Contents

Asterisks preceding page numbers refer to human studies.


291 Tong-man Ong, B. E. Matter, and F. J. de Serres. Genetic Characterization of Adenine-3 Mutants Induced by 4-Nitroquinoline 1-Oxide and 4-Hydroxyaminoquinoline 1-Oxide in Neurospora crassa.

296 Donald L. Hill, Marion C. Kirk, and Robert F. Struck. Microsomal Metabolism of Nitrosoureas.


305 Maurice M. Coombs, Tarlochan S. Bhatt, and Cohn W. Vose. The Relationship between Metabolism, DNA Binding, and Carcinogenicity of 15,16-Dihydro-11-methylcyclopenta[a]phenanthren-17-one in the Presence of a Microsomal Enzyme Inhibitor.

310 Albert A. Keshgegian, Garth E. Austin, Sherry M. Meltzer, and John J. Furth. RNA Polymerase Isolated from Bovine Lymphosarcoma by Sequential Low- and High-Salt Extraction.


325 George B. Feldman. Lymphatic Obstruction in Carcinomatous Ascites.

333 François Martin, Samuel Knobel, Monique Martin, and Michel Bordes. A Carcinofetal Antigen Located on the Membrane of Cells from Rat Intestinal Carcinoma in Culture.


364 Lawrence Prutkin. Mucous Metaplasia and Gap Junctions in the Vitamin A Acid-treated Skin Tumor, Keratoacanthoma.

370 Mary Jane Yagi. Characteristics of Mammary Tumor Cultures from Four Mouse Strains Infected with Mammary Tumor Virus.


382 Hira L. Gurtoo and Chandrakant V. Dave. In Vitro Metabolic Conversion of Aflatoxins and Benzo(a)pyrene to Nucleic Acid-binding Metabolites.
Joseph G. Cory and Mary M. Mansell. Studies on Mammalian Ribonucleotide Reductase Inhibition by Pyridoxal Phosphate and the Dialdehyde Derivatives of Adenosine, Adenosine 5'-Monophosphate, and Adenosine 5'-Triphosphate.

Nelson Fausto, John T. Brandt, and Leo Kesner. Possible Interactions between the Urea Cycle and Synthesis of Pyrimidines and Polyamines in Regenerating Liver.


Patricia E. Byfield, Jerry Z. Finklestein, Karen L. Tittle, Connie Hsi, and David T. Imagawa. The Role of Serum Factors in the Acceleration by Freund's Complete Adjuvant of the Growth of Transplanted Murine Leukemic Cells.


Charles A. Apffel, John E. Walker, and Stefan Issaescu. Tumor Rejection in Experimental Animals Treated with Radioprotective Thiols.


James N. Ihle, Stanley E. Lane, Francis T. Kenney, and James G. Farrelly. Effect of Glucocorticoids on Activation of Leukemia Virus in AKR Mouse Embryo Cells.


Robert A. Tobey and Harry A. Crissman. Comparative Effects of Three Nitrosourea Derivatives on Mammalian Cell Cycle Progression.

Announcement from the Editor.

Announcements.

Erratum.

COVER LEGEND

One of the earlier demonstrations of an association between cigarette smoking and lung cancer was a case-control study published in 1950 by a medical student and his professor of surgery (J. A. M. A., 143: 329–338, 1950).

Ernest L. Wynder was born in Germany in 1922. He received his B.A. degree from New York University in 1943 and his M.D. from Washington University in St. Louis in 1950. He began his initial interviews on lung cancer patients and controls as a sophomore student.

Evarts A. Graham (1883–1957) was a native of Chicago and was graduated with an M.D. from Rush Medical College in 1907. He was professor of surgery at Washington University School of Medicine, 1919–1951, when he became emeritus professor. He had an illustrious academic and clinical career. In 1933 he performed the first successful pneumonectomy for lung cancer.


In 1969 Wynder established and heads the American Health Foundation and publishes the journal, Preventive Medicine, in New York. In 1974 the Naylor Dana Institute for Disease Prevention was opened as part of the Foundation.

E. L. Wynder, ca. 1950, is pictured on upper right, and E. A. Graham, ca. 1950, is on upper left. The bar graph, showing the distribution by amount of smoking among 605 male patients with lung cancer and 780 men without lung cancer, is from J. A. M. A., 143: 329, 1950. The skin cancer on the back of a mouse, produced by repeated applications of cigarette "tar," is from Cancer Res., 13: 855, 1953. We are indebted to Dr. John H. Weisburger for the illustrations and other assistance.