

# Authorship, Peer Review, Management, and More: Editors Convocation Addresses Current Issues

## Della Mundy

The Council of Science Editors held its second regional convocation of journal editors on 27 October 2001 at the University of California, San Francisco (UCSF). The convocation, titled Current Issues for Scientific Journal Editors, was organized by Susan Eastwood, head of the CSE Editors' Council Task Force. Eastwood, a former CSE president, is director, Publications and Grant Writing Division, UCSF Neurological Surgery Research Laboratories.

Based on the CSE short course for journal editors, this lively, interactive 4-hour workshop gave busy journal editors and their associates an opportunity to explore current issues that affect their journals and the quality of scientific reporting in general. The workshop was intended to inspire and aid editors-in-chief of scientific journals, associate editors, editorial-board members, chairs of publications committees, managing editors, and peer reviewers for scientific journals—particularly those who are new to their positions or are taking on the additional responsibility of creating and managing online journals.

The course outline promised to cover such topics as the following: new realities in peer review; decision-making, peer-review dilemmas, and policy decisions; authors and authorship; editorial-office management; managing manuscript flow from receipt to production; journal finances and changing financial environments; matters of style; and general topics on publication in the online era. The promise was kept.

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## A Dreadful Job?

Bruce Dancik, editor-in-chief, National Research Council and Canada Research Press, Canada, described the rapid shift to electronic publishing that has occurred with many journals. His own National Research Council journals now have an agreement to provide free online access to all the journals for all Canadians. Dancik said that traditional peer review in scientific journal publishing has come under attack and is perceived by some researchers as a barrier to disseminating the results of their research. He believes that validation will always be important in science, even if the model of peer review changes.

Dancik had an alert for the new editors in the audience—it might be a “dreadful job”, but he hoped that they found it as enjoyable and rewarding as he has. He predicted that editors will always have a role in reviewing, clarifying, refining, and verifying science. Dancik outlined “Benefits, Risks, Alternatives, and Refocus” for peer review. He has been quoted as stating that editors using peer review are looking for information, not consensus. He said the editor's role is to solicit information from the reviewers and then make decisions. Editors who typically obtain two reviews can use a third review to gain more information, but not to decide controversies, he said. Group discussion of risks led into discussion of disclosing conflicts of interest; a discussant from the *Journal of Human Lactation* noted that her journal does not accept advertisements from infant-formula companies.

Then Dancik led a discussion of authorship. He noted that the concept of the authors as originating the study idea and design, performing the laboratory or field experiments, analyzing and interpreting the data, writing and reviewing the final

draft, and being able to take public responsibility for validity of the data was probably first formalized by Arnold Relman, then editor of the *New England Journal of Medicine*, around the late 1970s. He was followed by Edward Huth, then editor of the *Annals of Internal Medicine*, and others with formation of the Vancouver Group, later known as the International Committee of Medical Journal Editors (ICMJE). ICMJE's Uniform Requirements for Manuscripts Submitted to Biomedical Journals require a researcher to fulfill at least two of those elements to qualify for authorship. Drummond Rennie, of the *Journal of the American Medical Association*, with Veronica Yank and Linda Emanuel, Richard Horton, of *The Lancet*, Richard Smith, of the *British Medical Journal*, and others are generally credited with proposing the concept of contributorship—a list of all contributing to an article's content, including guarantors (named contributors who take on the role of guarantor for the integrity of the entire work, even in a court of law if necessary). Closely associated, Dancik said, is the older concept of acknowledgment, crediting those who have contributed in some way but do not qualify for authorship.

Dancik noted that perceptions of what each contributor did can differ, and presented several cases for group discussion. One case posed the question of whether chief editors who are active in research should submit articles to their own journals. One response was that submitting to one's own journal is inappropriate; another was that the editor could choose a guest editor to oversee consideration of the chief editor's paper. Regarding a suggestion that the editor remove his or her name from the paper, it was decided that doing so would be misleading and possibly unethical.

It was apparent that good agreement among authors regarding authorship and order of authors does not always exist. The editor must have a policy for managing such situations when papers arrive at the journal. Such situations tend to emerge, Dancik said, only if the publisher requires a copyright-transfer form signed by all authors before publication. Dancik closed this portion with a cartoon alluding to an “author who published after he perished”.

