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AMERICAN SOCIETY OF HEMATOLOGY
Sixth Annual Meeting
Washington, D. C., December 8–10, 1963
The Statler Hilton

SUNDAY, DECEMBER 8
Advance Registration—The Statler Hilton—11:00 a.m. to 5:00 p.m.
8:00 a.m. to 10:00 a.m.—Breakfast Meeting of the Advisory Council
10:30 a.m. to 2:00 p.m.—Meeting of the Executive Committee with Luncheon
2:00 p.m. to 4:30 p.m.—Tour of the National Library of Medicine
Presentation by Library Staff: “Current and Projected Role of the National Library of Medicine in Information Retrieval” (Bus Transportation will be provided.)
5:30 p.m. to 7:30 p.m.—Annual “Mixer” for Members, Wives and Guests
The Statler Hilton—Compliments of the American Hematology Society

MONDAY, DECEMBER 9
Registration 8:00 a.m. to 5:00 p.m., The Statler Hilton

9:00 a.m. to 12:15 p.m.—Scientific Session
12:15 p.m. to 1:30 p.m.—Luncheon Recess
1:30 p.m.—DISTINGUISHED LECTURE

“Carcinogenic and Leukemogenic Mechanisms: The Implications of Recent Advances”

Professor Alexander Haddow
Professor of Experimental Pathology, University of London, and Director,
Chester Beatty Research Institute, Institute of Cancer Research,
Royal Cancer Hospital, London, England

2:30 p.m. to 5:30 p.m.—Scientific Session
Presentation of 1963 deVilliers Award
6:30 p.m. to 8:30 p.m.—Cocktail-Supper for Members, Wives and Guests,
The Statler Hilton (Ticket reservations will be required)
9:00 p.m. to 11:00 p.m.—Those attending the cocktail-supper will be transported by bus to a special “opening” of the National Gallery of Art. Music by a string quartet in the Gallery.

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TUESDAY, DECEMBER 10

Registration 8:00 a.m. to 12:00 noon, The Statler Hilton

9:00 a.m. to 12:15 p.m.—Scientific Session
12:15 to 1:30 p.m.—Luncheon Recess
1:30 to 2:00 p.m.—Annual Business Meeting of the American Society of Hematology.
2:00 p.m. to 5:00 p.m.—Symposium on "The Thymus and the Lymphoid Tissue"

LADIES’ PROGRAM

Monday, December 9

9:30 a.m. to 2:00 p.m.—Sightseeing Tour of Washington ending with a luncheon and fashion show, Hotel Mayflower

Tuesday, December 10

9:00 to 10:00 a.m.—Special Tour of the White House (Limited to 200 reservations)

MONDAY, DECEMBER 9

SCIENTIFIC SESSION

9:00 A.M. to 12:15 P.M.

1. FACTORS INVOLVED IN ERYTHROID MATURATION: PROTEIN SYNTHESIS AND RNA METABOLISM. Edward R. Burka and Paul A. Marks, Institute of Cancer Research, Columbia University, New York, N. Y.
   Discussion: Dr. Jane Desforges, Abstract #54 (Tufts Hematology Laboratory, Boston, Mass.)


3. EFFECT OF ANTISERA TO ERYTHROPOIETIN ON THE IN VITRO Fe59 INCORPORATION BY RABBIT BONE MARROW CELLS. V. Pavlovic-Kentera, E. Gardner, Jr., R. D. Lange, Division of Hematology, Department of Medicine and Microbiology, Medical College of Georgia, Augusta, Ga.

4. ROLE OF ERYTHROPOIETIN IN RECOVERY FROM RADIATION INJURY. Abraham Gutinsky, John Schooley and Donald Van Dyke, Donner Laboratory, University of California, Berkeley, Calif., and Consejo Nacional de Investigaciones, Cientificas y Tecnicas, Buenos Aires, Argentina
   Discussion: Dr. Raymond Alexanian, Abstract #55 (Paterson Laboratories, Christie Hospital, Manchester, England)

5. HEME SYNTHESIS DEFECT IN "REFRACTORY" ANEMIAS WITH INEFFECTIVE ERYTHROPOIETIC. Manfred Steiner, Mario Baldini, William Dame-
SIXTH ANNUAL MEETING

Slick, Blood Research Laboratory, Pratt Clinic-New England Center Hospital, and the Department of Medicine, Tufts University School of Medicine, Boston, Mass.

Discussion: Dr. Louis R. Wasserman, Abstract #56 (Mt. Sinai Hospital, New York, N. Y.)

6. PRODUCTION OF SIDEROCYTES IN PYRIDOXINE-DEFICIENT SWINE. A. Deiss, G. E. Cartwright, and Max M. Wintrobe, Department of Medicine, College of Medicine, University of Utah, Salt Lake City, Utah

Discussion: Shu Chu Shen, Abstract #57 (by invitation, Wm. C. Moloney, Tufts Hematology Laboratory, Boston City Hospital, Boston, Mass.; Research Laboratory, Holy Ghost Hospital, Cambridge, Mass.

7. THE ANEMIA OF HUMAN RIBOFLAVIN DEFICIENCY. Clarence P. Alfrey, Jr. and Montague Lane, Departments of Medicine and Pharmacology, Baylor University College of Medicine, and the Radioisotope Service, V. A. Hospital, Houston, Texas.

10:30 a.m.—Intermission (10 minutes)

8. ERYTHROKINETICS IN ANEPHRIC MAN. David G. Nathan, Eugene Schupak and John P. Merrill, Peter Bent Brigham Hospital, Boston, Mass.

Discussion: John H. Lawrence, Abstract #58 (Donner Laboratory, University of California, and the Division of Biology, California Institute of Technology, Berkeley, Calif.)

