

February 7, 1948.

Dr. Fritz Kauffmann,
Statens Serum Institut,
Copenhagen, Denmark.

Dear Dr. Kauffmann:

Under separate cover, I despatched today some cultures of
E. coli. They include:

- K-12, the original wild type.
- Y-40 a multiple mutant of K-12: biotinless, methionineless
and resistant to phage T1.
- Y-53 another multiple mutant : threonineless, leucineless,
thiamineless and also lactose-negative (mutabile).

These strains are the ones I have used most in my crossing
experiments, and are fully described in publications. It would
be particularly interesting to find some antigenic difference
between them correlated with a specific mutation.

These strains readily form a mucoid type-- particularly, old
cultures on EMB lactose agar. I have not sent one because it is
highly unstable, and must be used directly it is obtained, although
the mucoid phase can be perpetuated by successive plating and
colony selection.

By comparison, I would be interested to learn in what group
you have typed Delbruck's E. coli B, and whether you have found
antigenic differences between B and B/1.

I hope within the next few months to undertake an intensive
study of Salmonella to ascertain whether the antigenic patterns
may be generated by recombination of factors comparable to the
situation described for K-12.

Your interest in this matter is greatly appreciated.

Yours sincerely,

Joshua Lederberg
Assistant Professor of Genetics.