July 7, 1953

Dear Luca:

I had promised not to distract you unnecessarily from your Congress tasks, but I would like to ask the favor of returning a culture of W-583, as the one we have saved is misbehaving (especially Lp_2^r).

I hope all is well with you. Have you made any start about finding support to visit us here? I am not sure that next summer would be the best possible time; it would depend on whether we will have completed re-modelling our small laboratory by that time. But it would be best to be prepared beforehand. Are you sure that you would only be able to make such a trip during the summer? Our laboratory is extremely uncomfortable on hot days, and it would be difficult to get any work done. Our budgetary situation is very encouraging now, and I have no doubt of underwriting a salary for you (possibly up to $480 per month) which would allow a comfortable support for you and your family, independently of any other support. The main problem would be to underwrite your travel expense.

Have you received the filter?

Esther and I did not make the trip to the CSH symposium; there was one person from our laboratory (Dr. Skaar) so I can make only a second hand report. As might be expected in a virus symposium, there was no acute interest in E. coli recombination. I gather that Hayes did not entirely clarify the points at issue among us (indeed what are they!), though Jim Watson finally responded (to a direct question) that pre- vs. post- elimination was probably the only important one. Such a fine point (and difficult to settle) seems hardly worth any fuss. Both Hayes and Watson have written that they will visit us here during September, so we will probably have an opportunity to review any questions in the atmosphere of the laboratory rather than the Symposium.

As I promised, I have gone back to coli work directly. Tom (Nelson) has accumulated a considerable mass of diploids from Het F+ Lac+ Mal- M- X F- Lac- TL-S^r, confirming previous results very nicely: all are hemizygous for Mal, about 85% Mal+S^r, 13% Mal-S^s, 2% Mal-S^s and a few Mal+S^r. There is no possibility of polarity reversal. We are now studying the cross reversed with respect to F, and also the elimination pattern of the Gal-Lp segment which is often also deficient, possibly indepently of Mal-S. In/ I have been occupied with diploid x haploid crosses. The results are consistent with elimination from the F+ side, but do not distinguish the pre- and post-zygotic alternatives. Most of the progeny are diploid (including the case 2nF+ x F- 1n) and do not show deficiency for Mal-S, so that the diploid F+ gamete must carry at least one full complement (including Lac and Mal) and at least enough of a second to ensure that the zygotes will split off diploid segregants. The eliminated chromosome is usually not recovered even among diploid progeny: if the triploid zygote carries one chromosome which later eliminates, there may be a selective segregation 2 intact: 1 eliminated. These experiments are terribly cumbersome, and not as informative as I would hope. I have also dusted the microscope, but this is a type of work from which I am easily distracted.

Yours,

Joshua Lederberg