

June 2, 1959

REPORT ON RESEARCH PROJECTS
for the
FISCAL YEAR 1958-59

I. Name Joshua Lederberg Dept. Genetics Proj. No. _____
Title of project Genetics of Bacteria

II. Personnel: Riley D. Dunn
Y. Hirota
Ann Cook

III. Statement of other financial support, if any, for this project:

NIH 12,000
NSF 7,000

IV. Brief statement of specific progress made during the year:

This project terminated January 31, 1959 with the resignation of Professor Lederberg.

The work done during the fall semester consisted mainly of a consolidation and completion of earlier experiments, and no particularly important new findings came to light. Preliminary evidence was obtained that the male substance of *Escherichia coli* is a ~~carbohydrate~~ carbohydrate, and can be inactivated by oxidation with periodate. Crosses were started between *E. coli* and *Salmonella typhimurium*. A large number of Lac mutants, deficient in β -D-galactosidase were isolated and tested against one another. Most of these are distinct, 'point mutants', some behave like larger deficiencies and have been particularly useful in later studies of the gene-enzyme relationship.

V. Publications that have appeared in print from July 1, 1958 to June 30, 1959.

J. Lederberg 1959 Bacterial Reproduction. Harvey Lectures 1957-58.

VI. Manuscripts accepted for publication but not yet printed:

J. Lederberg 1959 Genes and antibodies. Science
A view of genetics. Les Prix Nobel 1958 (Stockholm).

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