Health on whether any sanctions should be imposed by DHHS and, if so, what they should be.

As the biomedical and behavioral research community continues to adopt policies and procedures that deal effectively with allegations or suspicions of scientific misconduct, the OSI should find fewer occasions to conduct its own investigations. Strong institutional frameworks for dealing with scientific misconduct also will enable the PHS to focus on its primary responsibilities in this area; namely, monitoring institutional compliance with PHS policies and regulations and developing prevention and education programs.

It is widely believed that scientific misconduct is not widespread. Nevertheless, even a small number of instances of scientific misconduct is unacceptable. As the steward of the vast majority of available federal awards for biomedical and behavioral research, the PHS will ensure that an effective process is in place for dealing with scientific misconduct.

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Faculty Salaries

Daniel E. Koshland, Jr.'s editorial "A new approach to faculty salaries" (24 Mar., p. 1533) illuminates the absurdity of salary practices in academia when these become excessively driven by external pressure. If faculty members can negotiate a substantial merit increase in salary (assuming one is deserved) only by obtaining an outside offer from another university or from industry, the home university has, to some degree, abrogated its own responsibility for determining the merit salary of its faculty members. It then runs the considerable risk of losing some of its most distinguished members when their momentum begins to swing elsewhere in response to the need to seek a competitive offer. While external offers provide evidence of a faculty member's merit value, they do not replace the home university's own need to determine this value within the context of its own mission. The home university should not be the last to know about the national reputation of any of its faculty members.

Koshland's concern that low salaries might dissuade young scientists from an academic career seems well founded. Once upon a time, budding scientists could rationalize the prospects of a low salary by thinking that other qualities associated with the "good academic life" would more than compensate for inadequate salary. Current students know full well that such qualities are endangered by competitive pressures to obtain grants, by the need to submerge one's own research interests for the sake of big-team science, and by the scarcity of amenities in university life. If the nation were faced with a surfeit of would-be scientists inclined toward an academic career, the current disincentives in salary, facilities, and sheer anxiety associated with this career path would make perfect sense. But given the prospects associated with a short supply of such individuals, it will be necessary to either lower standards or increase the attractiveness of an academic career.

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Carbon-Sequestering Science: An Alternative to "Pesky Electronics"?

With concern growing over the accumulation of carbon in the atmosphere leading to global warming through the greenhouse effect, the public is interested in what scientists can contribute to the solution of the problem. Indirectly, we can provide information on the extent of the problem and on solutions such as energy conservation, use of clean fuels, deforestation, and reforestation. Directly, scientists appear to have little to offer.

I would like to suggest, however, that science does have a role to play, both directly and by example. Scientific libraries are a modest but useful carbon sink, exactly the sort of sequestration proposed by Norman Myers, as quoted in William Booth's News & Comment article "Johnny Appleseed and the greenhouse" (7 Oct. 1988, p. 19). Libraries attempt to preserve their books, thus preventing carbon release. Rather than the extremely energy-inefficient proposal of cutting and burying whole forests underground or at sea, as suggested by Myers, I propose that scientists be encouraged to publish and that more public funds be made available for their carbon-sequestering literary activities through increased support for library establishment and maintenance, subsidized subscriptions, and research grants to generate the research necessary for yet more publications.

There are those who complain about the information glut in science and about overpublishing. While such logic may be appropriate within the limited perspective of science itself, it shows a sad lack of acceptance of our wider responsibilities to society. Referees and editors should consider manuscripts in the context of global climate change and seek to expand scientific carbon sequestering. Scientists should produce and overproduce. We are doing so anyway; now we have an excuse. Indeed, using science as an example, society should encourage a return to book reading and owning and should discourage all those pesky electronics, such as compact disks and televisions, that will do little to keep our seas from rising or our farms from drying out. A grateful world will thank us.

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Fusion Reaction

Robert Pool's article "Fusion breakthrough?" (Research News, 31 Mar., p. 1661) contains the statement, "The reaction [fusion] releases energy because less binding energy is needed to hold together the protons and neutron of the helium-3 nucleus than is needed to hold together two nuclei of deuterium." Part of this statement is incorrect. When free protons and neutrons combine to form a bound nuclear system, the mass of the nucleus thus formed is less than the total mass of the free particles. The "missing mass" is released as energy—the binding energy (B) of the system. For the helium-3 nucleus, $B(^3\mathrm{He}) = 7.71$ megaelectron volts (MeV), and $B(\mathrm{d}) = 2.22$ MeV for the deuterium nucleus (d). In the fusion reaction $\mathrm{d} + \mathrm{d} \rightarrow {}^3\mathrm{He}$, energy is released because the B of ^{3}He (7.71 MeV) is more than the sum of the B of the reactants (4.44 MeV). The energy released is the difference in the amount of about 3.27 MeV. This is shared by the ^{3}He and the neutron, the products of the reaction.

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Erratum: In figure 4 (p. 774) of the article "The greenhouse effect: Science and policy" by Stephen H. Schneider (10 Feb., p. 771), labels for "F_{11}" and "F_{12}" were mistakenly reversed. The figure is also mislabeled in (*18*) [V. Ramanathan *et al.*, *J. Geophys. Res.* **90**, 5547 (1985)]. The correct figure is figure 24 in V. Ramanathan *et al.*, *Rev. Geophys.* **25**, 1441 (1987). Also, the reference in table 1 of the article by Schneider should have been (*53*), not (*49*).

Erratum: In the Research News Article by Richard A. Kerr, "Does chaos permeate the solar system?" (14 Apr., p. 144), the orbital period of Mercury was misstated. The correct value is 88 days.