16.2.1952.

Dear Dr. Lederberg, Many thanks for your letter of the 9th Jan. Yes, I have recently examined the strains 58-161 and W-1174 singly, K12 I have not investigated yet, though, of course, this is on the programme. I also expected the two strains to behave in the same way, yet it seems not to be the case. Strain W-1174 shows the same "fusions" of cells than the mixture. They are in certain areas seen, as well on minimal medium as on ordinary nutrient agar, and they occur at approximately the same time.

In 58-161 I have not seen what I call "fusions" so far; but I have seen something else, familiar to me and according to my experience occurring in cultures which produce L-forms. What happens is this: The organisms become somewhat pleomorphic and form tips. Out of these tips come small granular forms which grow into little bodies (round or pleomorphic); the bodies might be called L bodies (?). This does not happen in certain areas only, but more or less all over the place. It seems to turn up, though, at a later stage than the "fusions" in W-1174. — Often I have seen the small granules (that you can see come out under the phase microscope) together with fusions in one and the same culture in older studies of various organisms. Here it seems that one phenomenon is restricted mainly to W-1174, the other one to 58-161. — However, I have not seen half enough of it and must go on with observations. — Dr. Hayes read a paper 2 weeks ago at Cambridge. We have compared notes. May be this can

be helpful. - I have plated on minimal agar and other media, washed & unwashed suspensions, but have not been able to stimulate fusions. It may be Dr. Hayes has a method to produce more prototrophs. I shall certainly do some morphological work by help of his method. I shall keep you informed and will send more photos.

If the Rockefeller Foundation will award me a grant, I shall certainly be able to spend some time at your laboratory, and we shall have time for work and discussions. I doubt that I shall know before spring.

With kind regards,

sincerely yours,

E. Klieneberger-Nobel.

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