

March 23, 1951.

Dr. C. A. Stuart,
Brown University,
Providence 12, R.I.

Dear Dr. Stuart:

I trust that the mutant cultures recently sent to you have arrived safely, and hope that they will prove to behave satisfactorily in your hands.

Our survey of the 40 *E. coli* strains recorded in your letter of February 21 is nearly completed. I was very pleased to find two strains, "BB24" and BB45 which have given a rather clear result in tests to find recombination with strain K-12. The former appears to be a pure lactose-negative culture, although it ferments sucrose promptly. Is this in accord with your original description? The strain W-1 also gave a suggestive, but not at all decisive result which is being examined further. This strain is ~~also~~ lactose-negative, and is also one of the few strains in this collection to show a colicin action on K-12.

I should be very curious to have any further information you may have recorded on the source, relationships, and behavior of the three strains mentioned above. I would also appreciate very much the realization of your offer of small volumes of antisera for these strains, if still available. The sera would be used to compare these parents with others used in inter-strain crosses, and to characterize progeny of such crosses if they succeed between serologically distinguishable parents, for which other experiments have provided some precedent.

The only other cultural peculiarity worth mentioning for this series is that 26711 was a mixture of maltose-positive and mitabile maltose-negative forms. The former may well be secondary to the latter. I have found quite a few maltose-negative "mitabile" isolates in the course of this work, some of which are so unstable that they would probably usually be recorded as prompt or slightly delayed fermenters in fermentation tests in liquid medium. But I doubt if this is of any more importance than the communis-communior difference.

Yours sincerely,

Joshua Lederberg,
Associate Professor of Genetics