



Cancer Research

The Official Organ of the American Association for Cancer Research, Inc.

Contents

Asterisks preceding the title refer to studies in humans.

- 1 Photoscan Localization of GW-39 Tumors in Hamsters Using Radiolabeled Anticarcinobryonic Antigen Immunoglobulin G.
David M. Goldenberg, David F. Preston, F. James Primus, and Hans J. Hansen.
- 10 Protective Effect of Benzoflavone and Estrogen against 7,12-Dimethylbenz(a)anthracene- and Aflatoxin-induced Cytotoxicity in Cultured Liver Cells.
Arthur G. Schwartz.
- 16 Tumorigenesis in the Nasal Olfactory Region of Syrian Golden Hamsters as a Result of Di-*n*-Propylnitrosamine and Related Compounds.
Parviz Pour, Antonio Cardesa, Jürgen Althoff, and Ulrich Mohr.
- 27 * A Phase 2 Evaluation of 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (NSC 95441) in Patients with Advanced Breast Cancer.
David L. Ahmann, Harry F. Bisel, and Richard G. Hahn.
- 31 Comparison of Surface Material, Cytoplasmic Filaments, and Intercellular Junctions from Untransformed and Two Mouse Sarcoma Virus-transformed Cell Lines.
Gerald B. Dermer, John Lue, and Harry B. Neustein.
- 39 Studies on the Mechanism of Resistance to Lymphocytolysis Induced by Corticosteroids.
Roger W. Turnell and Albert F. Burton.
- 43 * Heterotransplantation Model of Human Malignant Melanoma.
Bijay Mukherji, Arlene Flowers, Larry Nathanson, and David A. Clark.
- 47 The Relationship of Lysozyme to the Nephropathy in Chloroleukemic Rats and the Effects of Lysozyme Loading on Normal Rat Kidneys.
Matti Klockars, Henry A. Azar, Riccardo Hermida, Takashi Isobe, Clement C. S. Hsu, Harriett Ansari, and Elliott F. Osserman.
- 61 Immunological Resistance to Pulmonary Metastases in C3Hf/Bu Mice Bearing Syngeneic Fibrosarcoma of Different Sizes.
Luka Milas, Nancy Hunter, Kathy Mason, and H. Rodney Withers.
- 72 Enhancement of Adenovirus Transformation by Treatment of Hamster Embryo Cells with Diverse Chemical Carcinogens.
Bruce C. Casto, William J. Pieczynski, and Joseph A. DiPaolo.

Volume 34 / Number 1 / January 1974

- 79 Chromosomal Heterogeneity in the RAG and MSWBS Mouse Tumor Cell Lines.
Shahnaz Hashmi, Penelope W. Allderdice, George Klein, and Orlando J. Miller.
- 89 Time Course of Tissue Water Proton Spin-Lattice Relaxation in Mice Developing Ascites Tumors.
Robert A. Floyd, John S. Leigh, Jr., Britton Chance, and Milan Miko.
- 92 Inhibitory Effect of Manganese upon Muscle Tumorigenesis by Nickel Sub sulfide.
F. William Sunderman, Jr., Thomas J. Lau, and Lewis J. Cralley.
- 96 Dietary Enhancement of Nitrosamine Carcinogenesis.
Adrienne E. Rogers, Oscar Sanchez, Fred M. Feinsod, and Paul M. Newberne.
- 100 Relationship of Antigenicity of Melanoma Cells Grown in 5-Bromodeoxyuridine to Reduced Tumorigenicity.
Selma Silagi, Elizabeth W. Newcomb, and Marc E. Weksler.
- 105 A Comparison of Three *in Vivo* Assays for Cell Tumorigenicity.
John C. Petricciani, Roslyn E. Wallace, and Donald W. McCoy.
- 109 Polyadenylate-containing RNA of Polyribosomes Isolated from Rat Liver and Morris Hepatoma 7800.
John W. Tweedie and Henry C. Pitot.
- 115 * *In Vitro* Immunization to Cultured Human Tumor Cells.
Brahma Sharma and Paul I. Terasaki.
- 119 The Effect of Dietary Protein Deficiency on the Ability of Isolated Hepatic Microsomes to Alter the Mutagenicity of a Primary and a Secondary Carcinogen.
Peter Czygan, Helmut Greim, Anthony Garro, Fenton Schaffner, and Hans Popper.
- 124 Selective Alteration of Immunocompetence with Methotrexate and 5-Fluorouracil.
J. A. DiLorenzo, D. E. Griswold, C. R. Bareham, and P. Calabresi.
- 129 Radiation-induced Changes in Established Tumor Immunity.
Jan Vaage, James H. Doroshow, and Thaya T. DuBois.
- 138 Cell-mediated Immune Response of Hamsters to Alloantigen and Tumor Antigens of Isologous and Autochthonous Origin during Chemical Carcinogenesis.
A. K. Szakal and M. G. Hanna, Jr.

