THE UNIVERSITY OF CHICAGO
CHICAGO 37 · ILLINOIS
INSTITUTE OF RADIOBIOLOGY AND BIOPHYSICS

Dear Josh,

I plated P20 and P20a on B. Neither look like r^+, in that they both have sharply defined edges, whereas r^+ gives fuzzy edges. This probably means no lysis inhibition. I'll test both this afternoon for inhibition and will send a postcard describing the results.

The only difference I could see between P20 and P20a is 1) P20a may be a somewhat larger plaque former.

2) P20a has a more pronounced opaque ring.

P20a

P20

I have never heard of a satisfactory explanation for the opaque ring. Delbruck says that when you pick the colonies occurring in such a ring, they lyse on transfer to fresh medium.

Have you tried plating P20, P20a on B/6?

They certainly are nice looking phages. It is interesting to see a wild type of the even numbered series (which P20 must be) that doesn't exhibit lysis inhibition.

We did not mean to slight you by calling Esther last week, but we assumed you were in Detroit. We have been studying the light reactivation, particularly the effect of the light on the incidence of mutants. We find the incidence of mutants in the reactivated bugs to be 5 times less than in the dark survivors. Since these mutants are "phenomically" (phenomenologically) delayed, we can best observe them with biochemical mutants on limitedly enriched plates. And since we are lazy, we would like to get from you a series of amino-acid deficient K-12 strains. We have already from you methionine threonine, and leucine We are anxious to start and would appreciate early delivery. Vitamin mutants, we fear, may give trouble since they need so little.

I have been having the following trouble. We irradiate in saline — finding the bugs more resistant, and more reproducibly so than. However when I wash the W-1 or the 58-161 strains, resuspend in saline, and incubate overnight (to place them deeply in lag), I find only a small fraction alive. In one experiment the W-1 dropped to $\frac{1}{10}$ and the 58-161 to $< \frac{1}{300}$. Is this unusual? — might I prevent it by supplementing with B1 or biotin since we don't use these markers anyway?

The Bloomington meetings were quite nice. Dulbecco's story is quite complete. I'll tell you about it when we come to Madison. Doermann & Hershey had some interesting stuff also.

I spoke to Szilard about Kellner and he means to speak to Haynes when he's back. Our space problem is serious also. Since he does Radiobiology maybe we could get the bacteriology dept to take him.

Regards to Esther, to Bob. Regards from Jane. Warm