9. THE EFFECT OF ACUTE UREMIA ON DNA SYNTHESIS IN BONE MARROW, SPLEEN, INTESTINE AND THYMUS. E. S. Kurtides, W. A. Rambach and H. L. Alt, Department of Medicine, Northwestern University Medical School, and Passavant Memorial Hospital, Chicago, Ill.

10. PANCREATIC ENZYMES AND INTRAVASCULAR HEMOLYSIS. Thomas R. Walters and Perc Owen (introduced by Sloan Wilson), Department of Pediatrics, University of Kansas Medical Center, Kansas City, Kan.

Discussion: R. Sephton Smith (by invitation), Abstract #59 (Hospital for Sick Children, London, England)

11. EFFECT OF PROLACTIN ON ERYTHROPOIESIS IN THE MOUSE. J. H. Jepson and Louis Lowenstein, Division of Hematology, Royal Victoria Hospital, and University Clinic, McGill University, Montreal, Que.

12. INCREASED CELL MEMBRANE PERMEABILITY IN THE PATHOGENESIS OF HEREDITARY SPHEROCYTOSIS (HS). Harry S. Jacob and James H. Jandl (introduced by Louis K. Diamond), Thorndike Memorial Laboratory and Second and Fourth (Harvard) Medical Services, Boston City Hospital and the Department of Medicine, Harvard Medical School, Boston, Mass.

13. STUDIES CONCERNING THE PATHOGENESIS OF AUTOERYTHROCYTE PURPURA. George S. Groch, William Rogoway, David Fischer and Stuart C. Finch, Department of Internal Medicine, Yale University School of Medicine, New Haven, Conn.

14. REMOVAL OF IRON FROM PATIENTS WITH SECONDARY HEMOCHROMATOSIS. Marion E. Erlandson, Julius Golubow, Jacqueline Wehman and
Carl H. Smith, New York Hospital and Cornell University Medical Center, New York, N. Y.

12:15 p.m. to 1:30 p.m.—Luncheon Recess

MONDAY, DECEMBER 9

DISTINGUISHED LECTURE

1:30 P.M.

15. “Carcinogenic and Leukemogenic Mechanisms: The Implications of Recent Advances”

Professor Alexander Haddow
Professor of Experimental Pathology, University of London, and Director of the Chester Beatty Research Institute, Institute of Cancer Research, Royal Cancer Hospital, London, England.

SCIENTIFIC SESSION

2:30 to 5:30 P.M.


17. The Autochthonous Mitotic Ability of Blood Leukocytes in Chronic Myelocytic Leukemia. Avery A. Sandberg, Y. Kikuchi and Lois H. Crosswhite, Roswell Park Memorial Institute, Buffalo, N. Y.


Discussion: Stuart C. Finch, Abstract #60 (Department of Medicine, Yale University School of Medicine, New Haven, Conn.)


Discussion: Donald K. Briggs, Abstract #61 (Department of Medicine, New York University School of Medicine, New York, N. Y.)


Discussion: Kosmas A. Kiossoglou, Abstract #62 (Blood Research Laboratory, Pratt Clinic-New England Center Hospital, Department of Medicine, Tufts University School of Medicine, Boston, Mass.)

3:35 p.m. to 3:45 p.m.—Intermission
21. **Apparent Loss of Feedback Inhibition of Leukocyte Aspartate Transcarbamylase in Granulocytic Leukemias.** Morton D. Prager, Sara E. Bryan, Joseph M. Hill and Ellen Loeb, Wadley Research Institute and Blood Bank, and the Graduate Research Institute, Baylor University, Dallas, Texas.

22. **Bone Marrow Homografts Following Homologous Leukocyte Transfusion in Patients with Acute Leukemia.** Robert H. Levin, Jacqueline Whang, Paul J. Schmidt, Emil J. Freireich and Emil Frei III, Medicine Branch, National Cancer Institute, and Blood Bank, Department of Clinical Pathology, N.I.H., Bethesda, Md.

23. **Uptake of Tritium-labeled Methotrexate by Human Leukemic Leukocytes.** G. A. Fischer, J. R. Bertino, P. Calabresi, D. H. Clement, R. P. Zanes, M. S. Lyman, J. H. Burchenal and Arnold D. Welch, Yale University School of Medicine and St. Raphael's Hospital, New Haven, Conn., and the Sloan-Kettering Institute and Memorial Hospital, New York, N. Y.

**Presentation of 1963 deVilliers Award by Dr. Max M. Wintrobe, Chairman, National Medical Advisory Board of the Leukemia Society**

24. **Contrasting Incidence of Acute Monocytic and Granulocytic Leukemias, in P32-treated Patients with Polycythemia Vera and Chronic Lymphocytic Leukemia.** Edwin E. Osgood, Division of Experimental Medicine, University of Oregon Medical School, Portland, Ore.

25. **Cyclic Chemotherapy for Acute Leukemia in Children.** C. A. Brubaker, H. E. Wheeler, M. J. Sonley, C. B. Hyman, K. O. Williams and D. Hammond, Department of Pediatrics, University of Southern California School of Medicine, and Division of Hematology, Children's Hospital, Los Angeles, Calif.

**Discussion:** Dr. Wolf W. Zuelzer, Abstract #63 (Child Research Center of Michigan, Ann Arbor, Mich.)

26. **The Effect of Normal and Leukemic Human Leukocytes on the Uptake of Thymidine by Leukemic Cells.** Seymour Perry and John C. Marsh, Medicine Branch, National Cancer Institute, N.I.H., Bethesda, Md.

27. **Observations on the Gastrointestinal Administration of Bovine Splenic Homogenate on Hematopoiesis in Man.** Raymond W. Monto, James A. Barron and Vainutis Vaitkevicius, Division of Hematology, Henry Ford Hospital, Detroit, Mich.