### **Peer Review**

Michael Callaham, deputy editor of *Annals of Emergency Medicine* and former chair of CSE Editorial Policy Committee, showed slides of his research results on the science of peer review. He addressed several questions on peer review.

*What is its purpose?* Science works best in an environment of unrestrained criticism as a catalyst for communication among authors, editors, and other experts. Peer review is a means of quality assurance and possibly validation.

*Does it work?* Peer review can detect errors in methodology, improve readability and other aspects of quality, and increase accurate disclosure—particularly by avoiding excessive generalization and discussing limitations. Peer review cannot detect fraud and has little ability to detect errors of statistical analysis. In one study, lower age, training in epidemiology, and time spent on the review increased the quality of review. As for the overall benefit of peer review, only small improvements in quality and readability have been proved so far.

*How best to do it?* History has provided many models for peer review. Peer review is done by voluntary (unpaid), untrained people. Reviewers can be inexpert and biased. New reviewers are not screened. Peer reviewers have little accountability, and their efficacy has not been proved.

*How do we train and rate reviewers?* Methods of training and evaluation include sending one peer reviewer’s review to the other, trying out new reviewers as third reviewers, and offering formal training workshops. Only half of US journal editors rate their reviewers.

Callaham’s own study of rating peer

reviewers for his journal found that workshops were popular but did not improve performance. Providing simple or complex feedback to mediocre reviewers also had no effect. Attempts to weed out “bottom feeders”, scored by editors as poor reviewers, resulted in letters of support from colleagues providing nonnumeric evidence of a reviewer’s usefulness. The result was that reviewers did not improve.

In one study in which eight flaws had been introduced into fictitious manuscripts randomized to blinded or standard review with or without signed reviews, a mean of only two flaws was reported, and only 10% of reviewers reported more than four flaws. It is not known whether such poor performance occurs in routine daily peer review.

*What are the obligations of reviewers?* Most journals do not require reviewers to identify themselves. Most reviewers oppose revealing their names to authors, but several journals that have started disclosing reviewers’ names report good acceptance and no adverse effect on review quality. Increased transparency is probably crucial to perceptions of fairness. Peer reviewers can improve by completing during the process checklists that are provided to them. Improved instructions with formal objectives, screening of potential peer reviewers, training, and ratings with feedback can be provided.

Group discussion addressed how to recruit reviewers. Methods included canvassing the editorial board, asking authors for suggestions, searching the literature in the field for experts, and using authors of high-quality papers that have been published in the journal. The editors at the workshop acknowledged appeals as legitimate.

### **The Managing Editor**

Christine Arturo, managing editor of the *Journal of the American College of Cardiology*, described the role of the managing editor as handling manuscript flow in the peer-review process while incorporating new technology and “online realities”.

Arturo first defined her role this way: report to the editor-in-chief, set policy and procedure with the editor-in-chief, prepare

reports and attend meetings with the editor-in-chief, act as liaison to the editorial boards and associate editors, and manage journal production. She oversees journal office operation: She sets up the office and obtains staff for it, prepares budgets, manages the peer-review process, and manages journal production.

In addition, Arturo acts as liaison to the publisher, scheduling articles in issues with the production editor; sets journal policy and style; approves galleys; and handles production problems. She is also liaison to the society that publishes the journal, attending editorial-board and publication-committee meetings, recommending budget or staff changes, and acting as liaison for joint society projects, for example, with the American Heart Association or cardiology subspecialty societies that also publish journals.

*Manuscript Flow in the Peer-Review Process:* Arturo described how a submitted manuscript is logged in, an associate editor is assigned, reviewers are presolicited for availability and potential conflict of interest, the manuscript is sent for review, the reviews are logged in, additional reviews are assigned if a review is delayed or additional input is required, and reviews are sent to the associate editor or editor-in-chief for decision. The associate editor makes the final decision autonomously or makes a recommendation and forwards the manuscript to the editor-in-chief for final decision. A roundtable discussion among the editor-in-chief and associate editors is held weekly on site or via conference call.

