

CARNEGIE INSTITUTION OF WASHINGTON
DEPARTMENT OF GENETICS
COLD SPRING HARBOR, LONG ISLAND, N. Y.

November 16, 1949

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

Dear Lederberg:

Thank you very much for the culture of two K-12 stocks, and for your letter about the streptomycin-resistance locus. I agree with you that it is important to have a uniform nomenclature, and that we should try to correlate our systems. While we were working with resistance as a group phenomenon, our present system (B/S, B/l, etc.) worked well; but this is not true if we wish to use genetic nomenclature for loci, which has become possible as a result of your work. I have only one suggestion to make about the system you propose for streptomycin resistance, and that is to use S instead of St as a symbol for the locus. The reason for this is that we may have several independent loci in the series, which could be differentiated by numbers, and it would be more convenient to have a single letter rather than two letters representing the locus. Thus S^s , S^r , S^d , and S^{pr} would stand for streptomycin-sensitive, -resistant, -dependent, and -partially resistant, respectively.

There is another thing I wish to call to your attention, in connection with the present usage by the Drosophila group. As a rule, symbols in complex stocks are put in the same order as they occur on the linkage map. It seems to me that the order of symbols in the formula for W-1177 you gave in your letter is all mixed up, which is quite confusing to those who are not very familiar with your material.

We are sending you a culture of S^r -22, which is a streptomycin-resistant mutant derived from your strain 161. This mutant gives recombinants with other S's and S^d 's, and is presumably determined by a separate locus. When it is crossed with your W-595, the following classes were obtained with regard to V and S: $v^r S^s$ 207, $v^r S^r$ 7, $v^s S^s$ 35, $v^s S^r$ 1. Our classification for Lac was not reliable in this experiment.

With best regards,

Sincerely yours,



M. Demerec

MD:af