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APRIL 14, 1947

Professor Linus Pauling
California Institute of Technology
Pasadena, California

Mrs. Fry suggests that you talk in Portland on peacetime applications of atomic energy as you intended to do in San Francisco. Harrison Brown will then talk about the role of the scientists and the Emergency Committee. I agreed with suggestion and have forwarded it subject to your approval to Max Wood. Regards. ←

Leo Szilard

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BULLETIN OF THE ATOMIC SCIENTISTS

1126 EAST FIFTY-NINTH STREET

CHICAGO 37, ILLINOIS



MIDWAY 0800 EXTENSION 1785
MIDWAY 10052

October 4, 1947

Professor Linus Pauling
Department of Chemistry and Chemical Engineering
California Institute of Technology
Pasadena, California

Dear Pauling:

I was doing a little biology this summer, and when I got to New York City about the middle of August, the symptoms of the present strained political situation struck me with full force.

I am enclosing the manuscript of an article entitled "Letter to Stalin" and a copy of a letter which I have written to Secretary Marshall. Both have been submitted to the BULLETIN for publication.

I wonder whether you could find time to read the article and to scrutinize the letter addressed to Marshall.

The present plan is to have the article and the letter to Marshall printed in the next issue of the BULLETIN, which should appear around the 28th of October. Advance copies are being sent to a number of people by the BULLETIN with a request of commenting on it. The comments would be, if possible, printed in the same issue of the BULLETIN.

It is felt that if this article were accompanied by good comments on the part of persons whose voice carries weight, the chance that the article might have a good effect would be considerably increased. It is not expected that all people who have been asked to send in comments will be in a position to say that they approve of the contents of the article. Comments which would draw attention to the seriousness of the situation would also be helpful and could by implication express approval of the decision to write such an unusual article and to take such an unusual step as writing the letter to Marshall.

If you feel you can make some comment which might be useful if published, please address it, either in the form of a letter or a telegram, to the BULLETIN OF THE ATOMIC SCIENTISTS. They would presumably be in a position to have it printed in the same issue. Such comments ought to be received, if possible, by October 10 and not later than Monday, October 13.

I would, of course, be very much interested also in any private comments you might care to make and which you may send to me directly.

Very sincerely yours,

Leo Szilard

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA 4

GATES AND CRELLIN LABORATORIES OF CHEMISTRY

February 1, 1950

Dr. Leo Szilard
1155 East 57th Street
Chicago 37, Illinois

Dear Leo:

I have been very much disturbed by the developments about atomic weapons, as described in the newspapers recently. I was especially disturbed by the statement that Urey issued - that the solution of the problem that faces the world now is for the United States and other western nations to make hydrogen bombs, and become so strong that they can rule the whole world, forcing the eastern nations into submission. I myself do not believe that this is the solution.

The last meeting of the Emergency Committee indicated to me that there is not much use in trying to get the Emergency Committee to take action. Accordingly I am writing to find out whether you think that we could go ahead and do something effective independently of the Emergency Committee. What would you think about formulating a set of questions, asking whether it would not be possible to bring law and order into the world as a whole, through cooperation between the east and the west in a sincere effort to reach a peaceful solution of our problem - to achieve a permanent peace, after the east and west have reached a reasonable and equitable decision about world affairs, permitting them to march together side by side toward a glorious future. These questions would then be sent in a letter to President Truman and Premier Stalin, the letter being signed perhaps by Einstein and two or three others, as well as by you and me. Do you think that Einstein would be willing to sign such a letter? Who else do you think should be asked to sign it? What questions do you think should be included in the letter?

I have in mind a short letter, not so long as the one you wrote. I believe that it should be short enough to be quoted by all newspapers.

I shall look forward to hearing from you.

Best regards,



Linus Pauling:W

1155 East 57th Street
Chicago 37, Illinois
February 8, 1950

Dr. Linus Pauling
California Institute of Technology
Pasadena 4, California

Dear Linus:

Upon my return from the East yesterday, I received your letter of February 1. Naturally I am also very disturbed by the developments.

