International Symposium: The Blood Platelets
INTERNATIONAL SYMPOSIUM
THE BLOOD PLATELETS
March 17, 18, 19, 1960

The professional staff of the Henry Ford Hospital with the initial advice and support of the Board of Trustees and Dr. Robin C. Buerki, Executive Director of the Henry Ford Hospital, is sponsoring an international symposium on the subject The Blood Platelets. This symposium was held at the Henry Ford Hospital, March 17, 18, and 19, 1960, in the Clinic Auditorium. The program follows and has been prepared with the help of the advisory members:

PROGRAM COMMITTEE

ADVISORY MEMBERS:

Advisory Chairman
Walter H. Seegers
Professor, Chairman of the Department of Physiology and Pharmacology, College of Medicine, Wayne State University, Detroit, Michigan.

C. Lockard Conley
Professor of Medicine School of Medicine, The Johns Hopkins University, Baltimore, Maryland.

Kenneth M. Brinkhous
Professor, Chairman of Department of Pathology, School of Medicine, University of North Carolina, Chapel Hill, North Carolina.

Carl V. Moore
Professor, Chairman of Department of Medicine, College of Medicine, Washington University, St. Louis, Missouri.

LOCAL MEMBERS:

Robert C. Horn, Jr. Shirley A. Johnson, Chairman
Raymond W. Monto
John W. Rebuck
International Symposium

PROGRAM

First Day — Thursday, March 17, 1960

Morning Session

8:50 A.M. Remarks of Welcome

Robin C. Buerki, Executive Director, Henry Ford Hospital

Introduction

Shirley A. Johnson, Henry Ford Hospital, Detroit, Michigan

PLATELETS IN HEMOSTASIS AND THROMBOSIS

Chairman — Walter H. Seegers — Wayne State University, Detroit, Michigan

9:00 The blood platelets — past, present and future


9:10 Physiology of platelets in the microcirculation

George P. Fulton, Boston University Graduate School, Boston, Mass.

PLATELETS IN BLOOD VESSEL INTEGRITY

9:30 Morphology and dynamics of endothelium

Rudolf Altschul, University of Saskatchewan, Saskatoon, Canada

9:45 Capillary resistance and its relation to bleeding

Jenő Kramár, Creighton University, Omaha, Nebraska

10:00 Studies on hemostasis, in vivo

Walter O. Cruz, Instituto Oswaldo Cruz, Rio de Janeiro, Brazil

10:20 General Discussion

10:35 Intermission
The Blood Platelets

PLATELET CLUMPING

First Day — Thursday, March 17, 1960

10:50 Viscous metamorphosis of platelets

*Alan A. Sharp*, United Oxford Hospitals, Oxford, England

11:10 Morphological studies on the mechanism of viscous metamorphosis of platelets

*Robert L. Rosenthal*, Beth Israel Hospital, New York, New York

11:25 Phase microscopy and the enumeration of blood platelets

*Robert Feissly*, University of Lausanne, Lausanne, Switzerland

11:45 General Discussion

12:00 Luncheon

Afternoon Session

Chairman — *C. Lockard Conley* — The Johns Hopkins University,
Baltimore, Maryland

PLATELET CLUMPING

1:30 P.M. Natural thrombocyte-agglutinating systems: thrombocyte-agglutinating factor (TAg) and thrombin

*Kenneth M. Brinkhous* and *Reginald G. Mason, Jr.*, University of North Carolina, Chapel Hill, North Carolina

1:50 In vitro platelet clumping and aggregation in relation to metal ions, macromolecules and surfaces

*Charles E. Brambel*, University of Notre Dame, Notre Dame, Indiana

PHYSIOLOGY AND PATHOLOGY OF HEMOSTASIS

2:05 Multiple factors in hemorrhage

*Louis B. Jaques*, University of Saskatchewan, Saskatoon, Canada
International Symposium

First Day — Thursday, March 17, 1960

2:20 Designated discussant
Marjorie B. Zucker, Sloan-Kettering Institute for Cancer Research, New York, New York

2:30 General Discussion

2:50 Intermission

ROLE OF PLATELETS IN THROMBOSIS
Chairman — Robert W. Wissler — University of Chicago, Chicago, Illinois

3:00 Role of platelets in the formation of a hemostatic plug
Jacques Roskam, University of Liège, Liège, Belgium

3:20 P.M. Dietary lipids and the clotting mechanism with particular reference to lysis
Wilbur A. Thomas, Albany Medical College of Union University, Albany, New York

