

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF BACTERIOLOGY
BERKELEY 4, CALIFORNIA

November 1, 1951

Dr. Joshua Lederberg
Department of Genetics
University of Wisconsin
Madison, Wisconsin

Dear Josh,

I do not know whether you and Esther have heard about Rita's sudden death about two weeks ago. This is just to let you know that I am bearing up all right and I am taking more interest in our laboratory work than I have for a long time.

We have some very exciting results on non-glycolytic metabolism of glucose and apparently a new mechanism of maltose utilization. I hope to see you this winter since Lardy has invited me to give a seminar. Ed Adelberg is delighted with "velvet bacteriology" and finds it a great help in the search for mutants.

I am very sorry that I have no culture of W-108 left. The man who was taking care of the culture collection left and we have had some confusion in continuing the stocks.

With regard to the glucose negative coli, we have found the cells to contain hexokinase and phosphohexoisomerase in quantities roughly equal to those in the parent strain. These enzymes appear whether the organisms are grown with or without sugars. Since the presence of these enzymes should bring the glucose into the metabolic scheme together with the non-reducing moiety of maltose, there is no explanation on the enzymatic basis for the mutant's inability to use glucose. I therefore feel that the term "glucozymase" should not be used in reference to genetic pattern of the organism. I have reported this at the phosphorus symposium and it will be in print soon.

Now I must ask you for another favor. Since our Associate left, the notes for our advanced course have been lost including your letter for the genetic experiment using 2 strains of K-12. We have in our collection W-1177 and 58-161. Are these the strains you sent us? If not, could you send us the proper strains and could you let us know their characteristics? In addition, we would like a reprint of the method of crossing and their subsequent suggestion which you made about using smaller volumes. Unfortunately I have forgotten the details.

With warmest regards to Esther and yourself, I am

Sincerely yours,



Michael Doudoroff

MD:hls