

NEW YORK UNIVERSITY—BELLEVUE MEDICAL CENTER
NEW YORK UNIVERSITY COLLEGE OF MEDICINE
550 FIRST AVENUE, NEW YORK 16, N.Y.

DEPARTMENT OF PATHOLOGY

OREGON 9-3200

25 June

Dear Dr. Byilovet:

It's been a long time since you were last in New York and I've been wondering how you have been. Has there been any progress on your grant?

I've missed very much seeing you and discussing things that have come up from time to time. The experiment on the nesting of the handcrafted rabbits turned out promising but not conclusive, and I am regretting it.

Though I would have to wish you ill to invite you to suffer New York's summer climate, I hope to see you before the end of July, when we leave for a month in Wood's Hole.

All the best

Harold Green

Green

WALTER REED ARMY INSTITUTE OF RESEARCH
WALTER REED ARMY MEDICAL CENTER
WASHINGTON 12, D. C.



IN REPLY REFER TO:

21 Aug.

Dear Dr. Szilard:

Yesterday afternoon I wrote formal acceptance of the position of Asst. professor of chemical pathology in Thomas' dept., at \$9,500 per annum.*

I am totally satisfied with that arrangement, and very grateful to you for bringing it about.

I hope to be seeing you in New York, before too long.—

Sincerely
Howard

* salary confidential by request of Thomas

The Quadrangle Club
The University of Chicago
Chicago 37, Illinois
September 14, 1956

Captain Howard Green
Walter Reed Army Institute of Research
Walter Reed Army Medical Center
Washington 12, D. C.

Dear Howard,

What are your plans for taking an apartment in New York? Do you intend to be on the East Side or on the West Side? The house where you lived is being torn down or something -- anyway all the people have to move out.

If you think of taking a large apartment, maybe you could let me have a room in it. Even though my plans are not definitely settled, it seems likely that I shall spend six months a year in New York, and it is likely that we could make some arrangement that would be cheaper and better for me than staying at a hotel. Please drop me a line some time at your convenience about your plans.

I understand everybody is very pleased with your going to New York University, including Bernie Davis who thought that this was an excellent idea.

Sincerely,

Leo Szilard

WALTER REED ARMY INSTITUTE OF RESEARCH
WALTER REED ARMY MEDICAL CENTER
WASHINGTON 12, D. C.



HG/dp

IN REPLY REFER TO: MEDEC-ZI

19 September 1956

Professor Leo Szilard
Quadrangle Club
University of Chicago
Chicago 37, Illinois

Dear Doctor Szilard:

Some time in the next month or two, Rosine and I will go to New York for a few days and while there, look over the apartment situation, but it is doubtful if we will be able to make any sort of arrangement before actually moving to New York in December. I should like very much to have a place within walking distance of New York University. Of course the neighborhood is very shabby but I should be willing to stand that for the privilege of avoiding daily travels. If that is not possible, my next preference would be for a place a short bus ride away. I hope you have somewhat similar inclinations, as I would enjoy our taking a place together. I will get in touch with you as soon as I have some definite possibilities to consider.

I find your theory of isoagglutinin formation very ingenious and I know of no strong evidence against it. But I would like to make these comments:

(1) The development of isoagglutinins in man is quite similar in pattern to the development of so-called natural antibodies formed in many species of animals which react with cellular components of foreign species (heteroagglutinins). It would be surprising if the two phenomena have not a similar mode of genesis.

I do not know of any evidence on the number of antigens involved in heteroagglutinations but there must be at least many dozens of them judging from the variety of animal blood groups. Would you say that the somatic cells, in for example the chicken, would be capable of mutating to form antigens cross reacting with mouse, or rabbit antigens?

(2) Do you postulate that two mutations at two different loci A_2 and B , result in the same gene A_1 ? This seems strange to me. Would it not be simpler to propose that a mutation A_1 which occupies a position close to the locus for A_2 has its expression suppressed if A_2 is present, but is not affected by B which is on a different chromosome?

(3) The theory looks plausible from the quantitative point of view. There may be, say 10^{14} cells in man. Now 10^7 sheep cells injected into a

Professor Leo Szilard

19 September 1956

rabbit will produce a quite strong anti sheep cell antibody response. (It may be that much less than that would suffice, but I cannot find any data on smaller doses.) This would not involve too extravagant a mutation rate. However a mutant of this kind would probably be lethal to the cell before it is fully expressed because of the antibody-antigen reaction which would result. There would therefore be less antigen produced in the body by such mutations than would be introduced in the form of an equal number of normal cells.

I'm looking forward with great pleasure, to our being in New York.
Till then,

Best regards,

Howard

HOWARD GREEN, M.D.
Department of Immunochemistry
Division of Immunology

Green

The Quadrangle Club
The University of Chicago
Chicago 37, Illinois
September 21, 1956

Captain Howard Green, M.D.
Department of Immunochemistry
Division of Immunology
Walter Reed Army Institute of Research
Walter Reed Army Medical Center
Washington 12, D. C.

Dear Howard,

Many thanks for your letter of September 19th. I shall try to keep in touch with you about the apartment problem.

The issue which you raised in your letter under point 1) is interesting, and I would like to discuss it with you. I think I have an answer to this point but there are a few factual questions which I have to raise first.

The point which you raise in your letter under 2) would be fatal for my theory if you were right. However, you do not take into account in this point that the genes A_1 , A_2 , B and O are allelic and occupy the same locus on the two homologous chromosomes. Or am I wrong about this? If so, would you please wire me collect, citing chapter and verse so that I may look it up in the library?

The point which you raised in 3) in your letter, i.e. that the somatic mutations, which I require, would be lethal to the cell, I am not able to accept, and this too I would like to discuss with you when I see you.

With kindest regards,

Sincerely,

Leo Szilard

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DEPARTMENT OF PATHOLOGY

OREGON 9-3200

January 30, 1957

Dr. Leo Szilard
Quadrangle Club
University of Chicago
1155 East 57th Street
Chicago 57, Illinois

Dear Dr. Szilard:

I have asked Dr. Thomas your question about eliciting skin reactions with homologous skin extracts in an animal made immune to that skin by grafting.

He says that both he and Dr. Lawrence (whom you know) have tried to produce such reactions, but without success. Thomas himself has used not only extracts of the tissue, but cell suspensions prepared by ~~some~~ disintegration, or with trypsin; Lawrence has tried extracts on the homografted human, which seems the most likely animal, but also without success. Thomas knows of no published work—either on successful or unsuccessful attempts to do this, but believes that many people must have tried and failed.

I hope the Westerly Winds will soon bring you back to New York.

Best regards,

Howard

February 4, 1957

Dr. Howard Green
Department of Pathology
Medical College
New York University
31st Street and First Avenue
New York City

Dear Howard,

Attached you will find a memo dated February 1st. I wonder how the experiment proposed in it appeals to you and whether you think we could do it at your place. My inclination is to give it high priority -- perhaps above every other experiment that might be planned -- and I wonder how you would feel about it. Perhaps you see some snags which I do not see and which cannot be eliminated so easily by adding further control experiments. I should also like to know if possible what Dr. Thomas thinks of the experiment.

Your letter transmitting Dr. Thomas' experience with skin tests on "intolerant" individuals was gratefully received by me. Please transmit to Dr. Thomas my thanks for the information.

Yours,

Leo Szilard