can a vicious circle of competition between, and amongst, authors and publishers be broken.

Publishing a journal of high JIF is an expensive proposition. Even when authors have chosen to send only their best work to the journal, the latter is compelled to reject more than eighty percent of the submissions in order to maintain its exclusivity. Contemporaneously, the open access movement has demonstrated that the publishing industry can be enormously profitable, and predatory journals function as the parasites in this ecosystem by pandering to the desperation of its low-rung researchers.

Remarkably, the publishers of the high-JIF journals have now latched on to this game of the author-pays model, by creating an in-house hierarchy of journals of incrementally diminishing quality, the latter then being in the open-access category. Submissions rejected from the top tier are thus sought to be corralled within their own pen, and so to be milked through an 'article transfer mechanism'; and authors too are not unhappy to oblige, as they bask in a reflected prestige of the publisher's flagship product itself.

As far as publishers of the high-JIF journals are concerned, this strategy has offered them a means of making

wealth from their waste. Sadly, the learned societies too appear to have succumbed to this 'if-you-can't-beat-them-join-them' temptation. Thus, professional bodies across different countries in disciplines that span chemistry, microbiology, or biochemistry, as well as those with elections to their fellowship, can now 'boast' of publishing open access journals of varying quality.

Are there any ways to overcome these multiple, and interlinked, problems? Perhaps an answer lies first in recognizing (i) that it is indeed necessary to have a spectrum of journals with different degrees of difficulty to publish, but with the provisos that (ii) there not be any unhealthy competition between them, and even more importantly (iii) there be no scope for profiteering by anyone. One way of achieving these aims then may be the following.

Imagine that a major research funding agency operated by the Government (or by a charity) launches a suite of journals that cover the various areas of biomedical science; furthermore, these journals would represent a hierarchy of levels (maybe four, or five) of progressively increasing degree of difficulty. Imagine too that authors of all research work that was supported by the agency shall be obliged to submit their manuscripts to a single portal for all its journals, with the final decision on the hierarchical level at which each paper is published to be determined by the editor.

One agency of this kind that comes to mind is the National Institutes of Health (NIH) of the USA. Since the NIH already enjoys enormous credibility, as well as the goodwill of researchers who offer unpaid advice to it on the suitability of different proposals which are submitted for funding, the expectation is that the agency will again seek similar assistance from members of this community to serve in honorary capacity as reviewers and editors for the journals published by it.

Then, research funders representing major charities and the Governments of other countries could choose to become partners for this worthy cause; and the various professional societies may be co-opted to aid in maintaining the quality standards of the different journals. The degree-of-difficulty hierarchy will serve to incentivize all researchers, including the superstars, to willingly submit their work to these journals.

The advantages of this model are several. For authors, it will save on the effort to make multiple sequential submissions of their work to journals in descending order of the JIF. Journals too will not have to endure high rejection rates which, as mentioned above, is a particular bane of open access journals that strive for high quality. Finally, costs for authors and publishers alike would become far more reasonable, whereas open access charges have tended to levels in recent years that are unconscionably high (especially for authors from the middle-income countries).

Although the description and discussions above have focused on the life sciences, they would equally be applicable to the other scientific disciplines. Perhaps in this way we can realistically envision a new world in which the public who funds the research, also comes to own the journals in which the ensuing results and outcomes are published. Would this not be a welcome alternative to the behemoths that some publishers have now become, with arguably sinful profit margins that exceed 35% on operating costs?

J. Gowrishankar

Indian Institute of Science Education and Research,  
Sector 81,  
Mohali 140 306, India  
e-mail: shankar@iisermohali.ac.in