CONTENTS

No. 1 (July)

Agar Culture Studies in 127 Cases of Untreated Acute Leukemia: The Prognostic Value of Reclassification of Leukemia According to In Vitro Growth Characteristics ............ M.A.S. Moore, G. Spitzer, N. Williams, D. Metcalf, and J. Buckley 1

DNA Polymerases in Normal and Leukemic Human Hematopoietic Cells Mary Sue Coleman, John J. Hutton, and F.J. Bollum 19

Analysis of Interacting Cell Populations in Cultures of Marrow From Patients With Neutropenia ............. J.S. Senn, H.A. Messner, and E.R. Stanley 33

Serum Colony-stimulating Activity of Dogs With Cyclic Neutropenia T.J. Yang, J.B. Jones, E.S. Jones, and R.D. Lange 41

An Animal Model of Chronic Aplastic Marrow Failure, I. Late Marrow Failure After Busulfan ................. Alec Morley and Judith Blake 49


In Vitro Production of Erythropoietin by Kidneys Perfused With a Serum-free Solution ......................... Allan J. Erslev 77

Blood Viscosity in Waldenström’s Macroglobulinemia ..... Mart Mannik 87

Cycling Characteristics of Human Lymphocytes In Vitro Lewis M. Schiffer, Arnold M. Markoe, Alan Winkelstein, Janet S.R. Nelson, and John M. Mikulla 99

Response to Prednisolone of Cultured Immunoglobulin-producing Human Lymphoid Cells ..... James E. Strong and Benjamin Drewinko 109

Sideroblastic Anemia Treated With Immunosuppressive Therapy J. Zervas, C.G. Geary, and S. Oleesky 117
<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylation and Methylation of Histones in Pernicious Anemia</td>
<td>Lawrence Kass</td>
<td>125</td>
</tr>
<tr>
<td>Macrophage–Eosinophil Interactions in the Inflammatory Response to</td>
<td>Ronald S. Walls, Peter Hersey, and Paul G. Quie</td>
<td>131</td>
</tr>
<tr>
<td>Trichinella spiralis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPECIAL DEPARTMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstracts</td>
<td></td>
<td>137</td>
</tr>
<tr>
<td>News and Views</td>
<td></td>
<td>146</td>
</tr>
<tr>
<td>No. 2 (August)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effects of Degree of Thrombocytopenia on Thrombopoietic</td>
<td>T.T. Odell, Jr., and J.R. Murphy</td>
<td>147</td>
</tr>
<tr>
<td>Response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platelet Antiheparin Activity: Storage Site and Release Mechanism</td>
<td>Peter N. Walsh and Giovanna Gagnarelli</td>
<td>157</td>
</tr>
<tr>
<td>Inhibition of Human Platelet Aggregation by Plasmin Digests of Human</td>
<td>D.E. Culasso, M.B. Donati, G. de Gaetano, J.</td>
<td>169</td>
</tr>
<tr>
<td>and Bovine Fibrinogen Preparations; Role of Contaminating Factor</td>
<td>Vermylen, and M. Verstraeete</td>
<td></td>
</tr>
<tr>
<td>VIII-related Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultrastructural Changes in Human Platelets During Arachidonic Acid-</td>
<td>Albert W. Sedar, Melvin J. Silver, J. Bryan</td>
<td>177</td>
</tr>
<tr>
<td>induced Aggregation</td>
<td>Smith, Carol M. Ingerman, and James J. Kocsis</td>
<td></td>
</tr>
<tr>
<td>Transient Monoclonal Gammapathy Associated With Cytomegalovirus</td>
<td>Helen Vodopick, Stuart J. Chaskes, Alan</td>
<td>189</td>
</tr>
<tr>
<td>Infection</td>
<td>Solomon, John A. Stewart</td>
<td></td>
</tr>
<tr>
<td>Bone Marrow Involvement in Hodgkin's Disease: Pathology and</td>
<td>C.E. Myers, B.A. Chabner, V.T. De Vita, and H.R.</td>
<td>197</td>
</tr>
<tr>
<td>Response to MOPP Chemotherapy</td>
<td>Gralnick</td>
<td></td>
</tr>
<tr>
<td>Studies of Leukemic Cell Populations in Culture</td>
<td>M.T. Aye, Y. Niho, J.E. Till, and E.A. McCulloch</td>
<td>205</td>
</tr>
<tr>
<td>Cytochemical and Morphologic Identification of Macrophages and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eosinophils in Tissue Cultures of Normal Human Bone Marrow</td>
<td>D. Shoham, E. Ben David, and L.A. Rozenszajn</td>
<td>221</td>
</tr>
<tr>
<td>Cationic Proteins of Human Granulocytes. II. Separation of the</td>
<td>I. Olsson and P. Venge</td>
<td>235</td>
</tr>
<tr>
<td>Cationic Proteins of the Granules of Leukemic Myeloid Cells</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intracellular Lysozyme in Mature Neutrophils and Blast Cells in</td>
<td>Hans Karle, Niels Ebbe Hansen, and Sven-Aage</td>
<td>247</td>
</tr>
<tr>
<td>Acute Leukemia</td>
<td>Killman</td>
<td></td>
</tr>
<tr>
<td>Human Cyclic Neutropenia: Urinary Colony-stimulating Factor and</td>
<td>Du Pont Guerry, IV, John W. Adamson, David C.</td>
<td>257</td>
</tr>
<tr>
<td>Erythropoietin Levels</td>
<td>Dale, and Sheldon M. Wolff</td>
<td></td>
</tr>
</tbody>
</table>
# CONTENTS

