Are we trivialising medicine?

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Lately, there has been an explosion of science, or shall I call it ‘pseudo-science’, which in fact runs the risk of implosion. Science has become a commodity, which can be sold and purchased, akin to the demand-supply paradigm of economics. Just as the world economy is market-driven, so is scientific publication Unfortunately! All this has led to a virtual tsunami of ‘predatory journals’, a term coined by Jeffrey Beall, a librarian at the University of Colorado, USA. He created a directory of these predatory journals under the ‘Beall’s list’. The numbers listed by him at 18 in 2011 snowballed into a whopping 923 in 2016 [1]. Unfortunately, Beall’s list is no more being published, but the number of predatory journals currently is upwards of 12,000, or perhaps even 20,000, with a lot of them based in China and India. ‘Jeffery Beall has estimated that predatory open access journals publish about 5–10% of all open access articles, and that at least 25% of open access journals are predatory’ [2].

If one retreats a little bit to the start of the open access movement, it had very noble intentions. It was realised that publishing was a very lucrative business, with the publishers like Elsevier making more than US \$ 2.6 billion in 2016 as profits and John Wiley & Sons earning US \$ 853,000 in the fiscal year ending April 2017. ‘Their business model allows for operating margins of about 30%: They procure free content based on government or privately funded research, get academics to peer-review the papers for free, and sell it back to university libraries and other institutions at high prices’ [3]. Thus, the open access movement was started basically to challenge this exploitative system and to make published research available cheap and in an equitable fashion. The rush for publishing predatory journals started around 2012, which was about the same time as the open-access model of publishing evolved and became a common place. Providentially, this rise

of the predatory journals also timed with the transition from physical to digital and online publishing.

The concept of ‘publish or perish’ has added fuel to this fire. Publications have become a mandatory requirement for promotion in government jobs, for the improvement of one’s curriculum vitae for seeking grants and for recruitment to jobs. So paying for getting published has become the norm of the day. In fact, the perils of ‘publish or perish’ are such that scholarly teaching suffers at the altar of dubious research in the race of publication numbers. Unfortunately, this one-upmanship plays even more in the hallowed institutes of higher learning, than in schools for primary or secondary education.

Corporate-sponsored scientific research, which is not groundbreaking enough to find space in leading journals, ultimately end up in these predatory journals. The findings are then circulated to the print and electronic media as ‘evidence-based medicine’ in a form of pamphlets by these companies, including the reputed ones, for influencing decision-making by medical professionals, and unfortunately, for still wider consumption of the bourgeois class. All of these can be deemed as dubious practices. Proof of the pudding is a Bloomberg Businessweek story expose: ‘A Pfizer paper on financial burden of lower back pain published in 2014 in OMICS’s Journal of Pain and Relief suggests the pharmaceutical company may have had an interest in skipping the traditional journal’s review processes. Based on a survey of just 106 people, it concluded that direct and indirect costs of severe back pain ranged from \$ 11,800 to \$ 25,051 per patient annually. Such figures could be used to justify a medication’s price to patients and their health plans’ [3]. Jeffery Curtis, professor at the University of Alabama at Birmingham clarifies it further, ‘companies are often in more of a hurry and are willing to accept lower-tier journals. They want a citation. They want someone to be able to reference it and have it be official’ [3].

Even syndicating has become the norm of the day, where certain well-published and well-connected influential authors create a syndicate and make it their monopoly of publishing in

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important scientific journals, leaving no room for other brilliant individual researchers to enter into the publishing arena. These latter researchers, failing to get a place in better known and ethical journals, then resort to publishing in the second rate predatory journals. One would therefore have to spare a thought to dismantle these syndicated fortifications too.

Most often followed *modus operandi* for soliciting papers for these dubious journals is that of poaching. I am sure, each one of us has been targeted more than once and even must have seen a litany of other scientists and medical professional colleagues preyed upon by predatory journals and have, wittingly or unwittingly, walked into the trap, only to repent thereafter. Very often, immediately after publishing in an important journal or after delivering a talk in a scientific conference, which is trolled by these journals, one is bombarded with ego-boosting and self-elevating e-mails, soliciting an article. These e-mail requests then kick off a chain of deception. One is cajoled into offering a tacit consent, or shall I put it still better—a consent is extracted, for a contribution of a manuscript. Finding the request matching the area of expertise, as also with very little effort required in converting a ready material into an article, one is lured into submitting a manuscript.

That these journals, though claim to be peer-reviewed, which do not even scan their content can be deemed from the fact that sometimes, the acceptance is received within a day or two. In fact, in a classical sting operation, 'In 2014, Peter Vamplew, a computer scientist from Australia, submitted a 10 page paper consisting solely of the words, 'Get me off your f—ing mailing list' repeated more than 800 times. The International Journal of Advanced Computer Technology, deemed predatory by Beall, accepted it and then requested a publishing fee of \$ 150' [3]. Literature is replete with such sting operations, confirming that not even a semblance of scrutiny is exhibited while publishing in these journals.

I do not contest that some amateurish attempts at launching a scientific journal may be erroneously labelled predatory, when the intent may not be fraudulent. At the same time, I do not deny that some good publishing may also take place. However, with the overall reputation of these journals as murky as it can get, with dishonesty ingrained in their DNA, even the baby gets thrown out with the bathwater. This has also, as a corollary, led to more scientific improprieties in form of duplicate publications, blatant plagiarism, salami publications, obfuscation, and a myriad other forms of malpractices. Even undue importance to journal matrices, such as impact factor, helps propagate these amoral practices. This has heralded an era of so-called pseudo-science, thereby trivialising medicine, as most of the data presented in these journals are not reproducible and verifiable. Publications in

these journals could even have a disastrous public impact, as sometimes they are picked up by news agencies for wider consumption of the laity.

Despite all the foregoing, and much more, we seem not to be seized of the gravity of the matter. These journals, and the unethical deceitful publishing practices, need to be stopped at all costs. 'Publication ethics and integrity are at a core of scientific research, but the necessary skills are learnt informally on the job' [4]. It therefore becomes imperative for the mentors to sensitise their juniors and trainees on how to judge and assess a journal's integrity. We also need to create a new repository where all these predatory journals should be listed to help a naive researcher not falling prey to them. One can even refer to the directory of open access journals at www.doaj.org, as it provides the list of ethical peer-reviewed open access journals. Moreover, we must ignore requests soliciting articles for such journals and demonstrate a prudent temperance towards subscribing or sponsoring them unwittingly by accepting positions on the editorial board. In fact, there should be some kind of regulation and these journals should be taken off, if found not conforming to the basic tenets of ethical publishing. Every country should have a regulatory body, much on the lines of the ones for stock markets, real estate, etc. for scientific journals too with 'statutory powers'; no point having a body with a wagging tail, but no biting teeth.

These journals need to be reined in is a no-brainer. The moot question, to which I have no definitive answers, is—'How'? May be you can chip in with some epiphanous wisdom.

Compliance with ethical standards

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