3:35 The influence of induced atherosclerosis on calcium, phosphorus and sulfate in the arterial wall
Albert J. Boyle, Wayne State University, Detroit, Michigan

3:50 Lipids, platelets and atherosclerosis
James F. Mustard, University of Toronto, Toronto, Canada

4:05 Summary

4:15 General Discussion
Robert W. Wissler, University of Chicago, Chicago, Illinois

First Evening Session
ROUND TABLE
8:00 — 9:30
Platelets in the physiology of hemostasis with particular reference to bleeding time.
Chairman — Raymond W. Monto — Henry Ford Hospital, Detroit, Michigan
The Blood Platelets

PARTICIPANTS:

Dr. Spaet — Montefiore Hospital, New York, New York

Dr. Roskam — University of Liège, Liège, Belgium

Dr. Fulton — Boston University Graduate School, Boston, Massachusetts

Dr. Cruz — Instituto Oswaldo Cruz, Rio de Janeiro, Brazil

Dr. Jaques — University of Saskatchewan, Saskatoon, Canada

Dr. Sharp — United Oxford Hospitals, Oxford, England

Dr. Lüscher — University of Bern, Bern, Switzerland

Second Day — Friday, March 18, 1960

PHYSIOLOGICAL AND BIOCHEMICAL MECHANISMS OF PLATELETS IN BLOOD COAGULATION

Chairman — Armand J. Quick — Marquette University, Milwaukee, Wisconsin

9:00 A.M. Platelet fractions and prothrombin activation

Walter H. Seegers, Wayne State University, Detroit, Michigan

9:20 Chemical synthesis of phospholipids

Erich Baer, University of Toronto, Toronto, Canada

9:35 The platelet lipids: their identification, quantification and behavior in, in vitro, clotting systems

Stanley B. Troup, University of Rochester, Rochester, New York

9:50 The thromboplastic activity of some soybean phospholipids

William J. Williams, Washington University, St. Louis, Missouri

10:05 Biophysical aspects of platelet reaction mechanisms in clotting

Douglas M. Surgenor, Harvard Medical School, Boston, Massachusetts
International Symposium

10:25 The lipids of human erythrocytes and platelets and their effects on thromboplastin formation

   Percy Barkhan and Melvin J. Silver, Jefferson Medical College, Philadelphia, Pennsylvania

10:40 General Discussion

11:00 Intermission

PLATELET FRACTIONS

Chairman — Shirley A. Johnson — Henry Ford Hospital, Detroit, Michigan

11:10 The antifibrinolytic activity of platelets

   Norma Alkjaersig, Washington University, St. Louis, Missouri

11:30 Studies on platelet factor 4

   Erwin Deutsch, University of Vienna, Vienna, Austria

11:50 The nature of the lipoprotein of human platelets and erythrocytes

   George Y. Shinowara, New York University, New York, New York

12:10 P.M. General Discussion

12:30 Luncheon

Second Day — Friday, March 18, 1960

Afternoon Session

Chairman — Kenneth M. Brinkhous — University of North Carolina, Chapel Hill, North Carolina

METABOLISM OF PLATELETS

2:00 P.M. The breakdown of phospholipids and of other phosphorous compounds during coagulation

The Blood Platelets

2:20 Metabolic changes in platelets during viscous metamorphosis and clot retraction

Marjorie B. Zucker, Sloan-Kettering Institute for Cancer Research, New York, New York

2:35 The uptake of serotonin by platelets

Herbert Weissbach, National Heart Institute, Bethesda, Maryland

2:50 Microelectrophoretic studies of platelets


3:10 Metabolic aspects of normal and pathological platelets

Rudolf Gross, University of Marburg, Marburg on Lahn, Germany

3:30 Effects of sulfhydryl inhibitors on structural stability of platelets

J. Leo Koppel, Presbyterian-St. Luke's Hospital, Chicago, Illinois

3:45 General Discussion

4:05 Intermission

CLOT RETRACTION OF PLATELETS

4:15 Platelets in clot retraction

C. Lockard Conley, The Johns Hopkins University, Baltimore, Md.

4:30 Retraction activity of the platelets: biochemical background and physiological significance

E. F. Lüscher, University of Bern, Bern, Switzerland

4:50 Time lapse photography of clot retraction

Giorgio Ballerini and Walter H. Seegers, University of Ferrara, Ferrara, Italy and Wayne State University, Detroit, Michigan

