



## CONTENTS

Asterisks \* preceding page numbers refer to clinical studies.

- 1437 **Differences in Serum  $\alpha$ -Fetoprotein Concentrations during the Carcinogenic Sequences Resulting from Exposure to Diethylnitrosamine or Acetylaminofluorene.** Frederick F. Becker and Stewart Sell.
- 1443 **Insulin and Glucagon Receptors in Morris Hepatomas of Varying Growth Rates.** Vincenzo Pezzino, Riccardo Vigneri, Marvin D. Siperstein, and Ira D. Goldfine.
- \*1447 **Distribution, Frequency, and Quantitative Analysis of Estrogen, Progesterone, Androgen, and Glucocorticoid Receptors in Human Breast Cancer.** Joseph C. Allegra, Marc E. Lippman, E. Brad Thompson, Richard Simon, Audrey Barlock, Linda Green, Karen K. Huff, Hoan My T. Do, and Susan C. Aitken.
- 1455 **Host Response to Adenovirus 2-transformed Hamster Embryo Cells.** James L. Cook and Andrew M. Lewis, Jr.
- 1462 **Intestinal Tumors Induced by a Single Intraperitoneal Injection of Methyl(acetoxymethyl)nitrosamine in Three Strains of Rats.** Jules J. Berman, Jerry M. Rice, Martin L. Wenk, and Peter P. Roller.
- 1467 **Growth of Nontumorigenic Cells in Millipore Diffusion Chambers Implanted in Mice and Implications for *In Vivo* Growth Regulation.** Lola M. Reid, Charles D. Stiles, Milton H. Saier, Jr., and Michael J. Rindler.
- 1474 **Quantitative Studies of Radiation Transformation with the A31-11 Mouse BALB/3T3 Cell Line.** John B. Little.
- \*1481 **Total-Body Hyperthermia with and without Chemotherapy for Advanced Human Neoplasms.** B. Barlogie, P. M. Corry, E. Yip, L. Lippman, D. A. Johnston, K. Khalil, T. F. Tenczynski, E. Reilly, R. Lawson, G. Dosik, B. Rigor, R. Hankenson, and E. J. Freireich.
- 1490 **Intracellular Activation of  $\gamma$ -L-Glutamyl-4-hydroxybenzene by Tyrosinase, a Mechanism for Selective Cytotoxicity against Melanocarcinoma.** F. Stephen Vogel, Lieselotte A. K. Kemper, Kim Boekelheide, Doyle G. Graham, and Peter W. Jeffs.
- 1494 **The Cytotoxicity of  $\gamma$ -L-Glutamyl-4-hydroxybenzene for Cells that Contain Tyrosinase, a Study of Melanocytes in the Hair Follicle of the Mouse.** Peter C. Burger, Lieselotte A. K. Kemper, and F. Stephen Vogel.
- 1504 **Correlation of *In Vitro* Growth Properties and Tumorigenicity of Syrian Hamster Cell Lines.** J. Carl Barrett, Brian D. Crawford, Laura O. Mixer, Leonard M. Schechtman, Paul O. P. Ts'o, and Robert Pollack.
- 1511 **Endogenous Tumor Growth Factor Indicated by Increased Ornithine Decarboxylase Activity in Malignant Cells Treated with Host Serum or Ascites Fluid.** Jan Vaage and Sudha Agarwal.
- 1518 **Tumor Regression after Intralesional Injection of Mycobacterial Components Emulsified in 2,6,10,15,19,23-Hexamethyl-2,6,10,14,18,22-tetracosahexaene (Squalene), 2,6,10,15,19,23-Hexamethyltetracosane (Squalene), Peanut Oil, or Mineral Oil.** Eliyahu Yarkoni and Herbert J. Rapp.
- 1521 **Effect of Cholesterol Metabolites and Promoting Effect of Lithocholic Acid in Colon Carcinogenesis in Germ-free and Conventional F344 Rats.** Bandaru S. Reddy and K. Watanabe.
- 1525 **Mediated Mutagenesis of Dimethylnitrosamine in *Neurospora crassa* by Various Metabolic Activation Systems.** Wen-Zong Whong and Tong-man Ong.
- 1529 **High Incidence of Mammary Tumors in Mice with Inherited Asplenia Carriers for the Nude Gene.** Bismarck B. Lozzio, Diana M. Lopez, Patricia Coulson, and Stephen V. Lair.
- \*1534 **Correlation of Tumor Cell Kinetic Studies with Surface Marker Results in Childhood Non-Hodgkin's Lymphoma.** Sharon B. Murphy, Susan L. Melvin, and Alvin M. Mauer.
- 1539 **Correlation of the Induction of Transcription of the AKR Mouse Genome by 5-Iododeoxyuridine with the Activation of an Endogenous Murine Leukemia Virus.** Sisir K. Chattopadhyay, Gilbert Jay, Marilyn R. Lander, and Arthur S. Levine.
- 1547 **Pharmacokinetic Analysis of Neocarzinostatin in Normal and Tumor-bearing Rodents.** Ivan S. Lowenthal, Leroy M. Parker, David J. Greenblatt, Barbara L. Brown, and T. S. Anantha Samy.
- \*1552 **Prognostic Factors in Metastatic Breast Cancer Treated with Combination Chemotherapy.** Kenneth D. Swenerton, Sewa S. Legha, Terry Smith, Gabriel N. Hortobagyi, Edmund A. Gehan, Hwee-Yong Yap, Jordan U. Gutterman, and George R. Blumenschein.

