

July 18, 1953

Dr. T. Puck
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Dear Ted:

We are leaving in a week or so to drive to San Francisco to the S.A.B. meetings. Our itinerary is not yet fixed, though we would probably prefer the northern route. But can you tell us whether you expect to be at home in August, so that we could weigh the chances of a detour to Denver? Within rather wide margins, the relevant dates would be about August 1 and August 22. Perhaps we will see you at the meeting itself.

I enjoyed your ms., but as I feared there is not much I can add by way of discussion. It would be interesting sometime to make a more thorough genetic as well as physiological study of phage-resistance. About all we do know now, from the genetic side, is summarized in the 1951 CSH pp. 430-431, and in Genetics in the 20th Century, pp. 276-278. I have had in mind to do a more thorough study of the interactions of different V_1 alleles in heterozygotes, but none of my students so far worked up very much interest in this. This kind of analysis should be paralleled by a more exacting study of absorptive properties of the different genotypes than we have felt we could do. On the other hand, the T phages are probably not the best material for receptor studies; I think rather clearer results, from the point of view of extraction of the receptors, could be gotten with phages for the ~~non-specific~~ better defined somatic and K antigens of other E. coli or Salmonella strains, than K-12 or B (which are "rough" as can be).

I was particularly impressed by your synthetic lysin (the dimethyl aminoethyl acrylate)—does this actually lyse and clear the B cultures? As is obvious, such a reagent might have a great many applications, apart from phage work: to mention two offhand, to lyse E. coli for enzymatic studies, and as a selective agent in mutation, recombination studies, etc. If it works so cleanly, is it available for further trial? Boris Rotman is here this year to work on the curious "activation" of lactase when coli cells are extracted, or simply treated with benzene or pentanol. It would be interesting to determine whether this lysin also "activates"; phage lysates are supposed to have full lactase activity. If it would be more convenient, I would write to W.W. Davis ~~about~~, but I thought I might try to beg some from you first. Dr. Rotman will be in the lab. most of the time we're away.

Sincerely,

Joshua Lederberg