Contents

2593 Combination Cancer Therapy: Presidential Address.  
Emil Frei, III.

2608 HL-A and Lymphoid Tumors.  

2612 Mechanism of 1-β-D-Arabinofuranosylcytosine-induced Cell Lethality.  
Myron Karon, William F. Benedict, and Natalie Rucker.

2616 Nitrofurans as Radiosensitizers of Hypoxic Mammalian Cells.  

2625 Examination of the Carcinogenic and Co-carcinogenic Effects of Grenz Radiation.  
John H. Epstein.

2630 A Model System for the Evaluation of the Role of Cholesterol α-Oxide in Ultraviolet Carcinogenesis.  
Homer S. Black and David R. Douglas.

2633 Preparation and Characterization of 80 S Ribosomes of Ascites Tumor Cells Active in Polypeptide Synthesis.  
Karl Leinansky.

2643 Action of Camptothecin on Mammalian Cells in Culture.  

2651 Cyclic 3',5'-Nucleotide Monophosphate Phosphodiesterase Activity in Hepatomas of Different Growth Rates.  

2656 Quantitative Aspects of Transplacental Tumor Induction with Ethylnitrosourea in Rats.  

2661 Comparison of the Effects of Several Inhibitors of the Synthesis of Nucleic Acids upon the Viability and Progression through the Cell Cycle of Cultured H. Ep. No. 2 Cells.  
Glynn P. Wheeler, Bonnie J. Bowdon, Doris J. Adamson, and Margaret H. Vail.

2670 Coating of Friend Leukemia Virus after Treatment with Specific Antiserum.  
Toru Sato, Charlotte Friend, Christopher Stackpole, and Etienne de Harren.

2679 Activities and Quantities of Lysosomal Enzymes during Mammary Tumor Regression.  

2686 Quantitation of Chemically Induced Neoplastic Transformation of BALB/3T3 Cloned Cell Lines.  

2696 Ultramorphological and Ultracytochemical Studies on Tubuloreticular Structures in Lymphoid Cells.  
Zsuzsa Schaff, Ursula Heine, and A. J. Dalton.

2707 Electrophoretic Analysis of Microsomal Smooth Membrane Proteins in Rat Liver and in Morris Hepatoma 5123C.  
Vincenzo P. Chiarugi.

2711 Cytokinetic and Molecular Pharmacology Studies of Arabinosylcytosine in Metastatic Melanoma.  
Jacqueline S. Hart, Dah Hsi Ho, Stephen L. George, Philip Salem, Jeffrey A. Gottlieb, and Emil Frei, III.

2717 A Comparison of 5-Fluorouracil Administered by Slow Infusion and Rapid Injection.  

Robert A. Tobey.

2726 Use of Flow Microfluorometry in Detailed Analysis of Effects of Chemical Agents on Cell Cycle Progression.  
Robert A. Tobey and Harry A. Crissman.

2733 Differential Sensitivities of Human Melanoma Cells Grown in Vitro to Arabinosylcytosine.  

2737 The Effects of Arabinosylcytosine on Cultured Human Lymphoma Cells.  

2743 A Distinction between 3-Methylcholanthrene and Estrogen Binding in the Uterus.  
D. O. Toft and T. C. Spelsberg.

2747 Early Enhancement of Plating Efficiency of Primary Mouse Embryo Cells by the Carcinogen MethylNitrosourea.  
Jaroslav V. Frei and Jean Oliver.

2753 Radioimmunoassay for α-Fetoprotein in the Serum of Rats.  
David D. Oakes, Joseph Shuster, and Phil Gold.
Phenobarbital Effects on Cyclophosphamide Pharmacokinetics in Man.

Ultrastructural Study of Liver Invasion by Novikoff Hepatoma.
Feridoun Babai and Gilles Tremblay.

Urethan and X-ray Effects on Mice of a Tumor-resistant Strain, X/Gf.
Anna Goldfeder.

