

March 10, 1949.

Dr. Max R. Zelle,
Bacteriology Lab.,
Cornell University,
Ithaca, N.Y.

Dear Max:

I've managed to develop a heterozygote culture suitable for detailed crossing-over studies rather sooner than anticipated, and an enclosing H-168. This culture has all the advantages of H-72, plus a few additional markers, so there would be no reason why it should not displace H-72 entirely. It was obtained as a Lacy from the cross

B-M- V_{10}^F het X T-L-B₁- Lac₁- Mal- Xyl- Gal- Arab- Mtl- V_1^F

It is definitely segregating for Lac, Mtl, Xyl and Gal, but seems to be pure (hemizygous or homozygous ?) for Mal-, Arab-. The "-" in reference to Galactose and arabinose means only somewhat slower than wild type; for lactose, maltose, xylose and mannitol there is a very clear differentiation. I'm checking to verify the heterozygosity of the other loci, but from other experience, V_{10} , V_1 , M, T, and L should be heterozygous also, although with the possible exception of phage resistance (using T5 to score V_1^F / V_1^S) these factors are more troublesome to score on large numbers of segregants.

My apologies for the mathematics in my last letter- I just ran across your thesis in J. I. D. I would appreciate a set of your reprints on bacterial variation if you can spare them.

Sincerely,

Joshua Lederberg