28. **In Vivo Effects of Diagnostic X-Irradiation of Peripheral Leukocyte Chromosomes in Man.** Arthur D. Bloom and J. Jin Tjio (introduced by George Brecher), Research Branch Division of Radiological Health, U.S.P.H.S., Rockville, Md., and Laboratory of Experimental Pathology, N.I.H., Bethesda, Md.
TUESDAY, DECEMBER 10
SCIENTIFIC SESSION
9:00 A.M. to 12:15 P.M.

29. LYMPHOCYTE CONTENT AND PROLIFERATIVE CAPACITY OF SERIALLY TRANSPLANTED MOUSE BONE MARROW. G. Cudhowicz, A. C. Upton, G. M. Shearer and W. L. Hughes (introduced by T. T. Odell), Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tenn., and Medical Research Center, Brookhaven National Laboratory, Upton, N. Y.

30. STUDIES ON THE TRANSIT TIME AND FATE OF NEUTROPHILIC GRANULOCYTES IN MAN. T. M. Fliedner and E. P. Cronkite, Medical Research Center, Brookhaven National Laboratory, N. Y.

31. DEGRANULATION OF POLYMORPHONUCLEAR LEUKOCYTES FOLLOWING PHAGOCYTOSIS—AN ELECTRON MICROSCOPIC STUDY. Dorothea Zucker-Franklin and James G. Hirsch (introduced by Aaron J. Marcus) Department of Anatomy, New York University School of Medicine, New York, N. Y.

32. THE IDENTIFICATION OF CERTAIN LEUKOCYTE ANTIGENS. H. E. Wilson, H. M. Johnson and Matthew C. Dodd, Division of Hematology, Department of Medicine, Ohio State University, Columbus, Ohio.

33. SPECIFICITY OF AB CROSS-REACTING ANTIBODY. Gerald Schiffman and Calderon Howe, (by invitation), The John Herr Musser Department of Research Medicine, University of Pennsylvania, Philadelphia, Pa., and Columbia University, New York, N. Y.

34. STUDIES OF ANTIBODY SYNTHESIS IN TISSUE CULTURE. Julius Kritzman, Tufts University School of Medicine, and the A. G. Rotch Laboratory of the Boston Dispensary, Boston, Mass.

Discussion: Yale Rabinowitz, Abstract #64 (Cell Research Section, V. A. Hospital, Hines, Ill.)

35. ANTIBODY RESPONSE OF MICE TO A LEUKEMOGENIC VIRUS. Irving Greenspan, Eric R. Brown and S. O. Schwartz, The Hektoen Institute for Medical Research, Cook County Hospital, Chicago, Ill.

10:35 a.m. to 10:45 a.m.—Intermission

Presiding: Dr. Wolf F. Zuelzer

36. FAMILIAL THROMBOCYTOPENIC PURPURA. Sloan J. Wilson, William E. Larsen, Robert S. Skillman and Thomas R. Walters, Departments of Medicine and Pediatrics, Kansas City University Medical Center, Kansas City, Kan.

37. THROMBOCYTOPATHIC PURPURA ASSOCIATED WITH DEFECTIVE CLOT RETRACTION AND ABSENCE OF PLATELET FIBRINOGEN. Dudley P. Jackson, Edward E. Morse, Philip D. Zieve and G. Lockard Conley, Department of Medicine, Johns Hopkins University and Hospital, Baltimore, Md.

38. NEW EVIDENCE FOR THE PRESENCE OF A CIRCULATING ANTI-PLATELET FACTOR IN IDIOPATHIC THROMBOCYTOPENIC PURPURA. Ralph L. Nachman
39. SYNTHESIS OF COAGULATION FACTORS BY THE IN VITRO PERFUSED LIVER. John P. Olson, Leon L. Miller and Stanley B. Troup, Hematology Unit, Department of Medicine, Departments of Radiation Biology and Biochemistry, Atomic Energy Project, University of Rochester, School of Medicine and Dentistry, Rochester, N. Y.

40. THROMBOLYSIS IN MAN WITH UROKINASE (UK). Alan J. Johnson, W. R. McCarty, Jack Newman and Henriette Lackner, American National Red Cross Departments of Medicine and Surgery, New York University College of Medicine, New York, N. Y.

41. INHIBITION OF INDUCED FIBRINOLYSIS IN MAN. E. Beck, R. Schmutzler and F. Duckert (introduced by C. Lockard Conley), Laboratory for Studies of Blood Coagulation and Fibrinolysis, Bürgerspital, Basel, Switzerland

42. THE MEASUREMENT OF FIBRINOLYSIS WITH RADIOACTIVE MERCURY LABELED FIBRIN CLOTS. B. S. Morse and M. Nussbaum, Hematology Research Laboratory, Seton Hall College of Medicine, Jersey City, N. J.

12:15 p.m. to 1:30 p.m.—Luncheon Recess

TUESDAY, DECEMBER 10

Annual Business Meeting—1:30 P.M. to 2:00 P.M.

SCIENTIFIC SESSION

SYMPOSIUM

“The Thymus and the Lymphoid Tissue”

2:00 P.M. to 5:00 P.M.

Moderator: Dr. William Dameshek

43. THE BURSA OF FABRICIUS. Bruce Glick, Mississippi State University, Jackson, Miss.

44. A QUANTITATIVE APPROACH TO THYMUS LYMPHOID DIFFERENTIATION DURING LEUKEMOGENESIS AND REGENERATION. Robert Auerbach, University of Wisconsin, Madison, Wis.

45. LYMPHOCYTOPOIESIS IN THE EMBRYONIC THYinus AND BURSA OF FABRICIUS. G. Adolph Ackerman and Ralph A. Knouff, Department of Anatomy, Ohio State University, Columbus, Ohio

46. CENTRAL LYMPHOID TISSUE: APPENDIX. Raymond D. A. Peterson, Department of Pediatrics, Medical School, University of Minnesota, Minneapolis, Minn.

