

## ◆ Security Concerns and Proposals for Restrictions on Scientific Publication

*Moderator and Speaker:*

**Annette Flanagin**

*Journal of the American Medical Association*

Chicago, Illinois

*Panelists:*

**Samuel Kaplan**

University of Texas Medical School  
at Houston

American Society for Microbiology  
Publications Board

Houston, Texas

**Beatrice Renault**

*Nature Medicine*

New York, New York

*Reporter:*

**Melissa Roy**

*American Journal of Ophthalmology*  
Jacksonville, Florida

The timely issue of national security in scientific publication was addressed during this session at this year's CSE annual meeting. Although some CSE members' organizations may never deal with manuscripts presenting the possibility of bioterrorism, every editor, referee, and author should be well informed on the issue because concerns regarding published science and bioterrorism can only increase. This session discussed the restriction of potentially "sensitive" scientific information and its harm to the open nature of biomedical research. Panelists Samuel Kaplan and Beatrice Renault spoke on security concerns in scientific publication and the future of the peer-review process.

Kaplan spoke from the perspective of the American Society for Microbiology (ASM) Publications Board. The board oversees 11 journals to which about 14,000 manuscripts are submitted each year. Security concerns regarding biomedical publications first arose with the publication of an article on

mouse interleukin-4 and the suppression of resistance to mousepox in the *Journal of Virology* in 2001. The paper caused alarm because bioterrorists might use the information to create an immunoresistant strain of the related viruses. ASM stood by its publication of the paper because of the investigation's basic nature, but its publication spurred development of an evaluation protocol. Although journalists and others scan ASM's journals' tables of contents for relevant subject matter, ASM maintains the process's integrity and strives to keep the peer-review system intrusion-free because it is concerned primarily with upholding the free interchange of scientific information.

As of 31 March 2003, some 600 manuscripts dealing with government-identified "select agents" had been submitted to ASM, but only two required "further review". Some authors may omit sensitive information to prevent possible reproduction by terrorists. However, ASM does not allow such omissions, and it refused to publish five papers in the past year because of the inability to reproduce trials without full disclosure. Kaplan credited the peer-review process with easing authors' minds about including pertinent information because the benefits are weighed against the risks.

Renault, editor of *Nature Medicine*, largely agreed with Kaplan. She opened with a photograph from the *New York Times* illustrating the situation's urgency: a copy of the *Journal of Infectious Diseases* in the dirt outside a former Soviet bioweapons facility. Although Renault described the involvement of the Nature Publishing Group with the bioterrorism issue as relatively recent, the organization has identified awareness of bioterrorism as a primary responsibility of all involved in publication, to be balanced by a commitment to timely communication to the public.

Renault explained the issue by using a paper by Seng Heui Seo and others about the "Hong Kong flu". The paper demon-

strated that this particular virus could have become deadly after acquiring only a single mutation. Renault explained that *Nature Medicine* decided to publish the paper because disseminating the research was essential for keeping abreast of changes in viruses and later development of vaccines, drug treatments, and surveillance strategies. However, terrorists could use the same information to develop bioweapons, so *Nature Medicine* simultaneously published a press release on the paper's sensitivity, which was an appropriate response to concerns and an antidote to sensationalism.

After the January 2003 National Academy of Sciences meeting on biosecurity and scientific publication, some journal editors published a document listing the following priorities, which Renault discussed: (1) protecting the integrity of the scientific process, (2) devising ways to recognize and deal with sensitive papers, (3) maintaining editorial responsibility, and (4) reserving the right to "modify and withhold publication in situations where serious concerns arise". When a sensitive paper is identified, *Nature Medicine*'s editors consult external advisers regarding security threats, use an editorial monitoring group, keep records of the paper, and use an "open procedure" and maintain communication with authors about the situation. Renault concluded that we are in the business of assessing the benefits, not the risks, and, although the future of this issue is uncertain, communication is the key.

### Handouts:

[www.pnas.org/cgi/doi/10.1073/pnas.0630514100](http://www.pnas.org/cgi/doi/10.1073/pnas.0630514100).

[www.sciencemag.org](http://www.sciencemag.org) (Editorial: "Two Cultures").

[www.asm.org/general.asp?bid=14777](http://www.asm.org/general.asp?bid=14777) (ASM Code of Ethics).

### Full listing of "select agents":

[www.nih.gov/od/ors/ds/pubs/appendxa.html](http://www.nih.gov/od/ors/ds/pubs/appendxa.html).

