808 Young Place Frederick, Md. 21701 5 March 1970

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Professor Lederberg:

I have read your column regularly since it started appearing in The-Washington Post, and I also have read a transcript of your testimony before the House Foreign Affairs subcommittee last December. Consequently, I am generally familiar with your stated views on chemical and biological warfare. If I interpret your comments correctly, I also feel that you alone, among those members of the scientific community who have criticized the U.S. CBW program, have indicated some understanding that the problem may not be quite as simple as it has been made to appear since last November.

Though the President's announcement of last November and various subsequent events seem to make it appear that the problem of CBW is now solved once and for all time, I am assuming you may still have some interest in the subject. Thus, I am forwarding you the following materials, which are largely self-explanatory:

- 1) a cover letter and attached concept study on Fort Detrick redeployment originally sent to two Maryland Senators and one Maryland Representative,
 - 2) a short reply from the Representative,
 - 3) a letter to the editor that appeared in the local paper, and
- 4) a letter to the Maryland Representative together with an exchange of correspondence between Brig. Gen. J.H. Rothschild, USA, Ret., and myself. To the content of these materials, I would add only a few additional comments by way of additional explanation and as a result of more recent developments.

I just recently had my **first** opportunity to read the proceedings of the Symposium on Chemical and Biological Warfare presented on 13 October 1969 before the National Academy of Sciences (Proc. Natl. Acad. Sci. 65:1:250-279). I would be somewhat surprised if the views elaborated in this symposium did not have some, and possibly a substantial, effect on the policy enunciated by the President last November. The symposium consisted of a foreword by Meselson of Harvard plus three individual papers, but I will address only one paper—by far the most tightly drawn of the group.

Han Swyter, a former Department of Defense official, presented a paper titled "Political Considerations and Analysis of Military Requirements for Chemical and Biological Weapons." He presents an objective and unemotional analysis of U.S. requirements for CBW weapons and concludes, briefly, that

(1) we have no need for a lethal biological capability, an incapacitating biological capability, or an incapacitating chemical capability, and (2) "We need some lethal chemical capability to deter their first use in Europe." (If Swyter touches on U.S. CBW defense, it is only in a very indirect manner.) I cannot argue with the language of Swyter's paper; his syllogisms march across the page with evenly measured tread, and, in his terms, his conclusions are irrefutable.

However, all of my training and experience makes me believe that it is not as simple as that. Swyter's language is the language of American systems analysis as it has grown and developed in the American experience since World War II. Unfortunately, I have seen no evidence that what is valid in terms of American language and experience is necessarily also valid for another national language and experience. Just this past Sunday, M.P. Gallagher, a Soviet affairs specialist for the Institute of Defense Analysis, put it this way (The Washington Post, 1 March 1970, page C1):

"If the Soviet Union always acted as we think we would act under similar circumstances, there would be little reason to concern ourselves with how Russia makes military policy. We would simply apply our own analytical tools to the Soviet strategic situation and, assuming the Kremlin always acts in its own best interests, feel reasonably sure that our solutions would approximate those of the Soviet Union.

"The trouble with this system, of course, is that it has not worked very well. Time after time, the Soviet Union has done things, or failed to do things, which we had not expected..."

In response to Swyter's paper, I cannot say it any better than that.

Information obtained just today makes it seem highly probable that, sometime between now and mid-April, the Government will announce that the Fort Detrick facilities (and, perhaps, the personnel) will be divided up between DHEW, USDA, and, possibly, the U.S. Army. Whether the Government's charge to these agencies will include any responsibility for a realistic and creditable BW defense program remains problematical.

Other information also just available today indicates that tomorrow the DoD will announce an additional cut of nearly 300 in the Fort Detrick staff; that will make almost 600 (about one-third of the civilian staff) since last November. As you can imagine, others are leaving in addition to those directly affected by lay-offs. For example, about two weeks ago a man who is probably the nation's best in the theoretical and practical aspects of large-scale automated tissue culture fermentation left the post for a desk job elsewhere. This man enjoyed his laboratory work, probably would not have been affected by lay-offs unless the post was closed completely, and went to a job almost totally removed from his primary area of interest. And his is only one example.

As is stated in the enclosed materials, I find all of this quite frightening. It is my firm conviction that American science and American government (and, as a scientist and a Federal civil servant, I fall in both groups) will have to bear the burden of responsibility for any future consequences the U.S. and the rest of the world may suffer from BW. On the one hand, I feel that American science was instrumental in shaping the President's policy announcement of last November and has subsequently failed to provide rational guidance on the implementation of the policy. On the other hand, American science aside, American government has promulgated a policy without any prior planning on how such a policy was to be implemented realistically. Thus, I am urgently concerned about two things.

First, I am concerned about the real risk to the U.S. involved in unilateral BW disarmament without some assurance of reasonable controls. Science has laid before me knowledge that makes the conclusion that BW will work inescapable. Science also has told me that the use of BW would bode ill for the general welfare of the world, a conclusion with which I cannot totally disagree. But now, suddenly, Science as Government seemingly is telling me: "Forget it Mack, there's nothing to worry about."

Second, I am concerned about what could be an inexcusable waste of a positive step toward world peace. Government has laid before me information that makes inescapable the conclusion that the achievement of world peace is an arduous task. Government also has told me that the failure to achieve world peace bodes ill for the general welfare of the world. But now, suddenly, Government as Science seemingly is telling me, at least as far as BW is concerned: "Forget it Mack, it'll take care of itself."

You will find information supporting these two views in the attached materials.

I started to write you a few weeks ago, hesitated, and then got sidetracked by the press of work. I write you now despite the fact that I feel that the "point of no return" has been passed. Of course, if I have misinterpreted your viewpoint, my writing at all is probably a waste of time. However, if you find any shred of reason or validity in this letter or the attached materials, I urge you to use your considerable influence to bring the question of U.S. BW policy to a reasonable and creditable solution, before all of our expertise in this area is totally dissipated.

Thank you for your consideration and time.

4 Inclosures as stated

E. Paul Magaha, Jr.