

perspective of scientists interested in the freedom of scientific inquiry. While this may be the central concern of the scientific community, it falls short of the necessary and legitimate concern of a public agency using public moneys.

For example, Schachman contends that "governmental intervention" is never appropriate for "concerns regarding errors in collecting and interpreting data, incompetence, poor laboratory procedures, selection of data, authorship practices, and multiple publications." This contention can only be defended if one believes that public funds for academic research occupy a special, privileged position far different from public funds for defense, health care, enterprise zones, welfare or any other legal use of such funds. It is reasonable to ask that scientists not be punished for innocent mistakes, but it is not reasonable to expect that grossly negligent scientific practices supported by government funding are outside the realm of government intervention.

Thus, I believe that the current debate is too limited in scope. The phrase that is of principle concern to Schachman—"other serious deviation from accepted practices"—is a significant concession to the scientific community. It essentially invites that community to establish a form of "common law" governing the behavior of its members in the legiti-

mate use of public funds. It would be well for the scientific community to accept that invitation and work on this broader issue rather than endlessly debating the more limited issue. Our failure to do so might mean that it will be addressed and settled by others—perhaps in unfriendly congressional hearing rooms.

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Proton Decay Interest

Charles Mann and Robert Crease briefly discuss the ICARUS proton decay detector in their 3 September Research News article (p. 1276). They give the impression that interest in proton decay is now lacking and write that the ICARUS detector is "on stand-by." This is not correct. There is now very great interest in the proton decay mode that produces a strange particle and an anti-neutrino according to a prediction of the Supersymmetric Grand Unified Theory. Observation of this decay would also imply the existence of mas-

sive supersymmetric particles that might be detected by the Large Hadron Collider at CERN (the European Organization for Nuclear Research), thus indicating that accelerator and nonaccelerator experiments provide complementary information about elementary particles. The ICARUS detector is designed to particularly detect this and many other modes of proton decay.

During the past few years, the ICARUS detector concept has been tested at CERN, where we have recorded events in the form of "electronic pictures" that are as clear as bubble chamber pictures. A 5000-ton detector is in the final stage of design, and the ICARUS team hopes to install this module in the next 5 years.

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Caltech Biology in Perspective

In their letter of 17 September (p. 1505), Robert L. Sinsheimer and Norman H. Horowitz criticize my book, *The Molecular Vision of Life* (Oxford University Press, New York, 1993), as a distortion, and Robert

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Olby's review (18 June, p. 1825) as a fashionable and politically correct echo of the book's thesis. This polemic raises important issues: What is history of science, and who should speak for the past? Indeed, why should *Science* devote precious space to reviews by historians of science of recent books in the field? The history of science, by virtue of its substantial methodological and institutional autonomy from science, serves as a scholarly forum for examining science as a historical process, offering valuable noninsider perspectives on research projects. The personal impressions of Sinsheimer and Horowitz supply useful local perspectives on the California Institute of Technology and the rise of molecular biology in the 1920s through the 1950s. Nevertheless, these are personal views. The voluminous archival records and documentation used in my reconstruction of the scientific past support quite a different interpretation of the rise of molecular biology.

The insistence of Sinsheimer and Horowitz on serving as custodians of Caltech's history is at once understandable yet curious, for in my book I sincerely and unambiguously convey the intellectual ingenuity and managerial foresight of Caltech's scientists and their outstanding contributions to life science. I do argue, however, that like most success stories, the remarkable ascent of molecular biology has had a price. This cost can be seen when the molecular biology program is examined within its broader historical context, as both an intellectual and a cultural enterprise; this is the approach I take in my book.

Lily E. Kay

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Corrections and Clarifications

In the article "Minorities move from lab rats to policy works" (Minorities in Science, 12 Nov., p. 1102), the photographs of Marian Johnson-Thompson and Norman Fortenberry were inadvertently reversed. The photo on the bottom left, which was identified as Johnson-Thompson, shows Fortenberry. Johnson-Thompson's photo appears on the right and is incorrectly labeled as that of Fortenberry.

In Christopher Anderson's News & Comment article "Rocky road for Federal Research Inc." (22 Oct., p. 496), a comment from National Institutes of Health neuroscientist Michael Rogawski regarding Cooperative Research and Development Agreement (CRADA) delays did not refer to his own CRADA experiences, which he says were not characterized by inordinate delays. Rogawski was referring to the effect on scientists in general of the delays inherent in what he considers appropriate scientific and administrative review.

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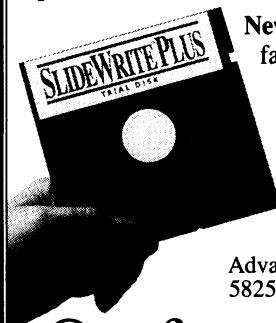
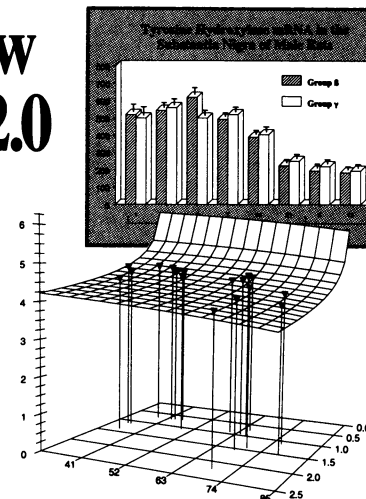
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