LETTERS

'Patenting life'

Ted Howard's article in the September issue, and his book, *Who Should Play God?*, employ misstatements, innuendos, and half-truths to raise doubt about the safety and ethics of research in the field of molecular genetics, especially when employing the recombinant DNA technique.

The truth is that modern methods of molecular genetics allow implanting of various genes into laboratory microorganisms, which would lead to inexpensive production of many human life-saving proteins, like hormones and vaccines and many other beneficial products. No dangers were ever created by this technique, and all "predictions" of risks are within the science-fiction category. The new techniques offer immense benefits for humanity, some already realized in the basic research field, and no practical dangers.

Ted Howard's article and book try to give the erroneous impression that the laboratory strains modified to produce beneficial products are "dangerous," potentially "disease-causing," and will be misused by greedy corporations, represented by creepy monsters in an accompanying cartoon. To emphasize his distrust toward medical research, Howard puts quotation marks around the word "benefits," and with a stroke of his pen denies hope to thousands of diabetics who require presently unavailable human insulin, which could be produced by the recombinant DNA technique.

Also highly misleading is his statement that applying patents to specially developed industrial or laboratory organisms is a new development. Actually, much more complex organisms, such as fruit trees or disease-resistant plants, were patented for about half a century under the Townsend-Purnell Plant Patent Act passed by Congress on May 13, 1930, and amended on August 25, 1954. For instance, the Wisconsin Alumni Research Foundation holds plant patent No. 3,780 for a Dutch-elm-disease-resistant elm tree. Why did Howard conceal this information?

Some members of society work actively to find ways to help suffering humanity, but some others seem determined to discredit this noble effort by accusing the geneticists of ulterior motives. Howard's article misdirects legitimate environmental concerns by emphasizing insignificant risks.

Another issue raised indirectly by Ted Howard's article is the censorship of scientific inquiry protected by the First Amendment. *The Progressive* should be especially sympathetic on this score. In violation of the First Amendment, basic genetic research is presently censored under so-called NIH Guidelines for Recombinant DNA Research. No research can be undertaken until first reviewed and approved by censorship boards, named IBC and RAC, and important, safe, and beneficial research is prohibited for no compelling reasons. I hope *The Progressive* will direct its future attention to this violation of the hallowed First Amendment.

Waclaw Szybalski
McArdle Laboratory for Cancer Research
University of Wisconsin
Madison, Wisconsin

Ted Howard replies:

Professor Szybalski's claims notwithstanding, the facts do not support his rosy assessment of genetic engineering and its social usefulness. The potential for a devestating biohazard resulting from a biological accident is not "science fiction." Research sponsored by the National Institutes of Health has demonstrated that gene-splice products cause tumors in experimental mice, that naked polyoma (multiple tumor) DNA causes infection in experimental mice, and that "safe" gene-splice bacteria survived for some four days in the human gut and in sewage.

There may, indeed, be a very small chance that a deadly microorganism might escape laboratory containment and enter the ecosystem. But should that chance be taken? Of course, there is a risk associated with everything in life; but a mistake or accident involving recombinant DNA would be irreversible. Once out of the laboratory, there is no recalling a genetically engineered life form; no one knows what the effect would be. In these circumstances, the potential for a laboratory-related biohazard cannot be viewed on the basis of statistical probability or cost/benefit analysis. There is a deep ethical question at stake: Does our generation have the right to pursue a technology that poses the real possibility of so disrupting the delicate balance of the ecosystem that all succeeding generations may be affected?

On another point, Szybalski is quite right—fruit trees and plants have been patentable for several decades. He may not know that the Plant Patent Act of 1930 is now proving to be an unmitigated disaster. As large corporations have sought new profits by genetically "refining" and then patenting such vital crop plants as corn, soybeans, and wheat, the genetic diversity of the world's basic food sources has been drastically narrowed. Indeed, many vital plant varieties, as well as numerous characteristics formerly possessed by plants, have simply been bred out of existence, never to play a part in evolution again. Why? Not because these plants are useless, but simply because they are not as profitable.

Another development directly traceable to corporate patenting of plants is a growing control over the world's food supply by a handful of companies. United Brands, for example, has used the patent laws to gain ownership of two-thirds of the world's banana seeds. Because of these factors, a recent international study recommended the immediate establishment of regional banks of plant varieties to preserve genetic diversity for the future. It was further sug-

gested that nations rescind all plant patent laws.

The issue now before the Supreme Court is whether the Plant Patent Act was designed to apply to microorganisms and other forms of life. I am not the only one who believes the Act was never intended by Congress to cover other life forms. The Solicitor General of the United States and officials of the Patent and Trademark Office will argue against such an interpretation when the case is heard by the Court next spring.