I have been discussing with Einatein, Wiesskopf, Harry Brown, and Joe Mayer the possibility of forming a group of scientists who agree on certain major basic premises and who could be active in exploring the possibility of an overall East-West settlement. Wiesskopf and Mayer were in favor of a new organization rather than a reorganization of the Emergency Committee. If the latter solution were adopted, it would involve the dropping of Uhrey, and possibly also Seitz. If you have any opinion on this, please let me know.

I understand that you are going to talk in New York on the 13th. If I am in New York at that time, I would very much like to see you. Could you possibly call University 4-2700, the King's Crown Hotel where I shall stay if I am in New York?

2 - Dr. Linus Pauling - February 8, 1950

As to your suggestion of a letter to President Truman and Premier Stalin, this proposal would make me enthusiastic if we were successful in formulating a proposal that both the United States and Russia would accept as a basis of negotiation. Our question to Truman and Stalin would be then whether he would consider this proposal as a satisfactory basis of negotiation provided that the other party would so consider it. The question is, are we able to draw up in a short statement embodying the points upon which negotiations could be hopefully based. In this connection perhaps you will find time to read the article which I wrote for the January issue of the Bulletin and which I enclose for your convenience. (Incidentally the February issue of the Bulletin contains an article by me which might amuse you). Please let me know any further thought that you have in this general area.

Sincerely,

Leo Szilard

P.S. If I am not in New York on the 13th, but if you come through Chicago on your way East or West and have time, please try to get hold of me. I now live at the Quadrangle Club, Hyde Park 3-8601, and you can leave a message there for me to call you back. Otherwise, you might also catch me at extension 61, Butterfield 8-4800, or extension 1233, Midway 3-0800.

CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA

4

February 20, 1950

Dr. Leo Szilard
1155 East 57th Street
Chicago 37, Illinois

Dear Leo:

I am sorry not to have had your letter in New York, and accordingly not to have tried ^{to get} you at the King's Crown Hotel. I went to see Einstein on the twelfth, and had a good talk with him. He said that he felt that he and I agreed nearly completely in our opinions. He also said that there was no chance of proceeding with the Emergency Committee so long as Urey was a member, but that he did not want himself to ask Urey to resign. He seemed to think that it was up to the other members to request his resignation.

I do not know the advantages or disadvantages of forming a new organization rather than reorganizing the Emergency Committee. I agree with you that Urey, and possibly also Seitz, would have to be dropped, if the Emergency Committee were to be reorganized. Please let me know what progress is made.

When I get an extra copy of my speech, I shall send it to you. The principal point that I made in my talk is that the question of peace or war has now become so important as to over-shadow all other questions - it is of a far greater order of magnitude than anything else.

I shall be coming east again one month from now.

Cordially yours,



Linus Pauling:W

CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA

4

HIS-A

February 20, 1950

Dr. Leo Szilard
1155 East 57th Street
Chicago 37, Illinois

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I shall be coming east again one month from now.

Cordially yours,



Linus Pauling:W

March 15, 1950

Dr. Linus Pauling
California Institute of Technology
Pasadena, California

Dear Pauling:

I believe I asked you whether you could come to Chicago to a meeting from March 31 to April 2. We found it impossible to arrange this meeting since those whom we wanted most were not free at that time. I thought I would let you know so that you wouldn't keep your time unnecessarily free for that period.

I am back at Chicago and giving my main attention to the implementation of the resolution adopted at the Princeton meeting. I shall keep you informed of the developments.

Sincerely,

Leo Szilard

WV

1155 East 57th Street
Chicago 37, Illinois
March 30, 1950

Dr. Linus Pauling
California Institute of Technology
Pasadena 4, California

Dear Pauling:

I am sorry to see from your letter of March 27 that you did not get my letter dated March 15 in which I explained to you that we found it impossible to hold the meeting which we planned to hold in Chicago from March 31 to April 2.

