

ANNOUNCEMENT

5. INTERNATIONAL CONGRESS OF BIORHEOLOGY

Baden-Baden, F.R. Germany  
20.-24. August 1983

President of the Congress

Siegfried Witte

Secretary General of the Congress

Kurt Messmer

The 5. International Congress of Biorheology will be held under the auspices of the International Society of Biorheology from 20. to 24. August 1983 in the Congress House, Baden-Baden, Federal Republic of Germany.

The International Society of Biorheology

President	Siegfried Witte	(F.R. Germany)
Vice Presidents	Takehiko Azuma	(Japan)
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	Yuan-Cheng Fung	(USA)
	Helmut Hartert	(F.R. Germany)
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	Harry Goldsmith	(Canada)
	Holger Schmid-Schönbein	(F.R. Germany)
Chairman, Committee on Nomenclature	M. Joly	(France)
Liaison Representative to the Union of Pure and Applied Biophysics	A. Silberberg	(Israel)

Liaison Representative to the publisher,  
Pergamon Press Ltd, for the journals  
BIORHEOLOGY and CLINICAL HEMORHEOLOGY  
A.L. Copley

(USA)

Editor, Newsletter of the International Society  
of Biorheology

G.V.F. Seaman

(USA)

The scientific program will comprise the most recent advances in all fields of biorheology and in biorheological techniques. There will be invited plenary lectures, symposia and free communications including poster discussions. On August 24 a joint session with the 3. European Conference on Clinical Hemorheology will be held. A satellite symposium on measuring techniques in biorheology will take place in Strasbourg (France).

The following topics are being considered for the Congress by the Scientific Program Committee:

- Measuring techniques in biorheology
- Mathematical biorheology
- Properties of biopolymers
- Tissue deformability
- Soft tissue
- Bone and ligaments
- Biorheology in rheumatic disease
- Mucus in health and disease
- Cell membrane
- Flow properties of cells
- Transport phenomena
- Fluid dynamics
- Blood vessels
- Permeability and vessel wall
- Microcirculation
- Clinical biorheology
- Relationship between in vivo and in vitro studies in hemorheology
- Red cell aggregation and red cell deformation
- Actions of drugs on blood rheology
- Coagulation
- Hemodynamics
- Hemorheologic disorders
- Hemorheology in blood transfusion
- Surface hemorheology

Registered members of the Congress can contribute papers to the Congress. The abstracts will be selected by the Scientific Program Committee and published in an abstract volume.

The language of the Congress will be English.

Please address inquiries to:

Professor Dr.med. K. Messmer  
Department of Experimental Surgery  
Im Neuenheimer Feld 347  
D-6900  
Heidelberg 1  
F.R. Germany



ANNOUNCEMENT

## XII. EUROPEAN CONFERENCE ON MICROCIRCULATION

The Israel Academy of Sciences and Humanities

Jerusalem, Israel. 5.-10. September 1982

Conference President: Alex Silberberg

There will be 11 symposia, 12 oral communication sessions, 6 groupings of poster communications and 1 film session. Among the communications at the Conference, the following are of particular interest to the Readers of BIORHEOLOGY.

SYMPOSIAThe Endoendothelial Fibrin Lining

Chairman: A.L. Copley (New York)

Lecturers: A.L. Copley (New York), S. Oka (Osaka), S.A. Barenberg (Wilmington), A. Henschen (Martinsried/Munich), S. Witte (Karlsruhe), P. Olsson (Stockholm), A. Silberberg (Rehovot), J.-F. Stoltz (Nancy), M. Tsuchiya (Tokyo), H.G. Lasch (Gies-sen) and R. Gollwitzer (Martinsried/Munich)

Effects of Shear on Cellular Reactions in the Circulation

Chairman: D.E. Brooks (Vancouver)

Lecturers: D.E. Brooks (Vancouver), E.A. Evans (Vancouver), S. Chien (New York), M. Frojmovic (Montreal) and C.F. Dewey (Boston)

