

March 13, 1953

Dr. D. W. Bruner  
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Ithaca, N.Y.

Dear Dr. Bruner:

I might mention first that I recently spent a couple of weeks at Chamblee with Dr. Edwards, where I had a chance to bolster my very weak background in Salmonella serology. A number of problems have come up out of that work, and since, for which Phil suggested you might have some materials that would complement his own. In addition, I have tried to summarize a few other items which may possibly come to your attention, and for which I would be most grateful if you were able to provide them.

1. *S. napoli*. Edwards' single stock culture is unsuitable. It was thought that it might be a good idea to try to set up a monophasic  $lz_{12}$  by transduction. Do you have any others (up to half a dozen or a dozen could profitably be tested).

2. *S. abortus-equi*. The stock, #26, is giving some interesting results I would like to try to generalize with two or three others.

3. --11,2 phases in group B (or D). I have already Ky. stock #57, and two or three more recent from Phil (including #191: "Theill"), which are all behaving quite differently, and confusingly. Have you seen any others?

4. Any stable non-motile variants (except, of course *vulgaris-gallinarum*). We are working up methods for the transduction of motility, so as to unmask the flagellar antigens, and can already do this rather generally in B-D groups. For example, an outbreak of an untypeable group D in calves and pigs in Guatemala, in 1951, proved to be all *S. dublin*. I would like very much to be able to extend this type of study, and would be equally interested in miscellaneous strains, and in any collection from a single outbreak. We hope eventually to be able to handle the other @ groups, as well as B and D, so that any material at all would be welcome in so far as it does not duplicate what Phil has already placed at my disposal.

5. I have been reading your recent notes on phase changes with great interest, May I count on a periodic exchange of relevant papers?

I fear this letter is all ask, and no offer. If I can reciprocate in any way, please let me know,

Yours sincerely,

Joshua Lederberg  
Associate Professor of Genetics