CZECHOSLOVAK ACADEMY OF SCIENCE
INSTITUTE OF MICROBIOLOGY
Na cvičišti 2, Prague 6 - Dejvice

Prof. Leo Szilard
The Research Institutes
University of Chicago
C h i c a g o 37
Illinois

December 9, 1963

Dear prof. Szilard,

Having visited WHO in Geneve last week I was informed by Dr.Trnka, that you are interested in our Symposium on Molecular and Cellular Basis of Antibody Formation.

We should appreciate very much your participation and we will cover your stay expenses during the Symposium. We beg to enclose the preliminary programme and the list of participants, which will be somewhat changed and completed.

We should be glad if you wish to express your contemporary ideas on mechanism of antibody formation. Your contribution would be included into the topic VI - Theories on mechanisms of Antibody formation. If your participation is possible and if you wish to take part in the programme, please, let us know the title of your communication; we think that 15 or 20 min. will be sufficient time for presentation of the results, considering the fact that the printed communications given to the participants before the Symposium will not be limited.

In these days the final programme is being prepared and therefore we beg to ask you for the title of your communication as soon as possible.

Looking forward to have the opportunity to meet you in Prague,

Yours very sincerely,

Jaroslav Šterzl

Dr. J. Šterzl
Head, Immunological Dept.

Programme of the Symposium on
"Molecular and Cellular Basis of Antibody Formation"
Prague, June 1 - 5, 1964

I. Nature of antigenicity

II. Characterization of antibodies
   1. Structure of the antibody molecule and antibody combining site
   2. Genetic determination of peptide chains of antibodies
   3. Heterogeneity of antibodies

III. Morphological basis of antibody formation
   1. Histogenesis of lymphatic tissues
   2. Immunologically competent cells and their differentiation

IV. Inductive phase of antibody formation
   1. Genetic factors and antigenic stimuli in induction of antibodies; natural antibodies
   2. Studies on the onset and dynamics of antibody formation in different systems (on isolated cells, in ontogeny, phylogeny, etc.)
   3. Nucleic acid metabolism during the induction of antibody formation

V. Nature of the secondary response in antibody formation

VI. Theories on the mechanism of antibody formation

List of the invited scientists who acknowledge their participation in the Symposium on Molecular and Cellular Basis of Antibody Formation

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J.F. Albright	...	Oak Ridge National Laboratory, U.S.A.
B.A. Askonas	...	Nat.Inst.Med.Research,Mill Hill,London
B. Benacerraf	...	New York University
K. Berglund	...	Statens Bakteriol. Lab., Stockholm
S. Boyden	...	Australian Nat.University, Canberra
F.M. Burnet	...	Walter & Eliza Hall Inst., Melbourne
J.J. Cebra	...	University of Florida, Gainesville
A.H. Coons	...	Harvard Medical School, Boston, U.S.A.
F.J. Dixon	...	Scripps Clinic, La Jolla, California
S. Dray	...	N.I.H., Bethesda, Maryland, U.S.A.
G.M. Edelman	...	The Rockefeller Institute, New York
J.L. Fahey	...	N.I.H., Bethesda, Maryland, U.S.A.
M. Fishman	...	Public Health Res.Inst., New York
E.C. Franklin	...	New York University
A.Ya.Fridenstein	..	Institut im. Gamaleia, Moscow
P.G.H. Gell	...	University of Birmingham, England
R.A. Good	...	University of Minnesota, U.S.A.
J.L. Gowans	...	Sir W.Dunn School of Pathol., Oxford
P. Grabar	...	Institut Pasteur, Paris
A.E. Gurvitch	...	Institut im. Gamaleia, Moscow
J.H. Humphrey	...	Nat.Inst.Med.Research, Mill Hill,London
N.K. Jerne	...	University of Pittsburgh, U.S.A.
E.A. Kabat	...	The Columbia University, New York
F. Karush	...	University of Pennsylvania, U.S.A.
A.Ya. Kulberg	...	Institut im. Gamaleia, Moscow
M. Landy ≠	...	N.I.H., Bethesda, Maryland, U.S.A.
C. Lapresle	...	Institut Pasteur, Paris
T. Makinodan	...	Oak Ridge National Laboratory, U.S.A.
J.F.A.P.Miller	...	Chester Beatty Res.Inst., London
R.S. Nezlin	...	Inst.Rad.& Physic.Chem.Biol., Moscow
J. Nossal	...	Walter & Eliza Hall Inst., Melbourne
R.R. Porter	...	Wright-Fleming Inst. of Microb., London
M. Sela	...	Weizmann Institute, Rehovoth
A.M.Silverstein	...	Armed Forces Inst.of Pathol. Washington
S.J. Singer	...	University of La Jolla, Calif., U.S.A.
R.T. Smith	...	University of Florida, Gainesville
J.B. Solomon	...	Chester Beatty Res.Inst., London
A.B. Stavitsky	...	Western Reserve University Cleveland
G.J.Svet-Moldavski.		Institut Onkologii, Moscow
D.W. Talmage	...	University of Colorado, Denver, U.S.A.
G.J. Thorbecke	...	New York University
M. Tumanian	...	Institut im. Gamaleia, Moscow
J.W. Uhr	...	Irvington House Inst.New York University
B. Waksman ≠	...	Massachusetts General Hospital,Boston
R.G. White	...	The London Hospital
L.A. Zilber	...	Institut im. Gamaleia, Moscow