Arterial Hemodynamics and the Material Exchange of the Arterial Wall

Chairman: C.G. Caro (London)

Lecturers: R.M. Nerem (Houston), S. Chien (New York), E.B. Smith (Aberdeen), C.P. Winlove (London) and M.J. Lever (London)

Hemorheology

Chairman: G. Pallotti (Bologna)

Lecturers: M.A. Brunelli (Bologna), S. Cifaldi (Napoli), S. Coccheri (Bologna), M. D'Addato (Bologna), G. Pallotti (Bologna) and H. Schmid-Schönbein (Aachen)

Measurement of Blood Flow and Local Tissue Energy Production by Thermal Methods - Evaluation of Methodology

Chairmen: B. Blum (Tel Aviv), E. Betz (Tübingen) and W. Benari (Tel Aviv)  
 Lecturers: J. Grayson (Toronto), W. Müller-Schauenburg (Tübingen), M. Chen and K. Holmes (Urbana), J.C. Ghato (Urbana), A. Shitzer (Haifa), R. Wodick (Ulm), H.G. Klin-ger (Würzburg), G. Kolbel (Tübingen), R. Eberhart (Dallas), J.B. Bassingthwaighte (Seattle), J. Seylaz (Paris), H. Apfel (Tübingen), H. Benzing (Tübingen), K. Golenhofen (Marburg), L. Priebe (Marburg), M.N. Shalit (Tel Aviv), T. Kaspi (Tel Aviv), V. Benari (Tel Aviv), B. Blum (Tel Aviv) and J.R. Parratt (Glasgow)

Platelet Aggregation and Interaction With the Vessel Wall

Chairman: A. Rotman (Rehovot)  
 Lecturers: F.A. Meyer (Rehovot), G. Marguerie (Paris), R.I. Handin (Boston), C.O. Esquivel (Malmö), J. Zahavi (Tel Aviv) and A. Eldor (Jerusalem)

The White Blood Cell

Chairman: P. Gaehtgens (Köln)  
 Lecturers: P. LaCelle (Rochester), P. Gaehtgens (Köln), L.H. Smaje (London), J. Fehr (Zurich) and S. Chien (New York)

ORAL COMMUNICATION SESSIONS

Hemorheology and Hemodynamics  
 Microcirculation of the Gastro-Intestinal Tract and the Colon  
 Microcirculation of Tumors  
 The Endothelium  
 Flow of Blood Through the Microcirculation  
 The Flow of Platelets  
 Capillary Filtration and Permeability  
 Microcirculation of Muscle

POSTER COMMUNICATIONS (Major Groupings)

The Red Blood Cell  
 Microcirculation of the Brain  
 The Microcirculation in Diabetes  
 Clinical Hemorheology

FILM SESSION

Presentations so far by: M. Steinhausen (Heidelberg), M. Tsuchiya (Tokyo) and L.V. Schalin (Stockholm)

Address inquiries to: Mrs. Ruth Goldstein  
 The Aharon Katzir-Katchalsky Center of  
 the Weizmann Institute of Science  
 Rehovot  
 Israel

ANNOUNCEMENT

International Conference on  
SURFACE PHENOMENA IN HEMORHEOLOGY:  
THEIR THEORETICAL, EXPERIMENTAL AND CLINICAL ASPECTS  
26-29 October 1982

Conference Co-Chairmen: Alfred L. Copley, Brooklyn, NY USA  
and Geoffrey V.F. Seaman, Portland, OR, USA

All sessions held at  
THE BARBIZON PLAZA HOTEL  
106 Central Park South  
New York, NY 10019

TUESDAY, OCTOBER 26, 1982

A. THEORETICAL

SESSION 1: SURFACE FORCES IN BIOLOGICAL SYSTEMS

Chairmen: Herbert J. Meiselman, Los Angeles, CA, USA; V. Adrian Parsegian, Bethesda, MD, USA

