After All, That Is "Science" — the Fifth International Congress on Peer Review and Biomedical Publication, Chicago 2005

Following the success of the previous four congresses on Peer Review and Biomedical Publication organized by *the Journal of the American Medical Association (JAMA)* and *the British Medical Journal (BMJ)* Publishing Group, the Fifth congress held in Chicago, Illinois, September 16-18, 2005, accomplished its purpose.

Two outstanding talks were given by Eugene Garfield, the creator of the "impact factor," on the history and meaning of the journal impact factor, and Richard Smith, the former Editor of *BMJ,* on the influence of journals on the society. Over three days, many talks were given. Several of them perplexed me, indeed. I learned that we, and even the authors themselves, have serious discrepancies in establishing authorship (1); that journal instructions for authors provide unhelpful or even contradictory information on methodological and statistical issues (2); that author-suggested reviewers tend to make more favorable recommendation for publication (3,4); that assessment of abstracts submitted to scientific meetings is biased in favor of prestigious institutions within the US (5); that there is a risk that the approval of research grants depends on the reviewer rather than the merit of the project (6); that meta-analyses with financial ties to pharmaceutical industry have a higher proportion of findings in favor of the study drug than those without financial ties (7); that systematic reviews sponsored by industry should not be trusted (8); that there is a publication bias in high-impact journals (9), especially in publication of controlled clinical trials (10); that citing the works of reviewers who will probably assess the manuscript increases the likelihood of their recommendation for publication (11); that results presented in abstracts are often misleading (12); that almost half of all randomized controlled trials initially presented at scientific meetings were not published in full (10); that reports of crossover trials frequently omit important methodological issues in design, analysis, and presentation (13); and that studies with acronyms in the title have twice the citation rate of the similar studies without the acronym (14).

In other words, there were two major take-home messages for me. One was that the results of systematic reviews issuing from meta-analyses (the top of the hierarchy of evidence), even those published in high-impact journals, are not reliable. The other message was that the peer-review process, which is meant to assist editors in making decision on what to publish, is "expensive, slow, subjective, and biased; open to abuse; patchy at detecting important methodological defects; and almost useless at detecting fraud or misconduct." (15).

I did not hear any presentation relevant to small medical journals except the talk given by Dr Sahu of India, who showed that open access is a good way for small medical journals to increase their visibility and impact factor (16), which was in accord with previous reports (17,18).

As an editor from a developing country, I could see clearly that the problems of high-impact journals are quite different from those of small medical journals. While the mainstream journals primarily have problems with authorship vs contributorship, conflict of interests, ethical issues in conducting research and publication, and redundant publications, small medical journals deal with more fundamental problems, including lack of journal infrastructure, insufficient funding, lack of expertise in desktop publishing, little knowledge of editors about editing, difficulties with dissemination of publications, low visibility, and few high-quality research articles (17,19). Given that more than 90% of the financial burden of health care is due to problems in developing countries, and taking into account that one of our objectives as editors and researchers is to promote the health standards throughout the globe, I believe we should see to the problems of small medical journals. The board of *WAME* agreed to run a web-based questionnaire survey to assess the needs of small medical journals and then possibly propose to the Congress organizers to devote a

section of forthcoming meetings to the problems of small medical journals.

Since this Congress was also a scientific meeting – the talks presented were peer reviewed and research was published in the book of abstracts of the Congress proceedings – this report might also suffer from the same biases mentioned above. But, after all, that is all "*science.*"

Farrokh Habibzadeh, MD
habibzaf@sums.ac.ir

1 Marusic A, Bates T, Anic A, Ilakovac V, Marusic M. In the eye of the beholder: contribution disclosure practices and inappropriate authorship [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 9.

2 Altman DG, Schriger DL. The statistical and methodological content of journals' instructions for authors [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 10.

3 Schroter S, Tite L, Hutchings A, Black N. Comparison of author and editor suggested reviewers in terms of review quality, timeliness, and recommendation for publication [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 12.

4 Wager E, Parkin EC, Tamber PS. Are reviewers suggested by authors as good as those chosen by editors? Results of a rater-blinded retrospective study [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 39.

5 Ross JS, Gross CP, Hong Y, Grant AO, Daniels SR, Hachinski VC, et al. Assessment of blind peer review on abstract acceptance for scientific meetings [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 13.

6 Mayo NE, Brophy J, Goldberg MS, Klein MB, Miller S, Platt R, et al. Peering at peer review: harnessing the collective wisdom to arrive at funding decisions about grant applications [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 13.

7 Yank V, Rennie D, Bero LA. Are authors' financial ties with pharmaceutical companies associated with positive results or conclusions in meta-analyses on antihypertensive medications [abstract]? In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 16.

8 Jorgensen AW, Gotzsche PC. Sponsorship, bias, and methodology: Cochrane reviews compared with industry-sponsored meta-analyses of the same drugs [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 16.

9 Min Y, Unalp-Arida A, Scherer R, Dickersin K. Is publication bias associated with journal impact factor [abstract]? In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 18.

10 von Elm E, Scherer R. Do clinical trials get published after presentation at biomedical meetings? A systematic review of follow-up studies [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 23-4.

11 Egger M, Wood L, von Elm E, Wood A, Shlomo YB, May M. Are reviewers influenced by citations of their own work? Evidence from the International Journal of Epidemiology [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 21.

12 Gotzsche PC. Are relative risks and odds ratios in abstracts believable [abstract]? In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 23.

13 Mills EJ, Chan A, Wu P, Guyatt GH, Altman DG. Design, analysis, and presentation of crossover trials [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 24.

14 Stanbrook MB, Redelmeier DA. What's in a name: clinical trial acronyms and research impact [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 40.

15 Godlee F, Jefferson T. Introduction. In: Godlee F, Jefferson T, editors. Peer review in health sciences. London: BMJ Books; 1999. p. XI-V.

16 Sahu DK, Gogtay NJ, Bavdekar SB. Effect of open access on citation rates for a small biomedical journal [abstract]. In: Proceedings of the 5th International Congress on Peer Review and Biomedical Publication. September 16-18, 2005. Chicago, IL, USA. Chicago (IL): JAMA and Archives Journals and BMJ Publishing Group; 2005. p. 19.

17 Habibzadeh F. How can developing countries succeed in biomedical journalism? Saudi Med J. 2004;25 Suppl:S6-7.

18 Lawrence S. Free online availability substantially increases a paper's impact. Nature. 2001;411:521.

19 Habibzadeh F. First regional conference on medical journalism in the WHO Eastern Mediterranean Region. European Science Editing. 2004;30:18.