June 14, 1950.

Dr. L. Cavalli,
Dept. Genetics,
Cambridge University,
England.

Dear Cavalli:

Thank you for your informative letter. It is encouraging that someone else, presumably less prejudiced than myself, can turn up linkage data which point so strongly to linearity, although linear arrangement may not yet be able to explain all phenomena of segregation. It is certainly quite conceivable that the different stocks carry structural rearrangements which may influence the detailed linkage pattern. I assume that you have shown that the Gal- of W-705 is allelic to that of W-677. I had not yet done this. To avoid confusion, I am labelling this mutation Gal4-. The Gal- carried by W-582, 583 and 595 is probably allelic with my standard Gal_1-, but until this is verified I have to call it Gal_a-. Gal2 and Gal3 have been ~~mx~~ clearly identified in other stocks by Mrs. Lederberg. Have you attempted, in any detail, to reconcile your data on the arrangement of Gal_4-Lac-Vl, with those previously obtained in such crosses as 58-161 x W-677? Like yourself, I had come to the conclusion that this order was justified, but there seemed to be rather too many exceptional recombinants. Also, in the latter type cross, Bl does not seem to have the effect on the Lac segregation that your data show for W-677 x W-836.

I am, of course, very pleased to hear any details from you, and please do not hesitate to discuss your unverified findings, if you can label them such.

Your observations of pseudoprototrophs are reminescent of some work with Salmonella "crosses" carried onnmainly but Mr. Zinder, a graduate student here. At my instigation, he has prepared a brief summary which is enclosed herewith. Your finding of serological changes among the pseudoprototrophs is most exciting. Have you examined these for their nutritional requirements? [that is, after they have failed to grow on minimal medium).

By the time you receive this, I shall probably have left for a summer trip. Until about Sept. 6, you can address me at:

Dept. of Bacteriology,
University of California,
Berkeley 4, Calif.

However, Mr. Zinder will be in the lab. all summer and will be prepared to receive or trasamit cultures. etc.

Your mapping of Az^r agrees with mine and with Mr. Gordon Allen's [in B.D.Davis' lab.] Like yourself, I found chlormycetin unusable as a clearcut marker or selector.