5:05 General Discussion
International Symposium

Evening Session

6:30 Reception — Statler Hilton Hotel

7:30 Banquet — Chairman: Robert C. Horn, Jr., Henry Ford Hospital, Detroit, Michigan

The mystery of Indo-European expansion

Clark Hopkins, University of Michigan, Ann Arbor, Michigan

Third Day — Saturday, March 19, 1960

Morning Session

THROMBOCYTOPENIC BLEEDING

Chairman — Maxwell M. Wintrobe — University of Utah, Salt Lake City, Utah

9:00 A.M. Evaluation of the degree of bleeding in thrombopenic states

Dudley P. Jackson, The Johns Hopkins University, Baltimore, Md.

9:20 Thrombocytopenic bleeding and preservation of platelets

Frank H. Gardner and Phin Cohen, Peter Bent Brigham Hospital, Boston, Massachusetts

9:40 Platelets and heparin

Robert C. Hartmann, Vanderbilt University Hospital, Nashville, Tenn.

9:55 General Discussion

10:15 Intermission

ALTERED PLATELET FUNCTION

Chairman — Leandro Tocantins — Jefferson Medical College

Philadelphia, Pennsylvania

10:25 Specific platelet alterations related to hematological disorders

Shirley A. Johnson, Henry Ford Hospital, Detroit, Michigan

10:45 Electron microscopy and hematocrit of abnormal platelets

John W. Rebuck, Henry Ford Hospital, Detroit, Michigan

88
The Blood Platelets

11:05 The qualitative platelet diseases

Orhan N. Ulutin, University of Istanbul, Istanbul, Turkey

11:25 Some qualitative aspects of platelet function

Benjamin Alexander, Harvard Medical School, Boston, Massachusetts

11:45 General Discussion

12:00 Noon Luncheon

Third Day — Saturday, March 19, 1960

Afternoon Session

HEMATOPOIETIC ASPECTS AND PHYSICAL PROPERTIES OF PLATELETS

Chairman — John W. Rebuck — Henry Ford Hospital, Detroit, Michigan

1:30 P.M. Studies on the origin, production and destruction of platelets

Eugene P. Cronkite, Brookhaven National Laboratory, Upton, L. I., New York

1:45 Biodynamics of thrombopoiesis

Riojun Kinosita, City of Hope Medical Center, Duarte, California

2:00 Electron microscopy of blood platelets

Herbert Braunsteiner, University of Vienna, Vienna, Austria

2:20 Thrombokinetics

Clement A. Finch, University of Washington, Seattle, Washington

2:35 General Discussion

2:55 Intermission

LABELLING, LIFE SPAN AND PRESERVATION

Chairman — Carl V. Moore — Washington University, St. Louis, Missouri
International Symposium

3:05 Platelet labelling with radioisotopes and in vivo platelet survival
T. T. Odell, Jr., Oak Ridge National Laboratory, Oak Ridge, Tennessee

3:20 Survival of platelets transfused into thrombocytopenic recipients
Julius R. Krevans, The Johns Hopkins University, Baltimore, Maryland

IMMUNOLOGICAL ASPECTS OF PLATELETS

3:35 Immune reactions of platelets
William J. Harrington, Washington University, St. Louis, Missouri

3:50 Mechanisms of immunogenic platelet damage
Peter A. Miescher and Fred Gorstein, New York University, New York, New York

4:05 The identification and isolation of antiplatelet proteins

Afternoon Session

4:20 Use of the fluorescent antibody technic in the detection of platelet “antibodies”
Charles C. Sprague, Tulane University, New Orleans, Louisiana

4:35 Discussion

4:45 SUMMATION OF SYMPOSIUM
Carl V. Moore, Washington University, St. Louis, Missouri
### The Blood Platelets