47. LYMPHOCYTE DYNAMICS. Charles G. Craddock, Department of Medicine, University of California and Hematology Research Laboratory, VA Center, Los Angeles, Calif.

48. METABOLISM AND MORPHOLOGY OF ACTIVE AND REPRESSED CHROMATIN ISOLATED FROM INTERPHASE LYMPHOCYTES. John H. Frenster, Laboratory of Molecular Biology, Rockefeller Institute, New York, N. Y.

*Abstract was not received in time for inclusion in this Program.
49. The Induction of F1 Host Cell Spleen and Thymus at Ectopic Sites in F1 Animals by Implantation of Parental Spleen and Thymus. Ira Green, Department of Hematology, Laboratory Division, Montefiore Hospital, New York, N. Y.


51. Direct Injection of the Hamster Thymus with Antigenic Substances. J. D. Sherman, M. M. Adner and William Dameshek, Blood Research Laboratory, Pratt Clinic-New England Center Hospital, and the Department of Medicine, Tufts University School of Medicine, Boston, Mass.

52. Thymus and Virus-induced Leukemia in Mice and Rats. Ludwik Gross, Bronx VA Hospital, New York, N. Y.

53. Clinical Aspects. Robert A. Good, Departments of Pediatrics and Microbiology, Medical School, University of Minnesota, Minneapolis, Minn.

Discussion: Dr. Royal F. Ruth, Abstract #173 (University of Alberta, Edmonton, Alba.)

General Discussion Period regarding the Symposium and any other questions which may have arisen during the three previous sessions. Authors or one of the co-authors of all presentations are asked to remain for this final discussion period.

TO BE PRESENTED BRIEFLY IN DISCUSSION

54. Soluble RNA in the Adult Red Cell. John Merritt and Jane F. Desforges, Tufts Hematology Laboratory, Boston City Hospital, Boston, Mass.


56. Plasma Fe¹⁰⁰ and Ineffective Erythropoiesis. N. R. Gevirtz and L. R. Wasserman, Department of Hematology, Mt. Sinai Hospital, New York, N. Y.

57. Experimental Production of Pyridoxine Deficiency Anemia in Rats. Shu Chu Shen and Peter C. Y. Wong (introduced by W. C. Moloney), Hematology Laboratory, Tufts University School of Medicine and Research Laboratory, Holy Ghost Hospital, Cambridge, Mass.

58. Decreased Responsiveness to Erythropoietin in a Patient with Anemia Secondary to Chronic Uremia. D. Van Dyke, G. Keighley and John Laurence, Donner Laboratory, University of California, Berkeley, and the Division of Biology, California Institute of Technology, Pasadena, Calif.

*Abstract was not received in time for inclusion in this Program.
60. Quantitative Studies of the Local Exudative Cellular Reaction to Inflammation in Acute Leukemia. P. E. Perillie and Stuart C. Finch, Department of Medicine, Yale University School of Medicine, New Haven, Conn.
61. Evidence for a Chromosomal Basis of Strain Differences in Leukemia Susceptibility in Mice. Donald K. Briggs, Department of Medicine, New York University Medical Center, New York, N. Y.
62. Chromosomal Aberrations in Acute Leukemia. K. A. Kiossoglou and W. J. Mitus, Blood Research Laboratory, Pratt Clinic-New England Center Hospital, and Department of Medicine, Tufts University School of Medicine, Boston, Mass.
63. Cyclic Therapy and Long-Term Survival in Childhood Leukemia. Wolf W. Zuelzer, Child Research Center, Wayne State University, and Children's Hospital, Detroit, Mich.
64. Fresh Serum Adherence Factor and the Glass "Chromatographic" Separation of the Leukocytes. Viability Studies of Purified Cells Including Their Development in Tissue Culture. Yale Rabinowitz, Research and Medical Services VA Hospital, Hines, Ill.

TO BE READ BY TITLE
65. Bone Marrow Biopsies and Infusion. Henry Turkel, Detroit, Mich.
66. Preliminary Results of the Use of Methotrexate and Uracil Mustard Coupled to Specific Heterologous Antibody in the Treatment of Leukemias and Lymphomas. S. DeCarvalho, M. Ashby and B. Di Stefano, Department of Hematology, Doctors Hospital and Laboratory of Cancer Virology and Immunology, Rand Development Corp., Cleveland, Ohio.
67. Withdrawn.
69. Occurrence of Circulating Antiglobulins in Patients with Paroxysmal Nocturnal Hemoglobinuria. M. E. Kaplan, L. R. Wasserman and R. E. Rosenfield, Department of Hematology, Mt. Sinai Hospital, New York, N. Y.
72. The Phagocytic Capabilities of Human Leukocytes from Various Neoplastic and Hematologic Diseases. W. Shirley, A. J. Sharra and E. Rosenbaum, Department of Pathology and Medical Res-

74. Antiheemophilic Activity in Multiple Myeloma. Simon Propp, Albany Medical College of Union University, Albany, N. Y.

75. Normal Response of Sickle Cell Anemia Patients to Immunization with Salmonella Vaccines. John B. Robbins and Howard A. Pearson, Department of Pediatrics, University of Florida College of Medicine, Gainesville, Fla.

76. Studies on the Agglutination of Human Red Cell Precursors with Specific Isoantibodies. Jorge J. Yunis and Edmond Yunis, (introduced by R. Dorothy Sundberg), Department of Laboratory Medicine, University of Minnesota, Minneapolis, Minn.

77. Gel Precipitation and Immunoelectrophoretic Studies of Platelets. Richard W. Weiskopf and Paul S. Bowes (introduced by Eugene L. Lozner), Department of Medicine, State University of New York, Upstate Medical Center, Syracuse, N. Y.

