

Columbia University
in the City of New York

DEPARTMENT OF ZOOLOGY

21 February 1946.

Dear Dr. Tatum:

Sorry I missed you yesterday.

Progress Report:

A second method for mutant detection has been worked out, and it seems, and is surefire (except that no de novo mutants have been detected with it yet. It consists simply in plating the mixture of wild type (prototroph) and mutant bacteria into a minimal agar. The prototrophs grow up and form good sized colonies in about 24 hrs. The mutants, by definition, do not grow. Then pour a layer of some complete medium (like Yeast Dextrose Agar) on the plate. (I use about 5-7 ml.) In from 8-12 hours the mutant colonies will appear, and can be distinguished from the prototrophs simply by their size at this time, or by having marked the others at their first appearance. By 24 hrs, the mutant colonies will be good sized and should be pickable. The possible applications of this technique are obvious. It should be possible to add the supplement in liquid form, which may be more convenient.

Sincerely yours,

Joshua Lederberg.

See P-3

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