**Stimulation of Lipid Synthesis in Reticulocytes as a Response to Membrane Damage**  
*Samir K. Ballas and Edward R. Burka*  
263

**Glycogen Metabolism in Glycogen-rich Erythrocytes**  
*Shimon W. Moses, Nava Bashan, Alisa Gutman, and Per Arne Öckerman*  
275

**Evidence for a Physiologic Role of Erythropoietin in Fetal Erythropoiesis**  
*Esmail D. Zanjani, Leon I. Mann, Harold Burlington, Albert S. Gordon, and Louis R. Wasserman*  
285

## SPECIAL DEPARTMENTS

- **Abstracts**  
- **Book Reviews**  
- **Books Received for Review**  
- **Correspondence: Iron Absorption; Dyserythropoietic Anemia**  
- **News and Views**  
- **American Society of Hematology**

### No. 3 (September)

**Antibodies to Factor VIII: Specificity and Kinetics of Iso- and Hetero-antibodies in Hemophilia A**  
*J. P. Allain and D. Frommel*  
313

**A New Variant of Glucose-6-Phosphate Dehydrogenase Deficiency**  
*Hereditary Hemolytic Anemia, G6PD Cornell: Erythrocyte, Leukocyte, and Platelet Studies*  
*Denis R. Miller and Michael R. Wollman*  
323

**Primary Amyloidosis and Acute Leukemia Associated With Melphalan Therapy**  
*Robert A. Kyle, Robert V. Pierre, and Edwin D. Bayrd*  
333

**Mechanism of Erythropoietin Production by Cobaltous Chloride**  
*Marilyn E. Miller, Donald Howard, Frederick Stohlman, Jr., and Patricia Flanagan*  
339

**Impaired Erythropoietin Response in Anemic Premature Infants**  
*George R. Buchanan and Allen D. Schwartz*  
347

**Independence of Iron Absorption From the Rate of Erythropoiesis**  
*C. Peschle, G. P. Jori, G. Marone, and M. Condorelli*  
353

**Correlations Between Quantitative Assay of Red Cell-bound C3, Serologic Reactions, and Hemolytic Anemia**  
*Jörg Th. Fischer, Lawrence D. Petz, George Garratty, and Neil R. Cooper*  
359

