March 9, 1949.

Dr. A. D. Hershey,
Dept. Bacteriology,
Washington University Medical School,
St. Louis, Mo.

Dear Al,

Thanks very much for the phages you sent. Neither they, nor any of the others that I have tested, are interfered with by lambda-1.

The Bordet Large, and ∅ 10-174 showed no activity either on B/1,5 or on comparable K-12 stocks. I haven't checked yet to see whether this is simply cross-resistance. T16 and C36 attacked these bacteria. Bordet Small did not attack B/1,5 although it did act on the K-12 stocks. Again, I haven't checked. Do you have any information on the host range of these phages, especially with referance to B?

I've tried some absorption experiments with lambda-1, without much success. Absorption may be either very slow or reversible. I think possibly the latter because a culture of lysogenic bacteria in which no phage could be demonstrated in the supernatant after filtering showed about 300 plaques per cc when a heat-killed suspension was used (which was checked for sterility). Next meeting, I hope you may be able to tell me something about the revessibility of phage absorption.

A number of phages have been isolated from Madison sewage, and one of them behaves like lamda-2. That is, colonies resistant to this phage are now lysogenic for the original culture. There is no evident reaction with lambda-1, the plaques look very different, so it would appear that this culture can be made doubly lysogenic. However, this is the only new case of induced lysogenicity out of about 15 phages tested, including the T1-7 series. I'm still looking for some more, and if you happen to think of it, some St. Louis sewage could be helpful, if you can conveniently bring some up to Chicago.

Thanks again for your help.

Sincerely,

Joshua Lederberg