



CONTENTS

Asterisks * preceding page numbers refer to clinical studies.

- * 663 **Ascorbic Acid and Cancer: A Review.** Ewan Cameron, Linus Pauling, and Brian Leibovitz.
- 682 **Assay of 855 Test Chemicals in Ten Tester Strains Using a New Modification of the Ames Test for Bacterial Mutagens.** Robert E. McMahon, John C. Cline, and Christina Z. Thompson.
- 694 **Metabolism of Aflatoxin B₁ and Identification of the Major Aflatoxin B₁-DNA Adducts Formed in Cultured Human Bronchus and Colon.** Herman Autrup, John M. Essigmann, Robert G. Croy, Benjamin F. Trump, Gerald N. Wogan, and Curtis C. Harris.
- * 699 **Proteinuria with Disseminated Neoplastic Disease.** Daniel Rudman, Rajender K. Chawla, Daniel W. Nixon, W. Ralph Vogler, James W. Keller, and Robert C. MacDonell.
- 704 **DNA-Protein Cross-Linking by Chemical Carcinogens in Mammalian Cells.** Albert J. Fornace, Jr. and John B. Little.
- 711 **Development of a Neonatal and Metastatic Murine Neuroblastoma Model.** Beth Allyson Sheffler, Mary Ann Repman, and Cara-Lynne Schengrund.
- 714 **Quantitative Correlation between *in Vitro* and *in Vivo* Activities of Phorbol Esters.** Paul E. Driedger and Peter M. Blumberg.
- 720 **Metabolism and Effects of 5-(β -D-Ribofuranosyl)-isocytosine in P815 Cells.** Ting-Chao Chou, Joseph H. Burchenal, Jack J. Fox, Kyoichi A. Watanabe, Chung K. Chu, and Frederick S. Philips.
- 729 **Effects of Iodine Deficiency and High-Fat Diet on *N*-Nitrosomethylurea-induced Mammary Cancers in Rats.** William T. Cave, Jr., John T. Dunn, and Robert M. MacLeod.
- 735 **Transport and Metabolism of Methotrexate in Normal and Resistant Cultured Rat Hepatoma Cells.** John Galivan.
- 744 **Effects of Perinatal Testosterone on Mouse Mammary Duct Morphology and Lobule Induction *in Vitro*.** M. R. Warner.
- 751 **Changes in Macromolecular Synthesis by Thy-Positive Lymphomas in Response to Mitogen.** Ronald W. Gillette, Joseph Szekerczes, David A. Wunderlich, and Sheila Gillette.
- * 757 **Pharmacokinetics of the Protein Antitumor Antibiotic Neocarzinostatin after Bolus Injection in Humans.** Robert L. Comis, Thomas W. Griffin, Vic Raso, and Sandra J. Ginsberg.
- 762 **Synthesis and Identification of Products Derived from the Metabolism of the Carcinostatic 1-(2-Chloroethyl)-3-(*trans*-4-methylcyclohexyl)-1-nitrosourea by Rat Liver Microsomes.** Hubert E. May, Sue J. Kohlhepp, Richard B. Boose, and Donald J. Reed.
- 773 **Neoplastic Responses and Correlated Plasma Prolactin Levels in Diethylstilbestrol-treated ACI and Sprague-Dawley Rats.** John Patrick Stone, Seymour Holtzman, and Claire J. Shellabarger.
- 779 **Influence of Diethylstilbestrol Treatment on Prolactin Cells of Female ACI and Sprague-Dawley Rats.** Seymour Holtzman, John Patrick Stone, and Claire J. Shellabarger.
- 785 **Augmentation of Antitumor Cytotoxicity in MOPC-315 Tumor Bearer Spleen Cells by Depletion of Glass-adherent Cells Prior to *in Vitro* Activation.** Margalit B. Mokyr, Donald P. Braun, and Sheldon Dray.
- 793 **Enhanced Metabolism and Mutagenesis of Nitrosopyrrolidine in Liver Fractions Isolated from Chronic Ethanol-consuming Hamsters.** G. David McCoy, Chi-hong B. Chen, Stephen S. Hecht, and Elena C. McCoy.
- 797 **Production of Sister Chromatid Exchanges by Various Cancer Chemotherapeutic Agents.** Ashutosh Banerjee and William F. Benedict.
- 800 **Carcinogen-induced Abnormalities in Rat Liver Cells and Their Modification by Chemical Agents.** E. Borenfreund, P. J. Higgins, M. Steinglass, and A. Bendich.
- 808 **Mutation Induction by 5-Fluorodeoxyuridine in Synchronous Chinese Hamster Cells.** Paul M. Aebersold.
- 811 **Enhancement of Gastric Carcinogenesis in Dogs Given *N*-Methyl-*N'*-nitro-*N*-nitrosoguanidine following Vagotomy.** Masahide Fujita, Motohisa Takami, Masao Usugane, Shigeru Nampei, and Tetsuo Taguchi.

