Hype and More: Editorial Highlights of the 2003 AAAS Annual Meeting

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"You are missing the best show in town", a man said to a woman at the Colorado Convention Center. He was referring to "HYPE! The Greatest Symposium Ever!!—Communicating Science in a Pressure Cooker", a session at the annual meeting of the American Association for the Advancement of Science (AAAS), held 13-18 February 2003 in Denver, Colorado. The session was among several touching on editorial themes.

"HYPE!"—a play produced by Deborah Runkle (AAAS) and Boyce Rensberger (Knight Science Journalism Fellowship Program, Massachusetts Institute Technology)—illustrated how scientific findings can be exaggerated when scientists are under pressure. In the play, Gene Poole (played by Paul Friedman, University of California, San Diego) is a scientist whose preliminary results in a small study in mice suggest he has found a cancer cure. When he refuses to talk to a reporter (played by Deborah Blum, University of Wisconsin-Madison), citing an embargo from the journal to which he submitted his paper, a series of funny but serious events take place. A scientist, a reporter, a public-information officer, an academic dean, a journal editor, a biotechnology entrepreneur, and a member of Congress hype the biomedical research to promote their interests. After the first of three acts, the actors and audience members discussed some issues about journals' embargo policies.

"Journals have to play fair with the press—that is, to state and then uphold the embargo", said Donald Kennedy, editor-in-chief of *Science*, who played the journal editor. Blum, president of the National Association of Science Writers, said the embargo system levels the playing field between big prestigious newspapers and small newspapers. She noted, however, a downside: "Embargoes are

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a news-management tool, and they can have a really unfortunate effect on healthy communication of science, partly because scientists are so inhibited by the shadowy threat of the journal's doing something to their paper."

A different threat—of bioweapons development by terrorists—also concerned scientists and editors at the AAAS meeting. In a briefing and a session titled "Biosecurity: Science in the Balance", a statement on self-governance in publishing potentially "dangerous" science (for example, research on infectious diseases that might help terrorists to create a bioweapon), signed by 32 of the world's leading journal editors, was released.

The release from AAAS noted that the statement "supports the concept of self-governance by the scientific community—an alternative to government review of forthcoming journal articles". It summarized the set of four key statements in the document as follows: "The integrity of the scientific process, and reproducibility of results, are paramount; Editors in the group are committed to dealing responsibly and effectively with security issues; Scientists and journals should consider establishing processes for reviewing risky papers; and If potential risks outweigh benefits, editors should modify articles or decline to publish them." The editorial statement was published in the 18 February Proceedings of the National Academy of Sciences (PNAS), the 20 February Nature, and the 21 February Science.

For science editors who wanted to know about less risky publications, the AAAS program included a workshop titled "Content Plus: Writing Excellent Children's Science Books". The workshop—organized by Julie Ann Miller (Science News), Wendy Saul (University of Maryland-Baltimore County), and Maria Sosa (AAAS)—described the state of children's trade books and offered ideas on how to communicate science to children and teenagers.

"Kids are excited about science", said Jean Reynolds, of Millbrook Press. She said that books on science are always in the list of top 10 best-sellers among children's books. Excellent children's science books, speakers said.

- Offer the possibility of different ways of reading (for example, illustrations and text).
- Have elements for teachers (for example, illustrations about which questions can be asked).
- Get science across by telling a story.
- Put science in a social context (for example, a book on the invention of the light bulb might have a sidebar on what the world was like at the time of the invention).
- Have appropriate and clear illustrations.

"The best books for children are field guides that relate to everyday life", said Edward Saiff of Ramapo College, who reviews children's books for *Science Books and Films*.

What should an editor look for in a manuscript for a children's science book? Reynolds provided the following response:

- 1. The topic. Is the subject matter appropriate for the targeted age? Where in the curriculum are children studying that topic? Editors can look at the curriculum standards for each state (dir.yahoo.com/Education/K_12/Curriculum_Standards/By_Region/U_S__States).
- 2. The competition. How many books exist on the same topic? What makes this book better? Look at other books in the field.
- 3. The language. The language must be lively and not technical. Picture books have a special rhythm. Read a lot of these books to catch the rhythm. A good database of children's science books is Search It! Science (searchit.heinemann.com).
- 4. The pictures. Envision the book with illustrations. A manuscript can be very short—a page and a half if it is for young children. A good exercise is to fold sheets of papers as in a book (picture books have 32 pages) and write the text on those pages.

Audiotapes of these and other sessions at the AAAS annual meeting can be obtained from Audio Visual Education Network (www.aven.com).