#### **PHS Misconduct Procedures**

The Public Health Service (PHS) ALERT System for Misconduct in Science is the means by which PHS officials are informed of investigations of possible misconduct or of sanctions imposed for such misconduct on a "need-to-know" basis, that is, when an individual with past, current, or pending awards from a PHS branch or institute is the subject of an allegation. The system was originally designed to ensure prudent stewardship of public funds, but in the pursuit of this goal, a higher goal of justice-the presumption of innocence—seems to have been forgotten. The ALERT system contains the names of both those who are under sanction and those who are under investigation. The former have been found culpable, while the latter have not.

PHS officials say that access to the ALERT system is limited, but institute and at least some program officials have access to it and are informed if individuals have either current active awards or pending applications or proposals. This information is provided so that institutes can make informed decisions about new or continuing awards, although an award may be made even if the individual is listed in the ALERT system. The officers responsible for advisory committees and for program management may also review the ALERT system records on individuals relevant to them. Even if a name is subsequently removed from ALERT, the initial negative association may be difficult to expunge. There are public examples of investigators whose reputations will likely never be fully clear. PHS officials are also concerned about the possibility that an individual who is under investigation might be awarded a new grant and that PHS might then be faulted by Congress. However, the agency can retrieve any funds it awards if those funds are shown to have been mis-

In order that "due process" and "protection of the innocent" are maintained, we suggest that an individual's record be entered into the ALERT system *only* if the individual falls into one of the following categories.

1) "Subjects of sanctions imposed as a result of determinations that scientific misconduct or serious misappropriation of federal research funds has occurred" (1, p. 19930), or

2) Subjects of formal investigations in which the allegation and the available evidence meet all of the following characteristics. (i) The allegation is of substantial scientific fraud or serious misconduct, and (ii) the available evidence strongly supports the likelihood that serious misconduct by the respondent has occurred, and (iii) there is a strong likelihood that allocation of federal funds would result in significant loss of public funds or risk to human health and safety, or both.

Therefore, before an individual is entered into the ALERT system, an institution or an agency should have completed its investigation and the Department of Health and Human Services Office of Scientific Integrity Review and the Assistant Secretary for Health should have accepted the final report. The report should have included a finding of substantial scientific misconduct and the imposition of debarment, suspension, or other sanctions or restrictions affecting PHS actions. The exceptional circumstance of an individual's being listed in the ALERT system before a formal finding of serious culpability and the imposition of an official sanction should require concurrence by the Office of Scientific Integrity Review and by the Assistant Secretary of Health certifying that the risk is so great as to necessitate the abrogation of the normal procedure of listing an individual only after the conclusion of a case and the imposition of a sanction.

The United States is a nation that holds to the presumption of innocence until proven guilty. Nothing in the area of alleged scientific misconduct should be seen to violate that important principal.

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REFERENCES

1. Fed. Reg. 52, 19929 (28 May 1987).

### International Congress of Entomology: Another Opinion

In the 19 October 1990 issue of *Science*, 13 entomologists expressed their opinion that entomological societies should withhold approval of the next International Congress of Entomology, scheduled to take

place in Beijing in 1992, because of attacks on scientists' freedom by the government of the People's Republic of China. Although we agree completely with their opinion that scientists cannot escape or ignore institutional intrusion into the scientific functions of the world community, and we oppose bloody attacks on Chinese scientists and students by the government (as we oppose invasions of Afganistan by the U.S.S.R., of Grenada and Panama by the United States, and, of course, past invasions of China by Japanese military forces), we cannot agree with them about withholding approval of the Beijing congress. We believe that most scientists in the world would never support oppression of freedom even if they were living in countries where freedom is limited by race, religion, or political views. That is the reason why we have welcomed South African scientists, despite apartheid, at congresses held in Japan.

Thus we believe that there is no reason to hesitate to attend the next International Congress of Entomology in Beijing, if China gives visas to all planned attendants. Through free discussions and exchange of ideas about recent developments in various research fields, the attendants can show Chinese colleagues the importance of freedom in science. To isolate Chinese scientists by boycotting the Congress would create nothing but cracks in the world entomological community.