78. Size Distribution of Blood Platelets of Varying Age. T. T. Odell, Jr., T. P. McDonald and D. G. Gosslee, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tenn.

79. Observations on the Mechanism of Granulocytosis in Man. Willis R. Keene, M. S. Greenberg and M. Krant, Medical Service, Lemuel Shattuck Hospital, Department of Health, Commonwealth of Massachusetts and the Departments of Medicine of Harvard Medical School and Tufts University School of Medicine, Boston, Mass.

80. Hematologic Effects of Protein Malnutrition and the Response to Protein Treatment. Donald M. Allen, Boston Floating Hospital, New England Medical Center, Boston, Mass.


82. Chloramphenicol-induced Hematopoietic Depression, a Double-Blinded Comparison with Tetracycline. Bernard D. Gussoff and Stanley L. Lee, Division of Hematology, Maimonides Hospital, and State University of New York, Downstate Medical Center, Brooklyn, N. Y.

83. Enzymatic Alterations in Folic Acid Metabolism in Leukemia. Robert Silber, R. Cox, J. Haddad and C. Friend, Department of Medicine, New York University School of Medicine, and Sloan-Kettering Institute, New York, N. Y.

84. Effect of Focal Irradiation on Human Bone Marrow. Thomas J. Lehar, Joseph M. Kiely, Gertrude L. Pease and P. W. Scanlon, Mayo Clinic and Foundation, Rochester, Minn.
85. THE “FLAMING CELL” IN MULTIPLE MYELOMA. Jorge E. Maldonado, Arnold L. Brown, Jr. and Edwin D. Bayrd, Mayo Clinic and Mayo Foundation, Rochester, Minn.

86. KINETICS OF ALBUMIN AND IRON IN THE THORACIC DUCT LYMPH: ROLE OF THE HIGHLY PERMEABLE HEPATIC VASCULATURE. H. S. Winchell, M. Pollycove and N. Kusubov (introduced by J. Lawrence), Donner Laboratory and Pavilion, Berkeley, Calif.

87. THE ORIGIN OF GRANULOCYTES IN CULTURES OF PERIPHERAL BLOOD LYMPHOCYTES. Edward H. Reisner, Jr., St. Luke’s Hospital, New York, N. Y.


89. ACUTE LEUKEMIA IN AN ISOLATED WESTERN COMMUNITY. Samuel K. McIlvanic and W. A. Dittman, Rockwood Clinic, Spokane, Wash.

90. OBSERVATIONS OF IN VIVO AMINE RELEASE BY THROMBIN. Richard B. Davis and Marilyn J. Palmer (introduced by C. J. Watson), Department of Medicine, University of Minnesota Medical School, Minneapolis, Minn.

91. PATHOGENESIS OF FIBRINOLYSIS SECONDARY TO DEFIBRINATION SYNDROME: EFFECT OF HEPARIN ADMINISTRATION. Clarence Merskey, A. J. Johnson, J. H. Pert and H. Wohl, Department of Medicine and Unit for Research in Aging, Albert Einstein College of Medicine and the Bronx Municipal Hospital Center, New York, N. Y.

92. ANTIGEN ANTIBODY EQUILIBRIUM AND ERYTHROCYTE SURVIVAL IN MAN. Nicolas V. Costea, VA West Side Hospital, and the University of Illinois, College of Medicine, Chicago, Ill.

93. THE FAILURE OF PRODUCTION OF CARBONMONOXYHEMOGLOBIN TO ALTER THE PHYSICAL STATE OF SICKLE CELLS. H. B. Purugganan and A. E. McElfresh, Temple University School of Medicine, and St. Christopher’s Hospital for Children, Philadelphia, Pa.

94. A CLINICAL AND BIOCHEMICAL COMPARISON OF TWO INTRAMUSCULAR IRON PREPARATIONS. Dorothy C. H. Ley, University of Toronto and Toronto Western Hospital, Toronto, Canada.

95. QUININE-INDUCED HEMOLYSIS: MECHANISM OF ACTION. John M. Bennett and Jane F. Desforges, Tufts Hematology Laboratory, Boston City Hospital, Boston, Mass.

96. DIRECT ASSAY FOR DIHYDROFOLATE REDUCTASE IN HUMAN LEUKOCYTES. D. K. Misra (introduced by George Brecher), Medicine Branch, N.I.H. Bethesda, Md.

97. HEREDITARY METHEMOGLOBINEMIA ASSOCIATED WITH SEVERE MENTAL RETARDATION. Ernst R. Jaffé, Gertrude Neumann, Harvey Rothberg, F. T. Wilson and R. M. Webster, Albert Einstein College of Medicine, New York, N. Y., and Princeton Hospital, Princeton, N. J.
98. Immunochemical Studies on Anti-Antibodies. J. W. Goodman, F. Milgram and H. H. Fudenberg, University of California School of Medicine, San Francisco, Calif., and the University of Buffalo School of Medicine, Buffalo, N. Y.

99. Release of Mitotable Plasmacytoid Mononuclear Cells into Peripheral Blood Following Accidental Radiation Exposure. M. Ingram (with the assistance of Rita Mc Daniels, B. Morehouse and G. Yettewich), School of Medicine and Dentistry, University of Rochester, Rochester, N. Y.

100. Effect of Prior Injection of Vitamin B₁₂ Analogues upon Plasma Clearance of Labeled Cyanocobalamin. L. M. Schiffer, L. M. Meyer, D. A. White and E. P. Cronkite, South Nassau Communities Hospital, Oceanside, N. Y.

101. In Vitro Biosynthesis of Heterogenic Hemoglobins. D. Heywood, M. Karon and Sherman Weissman (introduced by S. Perry), Medicine Branch, National Cancer Institute, N.I.H., Bethesda, Md.

