STANFORD MEDICAL CENTER
300 PASTEUR DRIVE
PALO ALTO, CALIFORNIA

STANFORD UNIVERSITY SCHOOL OF MEDICINE
DEPARTMENT OF PEDIATRICS

PALO ALTO-STANFORD HOSPITALS

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July 10, 1961

Dr. Joshua Lederberg
Professor and Head of the Dept. of Genetics
Stanford Medical Center
Palo Alto, California

Dear Dr. Lederberg:

Please accept my thanks for your kindness during the past year in granting me financial assistance to begin my graduate studies in statistics at Stanford. I will probably finish the requirements for a Master's degree within two more quarters, after which I hope to work toward a Ph.D. in either statistics or mathematics. I owe you my gratitude for a very profitable and enjoyable academic year.

Respectfully yours,

Don H. Card

Don H. Card

DHC:ajr

PROGRESS REPORT: GENETICS TRAINING PROGRAM

As a genetics trainee for the academic year 1960-61, a program of graduate study in statistics and laboratory experience in investigative biochemistry was undertaken.

The following course work towards a Master's degree in statistics was satisfactorily completed:

Stat.	110	Statistics for Physical Sciences
	116	Probability
	119	Statistical Inference
	120	" "
Math	114	Matrix Theory
	115	Mathematical Analysis
	116	" "
	131	Partial Differential Equations
	132	" " "

The laboratory work was under the direction of Dr. Schwartz and Dr. Walters in the Department of Pediatrics. The object of this work was to develop a spectrophotometric assay for the enzymic synthesis of heme from iron and protoporphyrin. Although satisfactory differences between the spectra of protoporphyrin and heme were found, the interference from hemoglobin present in the enzyme preparations could not be circumvented. This approach was therefore abandoned until further enzyme purification is achieved.

Subsequent studies dealt with a characterization of the heme synthetase system in six-day-old avian embryo homogenates. This system was found to resemble the mature avian erythrocyte system as regards the effect of heat, optimal hydrogen ion concentration, stability, sulfhydryal inhibitors, and dialysis. It differed from the mature system in the effectiveness of cysteine and globin in stimulating heme synthesis.