

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

Monday 1/5/53

Dear Esther & Josh,

Of course I will be happy to X-ray samples. None have arrived as of today.

Enclosed is the ms proof. I found it very nice. Would like reprint. By the way thanks for the reprints you sent me.

In regard to U-V inactivated 22 on LT-2 followed by 22V, I would certainly expect lysis. But since you ask, I presume the correct answer is resistance. But what about the survivors - they must be lyso-genic - if they are - how come the U-V'ed 22. not followed by 22V does not produce lyso-genics - or perhaps it does but does not produce lysis. Please let me know.

I have been pursuing an odd business I may have told you about. When B/it is plated with T5 on plates low in iron, about half the <sup>resistant</sup> colonies are petite. These petites when plated in the absence of phage give large colonies. Addition of iron to the plates overcomes the petite phenomenon - giving large colonies even in the presence of phage. I suspect that the iron may serve ~~only~~ to kill the phage but in addition the petite does seem to require ~~more~~ larger concentration of iron than the large. If one inactivates the

phage with UV or at 75° ~~the petites become large~~  
~~the product the inhibition~~. However adsorption  
experiments indicate no adsorption of T5 by the  
petite strain. If one separates the phage from  
the bacteria with a cellophane sheet the colonies  
are large.

I suspect that there is a phage in our T5  
that does not plate on B - that is responsible  
for our results. All we need is an indicator  
to demonstrate its presence. I am trying K-12  
and will also try T5 stock prepared in K-12  
to see if it duplicates the phenomenon. If you  
should have some old Cole stocks on hand that  
might serve as indicators for such a phage, I would  
be interested.

David is growing fast. You must  
visit with him on your way through. By the  
way I want to tell you again how much I  
enjoyed my visit to Madison.

Regards to your gang  
Aaron