Editors Must Be Aware of Dual-Use Research

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HHS, NIH. DHS. ORI. NSABB. SOB. Washington, DC, is a town full of acronyms.

As ethical editors, there is another one we should be familiar with: DURC, or dual-use research of concern.

DURC is defined as research that, based on current understanding, can be reasonably expected to provide knowledge, products, or technologies that could be directly misused by others to pose a threat with broad potential consequences to public health and safety, agricultural crops and other plants, animals, the environment, or material.¹²

On 13 January 2011, the National Science Advisory Board for Biosecurity (NSABB) convened a working group to review journal policies on handling the review process for DURC. The session was attended by journal editors broadly representing the STM fields; representatives of the US Office of the Director of National Intelligence, US Department of Health and Human Services, and National Institutes of Health (NIH); and representatives from the Council of Science Editors, the Committee on Publication Ethics, and the World Association of Medical Editors.

The meeting was divided into four main parts, beginning with an overview of NSABB's activities related to guiding journal review policies on DURC.

The board was established in 2004, and three previous roundtables have been held.¹ The roles of the board have been to three previous roundtables have been policy and framework for all journals to discuss in relation to providing a unified policy and framework for all journals to use. The almost unanimous decision was that this was not advisable unless there was falsification, fabrication, or plagiarism. The publication of a PNAS paper⁷ that modeled inserting botulinum toxin into the milk supply and the corresponding editorial⁸ were noted as one possible outcome of a dual-use review.

The next session dealt with working as a community to identify and share information and practices. An interesting question was raised about what to do with a paper rejected for dual-use concerns. Where does the responsibility of a journal editor end? A discussion of whether it is appropriate to contact an author's institution with concerns ensued, and many editors indicated that this was not advisable unless there was imminent harm.

Should editors of one journal contact another journal with concerns if they think a rejected paper will be resubmitted further down the line? This is the type of open question that is best dealt with on a case-by-case basis.

The role of NSABB, journal editors, and international editor organizations was discussed in relation to providing a unified policy and framework for all journals to use. The almost unanimous decision was that this would be problematic. The use of NSABB communication tools was discussed, as the board provides a risk/benefit tool for editors to use when evaluating a potential publication.⁶

The last session addressed best practices for dealing with dual-use submissions. Education and awareness should be emphasized at an early level such that authors, editors, and referees are all aware of the potential problems of misuse. At the journal level, training should be provided to ensure editors understand what to do when a concern is raised. Checkboxes on referee forms to aid the reporting and identification of DURC can be a useful tool for tracking and identifying problematic papers. Consulting
outside security experts to review a paper when dual-use concerns have been raised was recommended. Additionally, the role of editors’ groups and associations was discussed as a means to educate readers. The need to follow up with authors to help them understand dual-use concerns is a task that should not be overlooked. If you are going to publish DURC, contextualizing the research with editorials or commentaries or issuing a press release to put the research in the proper context is recommended.

As an ethical editor, you must have procedures in place for identifying, reviewing, and publishing DURC. A multitude of resources are available on the NSABB Web site (http://oba.od.nih.gov/biosecurity/about_nsabb.html), within the CSE White Paper, and noted below for further reading.

DANIEL SALSbury is managing editor of the Proceedings of the National Academy of Sciences.

References


Further Reading