

Letters

Whistle-Blowing

Daniel E. Koshland, Jr.'s, editorial (29 Apr., p. 585) on whistle-blowing proposes an ugly theory of justice, that the value of a charge of fraud depends on the relative performance records of whistle-blower and accused. In practice, this would confer absolute immunity on important scientists.

"Excesses in whistle-blowing and journalism" are Koshland's own invention. Typically, the whistle-blower wants only to get the offending practice stopped or the offending paper withdrawn. Publicity is not wanted because a reputation for whistle-blowing hurts one's employment prospects. It is only if it becomes plain that the offense is being whitewashed that the whistle-blower, or someone else, may go to the press.

The press thus serves its ancient role as court of last resort. Koshland suggests instead that it carry stories about what kind of a scientist the whistle-blower is and impute motives and character traits, all irrelevant to whether the whistle-blower's charge is true. The press should not do character assassinations in the service of the scientific establishment.

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Koshland's editorial "Science, journalism, and whistle-blowing" is an excellent statement that is precisely on the mark.

I have been interested in this subject for a number of years and, as the American Bar Association liaison to the National Conference of Lawyers and Scientists (NCLS), have participated in the discussions concerning the NCLS sponsorship of the workshops on "fraud and misconduct in science." Since the initiation of these discussions I have objected to the use of the term "misconduct" on the grounds that the term is so broad and vague that it could include virtually anything that some person disapproves of. I have urged that the title of the workshops should be "fraud and misrepresentation in science" and have argued that this is not merely a matter of verbiage but that it is likely to focus attention on the real problem of the occasional false representation of scientific data in published reports.

While the issue of the proper focus of such discussions has been my principal concern in these matters, I agree entirely with the other points that Koshland makes with respect to the investigations that are appropriate when fraud is charged and the considerations that are relevant in appraising both

specific charges and general reports about the prevalence of fraud in science. I hope that Koshland's well-considered editorial will be read by all of those concerned with this subject and will have the influence that it deserves.

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Chinese Diet Study

While the National Cancer Institute and the Chinese government provided the major sources of funding for the project on diet and health in China (Research News, 1 Apr., p. 27), I also wish to call attention to important additional sources of funding from the American Institute for Cancer Research, the U.S. Food and Drug Administration, the U.K. Imperial Cancer Research Fund, and several private U.S. companies.

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Etiology of AIDS

In the first paragraph of William Booth's News & Comment briefing of 15 April (p. 279), I was described as an ally of Peter Duesberg and characterized as particularly unacquainted with the AIDS literature. I welcome this opportunity to reply. In my formal presentation I explicitly stated my disagreement with Duesberg's categorical denial of a role for HIV in the origin of AIDS, although I commended him for raising a serious discussion of the subject. In Booth's passing shot at my knowledge of the AIDS literature, I am afraid he mistakes my critical questioning for ignorance. Although I have not worked with the retrovirus known as HIV (human immunodeficiency virus), or with the AIDS complex of diseases, I do have some credentials for having been invited. I initiated modern work on retroviruses in cell culture some 35 years ago (1) and thoroughly studied their epidemiology after developing the laboratory tools for doing so (2). I reversed my initial refusal to attend when I sensed the meeting was designed to discredit my colleague Duesberg. He insisted I come despite our points of disagreement because he knew I was not committed to either side of the dispute, which says something about his attitude.

From what I learned at the meeting and

its aftermath I have concluded that my objections to Duesberg's major thesis may have been based, paradoxically enough, on my inadequate knowledge of all the nuances in the field. Let me summarize my interpretation of his position and try to explain my own modified position. Duesberg points out that AIDS patients and individuals in the high-risk groups (multipartner male homosexuals and intravenous drug abusers) not only have a high incidence of HIV infection, but have a similarly high incidence of infection with cytomegalovirus, Epstein-Barr virus, herpes virus, and hepatitis B virus (3). At least one of these, cytomegalovirus, produces the same deficiency of T4 (CD4) helper cells as is seen in AIDS (4). Patients also have a high incidence of gonorrhea, syphilis, and other sexually transmitted diseases (5). Since these agents are, for the most part, more readily transmitted than HIV, the latter is likely to be a good indicator for the presence of one or more of the other agents. The well-known difficulty of HIV transmission also explains why it is less prevalent than the other agents in low-risk groups, which gives it the appearance of specificity. If we assume that AIDS is a consequence of multiple infections and associated practices (see below), the indicator status of HIV explains why there is a strong relation between its presence and manifestations of AIDS, although it may not be directly causal.

Another major consideration in questioning a unitary cause of AIDS is the complexity of the syndrome. I counted some 20 diseases subsumed under this category, some with several subclasses (6). In the light of this growing list, the imminent addition of new disease entities is likely. None of the diseases is new, but they certainly occur more frequently and more severely than before in the high-risk groups. Both major high-risk groups have increased dramatically in number, in local concentration, and in the intensity of their activity with the advent of gay liberation (7) and the well-publicized drug epidemic. In many cases the justification for diagnosing the disparate diseases as AIDS is the presence of HIV antibody, which amounts to circular reasoning in supporting HIV causation. The other side of the circular coin is the rejection of AIDS diagnosis in the absence of HIV antibody.

A major feature of AIDS is a lowered T4 helper lymphocyte count, but this is a common feature of other severe diseases and is probably determined more by the state of the host, including hormonal status, than by direct infection of this set of lymphocytes. Indeed, the remoteness of the latter possibility in AIDS has been repeatedly emphasized by Duesberg in light of the tiny fraction