**LIST OF PARTICIPANTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander, B.</td>
<td>Boston, Massachusetts</td>
</tr>
<tr>
<td>Alkjaersig, N.</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Altschul, R.</td>
<td>Saskatoon, Canada</td>
</tr>
<tr>
<td>Baer, E.</td>
<td>Toronto, Canada</td>
</tr>
<tr>
<td>Ballerini, G.</td>
<td>Ferrara, Italy</td>
</tr>
<tr>
<td>Barkhan, P.</td>
<td>Philadelphia, Pennsylvania</td>
</tr>
<tr>
<td>Born, G. V. R.</td>
<td>Oxford, England</td>
</tr>
<tr>
<td>Boyle, A. J.</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>Brambel, C. E.</td>
<td>Notre Dame, Indiana</td>
</tr>
<tr>
<td>Braunsteiner, H.</td>
<td>Vienna, Austria</td>
</tr>
<tr>
<td>Brinkhous, K. M.</td>
<td>Chapel Hill, North Carolina</td>
</tr>
<tr>
<td>Conley, C. L.</td>
<td>Baltimore, Maryland</td>
</tr>
<tr>
<td>Cronkite, E. P.</td>
<td>Upton, L. I., New York</td>
</tr>
<tr>
<td>Cruz, W. O.</td>
<td>Rio de Janeiro, Brazil</td>
</tr>
<tr>
<td>Deutsch, E.</td>
<td>Vienna, Austria</td>
</tr>
<tr>
<td>Feissly, R.</td>
<td>Lausanne, Switzerland</td>
</tr>
<tr>
<td>Finch, C. A.</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td>Fulton, G. P.</td>
<td>Boston, Massachusetts</td>
</tr>
<tr>
<td>Gardner, F. H.</td>
<td>Boston, Massachusetts</td>
</tr>
<tr>
<td>Gross, R.</td>
<td>Marburg, Germany</td>
</tr>
<tr>
<td>Harrington, W. J.</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Hartmann, R. C.</td>
<td>Nashville, Tennessee</td>
</tr>
<tr>
<td>Hopkins, C.</td>
<td>Ann Arbor, Michigan</td>
</tr>
<tr>
<td>Horn, R. C., Jr.</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>Jackson, D. P.</td>
<td>Baltimore, Maryland</td>
</tr>
<tr>
<td>Jaques, L. B.</td>
<td>Saskatoon, Canada</td>
</tr>
<tr>
<td>Johnson, S. A.</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>Kinosita, R.</td>
<td>Duarte, California</td>
</tr>
<tr>
<td>Koppel, J. L.</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>Kramar, J.</td>
<td>Omaha, Nebraska</td>
</tr>
<tr>
<td>Krevans, J. R.</td>
<td>Baltimore, Maryland</td>
</tr>
<tr>
<td>Lüscher, E. F.</td>
<td>Bern, Switzerland</td>
</tr>
<tr>
<td>Miescher, P. A.</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Monto, R. W.</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>Name</td>
<td>City</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Moore, C. V.</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Mustard, J. F.</td>
<td>Toronto, Canada</td>
</tr>
<tr>
<td>Odell, T. T., Jr.</td>
<td>Oak Ridge, Tennessee</td>
</tr>
<tr>
<td>Quick, A. J.</td>
<td>Milwaukee, Wisconsin</td>
</tr>
<tr>
<td>Rebuck, J. W.</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>Roskam, J.</td>
<td>Liége, Belgium</td>
</tr>
<tr>
<td>Seegers, W. H.</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>Sharp, A. A.</td>
<td>Oxford, England</td>
</tr>
<tr>
<td>Shinowara, G. Y.</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Spaet, T. H.</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Sprague, C. C.</td>
<td>New Orleans, Louisiana</td>
</tr>
<tr>
<td>Surgenor, D. M.</td>
<td>Boston, Massachusetts</td>
</tr>
<tr>
<td>Thomas, W. A.</td>
<td>Albany, New York</td>
</tr>
<tr>
<td>Tocantins, L. M.</td>
<td>Philadelphia, Pennsylvania</td>
</tr>
<tr>
<td>Troup, S. B.</td>
<td>Rochester, New York</td>
</tr>
<tr>
<td>Tullis, J. L.</td>
<td>Jamaica Plain, Massachusetts</td>
</tr>
<tr>
<td>Ulutin, O. N.</td>
<td>Istanbul, Turkey</td>
</tr>
<tr>
<td>Warren, H.</td>
<td>Philadelphia, Pennsylvania</td>
</tr>
<tr>
<td>Weissbach, H.</td>
<td>Washington, District of Columbia</td>
</tr>
<tr>
<td>Williams, W. J.</td>
<td>St. Louis, Missouri</td>
</tr>
<tr>
<td>Wintrobe, M. M.</td>
<td>Salt Lake City, Utah</td>
</tr>
<tr>
<td>Wissler, R. W.</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>Zucker, M. B.</td>
<td>New York, New York</td>
</tr>
</tbody>
</table>