July 23, 1951.

Dr. Niccoli Visconti,
Dept. Genetics,
Carnegie Institution,
Cold Spring Harbor, L.I., N.Y.

Dear Nick:

Do you remember that Esther and I were discussing the use of replica plating (velvet) to furnish a simple proof of the preexistence of clones of spontaneous resistant mutants. Until we talked to Eagle, this did not seem especially pressing, but when we returned to Madison, we decided to do it, as we have. We have completed the experiments with T1 resistance, and are now in the midst of $S^r$ trials, which are more difficult owing to the very low mutation rate.

There are two elements in this proof; 1) that films of growth on agar, from plates incubated after inoculation from broth, give congruent sites of resistant mutants when replicated to series of phage-coated plates, and 2) by going back to the original plate on plain agar, and picking from the site corresponding to the resistant clones, one can enrich for $V_1^r$ about 100fold. After three or four such enrichments, with platings at successively higher dilutions, one can indirectly select for resistant mutants from cells that have never themselves been exposed to the phage.

I.E., isolate them in pure culture

We are beginning to write up these results, and I am writing you in reference to your independent development of a somewhat similar procedure and its use in a somewhat related problem. I should like your advice as to whether some reference to this, as a private communication, should be put in our paper, and if so, what ought to be said.

By the way- I think I left my beautiful new cloth rain-hat at the meetings. It would have my name in it. Do you think anyone has noticed it? If so, would you let me know, and I will try to make some arrangement to have it returned with minimum inconvenience to anyone there.

Esther sends her best; we certainly enjoyed meeting you, and are looking forward to your promised visit this coming year.

Sincerely,

Joshua Lederberg