VESICLE AGGREGATION AND FUSION AS A PROBE OF MEMBRANE INTERACTIONS Joe Bentz, Buffalo, NY, USA  
MEMBRANE INTERACTION AND DEFORMATION V. Adrian Parsegian, Bethesda, MD, USA; R. Peter Rand, St. Catharines, Canada  
ENERGETICS OF MEMBRANE DEFORMATION AND ADHESION IN CELL AGGREGATION Evan A. Evans, Vancouver, Canada  
SURFACE CHEMICAL FACTORS PRESAGING BIOADHESIVE EVENTS Robert E. Baier, Buffalo, NY, USA  
SURFACE FORCES AND EFFECTS UPON ERYTHROCYTE SHAPE Michael Sheetz, and Eytan Alhanaty, Farmington, CT, USA  
THE IMPORTANCE OF THE ELECTROSTATIC AND STERIC PROPERTIES OF THE RED CELL MEMBRANE FOR RBC-RBC AND RBC-SURFACE INTERACTIONS Dietmar Lerche, Berlin, GDR

SESSION 2: SURFACE HEMORHEOLOGY

Chairmen: Alex Silberberg, Rehovot, Israel; Richard Skalak, New York, NY, USA

THE ROLE OF MEMBRANE BOUND MACROMOLECULES AND MACROMOLECULES IN SOLUTION IN CELL/CELL ENCOUNTERS IN FLOWING BLOOD

Alex Silberberg, Rehovot, Israel

MATHEMATICAL MODELS FOR TRANSPORT ACROSS THE ENDOTHELIAL CELL LAYER

Sheldon Weinbaum, New York, NY, USA

PHYSICAL THEORY OF SOME INTERFACE PHENOMENA IN HEMORHEOLOGY

Syoten Oka, Osaka, Japan

RED CELL MEMBRANE PROTEINS IN MONOLAYER AND MULTILAYER STRUCTURES

Martin Blank, New York, NY, USA

THEORETICAL MODELS OF ROULEAUX FORMATION

Richard Skalak

DYNAMIC RED CELL DEFORMATION IN FLOW: A CONTINUOUS ROTATION OF

THE RBC MEMBRANE IN SHEAR FIELDS

Holger Schmid-Schonbein,

Aachen, W. Germany

WEDNESDAY, OCTOBER 27, 1982

B. EXPERIMENTAL

SESSION 3: SURFACE PROPERTIES OF THE BLOOD CELLULAR ELEMENTS

Chairmen: David Danon, Rehovot, Israel; Vincent T. Marchesi, New Haven, CT, USA

SURFACE CHARGE OF OLD, TRANSFORMED AND EXPERIMENTALLY DETERIORATED ERYTHROCYTES

David Danon

STRUCTURE AND FUNCTION OF THE RED CELL MEMBRANE SKELETAL COMPLEX

Vincent T. Marchesi

PLATELET MEMBRANE GLYCOPROTEINS IN ADHESION AND AGGREGATION

David R. Phillips, San Francisco, CA, USA

ELECTROCHEMICAL PROPERTIES OF THE PERIPHERAL ZONES OF ERYTHROCYTES

Geoffrey V.F. Seaman, Portland, OR, USA

ENERGY BALANCE IN RED CELL INTERACTIONS

Shu Chien, New York, NY, USA

EXTENSIONAL FLOW OF RED CELL MEMBRANE

Robert M. Hochmuth, Durham, NC, USA

SESSION 4: INTERACTION OF BLOOD CELLULAR ELEMENTS WITH OTHER CELLS AND WITH FOREIGN PARTICLES

Chairmen: Kenneth M. Brinkhous, Chapel Hill, NC, USA; Harry L. Goldsmith, Montreal, Canada

YIELD STRESS IN SEDIMENTED RED BLOOD CELL LAYERS

Perry L. Blackshear, Jr., Christopher Morris, and Steven J. Kayer, Minneapolis, MN, USA

