Taubes) and others before him have concluded (2). Although still short of assuring verification, this last provision would link with *de minimis* considerations of ongoing regulatory reform.

Epidemiologist have no choice but to warrant their credibility. We owe it to society and to the young entering the profession, who need to know honestly whether they can make a difference. Too much of epidemiology has become predictable advocacy without secure philosophical foundations. A code of good epidemiologic practice would be a beginning, perhaps after some soul-searching about the morality of provoking public anxieties and policies based on essentially unverifiable conjectures.

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Glass Ceiling: Bump, Bump

We were struck by the excess of males among those quoted in Taubes's news article of 14 July: 25 men versus 2 women. The Society for Epidemiologic Research, the primary professional organization of epidemiologists in the United States, has a membership, as of 1993, of 1194 men and 1009 women. The latter include senior faculty, department chairs, and a dean of a school of public health. Prominent female epidemiologists are located in most of the institutions where those who were interviewed work. Many of the studies cited in the news report had women as first authors. Women epidemiologists deserve more of a voice in *Science*.

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As evolutionary biologists, we were excited and interested to see the "Frontiers in biology: Ecology" special section in the 21 July issue (pp. 313–360). As women scientists, we were disappointed that in the first two articles only one of the more than 30 ecologists mentioned or quoted was a woman. From this representation it is difficult to tell that ecology is a field where, in 1992, 36% of the graduating Ph.D.'s were women and where four of the last nine Ecological Society of America presidents were women. We know "a good woman is hard to find," but really. . . .

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Plasma Physics and Fusion Research

James Glanz's otherwise excellent article about the National Research Council's (NRC's) panel report on the state of plasma physics and fusion research (News, 14 July, p. 153) does not treat what may be the most intractable part of the history of the subject: the degree to which the perspectives, procedures, and dominant personalities of the field have been selected by the Department of Energy (DOE) and its ancestors (the Energy Research and Development Administration and the Atomic Energy Commission), on the basis of an agenda that was not solidly rooted in anything scientific. Our style did not emerge from any traditional academic process, but rather a political and economic one.

Every branch of physics older than plasma physics developed its habits, interests, and formative experiences in the rough-and-tumble atmospheres of university seminars for several years before they became of interest to newspapers or government agencies. Collegial ideas about how and on what to work were allowed to develop to some extent independently of the funding required to support them. From day one, with only the briefest of interludes in the 1960s, plasma physics has had its priorities arranged by managers in the government who, while well meaning, were essentially unacquainted with the subject at a working research level. The subject, under their tutelage, began to speak with one voice in public about 20 years earlier than it was appropriate to do so. In selling Congress and the *New York Times* on the tokamak as the cure for energy shortages in the early 1970s, the field committed itself to a way of life in which its public image and its annual funding struggles in Congress assumed more importance than any scientific issue that could ever come up. To a large degree, we are still functioning in this mode.

A technical point, largely unappreciated, is the extent to which plasmas at the temperatures we now operate at are experimentally undiagnosed. Information about spatial and temporal profiles of such internal plasma variables as the magnetic field, the current density, the velocity field, and the electric field is largely lacking. Stories about the internal dynamical behavior of confined plasmas are easy to make up, hard to dispute, and at this stage virtually impossible to demonstrate. It is largely unappreciated that the DOE in its wisdom went around for years turning off every plasma experiment that was cool enough to diagnose, on the grounds that those temperatures "were not of thermonuclear interest." Only lately has it been possible to hear respectable doubts expressed that this was a wise thing to have done. Many groups perished then and were not heard from again.

If the NRC or anybody else can turn the situation around, then more power to them. But it would be a mistake to think that it is obvious how to do this. Even very good people who have spent a lifetime adapting themselves to unwise agency policies not of their making and being rewarded for it are not likely, in middle age, suddenly to start biting the coins and questioning the wisdom of what they have been doing for the last few decades. What plasma physics needs more than anything is a long period of benign neglect, during which it is modestly but reliably funded, insulated from agency-directed campaigns and from congressional feasts and famines, and allowed to go through the scientific maturation that has heretofore been denied it. When we are ready to build a fusion reactor, you will know it; it won't be a matter of lobbying or image-making.

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Restoring Prince William Sound

I am concerned that the article "Marine center is lightning rod in dispute over restoration" by Lisa Busch (News & Comment, 14 July, p. 159) will leave readers with the impression that the decision of the *Exxon Valdez* Oil Spill Trustee Council to support the Alaska Sealife Center is divisive, widely opposed, and leaves residents of Prince William Sound with incomplete restoration. The article does not mention that the Trustee Council has spent tens of millions of dollars to improve other aspects of pink salmon and Pacific herring management in Prince William Sound, including more than $9 million to support the Sound Ecosystem Assessment, based at the Prince William Sound Science Center in Cordova, which is investigating the causes of annual

fluctuations in the survival of juveniles of these species. Nor does the article mention the likely expenditure of $350 million on habitat protection in the spill area.

The Alaska Sealife Center is a good investment of restoration dollars. It will provide needed and unique infrastructure for continued research on Alaskan marine resources as well as be a legacy for the future.

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Successful Grants Management

In his letter "Funding of NIH grant applications: Update" (7 July, p. 13), H. George Mandel presents new data about the funding of unsolicited, unamended, competing National Institutes of Health (NIH) research grant applications. He demonstrates effectively that the overall NIH funding rate for both new and renewal applications has fallen steadily over the last decade. This has certainly been the case at the National Eye Institute (NEI), the institute from which I receive funding and on whose council I have served. At NEI, the success rate fell from 47% in 1985 to 36% in 1994, and the total number of research project grants funded also fell significantly over that period. Mandel points out that the funding rate at NEI is higher than that of most other NIH institutes and centers, but does not comment on why this is so.

From 1985 to 1994, NEI's share of the total NIH budget dropped from 3.3% to 2.7%. Therefore, NEI did not simply outspend the other institutes and centers. Rather, NEI has used its extramural funds for basic research in such a way as to maximize opportunities for individual investigators. The vision research community has been extremely supportive of this strategy and credits it with fostering the extraordinary progress in this field. Historically, NEI has devoted proportionately more of its extramural resources to traditional research project grants than has any other disease-oriented institute at NIH. Moreover, within the research project grant category, NEI does not award program project grants or other types of "umbrella" mechanisms of research support. NEI does not fund clinical trials or other types of large applied clinical research projects using R01-type mechanisms. In addition, NEI rarely issues requests for applications or program announcements and, therefore, does not artificially drive up the number of competing applications. In summary, this series of management decisions has had the direct effect of increasing the NEI success rate of grants awarded relative to that of many of the other NIH institutes and centers.

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Corrections and Clarifications

In the caption in the left margin of the Table of Contents in the issue of 18 August (p. 898), the gene located on chromosome 1 was incorrectly described as the second candidate familial Alzheimer's disease gene to be identified. The caption should have read, "A third familial Alzheimer's gene."

In the report "Localization of targets for antiucler drugs in cells of the immune system" by E. Mezey *et al.* (4 Dec. 1992, p. 1662), on page 1662, in the second column, on the fourth line, the word "antagonists" was incorrect. The sentence should have read "Dopamine also modulates gastric acid secretion (4), and dopamine agonists prevent ulcer relapse (5)."