- 1563 **Antiproliferative Effects of 9- $\beta$ -D-Arabinofuranosyladenine 5'-Monophosphate and Related Compounds in Combination with Adenosine Deaminase Inhibitors against Mouse Leukemia L1210/C2 Cells in Culture.** Carol E. Cass, Terasita H. Tan, and Milada Selner.
- 1570 **Activity of a Novel Anthracenedione, 1,4-Dihydroxy-5,8-bis[2-[(2-hydroxyethyl)amino]ethyl]amino]-9,10-anthracenedione Dihydrochloride, against Experimental Tumors in Mice.** Roslyn E. Wallace, K. C. Murdock, Robert B. Angier, and Frederick E. Durr.
- 1575 **Leukemic Host Influence on Normal Erythrocytic and Granulocytic Colony Formation in *in Vivo* Plasma Clot Diffusion Chamber Cultures.** Howard N. Steinberg and Eugene S. Handler.
- 1579 **Modulation of Plasminogen Activator Synthesis in Chick Embryo Fibroblasts by Cyclic Nucleotides and Phorbol Myristate Acetate.** E. L. Wilson and E. Reich.
- 1587 **Evidence for Several Demethylase Enzymes in the Oxidation of Dimethylnitrosamine and Phenylmethylnitrosamine by Rat Liver Fractions.** Marilyn B. Kroeger-Koepke and Christopher J. Michejda.
- 1592 **Persistence of DNA Damage during Development of Liver Angiosarcoma in Rats Fed Dimethylnitrosamine.** Samuel E. Abanobi, Emmanuel Farber, and D. S. R. Sarma.
- 1597 **Eradication by Immunization with Mycobacterial Vaccines and Tumor Cells of Microscopic Metastases Remaining after Surgery.** B. Zbar, G. Canti, M. P. Ashley, H. J. Rapp, J. T. Hunter, and E. Ribi.
- 1604 **Effect of Microtubule-associated Proteins on the Interaction of Vincristine with Microtubules and Tubulin.** J. Alejandro Donoso, Kathryn M. Haskins, and Richard H. Himes.
- 1611 **Erythroid Leukemia Induced by Friend Lymphatic Leukemia Virus in T-Cell-depleted Mice.** Peter J. Dawson, Steven L. Dresler, and A. Howard Fieldsteel.
- 1616 **Cytokinetic Analysis of L1210 Leukemia after Continuous Infusion of Hydroxyurea *in Vivo*.** Ruth E. Moran and Marc J. Straus.
- 1623 **Enhancement by Caffeine of Neocarzinostatin Cytotoxicity in Murine Leukemia L1210 Cells.** Kouichi Tatsumi, Masaro Tashima, Shigeru Shirakawa, Toru Nakamura, and Haruto Uchino.
- 1628 **Changes in Peroxisomes in Preneoplastic Liver and Hepatoma of Mice Induced by  $\alpha$ -Benzene Hexachloride.** Hideyuki Tsukada, Mikio Gotoh, Yohichi Mochizuki, and Kazunori Furukawa.
- \*1635 **Facilitated Light Microscopic Cytochemical Diagnosis of Acute Myelogenous Leukemia.** Jacob S. Hanker, Wallace W. Ambrose, Cheryl J. James, Joel Mandelkorn, Peggy E. Yates, Stanley A. Gall, Edward H. Bossen, Joseph W. Fay, John Laszlo, and Joseph O. Moore.