I hope you have a pleasant time in Texas, and I shall try to keep you informed of what's happening. Enclosed you will find a memorandum containing the points of view that I presented in Princeton. I wrote it up in this form in order to be able to transmit these thoughts to such other persons as we might approach.

With kind regards--

Sincerely,



Leo Szilard

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA 4

GATES AND CRELLIN LABORATORIES OF CHEMISTRY

May 15, 1950

Dr. Leo Szilard
1155 East 57th St.
Chicago 37, Illinois

Dear Leo:

Dr. Ernest Caldecott, 1058 South Gramercy Place, Los Angeles 6, California, who is Minister of the All Souls Unitarian Church in Santa Monica, and whom I have known for several years, came in to see me Saturday. He had a proposal to make about a Conference on Peace.

In talking to him about his proposal, I mentioned the plan that you are working on. I believe that he will write to you about it.

The principal point about this letter is that I found out from talking with him that he probably could give us the names of some local people who would contribute to the support of the plan. He said they are people who would not support his own peace activities, but who would, he thinks, be interested in our project.

Perhaps it will be worthwhile to discuss this question with him later on this summer, and to approach the people that he thinks are likely prospects.

Sincerely yours,



Linus Pauling:ph

1155 East 57th Street
Chicago 37, Illinois
May 19, 1950

Mr. Linus Pauling
California Institute of Technology
Pasadena 4, California

Dear Pauling:

Thanks for your letter of May 15 which we are going to pursue. Enclosed is a collection of documents, some of which you may have seen, which will give you some idea of what kind of response we get.

Sincerely,

Leo Szilard

wv

1155 East 57th Street
Chicago 37, Illinois
January 11, 1951

Dr. Linus Pauling
Gates and Crelin Laboratories of Chemistry
California Institute of Technology
Pasadena 4, California

Dear Linus:

Many thanks for your very kind letter of December 29.
Novick will be very happy to give the talk in Jamaica if he
hears from Taylor in time to be able to arrange it.

I might be out West in February some time after the
12th, and if I am, I would certainly visit Cal Tech for a
day or two.

With kind regards--

Sincerely,

Leo Szilard

WV

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA 4

GATES AND CRELLIN LABORATORIES OF CHEMISTRY

January 16, 1951

Dr. Leo Szilard
1155 East 57th Street
Chicago 37, Illinois

Dear Leo:

I am glad to hear that you are planning to be out west some-
time in February ~~some time~~ after the twelfth. I myself am to be
away until the evening of Wednesday, February 14, but I shall be in
town during the second half of the month.

We shall look forward to seeing you at the California Institute
of Technology. Would it be possible for you to give a seminar talk
while you are here? Also, would you like to have reservations made
for you at the Athenaeum?

If you can give a seminar talk, please let us know the title
and the time (the day) a week ahead of the time of the talk itself,
so that we can get it on the calendar. Our regular chemistry semin-
ars are usually given at 4:30 on Wednesdays, and Wednesday the 14th
would be satisfactory, except for my absence from Pasadena. Wednes-
day the 21st would be fine. On the other hand, the talk could be
scheduled for any other day in the week, if that fitted in with your
plans.

Sincerely yours,



Linus Pauling:W

1155 East 57th Street
March 9, 1951

Dr. Linus Pauling
Department of Chemistry
California Institute of Technology
Pasadena, California

Dear Linus:

I had to postpone my trip West and I shall have to go East before I can go West. I still hope to get out there and shall write you when my schedule is more definite.

With kind regards,

Sincerely,

Leo Szilard

LS/sds

1155 East 57th Street
Chicago 37, Illinois
January 19, 1951

Dr. Linus Pauling
Gates and Crellin Laboratories of Chemistry
California Institute of Technology
Pasadena 4, California

Dear Pauling:

Many thanks for your very kind letter of January 16. I shall be very happy to give a talk in your seminar, and I shall let you know alternative dates as soon as I know what my schedule is.

