



# HOW TO AVOID PREDATORY PUBLISHING

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The open access (OA) publishing, where a reader-pays economy has been replaced by an author-pays model, began at the end of the 20<sup>th</sup> century. This movement arose as an attempt to avoid excessive costs and copyright transfer agreements inherent to the subscription model. Favored by the extended use of the internet, OA academic journals have multiplied during the last decades. However, an unintended side effect of the OA model has been the numerous predatory journals that have appeared over the past years<sup>1</sup>. Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices<sup>2</sup>. These journals publish the submitted material without external peer review, and the term “predatory” refers to the financial profit through article processing charges<sup>3</sup>. Predatory journals have low-budget websites with grammatical errors; their editors’ names are not recognizable in the field of interest; they guarantee rapid publication times; manuscripts are submitted by e-mail and not through formal online submission processes; require submission fee regardless of acceptance; use journal names similar to those of reputable journals; do not discuss copyright; do not have retraction policy after submission; a peer-review process is not mentioned; contact

information is not provided; and ethics policies are not mentioned<sup>4</sup>.

The number of articles published by predatory journals has rapidly increased from 53,000 in 2010 to an estimated 420,000 in 2014, published by around 8000 active journals. By 2015, there were as many as 10,000 predatory journals worldwide<sup>5</sup>. Articles published in predatory journals tend to be of low quality and usually fail to report key information that allows to reproduce the findings, for example, methods and results are poorly described; clinical trials are not registered in databases; and studies lack ethics committee approval<sup>6</sup>.

The predatory market is a complex phenomenon. It all starts with predatory publishers addressing inexperienced students who are their easy prey, or experienced researchers, who opt for predators after being rejected by legitimate journals. In addition, the pharmaceutical industry sponsors predatory publishers such as the OMICS Publishing Group<sup>7</sup>, a company involved in unfair and deceptive practices, hosting numerous conferences of dubious quality each year and publishing more than 700 journals<sup>8</sup>. Moreover, many of these publications are currently indexed in PubMed<sup>9</sup>, and predatory journals have been included in the lists of reputable journals like the one elaborated by the Journal registration in the International Committee of

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Table1. Features of open access legitimate journals

Feature	Comment
– Verify that the journal and the publisher are not in the Beall blacklist: <a href="https://beallist.net/">https://beallist.net/</a>	This blacklist of predatory publishers and journals was originally compiled by Jeffrey Beall, and it is periodically updated in anonymity <sup>12</sup> .
– Verify that a journal is not in Cabell's predatory list, but is in the verified list: <a href="https://www2.cabells.com/">https://www2.cabells.com/</a>	Pay-to-access blacklist (predatory) and whitelist (verified) from Cabell's, a scholarly analytics company.
– Member of the Committee on Publication Ethics (COPE): <a href="https://publicationethics.org/search?t">https://publicationethics.org/search?t</a>	The COPE is a nonprofit organization aimed at defining best practices in ethics of scholarly publishing.
– Member of the International Committee of Medical Journal Editors: <a href="http://www.icmje.org/">http://www.icmje.org/</a>	The ICMJE is a group of medical journal editors working to improve the quality of medical science and its reporting.
– Member of the Open Access Scholarly Publishers Association (OASPA): <a href="https://oaspa.org/">https://oaspa.org/</a>	The OASPA is a non-profit organization setting best practices for OA publishers.
– Member of the World Association of Medical Editors (WAME): <a href="https://www.wame.org/">https://www.wame.org/</a>	The WAME is an international organization of editors of medical journals.
– Member of the Directory of Open Access Journals (DOAJ): <a href="https://doaj.org/">https://doaj.org/</a>	The DOAJ is a community-curated list requiring journal best practices.
– Indexation in the Elsevier's Scopus Index: <a href="https://www.elsevier.com/solutions/scopus">https://www.elsevier.com/solutions/scopus</a>	Is the largest abstract and citation database of peer-reviewed literature.
– The journal should have an International Standard Serial Number (ISSN).	The ISSN is an eight-digit serial number used to uniquely identify a serial publication.
– The journal should have a well-known editorial board of recognized experts in the field.	The website should provide complete contact information of the editorial board members <sup>13</sup> .
– Publication fees should be clearly listed.	Caution: there should not be a submission fee.

Medical Journal Editors<sup>10</sup>. Thus, considering that predatory journals have found the ways to penetrate databases<sup>2</sup>, and blacklists of predators will never be updated enough, the combination of filters shown in table 1 is recommended for identification of legitimate OA journals.

Predatory publishing represents an enormous global market leading to dissemination of low-quality research, which may be considered as pseudo-science. Therefore, predatory publishing is obviously unethical and damages the credibility of researchers and their institutions. However, scientists are not defenseless against predators, so participating in this market as authors or by citation of such publications is elective. The sequence of steps for the detection of predatory journals presented here should be continuously updated because these journals and their publishers rapidly adapt to filters that might discredit them<sup>11</sup>.

Finally, the question that arises is whether sponsorship of pharmaceutical industry to predatory publishers might stimulate the non-evidence-based

prescription and consumption of drugs in low- and middle-income countries.

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