- 146 *In Vitro* Leukocyte Thymidine Uptake in Chronic Lymphocytic Leukemia.
Roberto Lopez-Sandoval, Houshang Moayeri, and Joseph E. Sokal.
- 151 Strain-dependent Teratogenic Effects of 1-Ethyl-1-nitrosourea in Inbred Strains of Mice.
Bhalchandra A. Diwan.
- 158 Induction of Malignant Kidney Tumors in Rats with Streptozotocin.
S. Michael Mauer, Chue Shue Lee, John S. Najarian, and David M. Brown.
- 161 Protective Action of Mucopolysaccharides on Dog Kidney Cell Line MDCK in Meniscus-Gradient Culture.
Jun Takeuchi, Ruy Tchao, and Joseph Leighton.
- 169 Specificity of Antileukemia Sera Prepared by Immunization with Leukemia Cells Admixed with Normal Antigen-blocking Sera.
Peter J. Smith, Cynthia M. Robinson and Arnold E. Reif.
- 176 Leukemoid Reaction in BALB/c Mice Bearing Transplanted Tumors.
Takao Kodama, Fujiro Sendo, and Hiroshi Kobayashi.
- 181 * Effect of Imidazole-4-carboxamide, 5-(3,3-Dimethyl-1-triazeno) on Immunity in Patients with Malignant Melanoma.
Howard W. Bruckner, Margalit Birnbaum Mokyr, and Malcolm S. Mitchell.
- 184 * Comparative Chemotherapy of AKR Lymphoma and Human Hematological Neoplasia.
Emil Frei, III, Frank M. Schabel, Jr., and Abraham Goldin.
- 194 Interrelationships of Some Chemical, Physicochemical, and Biological Activities of Several 1-(2-Haloethyl)-1-nitrosoureas.
Glynn P. Wheeler, Bonnie J. Bowdon, Jo Anne Grimsley, and Harris H. Lloyd.
- 201 Hereditary Immunodeficiency and Leukemogenesis in HRS/J Mice.
H. J. Heiniger, H. Meier, N. Kaliss, M. Cherry, H. W. Chen, and R. D. Stoner.
- 212 The Reaction between Carcinoembryonic Antigen and Concanavalin A.
T. M. Chu, E. D. Holyoke, and G. P. Murphy.
- 215 * Specific Inhibition of Lymphocyte Blastogenic Responses to Mitogens by a Factor Produced by Cultured Human Malignant Lymphoma Cells.
Evan M. Hersh and Benjamin Drewinko.
- 221 Identification of 6-Methylmercaptapurine Ribonucleoside 5'-Diphosphate and 5'-Triphosphate as Metabolites of 6-Mercaptopurine in Man.
T. P. Zimmerman, L.-C. Chu, C. J. L. Buggé, D. J. Nelson, G. M. Lyon, and G. B. Elion.
- 225 Effects of 7,12-Dimethylbenz(a)anthracene and Estrogen on the Transplantation and Growth of a Rat Pituitary Tumor.
Victor S. Fang and Samuel Refetoff.
- 230 Ultrastructural Comparison between the Distribution of Concanavalin A and Wheat Germ Agglutinin Cell Surface Receptors of Normal and Transformed Hamster and Rat Cell Lines.
Jorge Garrido, Marie-Jeanne Burglen, Danièle Samolyk, René Wicker, and Wilhelm Bernhard.
- 244 The Detection of α_1 -Fetoprotein in Patients with Viral Hepatitis.
Hulbert K. B. Silver, Joseph Deneault, Phil Gold, W. Grant Thompson, Joseph Shuster, and Samuel O. Freedman.
- 248 A Morphometric Study of Pulmonary Cancer.
Bruno Gerstl, Paul Switzer, and Raymond Yesner.
- 255 Brief Communications:
- 255 Reaction of Drugs with Nitrous Acid as a Source of Carcinogenic Nitrosamines.
William Lijinsky.
- 259 A Note on Growth Patterns of Epithelial Tumor Cells in Primary Culture.
Howard L. Hosick.
- 262 Announcements.
- 265 Instructions to Authors.