Sincerely,

Leo Szilard

wv

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA 4

GATES AND CRELLIN LABORATORIES OF CHEMISTRY

31 January 1957

Mr. Cass Canfield
Harper and Brothers
49 East 33rd Street
New York 16, N.Y.

Dear Mr. Canfield:

I have read with much interest your letter of 14 January and the letter to you from Dr. Szilard, the memorandum of 11 January from Drs. Doering and Szilard, and the appendix to the memorandum by Dr. Szilard.

I believe that there is real need for a larger amount of basic research on biological and medical problems than is carried out at present, and especially for research in these fields by men who are able to attack the problems in an unconventional way. I like the plan for a Research Institute for Fundamental Biology and Public Health, set up to encourage original and unconventional sorts of investigations. I feel also that the plan for an Institute for Problem Studies is a good one. In particular, I believe that there will be significant advantage to having a group of Affiliate Members selected from people such as those listed on the sheet accompanying your letter, and to having half of the members of the boards of trustees selected from these Affiliate Members.

I am sure that there will be great progress in biology and medicine during the next few decades. The effective application of chemistry and physics to biological and medical problems is a matter of rather recent years. Experience has shown that when a new method of attack becomes available, progress often results from setting up a new institution. The success of the Rockefeller Institute for Medical Research during the first few decades of its activity is an example.

Biological and medical problems are extremely complicated and difficult to attack. The Institute for Problem Studies might well attack some important problem, with the hope of making a significant contribution to its solution in perhaps five years, and find that at the end of five years there had been very little progress. Nevertheless, there are many problems of great importance to the world, such as those discussed by Dr. Szilard, that need to be attacked in a vigorous way, even though the chance for solution is only a small one.

I shall look forward to hearing about the progress of the project, as time goes on.

Sincerely yours,

Linus Pauling:W
cc: Dr. Szilard
Dr. Harrison Brown



CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA

31 January 1957

Mr. Cass Canfield
Harper and Brothers
49 East 33rd Street
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I shall look forward to hearing about the progress of the project, as time goes on.

Sincerely yours,

Linus Pauling W
cc: Dr. Szilard
Dr. Harrison Brown

February 4, 1957

Dr. Linus Pauling
Gates and Crellin Laboratories of Chemistry
California Institute of Technology
Pasadena 4, California

Dear Pauling,

Many thanks for sending me a copy of your letter to Canfield, dated January 31, 1957, and I am very happy to see from it that you have given the matter considerable thought.

There was one point which was apparently not clear in the memorandum and led you to misunderstand the intention - which is as follows: The Institute for Problem Studies is not meant to operate for only five years, but is meant to be just as permanent as The Research Institute for Fundamental Biology and Public Health. The only difference is this: The first institute, since it does not have to give tenure, does not have to have an endowment but can operate on the basis of donations which are spendable in five years, the assumption being that such donations will be forthcoming again and again.

Among the reasons for having two institutes which are not sufficiently stressed in the memorandum is the thought that a certain kind of money - the kind which is likely to go for endowments - would shy away from anything controversial, and this kind of money could go to the Research Institute whereas another kind of money, which may be available for more controversial activities, is not available for endowment purposes. Some foundations and individuals are reluctant to give an endowment and want to have the funds which they donate spent within five to ten years.

I understand that Mr. Canfield is trying to arrange a meeting late in February in Pasadena, and I hope very much to see you on that occasion or, if this plan does not go through, to see you anyway somewhere in the near future.

With kind personal regards,

Sincerely,

Leo Szilard

m

See file

May 27, 1957

Dr. Linus Pauling
Gates and Crellin Laboratories of Chemistry
California Institute of Technology
Pasadena 4, California

Dear Pauling,

I was very much interested in the proposed resolution which you sent me. I refrained from signing it for what seem to me to be good and valid reasons, which I hope to tell you about when I see you. There is just a slim chance that I might fly out to Pasadena within the next three weeks, and I was wondering when you are leaving on your extended trip to Europe.

