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February 17, 1971

Prof. Joshua Lederberg
Stanford School of Medicine
Stanford, California 94305

Dear Dr. Lederberg:

During my visit to the Center for Advanced Study in the Behavioral Sciences last Wednesday, the group I was with waved greetings toward you as you lunched on the open patio. I wish now that I had taken the opportunity to introduce myself. This was the second chance I missed, the first having been the Summer before last when I taught a course in the Department of Statistics on the Stanford campus. At that time Dr. Alex Hollaender suggested that I try to meet you.

I feel obliged to write to you now after reading your very interesting article on "Cure Cancer" in the Washington Post on February 14. In my present position with The Tobacco Institute I was especially interested in your views concerning the relationship of smoking and lung cancer. In fact my visit to the Center for Advanced Study last week was at the invitation of Drs. Kruskal and Savage who were anxious to discuss this same subject with me.

My opinion, while admittedly unpopular, is not one which I would attribute to "psychosocial stupidity". I rather look with a great deal of skepticism upon what is alleged to be the "overwhelming evidence" to which you and others continually refer. One cannot question the fact that a massive bibliography on this subject exists. That the contents of this bibliography represent unimpeachable evidence in either the scientific or the legal sense is debatable. Just as my statistical training taught me to differentiate between association and causation, so my mathematical training has permitted me to separate conjecture from proof.

Prof. Joshua Lederberg

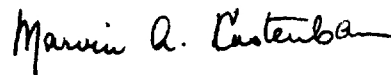
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Several years ago while spending a Summer at Cold Spring Harbor I was privileged to reproduce one of your experiments (Transduction in E-coli) in a laboratory course I was taking there. That experience did not convert me into a biologist, but it did make me a better statistician. For it taught me, more than anything else, the meaning of "elegance" in the design and performance of experiments. As a result, I can now judge the preponderance of experiments that have been performed in the area of smoking and health as neither elegant nor conclusive. I expressed my general views of laboratory experiments performed in the area of inhalation carcinogenesis at a Gatlinburg symposium many months before I joined The Tobacco Institute. A reprint of this paper is enclosed with copies of some of my other recent work.

Finally, I feel that neither the scientific community nor the general lay public are usefully served by coarse extrapolations of unconfirmable point estimates. For instance, it would be extremely difficult to document the statement that, "More than two million citizens who have had cancer would not be alive today had they been left untreated". This too is a subject on which honest men might disagree.

Sincerely yours,



Marvin A. Kastenbaum

Enclosures