102. Comparative Thrombogenic Potential of Lipids and Cholesterol. S. Schwartz, J. I. Brody and L. H. Betzer, Department of Medicine, The Graduate Hospital and Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pa.

103. Standard Clotting Time. George A. Mayer, Department of Medicine, Queen's University and Kingston General Hospital, Kingston, Canada

104. Abnormal Plasma Transport of Vitamin B₁₂ in Chronic Myelogenous Leukemia. Charles A. Hall, Hematology Section, VA Hospital, and Albany Medical College, Albany, N. Y.


106. In Vitro Survival of Normal and Leukemic Lymphocytes in Human and in Guinea Pig Sera. Robert Schrek, Tumor Research Laboratory, Research and Surgical Services, VA Hospital, Hines, Ill.

107. Oxygen Equilibria of Hemoglobins LePore and A₂. Grace G. Eddison, R. W. Briehl and Helen M. Ranney, Department of Medicine and Physiology, Albert Einstein College of Medicine, Bronx, N. Y.


11. The Molecular Abnormality of Hemoglobin M_Iwate (M_IwateKankaneeM_Iwate). Paul Heller and R. D. Coleman, VA West Side Hospital, and University of Illinois College of Medicine, Chicago, Ill., and Richard T. Jones, Division of Experimental Medicine, University of Oregon Medical School, Portland, Ore.

12. A Slide Test for the Visualization of Hemoglobin S. V. J. Yakulis and Paul Heller, VA West Side Hospital, and the University of Illinois College of Medicine, Chicago, Ill.

13. Hyperoxic Hemolysis in Vivo and Lipid Peroxidation. Charles E. Mengel, Herbert Kann, Paul Hochstein and Herbert Saltzman, Duke University Medical Center, Durham, N. C.

14. Case of Mast Cell Leukemia with Active Heparin Secretion. Charles M. Sinn and W. J. Shively, St. Mary’s Hospital, Evansville, Ind.


17. Chromatography of Erythrocyte Hemins. G. R. Lee, A. Haut, T. Caine, G. E. Cartwright and M. M. Wintrobe, Department of Medicine and College of Medicine, University of Utah, Salt Lake City, Utah.

18. Longevity of 5-Hydroxytryptamine-C14-Labeled Platelets. H. R. Jackson (by invitation), Sloan J. Wilson and Helen E. Heath, Department of Medicine, University of Kansas Medical Center, Kansas City, Kan.

19. Immune Globulins in Chronic Lymphatic Leukemia. W. E. Larsen (by invitation) and Megan Rucker (introduced by S. J. Wilson, University of Kansas Medical Center, Kansas City, Kan.

20. Studies on the Opsonic Activity of Enzyme and Sulfhydryl-Treated Anti-Rat Erythrocyte and Anti-Escherichia Coli Antibody. Peter A. Miescher and Hans Spiegelberg, Department of Medicine, New York University School of Medicine, New York, N. Y.


123. Latex Particles and Platelet Adhesiveness. M. Glynn, E. A. Murphy, H. Movat and J. F. Mustard, Departments of Medicine and Pathology, University of Toronto, and Department of Medicine, Johns Hopkins University, Baltimore, Md.

124. The Effect of Epinephrine on Blood Coagulation. A. H. Ozge, H. C. Roswell, H. G. Downie and J. F. Mustard, Department of Physiological Science, Ontario Veteran College, Guelph Blood and Vascular Disease Research Unit, Department of Medicine, University of Toronto, Canada.

125. Ten-Year Survival in Acute Leukemia; The Increasing Duration of Life in This Dyscrasia. G. A. Hyman, G. A. Garden, Jr. and Zebulon Weaver, Institute of Cancer Research, College of Physicians and Surgeons, Columbia University, New York, N. Y.

126. X-Radiation and Radiomimetic Drugs as Trigger Mechanisms of Autoimmune Complications in Lymphoproliferative Disease. F. Bruce Lewis, Robert S. Schwartz and William Dameshek, Blood Research Laboratory, Pratt Clinic-New England Center Hospital, and Department of Medicine, Tufts University School of Medicine, Boston, Mass.


128. The Development of Large Immature Mononuclear Cells in Mixed Leukocyte Cultures. B. Bain, M. Vas and L. Lowenstein, Division of Haematology, Royal Victoria Hospital, and University Clinic, McGill University, Montreal, Que.

129. Immunologic Relationships of Bence Jones Proteins to Each Other and to Normal Gamma Globulin. R. L. Engle, Jr., R. L. Nachman and Stefan Stein, Department of Medicine, New York Hospital-Cornell Medical Center, New York, N. Y.


131. Abnormal Glucose Tolerance Responsiveness in G-6-PD Deficiency. D. Channwgan and Abraham P. Frumin, Department of Laboratories, Albert Einstein Medical Center, Southern Division, Philadelphia, Pa.

132. Local Blood Flow in Normal Human Marrow. S. Trubowitz, H. Strauss and M. J. Small, Veterans Administration Hospital, Hematology Section, East Orange, N. J.


134. Study of Fibrinogen in Hemostasis. J. Caen, Hopital St. Louis, and
135. Withdrawn.
136. **On the Innocuous Nature of the Sickling Phenomenon in Deer.** Charles F. Whitten, Children’s Hospital of Michigan and Wayne State University College of Medicine, Detroit, Mich.

137. **Alteration of Erythrocyte Lactate Dehydrogenase Isoenzymes in Red Blood Cell Disease.** W. H. Starkweather, L. E. Cousineau, H. K. Schoch and C. J. D. Zarafonetis, Medical Research Laboratories, VA Hospital and Simpson Memorial Institute, University of Michigan School of Medicine, Ann Arbor, Mich.

138. **A Fat-Soluble Derivative of Vitamin B₁₂.** L. M. Harris and R. C. Bishop, Simpson Memorial Institute, University of Michigan School of Medicine, Ann Arbor, Mich.

