

Singer

STANFORD UNIVERSITY MEDICAL CENTER  
DEPARTMENT OF GENETICS

Letter to Senators Cranston, Hayakawa in response to N. Zinder's exhortation 9 JUN 77.

Dear Senator -----:

This letter concerns the bill on the regulation of recombinant DNA which has, I understand, been reported to the full committee with amendments by Senator Javits and other possible modifications still pending.

For brevity, I am enclosing more detailed statements that reflect my own position on the whole matter as enclosures, rather than repeating them in this letter for background. To summarize, however, it seems to me that what started as a commonsense precaution to avert some speculative hazards (singled out of a great many others that one can fantasize if one gives rein to creative imagination) has grown into a Frankensteinian monster of governmental control of research. It has become increasingly evident that the issue, having a core of concerns about public health, has been inflated by ideological polemics about elitism in science and demands that criteria other than the pursuit of knowledge predominate in the choice of research topics and in the support of laboratories for investigative work. To the extent that the measures that are being promoted to regulate the safety of work with recombinant DNA go beyond what is reasonably necessary to assure public safety, and beyond the standards for government intervention in other kinds of work, I think one must credit the role of these covert motives. If they are successful, we are plainly embarking on a major departure about the role and extent of government in setting prior prescriptions about what can and cannot be investigated, and what can and cannot be thought about and written about in the universities. This is not a step that should be permitted without very careful forethought about its consequences, even if pegged to the core issue of public safety. That forethought needs to look to the ways in which seemingly plausible safety regulations and provisions for public participation in them will in fact work out in the day-to-day activities of a laboratory and university department.

I am not addressing the needs for regulation of industrial safety, which has been another excuse for setting up a new regulatory bureaucracy. If that needs to be done, then the academic sector should be left out of it; whereas in fact this will constitute 90% or more of the total activity for the foreseeable future. Furthermore, there is nothing on the industrial side that could not be handled through existing legislation, like OSHA, with technical advice from the NIH and whatever further mandate for this your committee believes may be warranted.

The specific steps that I urge for your consideration are, above all:

1. To support the Javits amendment, to establish an overriding federal authority in this arena.  
A close reading of the Cambridge, Mass., precedent shows that it is precisely in the 'local options' that we will inevitably see the intrusion of local factions and ideology unrelated to safety problems in the effort to control the university. The passage of a federal act on recombinant DNA already goes very far to stipulate that there is a serious actual hazard, not a speculative, one; then to encourage additional forums is to move the controversy still further out in a highly polarized way. The whole point of the demand for close regulation is that the imputed threat from hybrid DNA molecules is a national or global one: local communities do not suffer special risks

from proximity to research along these lines. And they are not appropriate forums for deciding on national research policy, which would be the practical outcome of giving them authority on top of the federal one.

2. To resist the establishment of a new independent agency for the regulation of research.

It will have the universities as its primary target. I use that word target advisedly, since such a bureaucracy will inevitably have as its *raison-d'etre* looking for new and more fantastic hypothetical problems to exercise public anxiety, as the only way to protect its continued existence and enlarge its budget and power. There are many more urgent problems (understanding how to combat ACTUAL infectious disease for one!) that deserve this kind of funding and attention. Any useful output of such an agency can be achieved more efficiently, and with less danger from the iron laws of bureaucratic imperialism by situating it as an advisory group to the secretary of HEW, or his assistant secretary for health.

3. Perhaps (I say perhaps as I am no expert on legislative procedures) to table action on the current bill until the House (Rogers) bill comes up, and look at the two versions together before hardening a 'Senate position' on the matter.

I am sure you will ask me if there needs to be a federal bill at all! I have to say that I believe it will do more harm than practical good -- that it will at best impose heavy costs of regulation, of demoralization of research, of regarding scientists as presumptively guilty until proven innocent, of legitimizing fantasies of danger. At the same time, other countries are proceeding with similar research under quite sensible patterns of regulation and will doubtless achieve important scientific and technological gains to our own competitive disadvantage. And the regulations will tie the hands of responsible investigators, and be about as successful as Prohibition was with respect to others.

Finally, when this is manifest, the predictable reaction will be ever more vigilant policing until every laboratory in the country will have to be inspected to be sure it is in compliance, will have to prove that it is not doing forbidden research. This is no fantasy: it is exactly the direction on which local review committees are already embarked, and is implied by existing procedures of grants administration. Those who favor the closest government control of research will welcome these polarizations; I do not believe it is in the national interest with regard to its implications either for personal freedoms or the quality of our scientific and technological efforts.

It is almost impossible to write laws on such a complex subject that can reconcile the actual scientific situation with constitutional requirements against vagueness in defining a crime. There is a continuum between natural processes of cross-breeding among microbes and what are held to be the inventions of "genetic engineering", and every day new scientific knowledge enlarges our perspective about the natural evolution of microbes. Legislators may have the power to write laws forbidding natural microbes from doing us harm, but the writ does not go to the laws of nature, only to the scientist who is caught in the middle, and in the end the public will suffer the most.

However, the level of hysteria that has been generated may make it quite futile to resist, and I must rely upon your own statesmanship to decide upon the most effective course.

Yours sincerely,

Joshua Lederberg  
Professor of Genetics

Encs: Prism article; NYTimes letter:ed;  
News Report: position of original backers of moratorium  
CV