- \*1640 **Serum Inhibitor Activity of Granulocyte-Macrophage Colony Formation in Patients with Cancer.** Yong K. Liu, Stephen Stallard, Victor Koo, and Charles L. Dannaher.
- \*1645 **Initial Clinical Trials in Cancer Patients of Polyribonucleosinic-polyribocytidylic Acid Stabilized with Poly-L-lysine, in Carboxymethylcellulose [Poly(IGLC)], a Highly Effective Interferon Inducer.** Arthur S. Levine, Mary Sivulich, Peter H. Wiernik, and Hilton B. Levy.
- 1651 **Inhibition of Chemical Carcinogen-induced Neoplasia by Coumarins and  $\alpha$ -Angelicalactone.** Lee W. Wattenberg, Luke K. T. Lam, and Alan V. Fladmoer.
- 1655 **Soluble Factors from Liver and Hepatomas Which Inhibit [ $^3$ H]Thymidine Incorporation into DNA of Novikoff Hepatoma Cells.** Rosemary Barra, Janey Parsons, Michael R. Koch, and Michael A. Lea.
- 1661 **Reversible Inhibition by Retinoids of 3-Methylcholanthrene-induced Neoplastic Transformation in C3H/10T $^{1/2}$  Clone 8 Cells.** Ronald L. Merriman and John S. Bertram.
- 1667 **Decrease in Collagen Production in Normal and Rous Sarcoma Virus-transformed Chick Embryo Fibroblasts Induced by Phorbol Myristate Acetate.** K. Barry Delclos and Peter M. Blumberg.
- 1673 **Formation of DNA Adducts in 10T $^{1/2}$  Mouse Embryo Fibroblasts Incubated with Benzo(a)pyrene or Dihydrodiol Oxide Derivatives.** Halina Szejnwald Brown, Alan M. Jeffrey, and I. Bernard Weinstein.
- 1678 **Measurement of Progesterone Receptor in Human Breast Cancer Biopsies.** Bernard Powell, Roberto E. Garola, Gary C. Chamness, and William L. McGuire.
- 1683 **Isolation and Immunochemical Characterization of Antibodies from the Sera of Cancer Patients Which Are Reactive against Human Melanoma Cell Membranes by Affinity Chromatography.** Rishab K. Gupta, Hulbert K. B. Silver, Ralph A. Reisfeld, and Donald L. Morton.
- 1696 **Use of Molecular Hybridization to Detect Type D Retrovirus Markers in Rhesus Placentas and Other Tissues.** W. Drohan, D. Colcher, and J. Schlom.
- 1702 ***In Vivo* Effects and Parallel *In Vitro* Cytotoxicity of Splenocytes Harvested from Treated or Control C57BL/6J Mice after Adjuvant Immunotherapy of Pulmonary Metastases Using Xenogeneic RNA Specific to B16 Murine Melanoma.** Bosco Shang Wang, Glenn Steele, Jr., John A. Mannick, Marguerite Fallon, and Suzanne R. Onikul.
- 1708 **Giemsa-banding Karyotype of Rat Hepatomas of Different Growth Rates.** Edith Olah and George Weber.
- 1718 **Epidermal Carcinogenicity of Bis(2,3-epoxycyclopentyl)ether, 2,2-Bis(p-glycidylxyphenyl)propane, and m-Phenylenediamine in Male and Female C3H and C57BL/6 Mice.** J. M. Holland, D. G. Gosslee, and N. J. Williams.

