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STANFORD UNIVERSITY SCHOOL OF MEDICINE  
Department of Genetics

March 6, 1973

Honorable Gaylord Nelson  
United States Senate  
Washington, D.C. 20510

Dear Senator Nelson,

Thank you for your letter of February 28th and for the enclosed letter dated February 22nd from Gerald F. Meyer of the FDA. I very much appreciate the close interest you have evidently taken in the potato problem, and I am sure that this will be perceived by and have a favorable effect on the critical judgments of the responsible officials.

I think I should, however, point out that there is a basic philosophical difference in the way in which we approach the question of hazard with a commodity like a blighted potato in contrast to a synthetic food additive or drug. That is to say, the burden of proof seems to lie on the critic who indeed has not yet proven that a hazardous substance is present in diseased potatoes. On the other hand, very reasonable questions have been raised by Dr. Renwick and others and were this situation to have reached the current state of sensitivity in almost any other area, it is certain we would be demanding the opposite: namely that the purveyor undertake the prior testing necessary to demonstrate that his product was a safe one. I can hardly take an absolute position on this and I am certainly not recommending that potatoes be withheld from the market. That there should be any question about the possibility of Dr. Renwick obtaining financial support for testing his hypothesis, for example by a potato avoidance trial as mentioned in Meyer's letter, does illustrate a potential source of hypocrisy in dealing with this question. If further investigations are not vigorously promoted we will, of course, never have definite knowledge as to whether a hazardous substance is present in blighted potatoes or not. Our ignorance does not necessarily lead to bliss however.

I would advocate that besides the very general posture on behalf of demanding the vigorous prosecution of the necessary research, with which I know you are already in agreement, that you also consider pressing the USDA as to the actual efficacy of its grading practices. The statement in Mr. Meyer's letter was that "diseased potatoes should not reach the consumer". The same kind of assertions were made with respect to DES and yet we know the realities of the marketplace. It is by no means clear to me how vigorously the inspection and grading procedures are pursued, whether the personnel involved in it have been specifically trained with respect to the possibility of a biological hazard, for example; nor do I know whether there have been any point-of-sale surveys to verify the efficacy. Were there some more general publicity about these potential hazards and instructions to consumers how to detect

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blighted tubers one might have more reliance on these kinds of claims. But I do not have to tell you which stratum of the population is going to bear the brunt of receiving the rejects and the questionable products.

What we have to face here potentially is not only the vested interest of many farmers whose incomes and life savings are at stake but also a sluggishness in responding to challenges which is perhaps inevitable even for the most competent of bureaucratic apparatuses. As you are a past master in making wheels spin that had never rotated before, I think you know very well what I mean.

As there remains a tangible possibility that more conclusive evidence against blighted potatoes might appear sometime in the future, I think one should also be anticipating the kinds of measures for relief of innocent farmers and marketers who may be left holding the bag as a consequence of potentially necessary federal restrictions on sale. I suggest this not only out of an honest compassion for the growers; but also because an unrelieved vested interest is hardly likely to encourage the most objective confrontation with reality.

There are still many puzzles about spina bifida but Renwick's proposal does seem to me the most challenging and most plausible proposition that has surfaced to date in attempting to understand the phenomenon that remains quite obscure but has the most poignant human importance. I would hope that further efforts to unravel the problem will meet with a minimum of defensiveness on the part of established interests and agencies and this is, of course, only possible if there is a sympathetic concern for the honest intentions of all parties and a sharing of the risks and burdens. This at least is more likely to be achievable here than in the case where industrial food processors and drug manufacturers are central actors. And for that reason the present situation may afford a better model for the evolution of long-term social policies in dealing with unanticipated risks.

We already have an example of this since Poswillo's results -- which I agree are probably not particularly pertinent to the problem of spina bifida -- are typical of what is likely to be found on broader investigation of many materials that might then be prematurely dragged into the net of a Delaney-like amendment which was enlarged to include teratogenicity.

I am still pondering over other aspects of the Delaney revision proposals and will be communicating with you or with Ms. Robinson about that shortly. Frankly, I have been absolutely inundated by the tidal wave of the new budget impact in NIH grants and this has left me very little time to think about anything except the financial survival of this department.

Sincerely yours,

Joshua Lederberg  
Professor of Genetics