

Criteria for authorship

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Conceptually, identifying the authors of a scientific article is straightforward. They are those who have made substantial intellectual contributions to a published study. However, scientific authorship has important academic and financial implications that have often resulted in the inappropriate inclusion of “honorary” authors or, less commonly, the exclusion of junior authors.^{1,2} This issue is discussed in the ethics section of the current issue in an excellent contribution by Jones, McCullough, and Richman.

Since 2001, the Journal has required that authors specify their roles³ and meet the requirements for authorship as specified in the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals.”⁴ These indicate that each author must contribute to a manuscript in *each* of the following three areas:

1. Substantial contribution to conception and design; or acquisition of data; or analysis and interpretation of data.
2. Drafting the article or revising it critically for important intellectual content.
3. Final approval of the version to be published.

Authors’ roles are self-reported and rely on the integrity of the scientific community. At times a large number of authors in a small study stretches credibility, but usually it is difficult for editors or readers to judge individual contributions. However, for 2004, we analyzed the self-reported roles for authors of clinical scientific articles in the Journal and found that only 60% (SD, 30%) of authors indicated that they had met the above criteria. Furthermore, we found that the number of authors ranged from 1 to 16 (mean, 6.4; SD, 3.5).

On the basis of this analysis, we will join other journals that publish the role of each author at the conclusion of each scientific article⁵ and indicate instances in which each of two authors may have shared primary responsibility for what is commonly referred to as “first authorship.” We will also require that each author participate sufficiently in the work to take public responsibility for appropriate portions of content and that at least one author guarantee the scientific integrity of the work as a whole. Finally, the order of authorship should be a joint decision of all the authors, who should be prepared to justify the order submitted.

Contributors who do not meet these authorship requirements can be acknowledged. Because readers may infer their endorsement of the article, all acknowledged contributors must give their consent. This might include persons who contributed patients, operative cases, technical help, writing assistance, laboratory space, general support, or statistical consultation but did not meet the above three requirements. The role of each individual should be designated, such as “scientific advisor,” “data collector,” or “surgeon who cared for study patients.” Financial and materials support should also be acknowledged.

In multicenter trials, it is appropriate to acknowledge all participating investigators and to clarify the role of each group, such as “steering committee” or “data and safety monitoring committee.” However, authors of such articles must meet the above criteria, including at least one author who guarantees the integrity of the entire article.

The Journal will begin publishing authors’ roles in January 2006. Authors of accepted submissions will be asked to download a transmittal form from the Editorial Manager Web site and send this to the Journal office. This form will require that each author indicate his/her role and attest to this with a signature. Persons acknowledged in the article will also be asked to indicate their consent.

Authorship of scientific articles involves both credit and responsibility.⁶ Credit is given for the conduct of original research, and responsibility is required for its appropriate reporting. We believe that publication of author roles in the *Journal of Vascular Surgery* will affirm the high ethical standards required for scientific research. We ask that authors adhere to these requirements and accurately specify their roles in future submissions.

REFERENCES

1. Flanagan A, Carey LA, Fontanarosa PB, et al. Prevalence of articles with honorary authors and ghost authors in peer-reviewed medical journals. *JAMA* 1998;280:222-4.
2. Yank V, Rennie D. Disclosure of researcher contributions: a study of original research articles in *The Lancet*. *Ann Intern Med* 1999;130:661-70.
3. Johnston K, Rutherford R. Authorship revisited. *J Vasc Surg* 2001;34:1148.
4. International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals: writing and editing for biomedical publication. Available at: <http://www.icmje.org>. Accessed Sept. 6, 2005.
5. Rennie D, Yank V, Emanuel L. When authorship fails. A proposal to make contributors accountable. *JAMA* 1997;278:579-85.
6. Hoey J. Who wrote this paper anyway? The new Vancouver Group statement refines the definition of authorship. *CMAJ* 2000;163:716-7.

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