COVER LEGEND

This month's cover features Alexander Lipschutz and Rigoberto Iglesias, longtime collaborators in the study of endocrine tumorigenesis at the Instituto de Medicina Experimental in Santiago, Chile.

Alexander Lipschutz (b. 1883, Riga, Latvia) received his M.D. in 1907 in Göttingen, West Germany. After serving as professor of physiology at Tartu, Estonia (now Russia), he moved to Chile in 1926. There he became professor of physiology and Dean of the Faculty of Medicine at the new Universidad de Concepción. Lipschutz again moved in 1937, when the directorship of the Chilean National Health Service's Instituto de Medicina Experimental was offered to him. Although he retired as director of the Institute in 1960, he has continued actively as an honorary member.

Lipschutz and his colleagues demonstrated in their work that partial castration in the guinea pig led to hyperplasia of the endometrium and myometrium, and exogenous estradiol was shown to produce uterine and other intraabdominal fibrous tumors. Progestational compounds were found to be antitumorigenic, counteracting estrogens, as were some androgens and corticoids. Antitumorigenic steroids were discovered to be antiestrogenic and most were Δ^4 -3-ketosteroids. This work has been summarized in two books, *Steroid Hormones and Tumors* (Baltimore: The Williams & Wilkins Co., 1950) and *Steroid Homeostasis Hypophysis and Tumorigenesis* (Cambridge: Heffer, 1957).

Rigoberto Iglesias (b. 1911, Quiapo, Chile) graduated in medicine in 1938 as one of Lipschutz's original students. Discouraged after three years as a country doctor, he lamented, "Amidst poverty and ignorance, even a good health service and personal enthusiasm are

not a great help." Thus, he returned in 1942 to the Instituto de Medicina Experimental in Santiago, where his investigations with Professor Lipschutz continued. In 1960, Iglesias succeeded Lipschutz as director and proceeded with his research of endocrine carcinogenesis, with intervals of study in the United States.

Since 1950, Iglesias has concentrated on transplantable endocrine tumors of the A \times C rat, starting with a functional ovarian tumor found in Albert Segaloff's laboratory at the Ochsner Foundation in New Orleans. This tumor was still functional in 1972. The collection at the Chilean institute includes ovarian tumors, testicular tumors that produce androgens and estrogens, and pituitary tumors—some mammosomatocorticotrophic—like those studied by Jacob Furth. Another group of tumors in the collection are the dependent mammary cancers, produced by transplantable androgenic and estrogenic testicular tumors and dependent ovarian tumors produced by a transplantable follicle-stimulating hormone- and luteinizing hormone-secreting pituitary tumor. Iglesias' earlier work is included in the books by Lipschutz, and a recent report is given in Proceedings of the 10th International Cancer Congress, 1: 300-322, 1970.

The Instituto de Medicina Experimental (pictured) is now located at Avenida Irarrázaval 849, Casilla 3401, Santiago, Chile. After facing some difficult years, the institute is recovering and recently was selected as an International Cooperating Center for Cancer Research of the World Health Organization.

We are indebted to Dr. Iglesias for the photographs and information. The portrait of Lipschutz (*left*) was taken ca. 1945 and that of Iglesias (*right*) in 1966.

Cancer Research

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

34 (1)

Cancer Res 1974;34:1-264.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/34/1.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.

Permissions To request permission to re-use all or part of this article, use this link <http://cancerres.aacrjournals.org/content/34/1.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.