≠ participation is not yet sure

CZECHOSLOVAK ACADEMY OF SCIENCE
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Prague 6, Na cvičišti 2
Czechoslovakia

experiment

Circular No. 2

General Information

In the enclosure you will find the provisional scientific programme.
The participants who have not yet sent titles of their contributions are asked to send them immediately.
The official language of the Symposium will be English (please, prepare your presentations in English, if possible). If necessary, papers and discussions will be translated.
Facilities will be available for projecting slides of all standard dimensions.
If anyone intends to use film, please let us know all the technical details.

The time for presentation of each paper is limited to 15 minutes. The length of the manuscript for publication, however, is not limited.
The Organizing Committee is planning to have available the complete text of all the contributions to all participants immediately upon their arrival. We hope that this will enable the discussions to be kept at a high level. The manuscripts, therefore, must be submitted to us no later than April 30, 1964.
The text will be used for publication in the Proceedings. Therefore, please, write the bibliography uniformly. References should be as follows:

1. Coons A.H.: Ann.Rev.Microbiol. 8 : 333, 1954.
2. Heidelberger M.: in Proc.Fourth Int.Congr.Biochem., Vienna 1958, Pergamon Press, London 1 : 52, 1959.

3. Landsteiner K.: The Specificity of Serological Reactions, 2nd edition, Harvard University Press, Cambridge, Mass. 1945.
4. Osler A.G., Immunopathology, 1st Internat.Symp., Basel/Seelisberg, p. 227, 1958.

The Organizing Committee will supply without charge a copy of the Proceedings to every participant of the Symposium as soon as they appear.

We wish to remind you that you should apply for a visa at the Czechoslovak Embassy in your country in advance.

Accomodations for the participants in Prague are reserved beginning June 30th, 1964 in the hotel International. Please, let us know the expected arrival date to Prague.

Provisional programme

31.5.1964
afternoon - sightseeing tours of Prague
Evening party

1.6.1964
10.oo - Opening of the Symposium at the Institute of Microbiology, Prague - Krč
13.oo - Lunch at the Institute
afternoon - Visit of the Microbiological Institute

Departure for S l a p y where the Symposium takes place, June 2nd - 5th, 1964.
Slapy is the recreational center about 30 km south of Prague. The place is among woods near a dam on the river Vltava with good transportational facilities to Prague. Complete accomodation for the participants is reserved there.

The Organizing Committee will arrange social activities in the evenings, cultural programme and excursion into the country of Southern Bohemia.
In the beginning of June the weather normally enables swimming, boating and other sports. The site of the Symposium was chosen with these recreational possibilities in mind for the participants to enjoy after the conference hours.

Return to Prague on Saturday morning, June 6th, 1964.

Scientific Programme

Opening of the Symposium: Academician Ivan Málek

Sir Macfarlane Burnet - Introduction on general biological basis of antibody formation.

John Humphrey - Introduction on contemporary aspects of antibody formation

I. Nature of antigenicity

1. Ada G.L. and Nossal G.J.V.: Studies on the nature of antigenicity employing bacterial proteins of different molecular weights.
2. Sela M. and Fuchs S.: On the role of charge and optical configuration in antigenicity.
3. Benacerraf B.: Studies on the nature of antigenicity with artificial antigens.
4. Plescia O.J.: Nucleic acids as antigens.

II. Characterization of antibodies

a) Structure of the antibody molecule and antibody combining site:

1. Fahey J.L.: Heterogeneity of human immunoglobulins and heterogeneity of immunoglobulin polypeptide chains.
2. Kulberg A.J.: Study of the submolecular structure of antibodies in connection with the heterogeneity of immune gamma globulin.
3. Press E.M. and Porter R.R.: Some aspects of the chemical structure of gamma-globulins.

