

November 7, 1956

Dr. Al Hershey
Biol. Lab.
Cold Spring Harbor, L.I., N.Y.

Dear Al:

I am sorry to bother you with such a chore, but could you do me the favor of sending us a series of "authentic" wild type T phages, T1-T7 plus your favorite host/indicator strain? We have been somewhat careless over the years about recording the history of our own stocks-- when and on what passaged, etc.-- and before we make some blunder, I would like to start again with a standard point of reference: namely whatever you have.

Our own work has given us few occasions to use the T phages, except as tests for bacterial resistance-markers; right now, some of them are giving very encouraging results as the basis of selection of coli mutants with defective wall synthesis, viz., "L-colony" mutants. The rationale of this is the wall as receptor of phage adsorption, and is faintly hazy in practice so far. The main problem actually is growing these "wall-less" cultures, which we are only beginning to understand. [For example, while 100 u penicillin per ml. is adequate to prevent bacillary proliferation, and to give quantitative formation of protoplasts, these will not grow as L-colonies with less than about 1000u and preferable 10,000! Questions of concentration of agar, cations, sucrose and other nutrients are equally fussy and irrational.] Anyhow, now is none too soon to standardize our phage stocks.

Yours sincerely,

Joshua Lederberg