Contents

Asterisks preceding the title refer to studies in humans.

1141 Survival Kinetics of Cultured Human Lymphoma Cells Exposed to Adriamycin. Benjamin Drewinko and Jeffrey A. Gottlieb.


1150 Bioassay and Relative Cytotoxic Potency of Cyclophosphamide Metabolites Generated in Vitro and in Vivo. N. E. Sladek.


1169 A Comparative Study of Some Properties of Chromatin from Two “Minimal Deviation” Hepatomas. Eugene A. Arnold, Mary Margaret Bukas, and Keith E. Young.

1177 Serum Immunoglobulin Content in Normal and Lymphoid Tumor-bearing Xenopus laevis. Irandokht Hadji-Azimi.


1202 * Leukocyte Purine Phosphoribosyltransferases in Human Leukemias Sensitive and Resistant to 6-Thiopurines. Martin Rosman and Hibbard E. Williams.


1235 Enzyme Activities in Regressing Estrone-induced Mammary Tumors of the Rat. J. Harry Cutts.

1238 Viropexis of Type B Particles in Reticulum Cell Sarcoma of RIII/Dm Strain Mice. Gabriel Seman and Leon Dmochowski.

1247 Effects of Diethylstilbestrol on Hybridizability of Mouse Testicular RNA. Kiyoshi Kotok, Robert A. Huseby, Alberto Baldi, and Leo T. Samuels.


1265 Studies on the Mode of Action of 2,2'-Anhydro-1,3-arabinoarabinofuranosylcytosine. M. C. Wang, R. A. Sharma, and A. Bloch.
Separable DNA Polymerase Activities in Host Liver and Morris Hepatomas. 
Peter Ove, Mona L. Coetzee, and Harold P. Morris.

Evidence for a Glucuronic Acid Conjugate of N\(^{-}\)-Hydroxy-4-aminobiphenyl in the Urine of Dogs Given 4-Aminobiphenyl. 
Jack L. Radomski, Alberto A. Rey, and Earl Brill.

Differential Cell Permeability and the Basis for Selective Activity of Methotrexate during Therapy of the L1210 Leukemia. 
Francis M. Sirotmak and Ruth C. Donsbach.

Enhanced Growth of Fibrosarcoma in Mice Treated with Phytohemagglutinin. 
D. J. Theo Wagener.

Abnormal Cholesterol Uptake, Storage, and Synthesis in the Livers of 2-Acetylamino-fluorene-fed Rats. 
Brian J. Horton, Jeanette D. Horton, and Henry C. Pitot.

Poly(Adenosine Diphosphate Ribose) Synthesis during the Cell Cycle of Transformed Hamster Lung Cells. 
Masanao Miwa, Takashi Sugimura, Naomichi Inui, and Shoso Takayama.

Clinical and Pharmacological Studies with cis-Diaminedichloroplatinum (II). 
Ronald C. DeConti, Bartlett R. Toftness, Robert C. Lange, and William A. Creasey.

Protein Turnover in Microsomal Subfractions of Liver and Morris Hepatomas 7800 and 9618A. 
Geoffrey H. Moyer and Henry C. Pitot.

Effect of 5-Bromo-2-deoxyuridine on Transport of Deoxyglucose and Cycloleucine in 3T6 Fibroblasts. 
Atsushi Tsuboi and Renato Baserga.

Rapid Arrest of DNA Synthesis by N\(^{-}\),O\(^{\ominus}\)-Dibutylryl Cyclic Adenosine 3',5'-Monophosphate in Cultured Hepatoma Cells. 
Roeland Van Wijk, Wesley D. Wicks, Marinus M. Bevers, and Johannes Van Rijn.

Protection against Radiation Leukemogenesis by Repeated Injections of Immune and Nonimmune Foreign Sera. 
Jorge F. Ferrer, Miriam Lieberman, and Henry S. Kaplan.

Symposium: Herpesvirus and Cervical Cancer.

Program.

List of Participants.

Program Committee.

Introduction. 
Jack W. Milder

Foreword. 
George D. Wilbanks.

Symposium: Herpesvirus and Cervical Cancer.

I. D. Rotkin.

Cytohistopathology of Cervical Cancer. 
Elizabeth Stern.

A Selective Review of Experimental Studies in Cervical Carcinoma. 
George D. Wilbanks.

Summary of Informal Discussion on General Aspects of Cervical Cancer. 
George D. Wilbanks.

The Genetics of Herpesvirus. 
John Subak-Sharpe.

Albert S. Kaplan.

Latent Infections Induced by Herpes Simplex Virus. 
Jack G. Stevens and Margery L. Cook.

The Transcription and State of Herpes Simplex Virus DNA in Productive Infection and in Human Cervical Cancer Tissue. 
Bernard Roizman and Niza Frenkel.

