Letters

Moratorium Ended

Toward the end of 1984, we asked our colleagues working with microorganisms to impose a moratorium on the supply of strains to the Soviet Union. Our reason was the continued detention in the U.S.S.R. of the eminent molecular geneticist David Goldfarb. The official refusal to allow him to leave the Soviet Union was based, at least in part, on an allegation that he was attempting to remove from the country strains of importance to the security of the state (even though most of these strains originated in the United States).

At the time that we suggested the moratorium, we asked that it be continued until Goldfarb and his wife were allowed to emigrate. We are pleased that they have received permission and have in fact left the U.S.S.R. We therefore formally request our colleagues to terminate the moratorium.

Other signs of improvement in the human rights situation in the Soviet Union have recently become evident. However, there remain nearly 1000 Soviet scientists who are prevented from emigrating. We note in particular the case of our colleague, geneticist Valery Soyfer, who has been refused permission to leave on grounds of state security; Soyfer contends he has never had access to classified information. He is unable to work in his profession and is currently employed as a house painter. We suggest that when we respond to requests for strains, we remind our Soviet colleagues that Soyfer and other scientists still remain trapped in the U.S.S.R.

SIMON BAUMBERG
Department of Genetics, University of Leeds, Leeds LS2 9JT, United Kingdom
MAX E. GOTTESMAN
Institute of Cancer Research, Columbia University, New York, NY 10032
CHARLES YANOFSKY
Department of Biological Sciences, Stanford University, Stanford, CA 94305
MICHAEL YUDKIN
Department of Biochemistry, Oxford University, Oxford OX1 3QU, United Kingdom

The Ethics of Biotechnology

Irwin Feller (Book Reviews, 5 Dec. 1986, p. 1278) charges that in my book *Biotechnology: The University-Industrial Complex* "a scholarly study [vies] for primacy with a populist tract." This statement seems overdrawn. Sadly, however, this type of observation sets the tone for the review, which also contains several errors of fact.

Feller asserts that the data I presented "are useful beginnings but, as [Kenney] notes, provide little basis for predicting the future structure of the biotechnology industry." I did not "note" that the book provides "little basis" for predicting the future of the biotechnology industry. The data do not permit predictions with certainty. However, for example, I did predict that there will not be a shake-out in the form of numerous bankruptcies. That prediction was made in 1984 when many were predicting a shake-out would occur (p. 175). I stand by it today. There are other guarded forecasts in the book, most of which have held up well in this fast-changing industry.

Elsewhere in the review, Feller argues: "As represented by Kenney the ability of (some?) [Feller's parenthesis] molecular biologists to secure financial gain through consulting arrangements does not appear strikingly different from that of professors of finance with expertise in new forms of stock-index futures tradings. That premiums may be gained by promoters and insiders when forming new 'high-flying' firms is an outcome noted in accounts of many other industries." I did not compare these basic university scientists with "insiders" or "promoters." However, this may be the logical extreme of a trajectory that my book documents.

The vital issue to be addressed is the ethical standards to which universities and their employees should be held. It is the changes in the norms of science that are the core concerns of my book. For example, should trade secrecy be permitted in university laboratories? How can the university ensure graduate students and postdoctoral fellows are not exploited for financial gain by their professors? What happens to the free flow of information so necessary for scientific advance? These problems have been exacerbated by the commercialization of biology. And, Feller ignores these serious concerns. If the university is to retain the public trust it must remain above even the appearance of questionable activities.

MARTIN KENNEY
Department of Agricultural Economics and Rural Sociology, Ohio State University, Columbus, OH 43210-1099

Response: Two sentences in my review of Martin Kenney's book *Biotechnology: The University-Industrial Complex* should be corrected. In the first paragraph on page 1279, the words "biologists" and "electrical engineers" are inverted in the second sentence. The corrected portion of the sentence should read, "and electrical engineers who have resigned their faculty appointments to go into business are contrasted with biologists who have not."

In the second paragraph on page 1279, "DNA research" in the second sentence should be replaced by "funding of extramural research." The corrected portion of the sentence should read, "use of data is erroneous (figure 1.1 shows declines in real levels of NIH funding of extramural research after 1968, not the 'atmosphere of growth' associated with current dollar levels). . . ."

Two vital issues, not one, are addressed in this exchange between Kenney and myself. On the first, "the ethical standards to which universities and their employees should be held," I happen to share, as represented in my own writings, quite common grounds with Kenney. On the second, to "retain the public trust," as Kenney expresses it, it is necessary for universities not only to "remain above even the appearance of questionable activities," but also to adhere to those internal standards of analysis, evidence, and argumentation that underpin this trust. It is issues of the latter sort that I was concerned with in my review. A concern for the effects of commercialization on university practices or standards does not offset flawed scholarship.

IRWIN FELLER
Department of Economics, Pennsylvania State University, University Park, PA 16802

Arms Control

Now let me get this straight. . . .

When the Soviets replace their SS-13 ICBMs with the vastly more capable SS-25s, American arms control advocates tell us this clearly does not contravene our arms control agreements with the U.S.S.R. because the SS-25 can be considered merely an upgrade of the SS-13.

When the United States replaces two mechanically steered early warning radars at Thule, Greenland, and Fylingdales, England, with more capable large phased-array radars, these same arms control advocates complain we have violated those same arms control treaties (News & Comment, 30 Jan., p. 525).

Could you run that by me one more time?

RICK COOK
Fractal Systems Group, 3820 West Flynn, Phoenix, AZ 85019