

June 9, 1949.

Dear Max:

I am sending W-206, which is an "F-2" heterozygote inbred: i.e., it is derived by crossing two segregants from the original H-1. This stock was prepared to test the "translocation theory" which I outlined at Cincinnati. In order to facilitate the analysis, a Mal- mutation was induced in one of the segregants (see box W-478) used as a parent, so that W-206 is heterozygous both for Lac₁ and for Mal. However, the Mal mutation is definitely not the same as the one in the previous crosses, which has always come out hemi-zygous. The segregation data for Lac and Mal are quite abnormal for W-206, so the translocation theory is not substantiated. However, it may be an interesting culture for single cell work because it is an F₂, and because the segregation ratios for Lac and Mal₁ are as close to equal as I have yet seen. The abnormality is in the co-segregations: The relative frequencies, in %, of the possible combinations of Lac and Mal are:

	Lac-	Lac ₁
Mal-	31	0
Mal ₁	<u>38</u>	<u>31</u>

More than in any other stock, I think there is a chance here of picking up correlated segregations, or at least, different kinds of segregants.

Unfortunately, my stock of H-168 has completely dissociated, and I have been unable to recover the heterozygote. Peculiarly, 6-111, which is presumably a single cell isolate from it, is pure Xyl-, although segregating for Lac, Mtl, etc., and I wonder if a "partial" segregation may not have occurred. It is also conceivable that H-168 originally was a mixture of two heterozygotes, one Xyl₁, the other Xyl-, and to check these points I am very anxious to try to recover as early a stock as possible. That was the occasion for the airmail post card.

The story is at least as enigmatic as ever.

Sincerely,