MEASUREMENT OF SURFACE TENSIONS OF BLOOD CELLS AND OTHER PARTICLES

A. Wilhelm Neumann, J.K. Spelt, Canada; D.R. Absolom, Toronto, Canada

SHEAR-INDUCED COLLISIONS BETWEEN HUMAN BLOOD CELLS

Harry L. Goldsmith

INTERACTIONS OF ERYTHROCYTES WITH BACTERIA UNDER SHEAR

Donald E. Brooks, Vancouver, Canada

INTERACTION OF PHAGOCYTES WITH OTHER BLOOD CELLS, AND WITH PATHOGENIC AND NON-PATHOGENIC MICROBES

Carel J. van Oss, Buffalo, NY, USA



PLATELET AND RED CELL INTERACTION IN MURAL THROMBOGENESIS  
Vincent T. Turitto, New York, NY, USA

THURSDAY, OCTOBER 28, 1982

B. EXPERIMENTAL (Continued)

SESSION 5: SURFACE PROPERTIES OF THE BLOOD VESSEL WALL

Chairmen: George Bugliarello, Brooklyn, NY, USA; Siegfried Witte  
Karlsruhe, West Germany

SURFACE PROPERTIES OF PULMONARY ENDOTHELIAL CELLS Una S. Ryan,  
Miami, FL, USA  
VESICULAR TRANSPORT OF PROTEINS IN ISOLATED CAPILLARY ENDOTHELIUM  
Stuart K. Williams, Philadelphia, PA, USA  
MACROMOLECULAR CHARGE AND CELLULAR SURFACE CHARGE IN ADHESION,  
INGESTION AND BLOOD VESSEL LEAKAGE Satimaru Seno, Tadashi  
Tsuji, Toshiro Ono, Okayama, Japan  
SURFACE PHENOMENA OF COAGULATION FACTORS IN VIVO, OBSERVED BY  
FLUORESCENCE INTRAVITAL MICROSCOPY Siegfried Witte  
THE ENDO-ENDOTHELIAL FIBRIN LINING, FIBRINOGEN GEL CLOTTING AND THE  
ENDOTHELIAL- BLOOD INTERFACE Alfred L. Copley, Brooklyn, NY, USA  
FIBRIN GELS - THEIR IMPLICATION FOR SURFACE HEMORHEOLOGY IN  
HEALTH AND DISEASE Birger Blömbäck, Stockholm, Sweden and  
New York, USA; Masahisa Okada, New York, NY, USA  
REGIONAL DIFFERENTIATION OF SURFACE CHARGE ALONG SEQUENTIAL SEG-  
MENTS OF BLOOD VESSELS Nicolae Simionescu, Maya Simionescu,  
Bucharest, Romania; George Palade, New Haven, CT, USA

SESSION 6: INTERACTION OF BLOOD WITH ARTIFICIAL SURFACES EXTRA  
VIVUM AND IN VIVO

Chairmen: Leo Vroman, Brooklyn, NY, USA; Per Olsson, Stockholm,  
Sweden

THE BLOOD INTERFACE AT ARTIFICIAL SURFACES WITHIN A LEFT VENTRI-  
CULAR ASSIST SYSTEM Peer M. Portner, Oakland and Stanford, CA,  
USA  
PLATELETS ADHERE WHERE FLOW HAS LEFT FIBRINOGEN ON GLASS  
Michael F. Stanford, P.C. Munoz, and L. Vroman,  
Brooklyn, NY, USA  
THE BIOLOGICAL ACTIVITY OF ANTITHROMBOTIC AGENTS IMMOBILIZED  
ON POLYMER SURFACES Sung Wan Kim, Salt Lake City, UT, USA  
MODE OF ACTION OF THROMBORESISTANT SURFACE HEPARINIZED MATERIALS  
Per Olsson, Stockholm, Sweden; Rolf Larsson, Bromma, Sweden  
THROMBOGENESIS: EFFECT OF MOLECULAR MOTIONS, SURFACE ORDER, AND  
HYDROPHOBICITY OF THE POLYMER INTERFACE S.A. Barenberg,  
Wilmington, DE, USA  
THE RELATIONSHIP BETWEEN SURFACE CHARGE (POTENTIAL CHARACTERIS-  
TICS) OF THE VASCULAR INTERFACE AND THROMBOSIS Philip N. Sawyer,  
Brooklyn, NY, USA

