

August 3, 1946.

Dear Dr. Luria,

The two available mutants in B/r have been mailed to you, and you should have them in your hands promptly. I hope they can be useful to you. It occurs to me that the biochemical requirement could be used as a marker to determine whether those few strains reported by Demerec and Fano which were resistant to each phage are contaminants, or mutants. I shall be particularly interested in the results of your (or Adams') growth factor experiments. Let me know if there are any specific ~~max~~ growth factor requirements that you are interested in, and I shall look out for them and send you the appropriate strains. So far, only the two strains I sent have been identified as mutants of B/r. There are some others not yet identified.

We have been working for some time with single resistant mutants; thank you for your kind offer, nevertheless. However, we feel that our experience is inadequate to cope properly with the problem of complex resistance patterns, and we hope that you will continue to look for it in K-12. If you find it there, I am sure we can work out some means of handling the genetic analysis using phages and biochemical mutants together. Meantime, we have been accumulating more data on the occurrence of recombination types, and have several instances now of biochemical recombinations (B-P-, B-L-, B-T- from B-... X T-L-, or X P-T-..) and of biochemical-resistance recombinations, e.g. B-/1 from B-..X T-P-/1, and from a similar cross, T- (susc.) We have only now begun to use more than one virus, however.

Do you expect to be in N+Y.C. at any time in the next three weeks; I would like to arrange an appointment, anywhere in N.Y.