Summary of Informal Discussion on General Aspects of Herpesvirus. 
Clyde R. Goodheart.

Evidence for an Oncogenic Potential of the Epstein-Barr Virus. 
Werner Henle and Gertrude Henle.

Simian Herpesviruses. 
Friedrich Deinhardt, Lawrence A. Falk, and Lauren G. Wolfe.

Oncogenesis of Marek's Disease. 
Keyvan Nazarian.

Herpesvirus and the Lucké Tumor. 
Allan Granoff.

Oncogenicity of Rabbit Herpesvirus. 
Harry C. Hinze and Dennis L. Wegner.

Oncogenic Potential of Guinea Pig Herpes- and C-Type Viruses. 

Summary of Informal Discussion on Oncogenicity of Other Herpesviruses. 
Clyde R. Goodheart.

Clinical Features of Herpes Genitalis. 

Relation of Cytohistopathology of Genital Herpesvirus Infection to Cervical Anaplasia. 

Summary of Informal Discussion of Part I of Genital Herpesviruses. 
William E. Josey.

Antigens of Herpes Simplex Virus of Oral and Genital Origin. 
Peter Willy.
1515 Evidence for RNA Tumor Viruses in Human Lymphomas Including Burkitt's Disease.

1527 Transformation of Hamster Embryo Fibroblasts by Herpes Simplex Viruses Type 1 and Type 2.
Fred Rapp and Ronald Duff.

1535 Human Embryonic Lung Cells Transformed by Herpes Simplex Virus.
Klaus Munk and Ghomamrza Darai.

1539 Virions and Antigens of Herpesvirus Type 2 in Cervical Carcinoma.
Laure Aurelian.

1548 Nucleic Acid Hybridization and the Relationship between Cervical Cancer and Herpes Simplex Virus Type 2.
Clyde R. Goodheart.

1552 Summary of Informal Discussion on Experimental Approaches.
Friedrich Deinhardt.

1556 Epilog.
Friedrich Deinhardt.

1557 Summary of Papers Delivered at the Conference on Herpesvirus and Cervical Cancer (Key Biscayne, Florida).
George Klein.

1565 Obituary: Alexander Symeonidis.
Michael B. Shimkin.

1566 Announcements.

COVER LEGEND

An important pioneer program in experimental cancer chemotherapy was initiated by Cornelius Packard Rhoads (1898-1959) in New York during the 1940's.

Rhoads was born in Springfield, Massachusetts, completed his medical education at Harvard School of Medicine in 1924, and, following training in pathology, joined the research staff of the Rockefeller Institute for Medical Research in New York. In 1940 he succeeded James Ewing as Director of the Memorial Hospital for Cancer and Allied Diseases in New York City. During World War II he served in the United States Army Chemical Warfare Service. Under the cloak of wartime secrecy, nitrogen mustard was shown to have therapeutic effects in patients with leukemia and lymphoma. This led to the exploration for therapeutic effects of many analogs of nitrogen mustard and related chemicals developed for warfare and subsequent synthesis of many other alkylating chemicals.

Following the war, the Sloan-Kettering Institute for Cancer Research was organized, and the Memorial Hospital expanded to form the Memorial Center for Cancer and Allied Diseases (later Memorial-Sloan Kettering Cancer Center), of which Rhoads was the Director until his sudden death in 1959. Cancer chemotherapy was emphasized in the research program. Among the key personnel brought together by Rhoads were Dr. Joseph H. Burchenal, the late Dr. David A. Karnofsky, Dr. Frederick S. Philips, Dr. C. Chester Stock, and Dr. K. Sugiura.

The experimental cancer chemotherapy program was organized at the Sloan-Kettering Institute by Dr. C. Chester Stock (b. 1910) as Chief of the Division of Experimental Chemotherapy. In addition, he subsequently became the Director of the subsidiary Donald S. Walker Laboratory in Rye, New York, as well as a Vice-President of the Institute.

Dr. Kanematsu Sugiura (b. 1890) became head of the Tumor Spectrum Section of the chemotherapy program, with responsibility in the bioassay procedures. A native of Japan, Sugiura was brought to the United States in 1905, and his subsequent education and career developed in New York, in close association with many of the cancer research programs that evolved in the city. Sugiura's contributions to experimental cancer chemotherapy extend back to 1912 and are recorded in his many publications.

While he has been considered a "Jack of all trades" insofar as his talents and interests are concerned, his most important work has been focused on tumor transplantation, the effects of radiation in experimental tumor systems, frozen experimental tumors, and enzymes (particularly lipase) in tumors and normal tissue.


Rhoads is pictured on the left. Stock on the upper right, and Sugiura on the lower right. We are indebted to Dr. C. Chester Stock and Dr. Dorris J. Hutchison of the Sloan-Kettering Institute for the illustrations and information, and Claire Yaffa, who photographed Dr. Sugiura.