

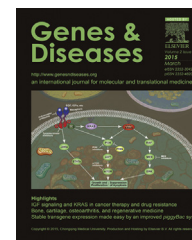
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VIEW ON NEWS

Seeking durable science through transparency and unbiased reporting

KEYWORDS

Journals;
Retraction;
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Research misconduct in the field of medical science is on the rise, according to two 2011 reports by Gautam Naik, a science journalist for the *Wall Street Journal* ^{1,2}. He reported that the number of retracted scientific journal articles had surged by 15-fold within the last decade, while the number of publications had risen only 44%. A further analysis within the same period showed that the rise in the fraud-related retractions far exceeded the retractions due to innocent errors. Naik pointed out that, although part of the surge can be attributed to more vigilant journal editors, as well as their advanced validation methods, competitive researchers vying for the stagnant budget and a publication environment preferring positive results may be the major factors driving this trend. Naik further observed: "*Science is based on trust, and most researchers accept findings published in peer-reviewed journals. The studies spur others to embark on related avenues of research, so if one paper is later found to be tainted, an entire edifice of work comes into doubt. Millions of dollars' worth of private and government funding may go to waste, and, in the case of medical science, patients can be put at risk.*" It is apparent that the vital interests of the research community, as well as the trust of the general public, who are both the sponsors and beneficiaries of the scientific progress, are at

stake. To turn the tide, the NIH and the journals *Nature* and *Science* co-sponsored a workshop in June 2014 to propose new Principles and Guidelines for reporting preclinical research to ensure the transparency and durability of the scientific findings (<http://www.nih.gov/about/reporting-preclinical-research.htm>). Representatives from more than 30 basic/preclinical science journals participated and co-sponsored the proposed new guidelines. These newly proposed publishing guidelines call for better disclosure of information related to the experimental design, sample collection and statistical data analysis, as well as for better descriptions of the reagents and study materials, which are expected to be shared among peer researchers after the publication. Although the implementation of these guidelines remains challenging, this is a major step forward, with many journal publishers united to raise the standards of scientific publication.

Conflict of Interest

Author has no conflict of interest to declare.

References

- 1 Naik Gautam. *Mistakes in scientific studies surge*, *Wall Street Journal, Eastern edition* (New York, NY). 2011; Aug 10. A1.
- 2 Naik Gautam. *Scientists' elusive goal: reproducing study results*, *Wall Street Journal (online)*, (New York, NY). 2011, Dec 02.

Fei Li, Executive Associate Editor,
E-mail address: fei@genesndiseases.org

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