

CALIFORNIA INSTITUTE OF TECHNOLOGY  
PASADENA

DIVISION OF BIOLOGY  
KERCKHOFF LABORATORIES OF BIOLOGY

May 17, 1955

Dr. Joshua Lederberg  
Department of Genetics  
The University of Wisconsin  
Madison 6, Wisconsin

Dear Dr. Lederberg:

I am sending you a sample of ONPG made by California Research Foundation, who yielded to my repeated requests to make the compound available commercially. Many thanks for the sample you sent me.

Enclosed is a report on some of our work on adaptive enzymes. The details of the scheme have changed, but the basic view is the same, i.e., that the substrate is not necessary for the synthesis but rather for activation or stabilization of the enzyme and that this can occur after synthesis. We believe that we now have a definitive experiment with the  $\beta$  galactosidase system where activation equal to 50% of lactose induced cells can be obtained in the presence of chloromycetin which precludes any effect of the inducer on the synthetic mechanism.

Sincerely,



J. Dubnoff

JD:fw

Encl.