

# Cancer Research

The Official Organ of the AMERICAN ASSOCIATION FOR CANCER RESEARCH, INC.

Contents

Volume 25 • No. 9 • October 1965

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*.
- 1410 **Enrico Mihich and Charles A. Nichol.** Kethoxal Bis(thiosemicarbazone). I. Effects against Experimental Tumors.
- 1417 **E. Mihich, C. L. Simpson, and A. I. Mulhern.** Kethoxal Bis(thiosemicarbazone). II. Toxic and Pathologic Effects.
- 1432 **George T. Bryan, C. R. Morris, and R. R. Brown.** Absorption of  $^{14}\text{C}$ -labeled 3-Hydroxy-L-kynurenine and 3-Hydroxyanthranilic Acid from the Mouse Urinary Bladder under Carcinogenic Conditions.
- 1438 **Janos Molnar, Richard A. Lutes, and Richard J. Winzler.** The Biosynthesis of Glycoproteins. V. Incorporation of Glucosamine-1- $^{14}\text{C}$  into Macromolecules by Ehrlich Ascites Carcinoma Cells.
- 1446 **Selma Silagi.** Metabolism of 1- $\beta$ -D-Arabinofuranosylcytosine in L Cells.
- 1454 **Frederic A. French and Erwin J. Blanz, Jr.** The Carcinostatic Activity of  $\alpha$ -(N) Heterocyclic Carboxaldehyde Thiosemicarbazones. I. Isoquinoline-1-carboxaldehyde Thiosemicarbazone.
- 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 Transfusion . . . . .	1499
EDMUND KLEIN, SIDNEY FARBER, AND ISAAC DJERASSI. Control and Prevention of Hemorrhage: Platelet Separation . . . . .	1504
EMIL FREI, III. Summary of Informal Discussion on Clinical Obstacles to the Control of Leukemia . . . . .	1510

#### 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
EMIL J. FREIREICH, GEORGE JUDSON, AND ROBERT H. LEVIN. Separation and Collection of Leukocytes . . . . .	1516
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

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*

DORRIS J. HUTCHISON. Studies on Cross-Resistance and Collateral Sensitivity (1962-1964) . . . . .	1581
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 Folic Acid 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

# Cancer Research

The Journal of Cancer Research (1916–1930) | The American Journal of Cancer (1931–1940)

## 25 (9 Part 1)

*Cancer Res* 1965;25:1393-1682.

**Updated version** Access the most recent version of this article at:  
[http://cancerres.aacrjournals.org/content/25/9\\_Part\\_1.citation](http://cancerres.aacrjournals.org/content/25/9_Part_1.citation)

**E-mail alerts** [Sign up to receive free email-alerts](#) related to this article or journal.

**Reprints and Subscriptions** To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at [pubs@aacr.org](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link [http://cancerres.aacrjournals.org/content/25/9\\_Part\\_1.citation](http://cancerres.aacrjournals.org/content/25/9_Part_1.citation). Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.