139. **Energy Metabolism of Human Lymphocytic and Granulocytic Leukemic Cells.** John Laszlo, Duke Medical Center, and VA Hospital, Durham, N. C.

140. **Characterization and Correlation of the Clinical, Laboratory and Survival Data in 76 Patients with Multiple Myeloma.** P. P. Carbone, N. Mohberg, Edmund A. Gehan and Emil Frei, III (introduced by N. I. Berlin), Medicine and Biometry Branches, National Cancer Institute, N.I.H., Bethesda, Md.

141. **Erythrocyte Cholinesterase Regeneration in Patients with Accelerated Erythropoiesis and “High Output” Patterns of Erythropoietic Failure.** A. J. Samuels, Dorli Furrer and Ilse Wolfson, Departments of Medicine, UCLA Medical Center and Cedars of Lebanon-Mt. Sinai Hospitals, Los Angeles, Calif.

142. **Diffusion of Hemoglobin from the Hemolysing Red Cell.** J. A. Kochen, Department of Pediatrics, Albert Einstein College of Medicine, New York, N. Y.

143. **An Automated System for Sensitive and Quantitative Blood Typing.** R. E. Rosenfeld and Irma O. Szymanski, Department of Hematology, Mt. Sinai Hospital, New York, N. Y.

144. **Reversal of the Iron Storage Disease Associated with Pyridoxine-Responsive Anemia.** F. Lottsfeldt, J. Lowman, W. Krivit, Department of Pediatrics, University of Minnesota, Minneapolis, Minn.

145. Withdrawn.


147. **The Longevity and Radiosensitivity of Small Lymphocytes.** S. H. Robinson, (introduced by George Brecher), Clinical Center, N.I.H., Bethesda, Md.

149. Tritium-labeled Methotrexate as a Possible Label for the Measurement of the Life Span of Leukocytes. J. R. Bertino, D. G. Johns and J. W. Hollingsworth, Departments of Pharmacology and Medicine, New Haven, Conn.

150. Clot Formation in Heparinized Microhematocrit Specimens. M. R. Laby, S. Self and J. A. Kochen, Department of Pediatrics, Albert Einstein College of Medicine, New York, N. Y.

151. Chemical and Kinetic Studies on Hemoglobin Zurich. R. F. Rieder, W. H. Zinkham (introduced by C. Lockard Conley), Hematology Division, The Johns Hopkins University School of Medicine, Baltimore, Md.


153. Factor VIII (Antihemophilic Factor, AHF) during Pregnancy: A Possible Application to the Diagnosis of the Carrier State in Hemophilia A and Absence of its Passage through the Placental Membrane. H. S. Strauss and L. K. Diamond, Children’s Hospital Medical Center, Department of Pediatrics, Harvard Medical School, Boston, Mass.


156. The Effect of Intravenous Administration of Human Gastric Juice on the Hepatic Uptake of Co 57B12 in Man. R. Weisberg, W. S. Rosenthal and G. B. Jerzy Glass, Department of Medicine, New York Medical College, New York, N. Y.

157. Patterns of Rh Immunization. J. Woodrow, R. Finn and J. R. Krevans, The Johns Hopkins University School of Medicine, Baltimore, Md.

158. Antigen-Antibody Reactions of Isolated Polypeptide Chains of Known Amino Acid Composition from Human Hemoglobin. Loraine M. Kraus and F. G. Sassano, Department of Biochemistry, University of Tennessee Medical Units, Memphis, Tenn.

159. Spurious Paraproteinemias with Macromolecular R.A.-Factor Complexes. William C. Levin, S. E. Ritzmann and Joanna P. Seeuwen, Hematology Research Laboratory, School of Medicine, University of Texas Medical Branch, Galveston, Texas

160. Mechanism of Hematosuppression of Ethanol. Louis W. Sullivan and
Victor Herbert, Thorndike Memorial Laboratory and the Second and Fourth (Harvard) Medical Services, Boston City Hospital, and the Department of Medicine, Harvard Medical School, Boston, Mass.


162. Lymphocytic Activities in Runt (Homologous) Disease and Leukemia. J. G. Sinkovics, C. D. Howe and C. C. Shullenberger, (supported by U.S.P.H.S.), Department of Medicine, University of Texas, M. D. Anderson Hospital, and Tumor Institute, Houston, Texas

163. Thalassemia Intermedia—A Phenotypic Variant of Homozygous Thalassemia with Prolonged Survival and Development of Intrathoracic Masses. Marion E. Erlandson, G. Currarino and C. H. Smith, Department of Pediatrics, New York Hospital—Cornell University Medical Center, New York, N. Y.

164. Milk-induced Gastrointestinal Blood Loss. John F. Wilson, D. C. Heiniger and M. Eugene Lahey, Department of Pediatrics, College of Medicine, University of Utah, Salt Lake City, Utah

165. Biochemical Alterations in Cushing's Syndrome Caused by CNS Leukemia. K. O. Williams and N. A. Shore (introduced by Denman Hammond), Division of Hematology, Children's Hospital of Los Angeles, Los Angeles, Calif.

166. Preliminary Studies of Radioactive Mercury Neohydrin Localization in Carcinoma. D. Bruce Sodee, Isotope Section, Department of Radiology, Walter Reed General Hospital, Washington, D. C.

167. The Nature of Sex Differentiation of Avian Erythrocytes by Lectin of Horse-chestnut (Aesculus hippocastanum). Elias Cohen, Roswell Park Memorial Institute, Buffalo, N. Y.

168. Studies of Bovine Thrombin Enhancement of PNH Hemolysis. D. E. Jenkins, Jr., N. L. Lyde and R. C. Hartmann, VA Hospital and Vanderbilt University School of Medicine, Nashville, Tenn.

