

The University of Chicago

CHICAGO 37, ILLINOIS

Institute of Radiobiology and Biophysics

1155 East 57th Street
Chicago 37, Illinois

June 1, 1948

*J. Lederberg
for his information
L.R.*

Dr. S. E. Luria
Department of Bacteriology
Indiana University
Bloomington, Indiana

Dear Luria:

In view of the conversation which we had when you last visited Chicago, you might be interested in the following result: during the last week Nevick and I played around with the K strain of coli used by Lederberg and Tatum. We used a strain 58/161, which requires biotin and methionine, and which in the following I shall designate as "f," and a strain W, which requires threonine, leucine, and thiamin. Both strains were sent to us from Madison by Lederberg.

We prepared the phage resistant mutants f/1; f/6; W/1; W/6; — f/1 and W/1 designate here mutants which are resistant both to phage 1 and to phage 5.

We then made crosses following the prescription given in Lederberg's last paper in Genetics.

First we crossed W/6 and f/1 and picked 57 colonies, out of which 29 were resistant to all three phages 1, 5, and 6; and only one was sensitive to all three phages 1, 5, and 6. The rest of the colonies were resistant either to phage 1 or phage 6. (Sensitivity and resistance to phages 1 and 5 always went together in this experiment.)

Subsequently we crossed W/1 and f/6 and out of 60 colonies picked only 1 was resistant to all three phages 1, 5, and 6; and 30 were sensitive to all three phages 1, 5, and 6. The rest of the colonies were resistant

S. E. Luria

-2-

June 1, 1948

to either phage 1 or phage 6. (Sensitivity and resistance to phages
1 and 5 always went together in this experiment).

If this is not recombination of character, I shall eat my hat.

With kindest regards,

Sincerely,

Leo Szilard

LS:an
cc: M. Delbruck