

MAY 11 1970

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May 8, 1970

Dr. Joshua Lederberg  
Department of Genetics  
Stanford University  
Medical School  
Palo Alto, California 94304

Dear Doctor Lederberg:

I have for sometime, perhaps well over a decade and a half, been interested not so much in the principle of basic research but its practice. So far I have been unable to get Science to publish my letters indicating that scientists are hiding behind the unassailable principle of basic research. It is my contention that most scientists are not really competent to make worthwhile contributions in basic research but content themselves with ego satisfactions while mimicking their intellectual superiors with redundant, trivial efforts producing papers by the ton.

Early in my career I rejected what is narrowly called basic research to try and do something worthwhile for humanity. I really never have gotten over such juvenile ideals. I think I have made some contributions as a pioneer in antiviral drugs and the diagnosis of viral disease. I find little help from the basic researcher, however. In some respects your enclosed article has confirmed what I have always believed, basic research as practiced is a religion to be worshiped and never questioned, it is an icon with rigid dogma and the rewards are great for those that genuflect before it.

Apparently you do not see any incongruity in your enclosed article. My notes are an attempt to show that your position on one page is that infectious disease has been most influenced by environmental engineering. Your contention on the second page, however, is that viral diseases will be controlled by pursuit of studies on their biochemistry and genetics. Apparently you feel history does not in fact repeat itself.

I have also enclosed an obscure article, of a number of apparently obscure articles I have written, that might suggest an alternative approach to viral disease than the profound studies of the biochemistry and genetics of viruses. Perhaps having read this you can then inform me of the impact of microbial biochemistry and microbial genetics on the betterment of mankind. I would use as a criteria, for your list of contributions, whether their original discovery could in fact find its way into any of our present day prestigious journals.

After only a short twenty years at the bench I am haunted by the impression that a significant proportion of our basic scientists are anti-humanistic, irrespon-

Dr. Joshua Lederberg

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sible, ego<sup>o</sup>centric, basic science worshipers. For them and all of us, time is running out, as Platt (Science, November 28, 1969) has so well stated. If you have any reassuring comments about the future practice of basic research influencing human destiny, I would be most pleased to hear them.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Ernest C. Herrmann, Jr.".

Ernest C. Herrmann, Jr.

ECH/dd

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