

London School of Hygiene and Tropical Medicine

(UNIVERSITY OF LONDON)
INCORPORATING THE ROSS INSTITUTE

TELEPHONE:
MUSEUM 3041 (4 LINES)
TELEGRAMS:
HYGOWER, WESTCENT, LONDON

KEPPEL STREET,
(GOWER STREET)
W.C.1.

DEPARTMENT OF BACTERIOLOGY
AND IMMUNOLOGY:
PROF. E. T. C. SPOONER
PROF. J. C. CRUICKSHANK

6th October, 1953.

Dr. J. Lederberg,
Department of Genetics,
University of Wisconsin,
Madison 6,
WISCONSIN, U.S.A.

Dear Dr. Lederberg,

This is a delayed reply to your letter of the 14th February from Chamblee in which you suggested that I might follow some aspects of Ephrussi's work on the mutagenic action of eufflavine. Last week I had the pleasure of meeting Dr. Ephrussi and discussed with him the points raised in your letter. As a result of these discussions and the catalytic effect of your original suggestion I think the following programme might be worth while:

1. To study action of a selected series of acridines and chemically related compounds for mutagenic activity using K12 and possibly some organisms of the bacillus group. The object would be to determine whether changes can be observed in these organisms similar to those reported by Ephrussi for ^{use}ase. This, of course, would involve study of colonial morphology, possibly cytology and cytochrome and other enzyme systems (e.g. catalase).
2. Should any changes be observed we should be able to interpret these from two points of view - one, the influence of chemical constitution on the changes so induced and, two, an analysis of the genetic basis of such changes by recombination experiments.
3. Again working on the assumption that mutagenic activity will be observed reverse mutation to normal forms may be attempted by reintroducing the intracellular constituents of the normal into the mutant. This might be achieved by using Stocker's findings on the effectiveness of phage

2.

lysed cultures.

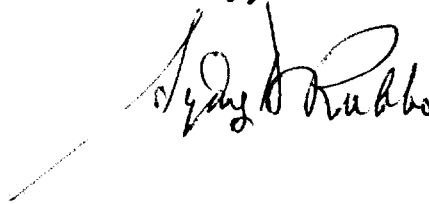
If this programme meets with your general approval I shall do my best to familiarise myself with certain aspects of the problem before leaving London. I am quite keen to embark on investigation of this sort because I think it admirably combines genetic and biochemical investigations and linking these with my own experience on acridines and related compounds.

I hope to start work with you some time between the 6th and 10th December, but will let you know definitely later in November the exact date of my arrival.

I had the great pleasure of meeting Dr. Cavalli, at Rome, who is a quite outstanding person.

Looking forward to my stay at Wisconsin. With best wishes,

Yours sincerely,

A handwritten signature in cursive script, appearing to read 'Sydney D. Rubbo', written in dark ink on a white background.

P.S. I shall be leaving England on November 20th, and will be working at the above address until that date.