**Alterations of Granulopoiesis Following Chemotherapy**  
*Peter Greenberg, Ine Bax, Beth Mara, and Stanley Schrier*  
375
CONTENTS


The Effect of Corticotropin on Mouse Spleen Colony-forming Cells Robert E. Reed 393

Inhibition of Endotoxic Lipopolysaccharide-mediated Platelet Aggregation by Cobra Venom Anticomplementary Factor Jack S.C. Fong, James G. White, and Robert A. Good 399

Platelet Retention in Glass Bead Columns: Further Evidence for the Importance of ADP V.J. McPherson, M.B. Zucker, N.M. Friedberg, and P.L. Rijkin 411

Uptake and Subcellular Distribution of Vitamin B12 in Mouse L1210 Leukemic Lymphoblasts Elaine M. Ryel, Leo M. Meyer, and Richard A. Gams 427

Effects of Hydrocortisone on the Yield and Bactericidal Function of Granulocytes Collected by Continuous-flow Centrifugation Mamoru Shoji and William R. Vogler 435

Teaching Blood Morphology: Audiovisual Method Compared to Microscope Slides With Written Text and Instructor .... John Stanley and Paul Reich 445

Editorial: Hematopoietic Stem Cell Theory in Relation to Possible Lymphoblastic Conversion of Chronic Myeloid Leukemia Dane R. Boggs 449

SPECIAL DEPARTMENTS

Abstracts ................................................................. 455
News and Views .......................................................... 465
American Society of Hematology ........................................ 466

No. 4 (October)

Azurophil and Specific Granules of Blood Neutrophils in Chronic Myelogenous Leukemia: An Ultrastructural and Cytochemical Analysis ................. Joan L. Ullyot and Dorothy F. Bainton 469

Thrombocytosis in Chronic Granulocytic Leukemia: Incidence and Clinical Significance .... Joe E. Mason, Jr., Vincent T. DeVita, and George P. Canellos 483

Löffler's Endomyocardial Fibrosis With Eosinophilia in Association With Acute Lymphoblastic Leukemia ............... P.M. Blatt, G. Rothstein, H.L. Miller, and W.J. Cathey 489

Type I Dyserythropoietic Anemia in an Elderly Patient Jorge E. Maldonado and Howard F. Taswell 495
CONTENTS

Human Leukocyte Reactivity to Penicilloyalted Erythrocytes
D.E. Griswold and P. Calabresi 501

Some Factors Influencing Granulocytic Colony Formation In Vitro by
Human White Blood Cells……………. Wolfgang Heit, Peter Kern,
Bernhard Kubanek, and Hermann Heimpel 511

Improved Plasma Culture System for Production of Erythrocytic
Colonies In Vitro: Quantitative Assay Method for CFU-E
David L. McLeod, Mona M. Shreeve, and Arthur A. Axelrad 517

Effect of Erythropoietin on RNA Synthesis by Normal and Leukemic
Bone Marrow and Spleen Cell Suspensions In Vitro
Evelyn E. Handler, Naomi Mendelsohn, and Eugene S. Handler 535

Hemoglobin Andrew-Minneapolis α^μβ_1^L_H^-A: A New High-Oxygen-
Affinity Mutant Human Hemoglobin ……………… Solomon J. Zak,
Bernadine Brimhall, Richard T. Jones, and Manuel E. Kaplan 543

Globin Synthesis in Iron-deficiency Anemia ………... Isaac Ben-Bassat,
Miriam Mozel, and Bracha Ramot 551

Hereditary Stomatocytosis With Hemolytic Anemia in the Dog
Peter H. Pinkerton, Sheila M. Fletch, Peter J. Brueckner,
and Denis R. Miller 557

The Prevalence of Plasma Thromboplastin Antecedent (PTA, Factor IX)
Deficiency ………………… W. Angus Muir and Oscar D. Ratnoff 569

