

VANDERBILT UNIVERSITY
DEPARTMENT OF PHYSICS
NASHVILLE, TENNESSEE

April 5, 1943

Dear Lu,

sorry to hear that you are subculturing my strep in your throat, and that your doctoring is less effective on yourself than on me. Hope you got a good rest from it anyhow.

The interference experiments on Shiga sound promising. It may well be that the interference is mutual, as with delta, in the sense that most of the bacteria with mixed infection become neurotic and liberate neither phage. I don't see how the plating eff. can come in as a disturbing factor, don't you use our old indicator strains A and C.

I have done some experiments with anti-gamma- serum. The serum is quite powerful. At adilution 1:5,000 90% of gamma is inactivated in 10 minutes, and inactivation is exponential with time. I did one interference experiment, alpha and sensitized gamma, alpha single, sensitized gamma multiple. Result no suppression of alpha growth.

I believe there is an error in your calculation of "a" from your experiment, and I believe the error is in the last, third, calculation. This should give the same result as the second calculation. It seems that you forgot to drop the factor "C" in the last calculation. If you lump all tubes together to give one total "N", your number of samples must be taken as one. I believe the second calculation is the really justified one, except for the comparatively small Poisson error due to sampling from the tubes.- I think one should expect larger number of mutants ~~from~~ when sampling from larger cultures. In the limit, when one samples from infinitely large cultures one would expect simply aNt mutants, and only Poisson fluctuations.

I had at last word from the new man, Edward H. Anderson. He plans to be here July 1st. I wrote to him exploratively regarding the state of the nation at Pacific Grove, and that you or both of us might want to go there in the summer. Will let you know as soon as I here. Mean while it seems more probable every day that I will not be able to get away in the summer, but I told Reinke that I would not even try to persuade you to come here in the summer unless I had positive assurance from the Dean that my teaching load is light enough to give ample time

for research. Reinke is writing a strong letter in this sense to the Dean, and I will speak to him after he has received the letter.

Did you know that mail service to Southern Cal has been suspended for months? I am just now getting all the letters returned which I wrote since December.