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#### Westinghouse Awards

I read with dismay the letter of Andrea Yates Blumberg regarding the statistical "profile" of Westinghouse Science Talent Search (STS) winners (Letters, 3 May, p. 630). As was Blumberg, I was an STS honoree, although 20 years later, in 1989. As opposed to Blumberg, I exactly fit the "profile" given in the original piece: I am a child of the suburbs of Washington, D.C., where my parents both had Ph.D.'s and worked for the National Institutes of Health; I attended a high-profile, "elitist" high school chock-full of modern equipment and competent, enthusiastic teachers. However, I disagree with the implication that my, or any of my classmates' winning

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projects, were "merely procedural using the latest technology." Yes, we used supercomputers and nuclear magnetic resonance equipment in our research; so do thousands of professional scientists, both in academia and in industry. But the idea that simply using the opportunities one is given is indicative of a less-than-noble desire to "milk the system" that science must be done in poverty to be the "true pursuit of science," is distressing.

A competition like the STS, perhaps the most prestigious in the nation, should single out students for recognition for *no* reason other than excellence in research.

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#### Citations and Careers

In view of the recent interest in science citations (News & Comment, 7 Dec., p. 1331; 4 Jan., p. 25; Letters, 23 Mar., p. 1408; 29 Mar., p. 1546), I wish to make the following observations.

In the not too distant past, scientific productivity was evaluated by the publication record. To achieve status and recognition, one simply had to publish a number of papers over a reasonable time period. It was not essential that the papers, in fact, be read. All this was changed by the indefatigable Eugene Garfield, best known for establishing the concept that scientists would pay for the table of contents of journals, allowing them to avoid subscribing by requesting free reprints from proud authors. Scientific journals happily went along, contributing to their own suicide, as researchers quickly limited their subscriptions to a single journal. Current Contents is now on diskette and prints reprint requests with a single keystroke!

The next great advance was the cross-referencing of citations in a monumental publication, the *Science Citation Index* (*SCI*). It was no longer sufficient to publish; now one had to be cited as proof of being read. In the process, a list of core journals was established; those not included were relegated to permanent obscurity.

Citation quickly became established as a new tool with which to evaluate relevance and productivity. I regularly checked my papers and found good and bad news. The good news was that I was being cited and, theoretically, my papers were contributing to science. The bad news was that the most frequent citer was myself. My career bumped along in a lazy sort of way. As a horticulturist who published in the arcane

and obscure field of sex determination in spinach. I managed almost never to be cited (except by myself) even though I had published in some fairly prestigious journals, such as Genetics and the Journal of Heredity. However, wonder of wonders, as the years flew by I found my citation record increasing and I was cited in Fertility and Sterility, a journal far removed from the field of horticulture! My spirits soared; my career flourished. Science worked! Good science, no matter how obscure, would contribute to humankind's stream of knowledge. I was happy and I prospered. Persistence had paid off and Garfield's idea had directly benefited me.

Piqued by curiosity, I decided to check exactly who was citing me. I soon found, to my horror, that the SCI had screwed up—lumping my papers (Jules Janick) with those of a John Janick. We had both scored the equivalent of a cross ruff in bridge. As we published, citing ourselves, our citations doubled. My depression was somewhat alleviated by my increasing salary, scientific awards, a distinguished professorship, and an honorary degree from the University of Bologna.

I wondered how many others found themselves in this disconcerting but rewarding situation. On a hunch, I checked with an old colleague, Charlie Etal, and found that his career, as mine, had soared. A slow if methodical researcher in an obscure field, Charlie had been promoted to Graduate Dean. He pointed out that two of his lab partners from grad school, Florence Ibid and George Anon, had similar experiences. We thank you, Dr. Garfield.

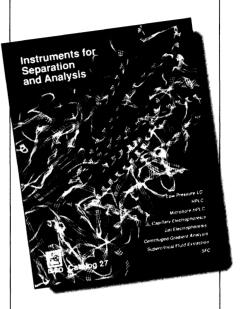
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#### Uhl's Deification

Christopher Uhl is a good guy, but to my knowledge he is still one of us mortals. Constance Holden (Careers in Science, 24 May, p. 1123) writes that "One day in 1974, Uhl awoke, at age 25, to an apotheosis of sorts." If so, he would thereafter have been a god of sorts. I suspect the word should have been "epiphany," although strictly speaking it was only an epiphanic moment. Or perhaps it's all proleptic, and the best is yet to come. The best, that is, of sorts.

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