Professor Szybalski denies any suggestion that genetic engineering might be applied in socially destructive ways by private industry. Of course, I cannot prove that misuse will result. However, the track record of America's giant corporations—the petrochemical industry unleashing thousands of cancer and disease-causing synthetic organic chemical compounds upon society without any proper testing; Ford Motor determining that it is cost-effective to build Pintos that will explode on impact rather than correct the design deficiencies; pharmaceutical firms and their sorry record of drug testing and marketing—should make us all wonder whether the technology of genetic engineering should be exploited by big business.

Professor Szybalski concludes by trumpeting the virtues of scientific inquiry, arguing that the scientist's right to look wherever he may, however he may, is equivalent to the individual's constitutionally guaranteed freedom of speech. Dr. Robert Sinsheimer, former chairman of the biology department at Cal Tech, and an outspoken opponent of various types of genetic engineering research, has denied the validity of such a comparison, telling his fellow scientists that it is "no longer enough to wave the flag of Galileo." To claim that a powerful technique like recombinant DNA is merely "free inquiry" is ludicrous. The very process necessitates engaging in manufacturing, and those objects that are manufactured (in this case, novel microorganisms) can have a horrendous impact on society.

Is there any constitutional guarantee that upholds the technological fix so pervasive in science today—if it can be done, then it should be done? Dr. Edward Teller, father of the H-bomb, has been quoted as saying, "I believed in the possibility of developing a thermonuclear bomb. My scientific duty demanded exploration of that possibility." This may be good enough for Dr. Szybalski; it is not for me.

The issue of free inquiry is misapplied by Szybalski on another score, as well. Big Science has to be funded with Big Money. If the Federal Government is funding research, the Government has a clear right to ensure that research is not conducted in such a way that it endangers the local community. If Dr. Szybalski finds the established safety regulations abhorrent, he is certainly free to refrain from applying for and using public funds. Is it the right of inquiry that concerns the professor, or the "right" to make a buck unencumbered by the public's legitimate concerns over the environmental, ethical, and social implications of this area of technological development?

Blacks and Jews

John Judis's article on the conflict between blacks and Jews ("A 'Proxy War' Nobody Needs," November) was not enhanced by perpetuating some of the myths of black anti-Semitism: The Harlem riots in the mid-1960s were not targeted at Jewish merchants—at least not in that part of Harlem where I lived and worked. They were targeted at non-black owners.

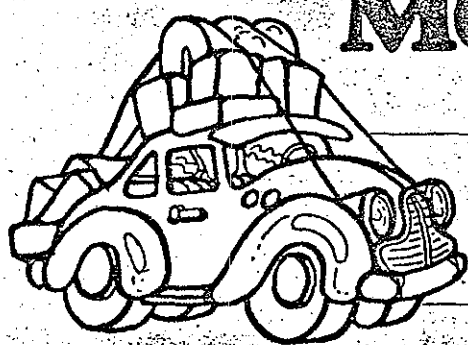
As a member of the I.S. 201 School Board, a sister community board to Ocean Hill-Brownsville and intimately involved in their controversies with the United Federation of Teachers (UFT), I can assure Judis that Ocean Hill-Brownsville did not have a "black school board" but one made up of black and Puerto Rican members, reflecting the ethnic composition of the community, and included at least one white—a local priest. Neither did they "fire" thirteen teachers. The district superintendent of schools reassigned the staff in question to his district office while filing charges of insubordination against them. Their due process rights were being implemented in accord with the union contract when Albert Shanker exploited the situation with a strike to consolidate his monolithic control of the UFT, using "black anti-Semitism" as an effective charge to bring normally liberal organizations to his side. While I do not know the religious affiliation of the staff involved, it is unlikely that they were "all Jewish," as Judis states, since some of them were black.

The suggestion that "blacks reacted with particular bitterness" to Andrew Stein's remarks concerning black officials' meetings with the PLO because "Mayor Koch had appointed him to a place on the Board of Estimate traditionally reserved for blacks" illustrates further the labored paranoia of many Jews toward black opinions that do not support "Jewish" positions. Of course, Andrew Stein is the *elected* Borough President of Manhattan, and, as such, holds two votes on the Board of Estimate.

The point is, as Judis makes clear in his article, that there is a good deal of self-interest in Jewish support for black aspirations. When WASPs are able to engage in their favorite sport of savaging blacks, Jew-baiting is never far behind. And the paternalism in the relationship between the Jewish and black communities is highlighted by the proclamations that Jewish groups will withdraw their support from black efforts to achieve equal justice and opportunities if black leaders do not adopt policy positions consistant with those of the Jewish community. After all, if assistance is

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