FRIDAY, OCTOBER 29, 1982

C. CLINICAL

SESSION 7: ACTION OF PHARMACOLOGICAL AGENTS ON BLOOD CELLULAR SURFACES

Chairmen: John A. Dormandy, London, England; Leopold Dintenfass, Sydney, Australia

RED CELL DEFORMABILITY AS A CRITERIA OF SURFACE HEMORHEOLOGICAL CHANGES: CLINICAL AND PHARMACOLOGICAL APPROACHES G.A. Marcel, Paris, France

THE ASSESSMENT OF PHARMACOLOGICAL AGENTS WITH A HEMORHEOLOGICAL ACTION John A. Dormandy

ACTION OF DRUGS ON THE AGGREGATION AND DEFORMABILITY OF RED CELLS:

EFFECT OF ABO BLOOD GROUPS Leopold Dintenfass

EFFECT OF ANIONIC AMPHOPHILES ON ERYTHROCYTE PROPERTIES

D.E. McMillan and Nyle G. Utterback, Santa Barbara, CA, USA

THE EFFECTS OF PHARMACOLOGIC AGENTS ON PLATELET THROMBOTIC

RESPONSE TO VASCULAR GRAFTS Laurence A. Harker, Seattle, WA, USA

PHARMACOLOGICAL APPROACHES TO BLOOD HEMORHEOLOGY IN CEREBROVASCULAR DISEASE Frank J. Nordt, Basel, Switzerland

SESSION 8: SURFACE HEMORHEOLOGY IN AGING AND DISEASE

Chairmen: Leonard Weiss, Buffalo, NY, USA; Jean-François Stoltz Vandoeuvre-Les-Nancy, France

CANCER CELL DAMAGE AT THE VASCULAR ENDOTHELIUM Leonard Weiss

BIOCHEMICAL AND ELECTROSTATIC CONSIDERATION IN PRIMARY PLATELET

AGGREGATION Barry S. Coller, Stony Brook, NY, USA

FLUID DYNAMICS AS A FACTOR IN THE LOCALIZATION OF ATHEROGENESIS

Robert M. Nerem, Houston, TX, USA

BLOOD CELL SURFACE PROPERTIES: CLINICAL AND PHARMACOLOGICAL ALTERATION Jean-François Stoltz

GENERAL DISCUSSION AND CLOSING REMARKS

A.L. Copley and G.V.F. Seaman

For further information, please contact the Conference Director,  
The New York Academy of Sciences  
2 East 63rd Street  
New York, New York 10021  
(212) 838-0230

ANNOUNCEMENT

Joint Meeting of

BIOLOGICAL MATERIALS IN INDUSTRY

The Society for Experimental Biology and

The Materials Science Club

Reading University, Reading, ENGLAND

15. September 1982

A one-day joint meeting aimed at alerting industrial researchers in plastics, ceramics and composites of the interesting properties of biological materials. Can we extract aspects of the "design philosophy" of these materials and use them in artificial composites? Papers will be given by members of the Reading University Biomechanics Group and by researchers from I.C.I. Plastics and the Mond Division, giving examples of what biological materials can do and how these properties have been used in technology. Enquiries should be made to the local secretary, Dr. Julian F.V. Vincent, Biomechanics Group, The University, Whiteknights, Reading, RG6 2AJ, U.K.