

February 4, 1977

Dr. Frank Young
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Dear Frank,

I was very glad to see Microbiology 76, which just arrived on my desk, and appears to be an extremely useful conspectus about the present situation in Bacillus subtilis. Of course there are many things that have happened even since the collection of those papers but that is only for the better.

I was particularly glad that you undertook to review the earlier history of the development of biochemical genetics in subtilis. But I was disappointed that you overlooked the initial report by Berkholder and Giles (American Journal of Botany, 34:345-348) 1947 which was the original source of most of the biochemical mutants that were done in the early work on the organism. Charles Yanofsky came to Yale, I believe, in the next year, and certainly picked up his strains from Berkholder and Giles including for the purposes you mentioned of further studies on tryptophan metabolism. The use of subtilis for getting biochemical mutants was to be sure a "me too" kind of thing and was very much under the encouragement of Tatum's previous work.

What you have no way to know is a story that I have to tell on myself: namely that in early 1947 I tried crossing some of these strains, did get a few prototrophs but could not be sure they were not reversions stimulated by cross-feeding of the 2 parental strains and did not pursue the matter any further! I had plenty to do with crossing in those days but would certainly have been excited enough to be able to get into a transforming system. But the only thing I wanted to pass on to you for the record was the Berkholder Giles reference.

Sincerely yours,

Joshua Lederberg
Professor of Genetics

JL/rr