

Editorial

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Scientific publishing in the “predatory” era

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Publishing is the core of scientific research, allowing the dissemination of important findings, either negative or positive, in the scientific community. Publication of articles is also the core of a scientific curriculum, as it provides an objective means for the assessment regarding academic progression, for funding applications and benchmarking of individual scientists, universities or other scientific institutions [1].

The possible criteria related to scientific publishing that can be used for evaluation include the overall number of articles published by the scientist (throughout the entire scientific career or within a given period of time) along with the impact of published research on scientific community, both in terms of impact factor (IF) of the journal where the articles are published and the overall number of citations to these articles [2]. The use of these so-called “bibliometric indices” has contributed to enormously boosting scientific publishing in recent years, and has also been associated with the birth of a kaleidoscope of new scientific journals, targeting almost each specialty, sub-specialty and even micro-specialty of science and medicine, including, last but not least, clinical biochemistry and laboratory medicine. Currently, in this continuously evolving scenario, even the more skilled scientist may be in trouble finding a way out through dozens of potential scientific journals to which articles may be submitted. Although this commentary is not intended to make the rules, but should be mostly regarded as a personal view of the authors, it is our intention to delineate some indicators that may be helpful in guiding scientists in the accurate selection of a journal.

The first and probably most important issue is whether or not the journal is indexed by distinguished and well-recognized scientific databases. These typically include Medline (with its interface PubMed), Scopus/EMBASE and the Web of Science. Unlike other scientific platforms such as Google Scholar, these influential biomedical search engines are characterized by high accuracy, as all entries are accurately scrutinized and monitored over time [3]. Moreover, the main criteria used for a scientist’s evaluation (overall IF, Hirsh-index [h-index], overall number of

citations) are typically retrieved from Scopus (and, occasionally, from the Web of Science), as this platform cannot be artificially inflated by authors due to the presence of the so-called “unique identifier”, which corresponds to the ORCID (Open Researcher and Contributor ID) [4]. Conversely, an author can easily claim authorship of an article published by other authors (with the same name) in Google Scholar by simply adding it to his/her profile, which would then unethically boost the h-index and citations. This is probably why Google Scholar metrics are not used as scientific indicators by some scientific academic organizations. Conversely, publishing an article in journals indexed in Medline, Scopus/EMBASE and the Web of Science gives a much stronger guarantee that this publication will then translate into measurable benefits for the scientific curriculum.

A second important aspect is the need to pay submission/publication fees to the publisher, in most cases for the so-called “open-access” option, which allows full text accessibility without subscription to the journal. Albeit this opportunity is indeed beneficial for many scientists, as open-access articles usually allow deeper percolation of knowledge, enhanced accessibility and a higher number of citations, it is not always clear whether this policy only shifts the invoice for journal production from the reader to the author with no change in overall quality criteria or whether it is a business model based on pay per publication [5]. Perhaps, we should remember that in the past articles in US journals which charged the author, e.g. the *Proceedings of the National Academy of Sciences* had to be labelled as “advertisement”. While many of us perceived this as odd, the current developments prove that there was a good reason for this regulation. Basically, we are not against open-access publishing, as long as quality of the individual article rather than payment of a publication fee is the main criterion for acceptance. This means that the quality criteria, in particular the peer review process, and consequently the good reputation of the publisher, should be the cornerstone for the decision to publish under an open-access agreement.

This leads us to the third important aspect, which actually causes a number of ethical issues, i.e. the receipt of unsolicited, bizarre e-mails, beginning with “Hello

Dr. XX” or “Greetings from...!”, and often containing the wrong name of the scientist to whom the correspondence is addressed and, even more intriguingly, requesting articles on topics which with the recipients are completely unrelated. Although having published the vast majority of our articles in the area of laboratory medicine, we are not infrequently invited to submit articles on astrophysics, plant biology, water culture, fishery, etc. Occasionally, the name of the sender is the misspelled name of a journal, to resemble that of a more distinguished publication. Thus, these deliberately misleading journal names parasitize on a renowned journal. As a paradigmatic case, the authors of this commentary have recently received repeated invitations to submit articles to a journal entitled “*Clinical Chemistry and Laboratory Medicine*”, whose real name is “*Journal of Clinical Chemistry and Laboratory Medicine*”, and which is completely unrelated to *Clinical Chemistry and Laboratory Medicine (CCLM)* published by DeGruyter Publisher. This elusive journal belongs to the OMICS Publishing Group, whose predatory policy has long been known among most scientists. It is an open-access journal, claiming 1200 Euros (1500 US\$) for the publication of an article. Unlike *CCLM*, the *Journal of Clinical Chemistry and Laboratory Medicine* is not indexed by Medline, Scopus/EMBASE and the Web of Science – on its website the Publisher only states that “All published articles of this journal are included in the indexing and abstracting coverage of:”. Of what? The articles published in this journal are hardly usable for career progression or funding application, because they are simply not indexed by the three most used academic scientific indexing services except when the study is funded by the NIH. Therefore, when authors are requested to pay for publication of their articles, we strongly encourage scientists to accurately check the reputation of a journal and its publisher, and to consider the potential benefit of the investment. Notably, the peer-review process of some predatory journals is still a mystery, often extremely fast, frequently inaccurate or sometimes totally lacking [6]. This is extremely awkward, as all good scientists should always seek to receive (fair) comments by reviewers, aimed to improve their manuscripts.

Actually, the number of spamming emails containing weird invitations to submit articles to non-indexed obscure journals is directly proportional to the academic reputation and output of the scientist. Therefore, it is not so unusual for very productive authors to collect as many as 100 of these emails per day. The characterization of this phenomenon, which has been formally named “predation” [7], is very complicated, as the boundaries between

“predatory” and other journals have not yet been definitely set. Nevertheless, we strongly advise our readers that – whatever weird invitation they receive from the enigmatic sender “*Clinical Chemistry and Laboratory Medicine*” – has nothing to do with our journal.

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