169. Comparison of the Capacities of Hydrocortisone-sensitive and Hydrocortisone-resistant Variants of a Mouse Lymphosarcoma to Metabolize Hydrocortisone. John H. Bryant and Silvia Schechner, Clinical Research Center, Department of Medicine, University of Vermont College of Medicine, Burlington, Vt.

170. In Vitro Assay for Human Intrinsic Factor: Studies of Two Methods, and Report of Two Properties in Common of Intrinsic Factor and Blood Group O (H) Substance. V. Herbert and L. W. Sullivan, Thorndike Memorial Laboratory and the Second and Fourth (Harvard) Medical Services, Boston City Hospital, and the Department of Medicine, Harvard Medical School, Boston, Mass.
171. Prolonged Survival of Children with Acute Leukemia. C. A. Brubaker, C. B. Hyman, K. O. Williams, N. Shore, D. Hammond and M. Sheheedy, Department of Pediatrics, University of Southern California School of Medicine, and Division of Hematology, Children’s Hospital, Los Angeles, Calif.


174. Leukocyte Kinetic Patterns in Acute Leukemia. Alvin M. Mauer, Virginia Fisher and Ruth Scheib (introduced by Ben I. Friedman), University of Cincinnati College of Medicine and Children’s Hospital Research Foundation, Cincinnati, Ohio.

175. Relationship of Erythrocyte and Serum Folate in Normal Subjects and in Pernicious Anemia. B. A. Cooper and Louis Lowenstein, Division of Hematology, Department of Medicine, Royal Victoria Hospital, Montreal, Quebec.

176. The Migration of Granulocytes from the Blood to Inflammatory Exudates. D. R. Boggs, J. W. Athens, G. E. Cartwright and M. M. Wintrobe, Department of Medicine, College of Medicine, University of Utah, Salt Lake City, Utah.

177. Cell Proliferation in Canine and Human Marrow. P. K. Lala, M. A. Maloney and H. M. Patt, Division of Biological and Medical Research, Argonne National Laboratory, Argonne, Ill.


179. The Incorporation of Radioiron into Nonheme Protein by Megaloblastic Marrows. Edward C. Lynch and Clarence P. Alfrey, Jr., Department of Medicine and Radioisotope Service, Veterans Administration Hospital and Baylor University College of Medicine, Houston, Texas.


181. The Turnover and Origin of Macrophages in Acute Non-Bacterial In-
FLAMMATION IN THE RAT. A. Volkman (introduced by Jacob Furth),
College of Physicians and Surgeons, Department of Pathology,
Columbia University, New York, N. Y.

182. DIGITOXIN-INDUCED THROMBOCYTOPENIA: ANTIBODY DEMONSTRATED BY
INCREASE OF PLATELETS FACTOR 3 REACTIVITY AND BY STUDIES WITH
TRITIATED DIGITOXIN. H. I. Horowitz, R. C. Young and Ralph Nach-
man, Department of Medicine, The New York Hospital-Cornell
Medical Center, New York, N. Y.

183. AN EFFECT OF LEUKOCYTE ALKALINE PHOSPHATASE ON DNA SYNTHESIS.
J. R. Rubini (introduced by H. Lessner), VA Hospital and South-
western Medical School, Dallas, Texas

184. ROLE OF TRANSFERRIN IN IRON ABSORPTION IN HUMANS. M. S. Wheby, U. S.
Army Tropical Research Medical Laboratory, San Juan, P. R.

185. TREATMENT OF CYCLIC NEUTROPENIA WITH TESTOSTERONE. I. Brodsky,
Hobart A. Reimann and Lewis H. Dennis, Department of Medicine,
Hahnemann Medical College and Hospital, Philadelphia, Pa.

186. HEREDITARY RESISTANCE TO COUMARIN ANTICOAGULANT DRUGS: THE FIRST
REPORTED KINDRED. R. A. O'Reilly, P. M. Aggeler, M. S. Hoag, L. S.
Leong and M. Kropatkin, Children's Hospital and University of
California School of Medicine, San Francisco, and Santa Clara
County Hospital, San Jose, Calif.

187. FURTHER STUDIES ON THE EFFECT OF ANDROGENS ON THE ANEMIA OF MYE-
LOID METAPLASIA. Frank H. Gardner, Peter Bent Brigham Hospital,
Boston, Mass.

188. THE HEMOLYTIC-NEPHRITIC SYNDROME. D. Hammond, G. N. Donnell, Eva
Hueser and Ellen Lieberman, Departments of Pediatrics and Path-
ology, University of Southern California School of Medicine and
Children's Hospital of Los Angeles, Calif.

189. VARIATION IN A2 HEMOGLOBIN DURING PREGNANCY. Ayhan Okcuoglu,
Virginia Minnich and Mary E. H. Anderson, Department of Medi-
cine, Washington University School of Medicine, St. Louis, Mo.

190. PLATELET SURVIVAL STUDIES USING TRITIUM-LABELED DIISOPROPYLFUORO-
PHOSPHATE. E. Adelson, R. M. Kaufman, S. Dimassis, A. A. Lear
and J. J. Rheingold, Hematology Research Laboratory, George
Washington University School of Medicine, Washington, D. C.

191. SIGNIFICANCE OF PLASMA IRON TURNOVER IN THE CONTROL OF IRON AB-
SORPTION. L. R. Weintraub, M. E. Conrad and W. H. Crosby, De-
partment of Hematology, Walter Reed Army Institute of Research,
Washington, D. C.

192. THE ROLE OF THE INTESTINE IN THE REGULATION OF IRON ABSORPTION. M.
E. Conrad, L. R. Weintraub and W. H. Crosby, Department of Hema-
tology, Walter Reed Army Institute of Research, Washing-
ton, D. C.