A few days ago I have written to Bertrand Russell, accepting his invitation to attend the meeting in Canada between July 8th and 11th, and I coupled it with a strong plea to extend the scope and duration of the meeting. I was sorry to hear that you will be in Europe at that time and have therefore declined to attend.

Sincerely,

Leo Szilard

Canfield

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA

GATES AND CRELLIN LABORATORIES OF CHEMISTRY

18 October 1957

Dr. Leo Szilard
The Enrico Fermi Institute for
Nuclear Studies
The University of Chicago
Chicago 37, Illinois

Dear Leo:

I do not like the proposals in your letter of 2 October. First, let me say that it does not seem to me that you should feel that funds cannot be raised in the United States; it is not easy to raise a large sum of money, and it is necessary that a well thought out plan for use of the money be prepared, and that the people who are to provide it be convinced that it will be wisely used. The job is one that will surely take considerable time. Second, I doubt that the money could be obtained from China, Russia, and India, as you propose. I should think that the governments of these countries would have considerable difficulty in convincing their people that an action of this sort was wise.

Perhaps the Institute should start in a more modest way than we have been considering. We could hope that it would grow after it has shown what it can do.

I shall look forward to hearing from you after your return from Europe.

Sincerely yours,

Linus

Linus Pauling:w
cc: Mr. Canfield
Dr. Doering, Dr. Brown
Dr. Lippmann, Dr. Muller

ack'd



file: memoirs

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PROFESSOR LINUS PAULING
CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA CALIFORNIA

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because of beneficial effects of your
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Leo Swind*

I request that the above telegram may be forwarded subject to the conditions printed on the back of this form to which I agree.

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CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA

GATES AND CRELLIN LABORATORIES OF CHEMISTRY

25 January 1960

Professor Leo Szilard

Dear Leo,

Dr. Howard Green has been kind enough to send me the copies of your two new papers, as you had requested, and I have read them with much interest.

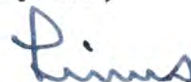
I have never made a thorough study of the problem of induction of enzyme formation, and for this reason it is not possible for me to speak very significantly about your first paper. I agree with you that it is possible that an organism might have such a nature as to permit, for a particular enzyme, the enzyme level to be either low or high, and I think that it is well worth while for you to have made your analysis of the problem, permitting you to reach this conclusion.

On the other hand, I remain pretty skeptical about the application of this idea to antibody formation, although something of this sort is without doubt involved in the manufacture of gamma globulin or other antibody precursors. I think that experimental results obtained during the last twenty years have not changed the situation very much from that which existed in 1940, the time of publication of my paper on a theory of the structure of antibodies and the nature of serological reactions. I still feel that the antigen molecule or a portion of it containing the hapten serves as the template for the combining regions of the antibody molecules, and that special enzymes or genes are not involved in the manufacture of different antibodies. The ability of the rabbit to manufacture antibodies against a haptenic group seems to be determined by the chemical nature of the haptenic group, and not to show the hit-or-miss character that might be expected in case that different genes and enzymes were required for different antigens. Moreover, it seems to me inexplicable on the basis of the non-template idea that animals should be able to manufacture highly specific antibodies against haptenic groups that do not occur in nature, and that do not resemble closely molecules that occur in nature. Moreover, if different genes are involved in the manufacture of different antibodies, we would expect that the amino-acid composition and sequence for the different antibodies would in general be different, whereas in fact they are found to be the same, to the extent that they have been investigated.

I have published about a dozen papers on antibodies, mainly the discussion of experimental work carried out in our laboratory, but the reprints are exhausted. I have, however, found an extra copy of my first paper, which I enclose.

With best regards, I am

Sincerely yours,



Linus Pauling: jh

Professor Leo Szilard
Page 2
25 January 1960

P.S. Please let me know what you think about the arguments that I have given above, in particular, the one about constancy of amino-acid composition and sequence.

Ava Helen joins me in sending best wishes to you.

L. P.