

202 Vanderbilt Hall
Harvard Medical School
Boston 15, Massachusetts
December 1, 1960

Dr. Joshua Lederberg
Department of Genetics
Stanford University School of Medicine
Stanford, California

Dear Dr. Lederberg:

I am writing to ask you about the possibility of obtaining a summer research position in your laboratory. I am a sophomore at Harvard Medical School with some experience in biochemical and bacteriological research, and I would like to spend the coming summer investigating an interesting problem in the field of immunology, bacteriology, and/or virology--especially where these overlap in the study of the immune defense mechanisms of the infected organism.

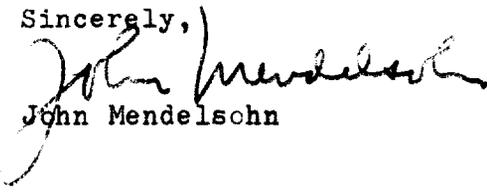
First, as to my background. I graduated with high honors in Biochemical Sciences from Harvard College in 1958. During my senior year I worked under Drs. James D. Watson and Alfred Tissieres on a research project concerned with the ribonucleoprotein particle content of E. coli. The experiments showed that the marked changes in the amount of RNA present in extracts from cells in the various phases of growth are paralleled by similar changes in the amount of RNP particles. This work was published in a Short Communication to Biochim. Biophys. Acta, 35, 248, 1959. During the following year I studied biochemistry under Professor J. N. Davidson at the University of Glasgow, Scotland, on a Fulbright Grant. As a result of this experience, I have had the opportunity to explore a number of research techniques including: paper and column chromatographic separation of amino acids and nucleic acids, tracer studies of protein synthesis in vivo and in vitro, analytical ultracentrifugal study of subcellular components of bacteria, and work on the amino acid requirements of a mouse fibroblast cell in tissue culture. During the past year and a half, I have been especially interested in the chemical regulatory mechanisms of the body, including hormones, neurohumors, and more recently the immune mechanisms. Dr. Byron Waksman at Harvard Medical School has aided me in selecting reading into the problem of antibody synthesis, and the related question of delayed (cellular) hypersensitivity. During this time I have also tried to keep up with the current research on RNA and DNA, especially in the areas of genetic function and protein synthesis.

My plans for the future are to finish medical school, and then to go into a career of teaching and research or practice and clinical research. I feel that by working in a laboratory group which has interests similar to yours, I would be able to gain a great deal of experience in the fields that I am interested in. I know that three months provides a very short time for me to plan and carry out an independent project. Because of this, if you are able to offer me a research grant, I would rather let you suggest a few topics which would fit in with the current research in your laboratory. I have followed with interest the articles recently published by Dr. Nossal

in the Brit. J. Exp. Path., and I would certainly be interested in working with him on a related project if he will still be at Stanford this summer. I am currently planning an experiment with Dr. Waksman involving a passive transfer of labelled immunogenic cells from a tuberculin sensitive animal to a normal one, with the hope of showing that these labelled cells appear at the site of a tuberculin test in the now passively immune animal. This type of experiment has been hindered because of inability to get sufficient tritium labelled-thymine into the right immunogenic cells. There is a lack of information about the types of cells which are involved in the delayed hypersensitive reaction, and when and where they are sensitized--i.e. problems similar to those dealt with in the case of antibody synthesis by Dr. Nossal. But as I have said, I would be interested in working on any project related to the fields I have discussed above.

I would be glad to send you any further information you may require in order to consider this request. I am sure that Dr. Watson, Dr. Tissieres, Professor Davidson and Dr. Waksman would be glad to answer any questions about me if you would like a letter of recommendation. I am looking forward to hearing from you and I hope that I will have the opportunity of working in your laboratory this summer. If you find that this is impossible, I would certainly appreciate any suggestions of other research positions which would be available in these fields.

Sincerely,


John Mendelsohn