Letters

Cornell Cat Study

The sad story of Michiko Okomoto (News & Comment, 18 Nov., p. 1001) points out the danger of animal activists and their hidden agenda. A respected scientist doing excellent work was forced to capitulate in the face of continuous harassment. No questions of animal cruelty were raised; she was selected simply because she was vulnerable. Her university offered no support. Now that her work has stopped it is appropriate to ask, "How will Cornell act when its next faculty member is attacked?" And the next?

Unless scientists also become activists, biomedical research will be nibbled to death.

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The administration of Cornell University has recently unwisely surrendered to the demands of animal rights extremists in the case of Michiko Okamoto by inducing her to return a federal grant awarded for the study of drug addiction. In standing on principle, that is, refusing to renege on their "promise" to animal rights extremists that Okamoto was not continuing her work with cats, Cornell ignores a much higher principle—one of particular significance to an institution with a medical school—the Hippocratic oath. The welfare of patients, present and future, should take precedence. Cornell owes nothing to those who would interfere with medical progress. Having made a mistake, Cornell should be strong enough to admit it and undo the harm it has done to society.

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Animal rights activists recently caused a worthwhile study of barbiturate addiction in cats at Cornell University to be halted, and Cornell officials say they did not receive a single letter of support for the project. I am sure most scientists had never heard of the Cornell dispute until it was reported in *Science*. In view of the increasing threat these activists pose to scientific research and the welfare of humans and other species, I suggest that the AAAS report such attempts while they are in progress and encourage appropriate letters of support by providing names and addresses of officials to write. If the scientific community does not take a more coordinated and aggressive approach to attacks by animal rights activists, many other worthwhile projects will be canceled or prevented by political pressure or increased expenses.

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Ensuring Competitiveness

Sheila E. Widnall, in her article "AAAS presidential lecture: Voices from the pipeline" (Association Affairs, 30 Sept., p. 1740), presents evidence that men and women respond differently to the pressures of graduate education. It is my experience that these same men and women will respond differently to the professional workplace. An institution that attempts to make its program more responsive to women and minorities must be sure that it is not, in effect, establishing a second class of research scientists. It is critically important to the future success of these students that graduate education help all students, male and female, advantaged and disadvantaged, find the resources within themselves to surmount the barriers to professional preparation, not selectively lower the barriers for some. Since graduate education as a whole tends to reflect the attitudes that prevail in the research world, women and minorities who receive their Ph.D.'s must have the assurance that they can be competitive in this environment.

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Ecology Funding

I have followed the controversy surrounding chimpanzees and biomedical research with interest (News & Comment, 12 Aug., p. 777; 30 Sept., p. 1733; 2 Dec., pp. 1227 and 1240). While the cases for and against the use of chimpanzees can be, and probably will be, endlessly debated, the issue does focus attention on a significant paradox that exists within our scientific framework. The chimpanzee illustrates it nicely. While ecologists in Africa operate on shoestring budgets in an attempt to understand and conserve a rapidly diminishing species, medical researchers in Europe and North America enjoy funding at least several orders of magnitude higher for research using the very same species. Funding is so extensive in the United States, a breeding program for chimpanzees exists to ensure their long-term survival in captivity (Letters, 2 Dec., p. 1227). While this may be laudable, the situation is symptomatic of a society with misplaced priorities. It is the research budgets of ecologists, particularly those working in the Third World, that should be at a level where they can ensure the continued viability of all species in the wild.

Given the massive scale of biomedical research funding, it would be more than appropriate if some proportion of it was recycled back to help to maintain the original genetic diversity that spawned such research in the first place. Such a move would significantly increase the pathetic budgets that ecologists are expected to work with. Furthermore, maintaining genetic diversity in the "donor" countries (many of them in the Third World) would help to ensure that they receive the economic benefits derived from these resources. How long will it be before an African country will be paying royalties to an American corporation for the use of chimpanzees in their own research?

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Meta-Analysis

The Perspective on meta-analysis by Kenneth W. Wachter (16 Sept., p. 1407) is a well-balanced review of the pros and cons of this new and important discipline. However, it omits discussion of a most important defect in the technique which can (in part) be corrected. Meta-analysis is retrospective research and is susceptible to all the potential distortions of bias that need to be minimized in any scientific method. Different results of independently performed meta-analyses have been shown to be due to a different selection of papers to be included (*1*), and this is a potential explanation for other examples of replicate variability in published meta-analyses (*2*). Determination of the suitability of papers for inclusion in a meta-analysis by a blinded duplicate process has revealed disagreements of 10 to 20% (*3*). Observer error is a fertile ground for observer bias. Taking care to convert meta-analyses into prospective research with appropriate control of bias and then employ-