- 1726 **Effect of Modification of Plasma Membrane Fatty Acid Composition on Fluidity and Methotrexate Transport in L1210 Murine Leukemia Cells.** C. Patrick Burns, Diana G. Luttenegger, David T. Dudley, Garry R. Buettner, and Arthur A. Spector.
- \*1733 **Specific Cellular Immune Responses in Patients with Malignant Gliomas.** Khalid M. A. Sheikh, Michael L. J. Apuzzo, and Martin H. Weiss.
- 1739 **Immunological Analysis of A Strain Mice Bearing the A-10 Mammary Adenocarcinoma.** A. Tax and L. A. Manson.
- 1748 **Feeder Layer and Nutritional Requirements for the Establishment and Cloning of Human Malignant Lymphoma Cell Lines.** Alan L. Epstein and Henry S. Kaplan.
- 1760 **Characterization of the Carcinoembryonic Antigen Activity Associated with Cyst Fluids of Mucinous Ovarian Cystadenocarcinoma.** Kohki Yamashita, Mirja-Liisa Aitio, and Jeffrey R. Dawson.
- 1766 **Synergistic Activity of Components of Mycobacteria and Mutant Salmonella in Causing Regression of Line-10 Tumors in Guinea Pigs.** Charles A. McLaughlin, Sandra L. Hargrave, William D. Bickel, and Edgar Ribí.
- 1772 **Virus Particles in the Basal Plate of Rhesus Monkey and Baboon Placenta.** Dorothy Feldman.
- 1784 **Transformation of Cultured Mouse Mammary Glands by Aromatic Amines and Amides and Their Derivatives.** Quentin J. Tonelli, R. Philip Custer, and Sam Sorof.
- 1793 **Excision Repair of *cis*-Diamminedichloroplatinum(II)-induced Damage to DNA of Chinese Hamster Cells.** H. N. A. Fraival and J. J. Roberts.
- 1798 **Increased Excision of O<sup>6</sup>-Methylguanine from Rat Liver DNA after Chronic Administration of Dimethylnitrosamine.** Ruggero Montesano, Henriette Brésil, and Geoffrey P. Margison.
- 1803 **Heterogeneity in Cell-associated Transformation-sensitive Proteins Antigenically Related to Fibronectin.** Manuel Rieber and Mary S. Rieber.
- 1807 **Growth and Treatment of Ehrlich Tumor in Mice with Alloxan-induced Diabetes.** Krešimir Pavelić, Milivoje Slijepčević, Jasminka Pavelić, Jasna Ivić, Silvana Audy-Jurković, Zlatko P. Pavelić, and Milivoj Boranić.
- 1814 **Identification of Benzo(a)pyrene Metabolites by Gas Chromatograph-Mass Spectrometer.** Gonya Takahashi, Kazuyuki Kinoshita, Kenji Hashimoto, and Kimio Yasuhira.
- 1819 **Production of  $\alpha$ -Fetoprotein and Normal Serum Proteins by Xenotransplanted Human Hepatomas in Relation to Their Growth and Morphology.** Setsuo Hirohashi, Yukio Shimosato, Toru Kameya, Tsutomu Koide, Tatsu Mukojima, Yumiko Taguchi, and Keizo Kageyama.
- 1829 **Alteration of Hexosaminidase Isozymes in Human Renal Carcinoma.** Toshikazu Okochi, Hiromasa Seike, Kazuya Higashino, Toshikazu Hada, Shinichiro Watanabe, Yuichi Yamamura, Fumio Ito, Minoru Matsuda, Masao Osafune, Toshihiko Kotake, and Takao Sonoda.
- 1835 **Estrogen and Progesterone Receptors in Human Breast Cancer with Concomitant Assay of Plasma 17 $\beta$ -Estradiol, Progesterone, and Prolactin Levels.** R. Nagai, M. Kataoka, S. Kobayashi, K. Ishihara, N. Tobioka, K. Nakashima, M. Naruse, K. Saito, and S. Sakuma.
- 1841 **Alterations in the Response to Erythropoietin and RNA-dependent DNA Polymerase Activity in Mouse Spleen Cells Infected with Friend Leukemia Virus.** A. Horikoshi, R. Sasaki, H. Mizoguchi, Y. Miura, F. Takaku, and I. Amaki.
- 1847 **Killing of Tumor Cells *in Vitro* by Macrophages from Mice Treated with Synthetic Dehydrodipeptides.** Hans-Ulrich Schorlemmer, Wolfgang Opitz, Eugen Etschenberg, Dieter Bitter-Suermann, and Ulrich Hadding.
- 1854 **Communication: Thymidine and Hypoxanthine Requirements for the Proliferation of Normal and Rous Sarcoma Virus-infected Chicken Fibroblasts in the Presence of Methotrexate.** Samuel D. Balk, Richard S. Mitchell, Dana LeSturgeon, and Baldev Singh Hoon.
- 1857 **Letter to the Editor: Volatile Nitrosamine Contamination of Laboratory Animal Diets.** Gordon S. Edwards, James G. Fox, Peter Policastro, Ulku Goff, Martin H. Wolf, and David H. Fine.
- 1859 **Announcements**
- 1860 **Erratum**
- 1861 **Author Index**

# Cancer Research

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

## 39 (5)

*Cancer Res* 1979;39:1437-1860.

**Updated version** Access the most recent version of this article at:  
<http://cancerres.aacrjournals.org/content/39/5.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/39/5.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.