4. Cebra J.J.: Some properties of reductively fragmented γ_2 and γ_{1M} immune globulins.
5. Edelman G.M.: Correlations between the structure and the specificity of antibodies.
6. Franěk F., Kotýnek O., Šimek L and Zikán J.: Properties of S-sulphonated antihapten antibodies.
7. Karush F.: Subunits of purified antibody.
8. Singer S.J.: Studies of antibody combining sites by affinity labeling.

b) Genetic determination of peptide chains of antibodies:

1. Dray S.: Immunogenetics of γ-globulin.
2. Franklin E.C.: The structure and genetic control of the peptide chains of human γ-globulins.
3. Gell P.G.H. and Kelus A.S.: The allotypic determinants of rabbit γ-globulin, its fragments and antibodies.

c) Heterogeneity of antibodies:

1. Benacerraf B.: The heterogeneity of antibodies in relation to immunological specificity and biological activity.
2. Sehon A.: Heterogeneity of antibodies in sera of allergic individuals.
3. Robbins J.: Comparative biological activity of immunoglobulins.
4. Říha I.: Formation of antibodies of the 7 and 19 S type after immunization with heterologous serum proteins.

III. Morphological basis of antibody formation

a) Histogenesis of lymphatic tissue

1. Lemež L. and Rychter Z.: The absence of immunologically competent cells in self-differentiating yolk-sack-mesenchyme without circulation in hen's egg.

2. Svet-Moldavski G.J.: The interaction of thymus and lymph nodes in the development and realization of immune processes.
3. Waksman B.H.: A title not yet received.
4. Fridenstein A.J.: A title not yet received.

b) Immunologically competent cells and their differentiation:

1. Good R.A.: Morphological studies of the ontogenesis and phylogenesis of immunologic competence.
2. White R.G.: A title not yet received.
3. Gowans J.L.: Antigen-induced differentiation of small lymphocytes.
4. Holub M. and Říha I.: Immunological competence of different stages of lymphoid cell.

IV. Inductive phase of antibody formation

a) Onset of antibody formation:

1. Boyden S.: The occurence and significance of natural antibodies.
2. Landy M.: Formation of macroglobulin antibodies in response to "natural" and overt stimulation with somatic polysaccharide complexes.
3. Silverstein A.M.: Fetal human and lamb response to antigenic stimulus.
4. Šterzl J., Mandel L., Miler I. and Říha I.: Development of immune reactions in absence and presence of antigenic stimuli.
5. Solomon J.B.: The nature of the immune mechanisms in the young chick.

b) Dynamics of antibody formation in different systems:

1. Berglund K.: Studies on the inductive phase of antibody formation: Effects of corticosteroids and lympoid cells.

2. Smith R.T.: Response to various antigens in the lethally irradiated repopulating rabbit.
3. Tumanian M.: Formation of antibodies after homotransplantation of immunologically competent cells.
4. Albright J.F. and Makinodan T.: Dynamics of expression of competence of antibody-producing cells.
5. Jerne N.K.: Studies on the primary cellular immune response in mice.
6. Šterzl J.: The inductive phase of antibody formation studied with isolated cells.

c) The role of nucleic acids in antibody formation:

1. Askonas B.: A title not yet received.
2. Fishman M., Adler F.L. and van Rood J.J.: RNA and in vitro antibody synthesis.
3. Gurvich A.E.: The significance of repressive factors in inductive phase.
4. Braun W.: Influence of cell breakdown products on antibody synthesis.

V. Nature of the secondary response in antibody formation

1. Coons A.H.: The nature of the secondary response in antibody formation.
2. Dutton R.W.: Studies in the mechanism of antigenic stimulation in the secondary response.
3. Dixon F.J.: A title not yet received.
4. Thorbecke G.J.: Radiation effects and studies in vitro in the evaluation of the possible role of secondary nodules in the preparation for a booster response.
5. Stavitsky A.B.: Cellular origins of various antibody globulins during primary and secondary responses.

6. Uhr J.W.: In vitro antibody formation to bacteriophage T_2.
7. Nezlin R.: Changes in molecular weight of antibodies synthesized in tissue culture after second immunization.

VI. Theories on the mechanism of antibody formation

1. Grabar P.: The hypothesis of the carrier-globulins.
2. Talmage D.W.: The nature and mechanism of immunologic memory.

The Organizing Committee will appreciate any of your comments to the scientific programme.

May 8, 1964

Dr. J. Sterzl
Czechoslovak Academy of Science
Institute of Biology
Prague 6, Na Cvicisti 2
Czechoslovakia

Dear Dr. Sterzl:

I have delayed answering your kind invitation contained in your letter of December 9 up to now because I had hoped to be able to arrange to participate in your meeting. However, this turns out to be impossible. I have just shifted my residence to La Jolla, California and I am in the process of getting settled here. I find that I cannot interrupt what I am doing at present and thus, to my regret, have to forego participating in your meeting.

You have an excellent list of participants and I hope you will have a very successful meeting

With kind regards.

Yours sincerely,

Leo Szilard

LS:jm

cc: Dr. Trnka