Electron Microscopic Study of Neoplasms Induced by Urethan and X-rays in X/Gf Mice.
Anna Goldfeder.

Regulation of the Embden-Meyerhof Pathway in a Transplantable Rat Thyroid Tumor.
M. F. Meldolesi and V. Macchia.

Release of Thymidine from X-irradiated Spleen in the Rabbit as Determined by a New Bioassay.
Pierre A. Maurice.

Ultrastructural Characterization of Hamster Cells Transformed Following Exposure to Ultraviolet-irradiated Herpes Simplex Virus Type 2.
Ronald Glaser, Ronald G. Duff, and Fred Rapp.

Effect of Irradiation on Mouse Salivary Glands during the Prereplicative Phase of Isoproterenol-stimulated DNA Synthesis.
Takehito Sasaki and Masatoshi Toda.

Macrophage Production by the Bone Marrow of Tumor-bearing Mice.
Michael Baum and Bernard Fisher.

Morphological Studies of Angiosarcomas Induced by 1,2-Dimethylhydrazine Dihydrochloride in Syrian Golden Hamsters.
Bela Toth.

Elevation of Peptidylproline Hydroxylase Activity and Collagen Synthesis in Spontaneous Primary Mammary Cancers of Inbred Mice.
Kenneth R. Cutroneo, Norberto A. Guzman, and Annabel G. Liebelt.

Membrane Proliferation and Phosphatidylcholine Synthesis in Normal, Preneoplastic, and Neoplastic Mammary Gland Tissues in C3H Mice.
Lewis A. Hillyard and S. Abraham.

Letter to the Editor:
Absence of Plasma Erythropoietin in Mice with Anemia Induced by Rauscher Leukemia Virus.

Workshop in Human Tumor Immunology.
Herbert F. Oettgen, Michael A. Bean, and George Klein.

Report of the Third Meeting of the American Cancer Society Research Professors.
A. Clark Griffin and Emmanuel Farber.

Obituary: Nguyen Phuc Buu-Hoi.
Joseph C. Arcos.

Announcements.

Errata.

Acknowledgment to Reviewers.

Index to Volume 32.

Contents of Volume 32, 1972.

Cover Illustrations for 1972.

COVER LEGEND

The Danish Cancer Registry (Cancerregisteret, Strandboulevarden 49, 2100 København, Ø) is the oldest nation-based tumor registry in the world. It forms one of the human population laboratories that record the incidence and distribution of cancer and yield material for epidemiological studies on cancer.

The Danish Tumor Registry was opened in 1942 under the joint auspices of the Danish Cancer Society, National Health Service, and the Medical Association. In 1950 it moved to the Finsen Institute, which is pictured as the home of the Registry. Its records include information on all cancer cases in Denmark, which had a population in 1950 of 4.3 million and now one of 5 million.

The history of epidemiological cancer statistics, the operation, gathered data, and many special studies of the Registry have been published in a three-volume work, "Statistical Studies in the Aetiology of Malignant Neoplasms," by Johannes Clemmesen (Munksgaard, København, 1965-1969). A map of Denmark, showing the distribution of Hodgkin's disease in 1942-1946, is taken from Volume 1, page 507. Johannes Clemmesen was the founder and has been the director of the Danish Cancer Registry from its inception. He was born in 1908, in Copenhagen, and received his education at the University of Copenhagen. He is a specialist in clinical medicine as well as in pathology and is the chief pathologist of the Finsen Institute.

Dr. Clemmesen has made many contributions to pathology, immunology, and radiation of tumors, and to the statistical-epidemiological studies of cancer. Of particular note were his observations on the distribution of cancer by socioeconomic classes, on cancer of the breast and the uterine cervix, on smoking and lung cancer, and on leukemia. He has played a major role in international cancer studies, such as those carried out under the auspices of the World Health Organization.

We are indebted to Dr. Clemmesen for the illustrated material.