

Conflicts of Interest in Scientific Publication

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This well-attended session revisited several major issues by using well-known and relatively recent cases. The emphasis was on biomedical issues, but it does not require much extrapolation to see the relevance of the problem to all fields of scientific publishing.

Drummond Rennie began with a forceful reminder that conflict of interest is about ethics and that the moral improprieties—some may say bankruptcy—of a relatively few individuals and institutions contribute directly to loss of trust in science and to collapse of markets. If companies are to corrupt the system through misuse of the science-reporting process, they require the connivance of researchers working outside

industry. He pointed out that science may call it conflict of interest, but Wall Street calls it synergy. It is the editor's job to publish credible research with full transparency. An example of the widespread publication bias due to industry influence is that nine publicly funded studies showed that the risk of venous thrombosis was on the average more than doubled in women who used oral contraceptives, whereas four industry-funded studies showed no increase in risk.

Multiple publication of trial results and the inevitable bias of industrial reports may go unnoticed; but when authors have signed statements denying conflicts of interest, it is clear that the deception is deliberate. Negative results of trials are often suppressed or submitted only after massive sales have occurred, whereas positive results are written up and submitted promptly. People who found results that did not favor a sponsor's product have been threatened with lawsuits and in some cases have not received adequate protection from their university or hospital employers, and in at least eight cases companies have summarily discontinued trials for financial reasons.

Rennie referred to one such case (Rennie D. Thyroid storm. *JAMA* 1997;277:1238-43) and to the novel *Prescription for Greed* by the cardiologist J Willis Hurst and his son Philip. Sponsors send the message that they are to be trusted, but editors must be strong surrogates for the reader and patient.

Cary Gross focused on his paper (with J E Bekelman and Y Li) "Scope and Impact of Financial Conflicts of Interest in Biomedical Research" (*JAMA* 2003;289:454-65). He pointed out that conflict of interest is not synonymous with bias. He

asked us to consider how scientific evidence gets to the bedside, and he used the case involving Dr Olivieri, the University of Toronto Health Sciences Centre, and Apotex to illustrate the complex conflicts that can occur. The biggest harm is usually to human subjects, as we saw in the gene-therapy case of Jesse Gelsinger, who should have been excluded from experimental studies. It is also important for journals to avoid taking sides, as appears to have happened in *Nature* in discussions of reports about high gene flow to the native teosinthe from genetically engineered maize in Mexico.

Annette Flanagin emphasized the need for proper disclosure of conflicts. Definitions and policies are widely circulated, but financial conflicts remain difficult to detect. The matter is serious, and we have an increasing body of research that shows that bias is a major problem where conflicts of interest occur.

Editors have been concerned since the 1980s, and most current style manuals contain clearly stated guidelines. Regulations have existed since 1990 (that is, those of the US Public Health Service, the National Science Foundation, the UK Royal College of Physicians, and the Medical Research Council of Canada), and the Council of Science Editors has an editorial policy statement on conflicts of interest. Since the 1990s, many journals have developed conflict-of-interest policies for authors, reviewers, and editors, but many scientific journals have no policy, and journal policies are inconsistent. Flanagin cited a report that 34% of articles in one study had a lead author who had an undisclosed conflict. The key is full and rigorous disclosure, but enforcement is hard. 