THIS ISSUE CONSISTS OF TWO PARTS. THIS IS PART 1

1393 Alan C. Sartorelli and Barbara A. Booth. The Synergistic Anti-neoplastic Activity of Combinations of Mitomycins with Either 6-Thioguanine or 5-Fluorouracil.

1401 Gerald J. Goldenberg and Peter Alexander. The Effects of Nitrogen Mustard and Dimethyl Myleran on Murine Leukemia Cell Lines of Different Radiosensitivity in Vitro.


1446 Selma Silagi. Metabolism of 1-$eta$-D-Arabinofuranosylcytosine in L Cells.


1459 R. J. Papac, P. Calabresi, J. W. Hollingsworth, and A. D. Welch. Effects of 1-$\beta$-D-Arabinofuranosylcytosine Hydrochloride on Regenerating Bone Marrow.

1463 V. Donisch and R. J. Rossiter. Metabolism of Phospholipids in Ehrlich Ascites Tumor.

1469 Symposium: Conference on Obstacles to the Control of Acute Leukemia.

1680 Announcements
SYMPOSIUM
SPONSORED BY THE AMERICAN CANCER SOCIETY
AND
THE NATIONAL CANCER INSTITUTE

Conference on Obstacles to the Control of Acute Leukemia

Held at the
AIRLIE HOUSE, WARRENTON, VIRGINIA
MARCH 21, 22, and 23, 1964

PROGRAM

List of Participants ........................................ 1471
Sidney Farber. Introductory Remarks: Review of Current Status of the Problem .................. 1472

Clinical Obstacles to the Control of Acute Leukemia

Sidney Farber, Chairman

Henry S. Kaplan. The Control of Leukemia in Relation to its Etiology and Pathogenesis .... 1473
James T. Grace, Jr. Formal Discussion: Biologic Aspects ................................................. 1477
Eugene D. Day. Formal Discussion: Immunologic Aspects ............................................... 1479
Wataru W. Sutow, Margaret P. Sullivan, and Grant Taylor. Status of Present Treatment for Acute Leukemia in Children ............................................................... 1481
Joseph H. Burchenal and M. Lois Murphy. Long-Term Survivors in Acute Leukemia .... 1491
Wolf W. Zuelzer. Formal Discussion: Long-Term Survivors .............................................. 1495
Isaac Djerassi and Sidney Farber. Control and Prevention of Hemorrhage: Platelet Separation ...................................................................................................................... 1499
Emil Frei, III. Summary of Informal Discussion on Clinical Obstacles to the Control of Leukemia ................................................................. 1504

Clinical Obstacles to the Control of Acute Leukemia

Emil Frei, III, Chairman

Emil Frei, III, Robert H. Levin, Gerald P. Bodey, Edward E. Morse, and Emil J. Freireich. The Nature and Control of Infections in Patients with Acute Leukemia ......................................................... 1511
E. D. Thomas and R. B. Epstein. Bone Marrow Transplantation in Acute Leukemia ........ 1521
G. Mathé, J. L. Amiel, L. Schwarzenberg, A. Cattan, and M. Schneider. Adoptive Immunotherapy of Acute Leukemia: Experimental and Clinical Results ......................................................... 1525

Pharmacological Obstacles to the Control of Acute Leukemia

Howard E. Skipper, Chairman

Charles A. Nichol. Some Pharmacologic Considerations Concerning the Control of Acute Leukemia ................................................................. 1532
R. E. Handschumacher. Formal Discussion: Some Enzymatic Considerations in Combination Chemotherapy ................................................................. 1541
Howard E. Skipper. The Effects of Chemotherapy on the Kinetics of Leukemic Cell Behavior ................................................................. 1544
Morris Friedkin. Formal Discussion: Some Reflections on the Basis of Drug Failures ........ 1551
Howard E. Skipper. Summary of Informal Discussion on the Effects of Chemotherapy on the Kinetics of Leukemic Cell Behavior ................................................................. 1553

1469
LOUIS B. THOMAS. Pathology of Leukemia in the Brain and Meninges: Postmortem Studies of Patients with Acute Leukemia and of Mice Given Inoculations of L1210 Leukemia .................................................. 1555
DAVID P. RALL. Experimental Studies of the Blood-Brain Barrier .................................................. 1572
HOWARD E. SKIPPER. Summary of Informal Discussion on Pharmacologically Protected Areas ........ 1578

BIOCHEMICAL RESISTANCE TO CHEMOTHERAPEUTIC AGENTS
Arnold D. Welch, Chairman

R. W. BROCKMAN. Resistance to Purine Antagonists in Experimental Leukemia Systems .................. 1596
JACK D. DAVIDSON. Formal Discussion on Resistance to Purine Antagonists in Experimental Leukemia Systems .............................................................. 1606
WILLIAM C. WERKHEISER. Limitations on the Therapeutic Effectiveness of the Folate Antagonists .... 1608
J. R. BERTINO. Current Studies of the Folate Antagonists in Patients with Acute Leukemia .............. 1614
DORRIS J. HUTCHISON. Summary of Informal Discussion on Biochemical Resistance to Chemotherapeutic Agents ......................................................................... 1620

TOXICITY OF ANTI-LEUKEMIC DRUGS
James A. Holland, Chairman

C. J. KENSLER, P. E. PALM, H. M. DAY, S. P. BATTISTA, W. I. ROGERS, D. W. YESAIR, AND I. WODINSKY. Toxicology of Anti-leukemic Agents with Special Reference to Phthalanilide Derivatives ........................................ 1622
JAMES F. HOLLAND. Formal Discussion: The Clinical Pharmacology of Anti-Leukemia Agents ........ 1639
RAYMOND LATARJET. Inhibitory Effect of Isologous Irradiated Leukemic Extracts upon Spontaneous Leukemogenesis in AKR Mice (Summary) ....................................................... 1642
F. BERGEL AND K. R. HARRAP. Future Possibilities for the Development of Treatments of Leukemia .... 1643
EDWARD J. MODEST. Formal Discussion: Future Prospects in Leukemia Chemotherapy ............... 1649
JAMES F. HOLLAND. Informal Discussion on Toxicity of Anti-Leukemic Drugs ............................... 1652

MISCELLANEOUS

LEON DMOCHOWSKI. Electron Microscopic Observations of Leukemia in Animals and in Man ........ 1654
JEAN BERNARD. Long Duration of Complete Remissions in Acute Leukemia ................................. 1673
JEAN BERNARD, MICHEL BOIRON, PIERRE LORTHOLARY, AND JEAN-PAUL LEVY. The Very Acute Leukemias ........................................................................... 1675

SUMMATION OF THE CONFERENCE
Sidney Farber, Chairman

HOWARD E. SKIPPER. Review of Experimental Reports and Discussions ......................................... 1677
C. GORDON ZUBROD. Review of Clinical Reports and Discussions ................................................. 1678