Increased Efficiency of Leukocyte Collection by the Addition of
Hydroxyethyl Starch to the Continuous Flow Centrifuge
John Milton Mishler, Daniel C. Hadlock, Ignacio E. Fortuny,
Robert W. Nicora, and Jeffrey J. McCullough 571

The Dependence of Shape of Human Erythrocyte Ghosts on Calcium,
Magnesium, and Adenosine Triphosphate …………….. Jiri Palek,
Gwendolyn Stewart, and Fabian J. Lionetti 583

Changes in Platelet Shape and Structure After Freeze Preservation
James P. Crowley, Anthony Rene, and C. Robert Valeri 599

Editorial: Thrombopoietin ……………………………… Shirley Ebbe 605

SPECIAL DEPARTMENTS

Abstracts ………………………………………………… 609

Book Reviews ………………………………………………… 619

Books Received for Review……………………………… 622

Correspondence: CLL and Ph1; Plasmacytes ………………… 623

American Society of Hematology………………………… 627
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complement-independent Clearance of IgG-sensitized Erythrocytes:</td>
<td>John P. Atkinson and Michael M. Frank</td>
<td>629</td>
</tr>
<tr>
<td>Inhibition by Cortisone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Discocyte–Echinocyte Transformation: Comparison of Normal and</td>
<td>Claude J. Féo and Pierre F. Leblond</td>
<td>639</td>
</tr>
<tr>
<td>ATP-enriched Human Erythrocytes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effects of Erythropoietin and Androgens on Erythroid Stem Cells</td>
<td>K.R. Reissmann, K.B. Udupa, and K. Kawada</td>
<td>649</td>
</tr>
<tr>
<td>After Their Selective Suppression by BCNU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erythropoietic Colonies in Cultures of Human Marrow</td>
<td>A.D. Tepperman, J.E. Curtis, and E.A. McCulloch</td>
<td>659</td>
</tr>
<tr>
<td>Specificity of Interacting Populations Affecting Granulopoiesis in</td>
<td>H.A. Messner, J.E. Till, and E.A. McCulloch</td>
<td>671</td>
</tr>
<tr>
<td>Culture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sickle Hemoglobin in Combination With Hb JBangkok (α2β2γ4δ−α-εβ+)</td>
<td>Unsal Gunay, Carol Pauli, Mir Shamsuddin, R. George Mason,</td>
<td>683</td>
</tr>
<tr>
<td></td>
<td>William J. Heinze, and George R. Honig</td>
<td></td>
</tr>
<tr>
<td>Regeneration of Reduced Glutathione in Erythrocytes: Stoichiometric</td>
<td>Earl N. Metz, Stanley P. Balcerzak, and Arthur L. Sagone, Jr.</td>
<td>691</td>
</tr>
<tr>
<td>and Temporal Relationship to Hexose Monophosphate Shunt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Frequency of Heterozygosity for S and C Hemoglobins in Western</td>
<td>Dane R. Boggs</td>
<td>699</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polymorphonuclear Leukocytes Prepared by Continuous-Flow Filtration</td>
<td>Michael B. Harris, Isaac Djerassi, Elias Schwartz, and Richard K. Root</td>
<td>707</td>
</tr>
<tr>
<td>Leukapheresis: Viability and Function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Relationship Between Platelets and Bacteria</td>
<td>Richard A. Kahn and Linda J. Flinton</td>
<td>715</td>
</tr>
<tr>
<td>The Fate of Soluble Fibrin Monomer in Relation to Intravascular</td>
<td>Victor Gurewich, Robert Wetmore, Andrzej Nowak, and Boguslaw Lipinski</td>
<td>723</td>
</tr>
<tr>
<td>Fibrin Formation and Degradation in Rabbits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unusual Inclusions Occurring in the Blasts of Four Patients With</td>
<td>Richard D. Brunning, Janet Parkin, Fred Dick, and Mark Nesbit</td>
<td>735</td>
</tr>
<tr>
<td>Acute Leukemia and Down’s Syndrome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Number of In Vitro Stem Cells in AKR Leukemic Mice</td>
<td>Christiane Chevalier, Nadine Gaillard, and Emilia Frindel</td>
<td>743</td>
</tr>
<tr>
<td>SPECIAL DEPARTMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstracts</td>
<td></td>
<td>751</td>
</tr>
<tr>
<td>Book Reviews</td>
<td></td>
<td>760</td>
</tr>
</tbody>
</table>
CONTENTS ix