Resubmissions—including manuscripts with revisions, (major or minor), “de novos” (manuscripts rewritten because extensive changes were required), and appeals—all are logged in and sent to the original associate editor or the editor-in-chief for decision. The associate editor or editor-in-chief renders the decision, or the resubmissions are sent out for further review. When a manuscript is accepted, a final style check is done before it is sent to the publisher. The author is informed of the decision and sent a transfer-of-copyright form to complete; this action guarantees that, as outlined in ICMJE’s Uniform

*Editors Convocation continued*

Requirements, the article or another article containing the same data set has not been submitted to another journal.

*New Technology, Online Realities:* Arturo said that both the print and electronic versions of the journal she manages depend on subscription income and advertising revenue. Expenses are for vendors of print publication and the online publisher.

Arturo was responsible for choosing a Web-based database that moves text into a PDF file that can be transmitted to authors, reviewers, and publishers. The current methods for database deployment are the ASP (application server provider) model or the self-hosting model. Responsible for vendor selection, Arturo requires dial-in demos and uses an information technology consultant, if budgeted, to score the following in potential vendors: hardware, software, and platform; user interface; service; and proposal.

Arturo also described an innovative method she and her editor-in-chief developed to increase article submissions. In a published "Editor's Page", the *Journal of the American College of Cardiology* solicited manuscripts rejected by other journals. The journal increased its page budget by 500 pages and then raised the acceptance rate. These three methods together contributed to a 30% increase in submissions over 4 years. Over the preceding 5 years, the annual submission rate for the journal had increased by only 2%. Arturo said the journal plans to go from monthly to two issues per month in 2002 (a competitor publishes weekly).

Arturo told the attendees about the "Heart Group", a support group formed

among editors from the leading heart journals to address ethical publication practice and policy. For example, the editors inform one another about duplicate submissions and reprimand the offending authors. Those authors are barred from submitting an article again to some journals in this group. Joint policies are developed, such as one requiring authors and reviewers to disclose paid consultancies.

A lively open discussion ensued on age-old topics ranging from whether it is legally required to request copyright permission from the author of an article to republish it (it is not, but it is a professional courtesy and is required by some publishers), to an author's complaint that a copyeditor changed a meaning, and on to vagaries of the online review process. 

### Resources

Workshop leaders referred to online and print resources related to the topics discussed. A list is presented below.

#### World Wide Web Sites

International Committee of Medical Journal Editors: [www.icmje.org](http://www.icmje.org).

World Association of Medical Editors: [www.wame.org](http://www.wame.org).

European Association of Science Editors: [www.ease.org.uk](http://www.ease.org.uk).

Council of Science Editors: [www.councilscienceeditors.org](http://www.councilscienceeditors.org).

Office of Research Integrity: [ori.dhhs.gov](http://ori.dhhs.gov).

Committee on Publication Ethics: [www.publicationethics.org.uk](http://www.publicationethics.org.uk).

#### Publications

The Council of Science Editors Publications Catalog and the GuideLine Series published by the Council of

Science Editors. (See CSE Web site.)

CBE Peer Review Retreat Consensus Group. Peer review guidelines: a working draft. *CBE Views* 1995;18(5):79-81.

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Guarding the guardians: research on editorial peer review. Selected proceedings from the First International Congress on Peer Review in Biomedical Publication. Chicago May 10-12, 1989. *JAMA* 1990;263:1317-441.

The 2nd International Congress on Peer Review in Biomedical Publication. Proceedings. Chicago, September 9-11, 1993. *JAMA* 1994;272:91-173.

Proceedings of the 3rd International Congress on Peer Review in Biomedical Publication. Prague, Czech Republic, September 1997. *JAMA* 1998;280:213-302.

Williamson A, editor. The COPE Report 1998. Annual report of the Committee on Publications Ethics. London: BMJ Books; 1998.

Lang TA, Secic M. How to report statistics in medicine: annotated guidelines for authors, editors, and reviewers. Philadelphia: American College of Physicians; 1997.

Who's the author? Problems with biomedical authorship, and some possible solutions. *Science Editor* 2000 Jul-Aug;23(4):111-20.

Loos EM. Evaluating scientific illustrations: basics for editors. *Science Editor* 2000 Jul-Aug;23(4):124-5.

Journal of the American College of Cardiology (JACC) Instructions to Authors page. [cardiosource.com/journal/journal/Authorinfo?&did=4884](http://cardiosource.com/journal/journal/Authorinfo?&did=4884). (accessed 19 November 2001)