Letters

Scientists' Time

Daniel E. Koshland, Jr.'s editorial "Peer review of peer review" (21 June, p. 1387) is quite thorough in noting a number of problems involved in the current research budget crisis, except for one element. That is, not only are there more investigators now than in the "good old days," but many more of these investigators are now supported nearly 100 percent of the time by soft money for their livelihoods. This phenomenon is particularly prevalent in the research institutes of universities and in independent research institutions. Many of these individuals have to write as many as half a dozen proposals per year on various subjects in order to receive enough salary support to keep going. The implications of this phenomenon for research budgets, proposal reviews, and, most important, the use and allocation of the time of American scientific talent is a topic that is seldom addressed and undoubtedly should be. The sooner the better.

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Patent Rights

Emilio Q. Daddario (Editorial, 29 Mar., p. 1535) has written in support of a new initiative by Senator Robert J. Dole (R–Kan.) on the subject of patent rights and acquisition of rights by the government. Daddario notes that the provision of the Constitution supporting the U.S. patent system is based on a belief that inventors should be rewarded for their creativeness. Daddario's editorial does not, however, reveal precisely what Senator Dole is now proposing, and a casual reader might conclude that the new legislation would assist individuals in protecting their creative work. This is not the case. Senator Dole is quite explicit in his supporting message in the 3 January 1985 *Congressional Record* that the new laws would extend the rule of ownership of these patent rights "to large business contractors and repeal all existing laws which are inconsistent. . ." (*1*).

This proposal, far from "securing . . . to Inventors the exclusive Right to their . . . Discoveries," in the language of the Constitution, would grant a request for retention of rights by an inventor only if a contractor does not elect a worldwide title, and subject to other conditions.

It is apparent that the drafters of this proposal have strayed quite far from the Constitution in this subject area. Both Sweden and the Federal Republic of Germany have enacted fairly strict provisions that tend to protect the rights of many individual inventors. The spirit of such legislation is much closer to that of our Constitution than is the Dole proposal.

It is not self-evident that the assignment of rights to publicly funded research to large business is wise policy. I hope that Senator Dole, Daddario, and others will reconsider their support of this proposal and look to the provisions of the United States Constitution when and if they deal with this subject again.

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Reference

1. *Congr. Rec.* **131** (No. 1, part II), S186 (3 January 1985).

In the ongoing debate between those who favor government title-taking to inventions and others who favor the acquisition of royalty-free licenses for government use, there has been general agreement that the government's patent policies should, as spelled out in the Constitution, "promote the progress of science and useful arts" by enhancing inventive activity and stimulating the quickest and broadest use of inventions. The retention by the government of a royalty-free license is a far cry from "the assignment of rights to publicly funded research," as Frenzen charges. That would not be a "wise policy" and is advocated by none of those mentioned by Frenzen.

The dichotomy comes to this. Government title-taking of inventions made during government-supported research and development work may reduce the commercial development of certain inventions because of the lack of patent protection. On the other hand, it is argued that such patent protection could lead to the suppression rather than the advancement of technological development. Since it is the monopoly the patent system provides that makes risk-taking attractive, one would want to own or have an exclusive license to an invention, subject to the government-free license, before risking the necessary capital for its commercial development.

Senator Dole's government-wide policy initiative comes down firmly on the side of expeditious development and meets President Kennedy's criterion "that the Government has a responsibility to foster the fullest exploitation of the invention for the public benefit." It is my further opinion that it will be the individual inventor and small companies and corporations, to whom patents are often a principal asset, who will benefit the most if Senator Dole can successfully "eliminate the hodge-podge of agency patent requirements built up over the years." Frenzen shakes a finger at large corporations. However he may feel, corporations continue to have all the rights and liabilities of individuals, and as such, have the constitutional right to own patents. I suggest his argument about better treatment of individual inventors in Sweden and the Federal Republic of Germany is related more to the ways in which the U.S. government and industries deal with employee patent ownership.

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Erratum: The name of Masahiro Sakaitani, second author of the report "Pavoninins: Shark-repelling ichthyotoxins from the defense secretion of the Pacific sole" by K. Tachibana *et al.* (9 Nov. 1984, p. 703), was spelled incorrectly.

Erratum: In the article "Rate theories and puzzles of hemeprotein kinetics," by Hans Frauenfelder and Peter G. Wolynes (26 July, p. 337), equation 7 on page 340 should have read:

$$\frac{dN_B}{dt} = -k_{TST}N_B$$

$$k_{TST} = \frac{\omega_B}{2\pi} e^{-H^{\ddagger}/k_B T} \quad (7)$$

Erratum: In the article by Eliot Marshall about selenium in the San Joaquin Valley (News and Comment, 12 July, p. 144), it was reported that the U.S. Geological Survey found 4700 parts per million of selenium in one water sample. The correct figure should have been 4700 parts per billion.