

◆ The Enforcement of Scientific Integrity

Chair:

Paul Friedman

UCSD School of Medicine

San Diego, California

Panelists:

Barbara Mishkin

Hogan & Hartson

Washington, DC

Richard Horton

The Lancet

London, England

Reporter:

Ann Morcos

Tulane University Medical Center

New Orleans, Louisiana

Deceit knows no boundaries, speaks no language, has no gender. Scientific deception has become such a focus of interest that the British Library now publishes the bibliography *Scientific Deception: An Update*.

In England, a group of science-journal editors established COPE, the Committee on Publication Ethics, to grapple with the challenges that journal editors face in trying to maintain the scientific integrity of the literature they publish. COPE is an informal group that meets to discuss cases of suspected scientific fraud submitted to it by journal editors. It has no legal authority: Its intention, said Richard Horton, a COPE founding member, is to turn up the heat on the matter of fraudulent research so that others besides journal editors will take notice. To that end, COPE is releasing its second report, which describes cases of misconduct that it has reviewed (56 all together: 20 institutional review board infractions, 18 duplicate publications, 10 authorship questions, 4 cases of plagiarism, and 4 cases of outright fraud). COPE sends its recommendations (for example, to mail a letter of explanation or warning to the author, a letter to the institution or funding agency, a

retraction, an editorial explaining the details, or a report to the General Medical Council) to the submitting editor, who may choose to follow or ignore them. COPE, in its infancy, looks to the more experienced Nordic countries and the United States for guidance in developing strategies for journal editors to use to establish a culture in which scientific misconduct is actively discouraged.

Paul Friedman said that standards for

Friedman stressed how the results of an investigation must be used to educate others on the need for integrity.

ethical behavior must be established before they can be enforced. The US Office of Research Integrity (ORI), which monitors research funded by the National Institutes of Health, has forced US institutions to establish a process for dealing with integrity issues. Academic institutions, Friedman said, must develop standards and policies for enforcement that all faculty embrace; information regarding institutional policies and standards must be regularly disseminated to new faculty and students; reporting of research misconduct to institutional authorities must be encouraged; institutional policies—which should regulate unacceptable research activities beyond those in the definition of research misconduct imposed by the federal government—must include due process for all; the role of university and outside attorneys must be defined; and all who participate in the process—faculty, administrators, whistleblowers, and accused faculty—must be protected. Finally, Friedman stressed how the results of an investigation must be used to educate others on the need for integrity.

Attorney Barbara Mishkin handles cases involving scientific misconduct. Mishkin

encourages journal editors who suspect fraud to report it to the institution where the principal investigator works and to ask the institution to investigate—an idea reinforced by the ORI, according to audience-member attorney Chris Pascal, of the ORI. Attorneys, Mishkin said, can help institutions by making certain that they follow correct policies and procedures when investigating scientific misconduct and that evidence is properly collected, cataloged, and sequestered. They also advise institutional investigating committees throughout inquiries and investigations. The federal government has serious penalties for scientific misconduct, including debarment, recoupment of funds, incarceration for up to 5 years, community service, and fines of up to \$10,000 per offense. Recently, the University of Minnesota paid \$32 million for improper sales of an unapproved drug and mishandling of grant money (\$1.5 million of this went to the whistleblower). Private lawsuits by accused scientists against their institutions that were recently settled include *Angelides v Baylor College of Medicine* and *Fisher v University of Pittsburgh et al.* Lawsuits alleging copyright infringement, misappropriation of ideas, patent disputes, and authorship issues are pending in the courts. Mishkin said that in the future a governmentwide definition of scientific misconduct could be established, and legislation conferring immunity for those who conduct or participate as witnesses in investigations might be passed.

A common thread through the discussion was that due process for all must prevail, protection of participants in investigations must be guaranteed, and misconduct seems to occur where the money is. All speakers agreed that standards of research misconduct should describe punitive and corrective action in a further attempt to encourage good behavior. ■