



FEDERAL SECURITY AGENCY
PUBLIC HEALTH SERVICE

IN REPLYING, ADDRESS THE

Tuberculosis Research Laboratory,
411 East 69th St., New York 21, N. Y.

December 8, 1950.

Dr. Joshua Lederberg,
Department of Genetics,
The University of Wisconsin,
College of Agriculture,
Madison 6, Wisconsin.

Dear Joshua:

You may remember that I mentioned to you at Columbus that our absolute pantothenate-less mutants (which require pantothenate at all temperatures) failed to recombine with other K_{12} strains. Subsequently I found that there is no recombination with other strains or among themselves even in the presence of pantothenate. In further experiments I have obtained absolute pantothenate-less mutants from temperature-sensitive ones and again found that there was no recombination with the absolute ones, whereas the temperature-sensitive parents gave recombinants. I have obtained reversions from the absolute pantothenate-less mutants which also failed to recombine. It seems unlikely that the inhibition of recombination is due to an inversion because (a) the absolute mutants do not recombine with each other, and (b) there is no recombination of any of the absolute pantothenate-less ones with any of the marked strains. *(for the point locus)*

I wonder if you have encountered a similar phenomenon, and if you have any comments on these observations.

With best regards to you and Esther,

Sincerely yours,

WKM

Werner K. Maas

WKM/hl P.S. My main reason for writing is that I may be overlooking something obvious, and that by pointing this out you may be able to save me a great deal of experimental work. In case you haven't encountered this phenomenon, I guess there isn't much that can be said about it at this point, except that a genetic change is involved (besides pan^{AS} to pan^{abs}) that prevents recombination. Apparently McClinton has found something like that in corn.