

CALIFORNIA INSTITUTE OF TECHNOLOGY  
PASADENA

KERCKHOFF LABORATORIES  
OF BIOLOGY

May 11, 1948

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

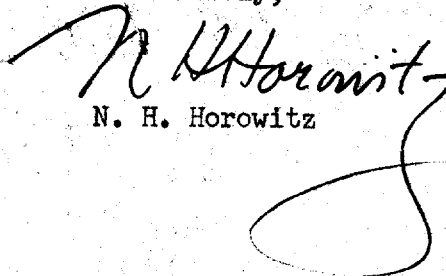
Dear Lederberg:

We have been so busy moving into a new house and having measles in the family that I have barely been able to read my mail, let alone answer it. I am sending you 100 mgs. of L-canavanine sulfate. This is natural canavanine, not synthetic. Concerning F analogs, Mitchell and Niemann have recently published something in the J.A.C.S. I will try to remember to ask Mitchell to send you a reprint of it.

Art Galston told me a little about your current problem, I think, but I regret to say that I have completely forgotten what he said. I don't think I got a complete picture of it anyway. According to the 1:1 hypothesis, each gene in general controls the synthesis of a single enzyme, in a primary way. Based on our present information, I think that at least 75% of the genes in Neurospora are of this type. The hypothesis does not exclude the possibility that 2 or more genes may cooperate in the production of one enzyme; we have no evidence on this question one way or the other. Irwin has something in the "hybrid substance" which I think can be interpreted as a case of antigen specificity under the control of 2 or more genes, although it is probably open to other interpretations also.

I would appreciate receiving your reprints. Give my best regards to Esther.

Yours truly,

  
N. H. Horowitz

jw