Impact factor and its role in academic promotion: A statement adopted by the International Respiratory Journal Editors Roundtable

Jerome A. Dempsey
The John Rankin Laboratory of Pulmonary Medicine, The University of Wisconsin, Madison, Wisconsin

THE IMPACT FACTOR is a metric developed and published by Thomson Reuters Journal Citation Reports (JCR) (http://thomsonreuters.com/products_services/science/academic/impact_factor/; July 22, 2009) that quantifies how often articles in a given journal are cited during a given time period; it is the ratio between citations and citable articles. The Impact Factor is calculated by dividing the number of current year citations to articles published in two preceding years by the number of citable articles (excluding editorial, letters, news items, meeting abstracts) published in those two preceding years. The Impact Factor is also calculated for 5-yr periods. The Impact Factor is used widely as a metric to judge the quality of a journal’s content. It has also been used to judge the value of an individual scientist’s research, as determined by the Impact Factors of the journals in which they publish.

The International Respiratory Journal Editors Roundtable is comprised of the editors of 14 journals concerned with the science of the respiratory system. This group corresponds and meets at international meetings to discuss issues of mutual interest. The implications of the Impact Factor for journals—especially in its widespread use in judging the value of the research of individual scientists—were discussed in several of these meetings. These discussions resulted in the unanimous approval of the following statement concerning specifically the usage of the Impact Factor for academic promotions of individual scientists.

IMPACT FACTOR AND ITS ROLE IN ACADEMIC PROMOTION

This statement was adopted unanimously at the May 17, 2009, meeting of the International Respiratory Journal Editors Roundtable.

In our collective experience as editors of international peer-reviewed journals, we propose that the impact factor calculated for individual journals should not be used as a basis for evaluating the significance of an individual scientist’s past performance or scientific potential. There are several reasons not to equate the impact factor of a journal in which the scientist publishes with the quality of the scientist’s research. For example, as revealed by several recently published analyses of the impact factor (1–6):

1. A journal’s impact factor is determined by a decided minority of its published manuscripts. Thus the impact factor correlates poorly with the citations of an individual manuscript.
2. The impact factor does not consider the number of scientists actively producing research in a given specialty field. Indeed, some journals feel the need to serve constituencies with relatively small numbers of participants who continue to address important questions even though the number of scientists available for citations is limited.
3. A journal’s impact factor can be inflated by certain journal practices such as publication of many review articles.
4. Impact factor measures only the frequency of citations which cannot be assumed to always equate with quality.
5. There are alternatives and we believe more valid measures of the quality and impact of an individual scientist’s published contributions. First, a citation record for the individual candidate is readily available via several types of Internet search engines. Second, the time-honored practice of soliciting evaluations concerning the significance of a candidate’s work from scientific peers who are carefully selected to be both highly qualified as well as clearly “arms-length” from the candidate should be rigorously applied.

The following members of the International Respiratory Journal Editors Roundtable prepared, reviewed, altered, and edited this statement:

Alan R. Leff, MD (Chair), Proceedings of the American Thoracic Society
Edward Abraham, MD, American Journal of Respiratory and Critical Care Medicine
Kenneth B. Adler, PhD, American Journal of Respiratory Cell and Molecular Biology
Vito Brusasco, MD, European Respiratory Journal
Peter Calverley, MD, Thorax
Jerome A. Dempsey, PhD, Journal of Applied Physiology
Anh Tuan Dinh-Xuan, MD, European Respiratory Journal
Robb W. Glenny, MD, Journal of Applied Physiology
Mark L. Levy, FRCP, Primary Care Respiratory Journal
Reynold Panettieri, Jr., MD, Respiratory Research
Helen K. Reddel, MD, Respirology
Dave Singh, MD, International Journal of COPD
J. Christian Virchow, MD, Respiratory Medicine

REFERENCES