Correspondence: Serum Folate Assay .................................................. 764
News and Views .................................................................................. 769

No. 6 (December)

In Memoriam: Frederick Stohlman, Jr., and Bernadette Stohlman
George Brecher, Eugene P. Cronkite, William C. Moloney,
and Shirley Ebbe  Front of issue

Isoniazid Therapy: Clinical and Biochemical Observations
Peter T. Otis, Donald I. Feinstein, Samuel I. Rapaport,
and Mary Jane Patch  771

Concanavalin A Inhibition of Tissue Factor (Thromboplastin) Activity
L.R. Zacharski, R. Rosenstein, and P.G. Phillips  783

Nucleotide and Serotonin Metabolism in Platelets With Defective
Secondary Aggregation ........... F.I. Pareti, H.J. Day, and D.C.B. Mills  789

Kinetics of Human Monocytopoiesis ....................... Gerhard Meuret,
Joachim Bammert, and Günter Hoffmann  801

Surface Remodeling vs. Whole-Cell Hemolysis of Reticulocytes Produced
With Erythroid Stimulation or Iron-deficiency Anemia
Steven E. Come, Stephen B. Shohet, and Stephen H. Robinson  817

Erythroid Colony Formation In Vitro by Dimethylsulfoxide-treated
Erythroleukemic Cells ........... Kenneth Goldstein, Harvey D. Preisler,
John D. Lutton, and Esmail D. Zanjani  831

Leukemia in Shoe-Workers Exposed Chronically to Benzene
Muzaffer Aksoy, Şakir Erdem, and Günçağ DinÇol  837

Inhibiting Effects of Human Plasma and Serum on Neutrophil Random
Migration and Chemotaxis ............... H.U. Keller, M.W. Hess,
and H. Cottier  843

PHA Responsiveness and Subpopulations of Circulating Lymphocytes in
Pernicious Anemia ......................... A.C. MacCuish, S.J. Urbaniak,
A.H. Goldstone, and W.J. Irvine  849

A Red Cell Enzyme Method for the Diagnosis of Acute Intermittent
Porphyria ....................... C. Richard Magnussen, Joel B. Levine,
Joyce M. Doherty, Judy O. Cheesman, and Donald P. Tschudy  857

A New Abnormal Hemoglobin O Padova, α 30 (Bll) Glu → Lys, and a
Dyserythropoietic Anemia With Erythroblastic Multinuclearity
Coexisting in the Same Patient ............. L. Vettore, G. De Sandre,
E.E. Di Iorio, K.H. Winterhalter, A. Lang, and H. Lehmann  869

Methemoglobin Reductase (Cytochrome b, Reductase) Deficiency in
Congenital Methemoglobinemia ....... Takeshi Kitao, Yoshiki Sugita,
Yoshimasa Yoneyama, and Kenichi Hattori  879
CONTENTS

Red Cells Shrink During Sickling ........................................ Daniel R. Masys, Philip A. Bromberg, and Stanley P. Balcerzak 885

SPECIAL DEPARTMENTS

Abstracts ..................................................................................... 891
Book Reviews ................................................................................ 899
Books Received for Review .......................................................... 901
News and Views ........................................................................... 902
American Society of Hematology Abstracts ................................. 905
Annual Indexes ........................................................................... 955