## Science, Objectivity, and Judgment Uncompromised

From time to time, the public press and health care news publications have widely reported on investigations of alleged financial improprieties involving some prominent individual in either the public or the private sector.

Generally, the financially-related incidents involved were relatively insignificant or inconsequential in themselves. They might have involved gifts, honoraria, director's fees, or similar perquisites. However, it was because of the particular office of the person or his or her high position of public trust, or corporate responsibility, or overall general authority that made the matter a special concern. Even an appearance of secret favors or undisclosed benefits throws into question the objectivity and impartiality of a supposedly neutral individual in rendering decisions or taking actions.

This, then, brings us to our current concern: namely, the hidden biases or allegiances of scientists who volunteer or are called upon to participate in some proceeding as impartial, but knowledgeable, experts. The activity involved may cover the gamut from serving on a high-brow committee of some distinguished scientific society to testifying before some legislative or judicial body.

The July-August issues of *Science* 83, a publication of the American Association for the Advancement of Science carried in its "Advice and Dissent" section, a column entitled "When Scientists Testify for Hire." The article was written by Michael F. Jacobson, executive director of the Center for Science in the Public Interest—an organization that describes itself as a Washington-based consumer advocacy group.

"Of all the values that pervade science," writes Jacobson, "one of the highest is objectivity, which I take to mean judgment uncompromised . . . . But scientific objectivity is sometimes invoked more for appearance than for substance. Whenever science moves into the commercial world, scientists come face-to-face with Mammon and manufacturers. When profits are threatened by legislation, lawsuits, or bad publicity, many companies like to have their positions bolstered by academic scientists. A professor's utterances are far more persuasive than those of the corporate chemist who developed the suspect 2,4,6-super-oxo-kleptane, or whatever."

Jacobson then goes on to cite a number of examples in which individual companies or an industry trade organization will recruit academic scientists whose opinions they like or scientists who will willingly espouse opinions that are favorable to those companies or industry. These scientists may be "recruited" in any number of ways; for example, the industry "recruiters" might hire them as consultants, sponsor their research, offer employment to their graduate students, appoint them to their corporate boards, endow their teaching positions or professorships, or otherwise get them into a position of indebtedness.

Jacobsen brings out very nicely that it is not usually the positions per se that these scientists take that is wrong. What is objectionable is that they voice those positions while wearing a cloak of professed neutrality. And in this regard, Jacobson states that, "The public is cheated by being given the appearance but not the substance of objective scientific analysis. Individuals and governments may make poor decisions based on one-sided information. The biggest loser in the long run, though, could be the scientific community itself, including the vast majority of scientists who do not testify for hire. The public supports research in the belief that scientists seek the truth, uncompromised by conflicts of interest."

And then Jacobson concludes by expressing a view that we have stated previously in this column. It is a view that was not original with us, but which we repeated when the National Academy of Sciences did some gutsy housecleaning after it came to light that several members of one of its committees had strong, but concealed, ties to firms in an industry that was favored by the conclusions drawn by that same NAS committee.

If we are to utilize experts and their expertise, of necessity, we are going to draw upon people who have ties to groups, industries, or institutions with biased views or positions on the subject. What is important is: (a) to have a very clear and open record as to what are each individual's connections, obligations, and commitments, and (b) to balance, as carefully as possible, the make-up of each panel or committee by including a good cross-section of people with an appropriate range of views on the matter and with approximately equal distribution of advocates from the respective opposing sides.

When a scientist speaks out on a public issue, the populace expects that the scientist will feel obligated to explicitly disclose any links that he or she has to the affected company or industry.

Only in this manner will science and the scientific community continue to maintain integrity, and only through such integrity will science be able to continue to command the confidence and trust of the public at large. In its own way, that message is equally pertinent to each and every scientist.

> —EDWARD G. FELDMANN American Pharmaceutical Association Washington, DC 20037