- 817 **Inhibition of the Lectin-induced Mitogenic Response of Thymocytes by Glycolipids.** Ernest E. Lengle, Rajabather Krishnaraj, and Robert G. Kemp.
- * 823 **Phase I Trial and Assay of Rubidazole (NSC 164011) in Patients with Advanced Solid Tumors.** John S. Kovach, Matthew M. Ames, Margo L. Sternad, and Michael J. O'Connell.
- * 829 **Volatile N-Nitrosamines in the Urine of Normal Donors and of Bladder Cancer Patients.** Tadao Kakizoe, Tush-Tien Wang, Vincent W. S. Eng, Rudolf Furrer, Peter Dion, and W. Robert Bruce.
- 833 **Incidence and Pathological Features of Spontaneous Tumors in Athymic Nude Mice.** Francis E. Sharkey and Jørgen Fogh.
- * 840 **Clinical Status and Rate of Recovery of Blood Lymphocyte Levels after Radiotherapy for Bladder Cancer.** Carol O'Toole and B. Unsgaard.
- 844 **New Ribonucleotide Reductase Inhibitors with Antineoplastic Activity.** Howard L. Elford, Galen L. Wampler, and Bart van't Riet.
- 852 **Biochemical and Pharmacological Effects of the Fermentation-derived Antitumor Agent, (α S,5S)- α -Amino-3-chloro-4,5-dihydro-5-isoxazoleacetic Acid (AT-125).** Gary L. Neil, Ann E. Berger, Richard P. McPartland, Gerald B. Grindey, and Alexander Bloch.
- 857 **Silver Staining of Nucleolar Granules in Tumor Cells.** Harris Busch, Yerach Daskal, Ferenc Gyorkey, and Karel Smetana.
- 864 **Aberrant Regulation of Ornithine Decarboxylase by Serum, Putrescine, and Spermidine in Cytomegalovirus-transformed Human Cells.** Harriet C. Isom and Jay T. Backstrom.
- 870 **Glycosaminoglycans of Normal and Malignant Cultured Human Mammary Cells.** E. V. Chandrasekaran and Eugene A. Davidson.
- 881 **Activation of Tumoricidal Properties in Mouse Macrophages by Lymphokines Encapsulated in Liposomes.** G. Poste, R. Kirsh, W. E. Fogler, and I. J. Fidler.
- 893 **Microtubules and Actin-containing Filaments of Normal, Preneoplastic, and Neoplastic Mouse Mammary Epithelial Cells.** Bonnie B. Asch, Daniel Medina, and B. R. Brinkley.
- * 908 **A Clinical and Pharmacological Study of High-Dose Methotrexate with Minimal Leucovorin Rescue.** Ronald G. Stoller, Henry G. Kaplan, Frank J. Cummings, and Paul Calabresi.
- 913 **Carcinogenicity of Antitumor cis-Platinum (II) Coordination Complexes in the Mouse and Rat.** Wilbur R. Leopold, Elizabeth C. Miller, and James A. Miller.
- 919 **Mutually Exclusive Genetic Signatures of Human Breast Tumor Cell Lines with a Common Chromosomal Marker.** Michael J. Siciliano, P. E. Barker, and Relda Cailleau.
- 923 **Modification of L1210 Cell Nuclear Proteins by 1-Methyl-1-nitrosourea and 1-Methyl-3-nitro-1-nitrosoguanidine.** Seth D. Pinsky, Kenneth D. Tew, Mark E. Smulson, and Paul V. Woolley, III.
- 929 **Increased Susceptibility of Mouse Cells to Fluorescent Light-induced Chromosome Damage after Long-Term Culture and Malignant Transformation.** Ram Parshad, Katherine K. Sanford, Robert E. Tarone, Gary M. Jones, and Anne E. Baeck.
- 934 **Effects of 5-(3,3-Dimethyl-1-triazeno)imidazole-4-carboxamide, 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea, and L-Phenylalanine Mustard on B16, Cloudman S91, and Harding-Passey Mouse Melanomas.** Helene Z. Hill, George J. Hill, II, Cathie L. Miller, Michael Pfaller, Kevin Weiss, and Mugè Galin.
- 940 **Effects of 5-Azacytidine on Transfer RNA Methyltransferases.** Lee-Jane W. Lu and Kurt Randerath.
- 950 **Immunosuppressive Properties of a Virion Polypeptide, a 15,000-Dalton Protein, from Feline Leukemia Virus.** Lawrence E. Mathes, Richard G. Olsen, Lynn C. Hebebrand, Edward A. Hoover, Joseph P. Schaller, Patrick W. Adams, and W. S. Nichols.
- 956 **Mobility of Lymphocyte Surface Membrane Concanavalin A Receptors of Normal and Feline Leukemia Virus-infected Viremic Felines.** Jo Ellen Dunlap, W. S. Nichols, Lynn C. Hebebrand, Lawrence E. Mathes, and Richard G. Olsen.
- 959 **Dose-dependent Adjuvant Effects of *Bacillus Calmette-Guérin* on Tumor Immunity in Lewis Rats.** Martin Davies and Edris Sabbadini.
- 966 **Response of Cells to Hyperthermia under Acute and Chronic Hypoxic Conditions.** Leo E. Gerweck, Torbjørn G. Nygaard, and Margaret Burlett.
- 973 **Fatty Acid Oxidation to H₂O by Ehrlich Ascites Carcinoma in Mice.** Murad Ookhtens and Nome Baker.
- 981 **Influence of Growth State on Several Thermal Responses of EMT6/Az Tumor Cells *in Vitro*.** Eugene W. Gerner, Paul W. Holmes, and James A. McCullough.
- 987 **Conditions for Effective *Bacillus Calmette-Guérin* Immunotherapy of Postsurgical Metastases of 13762A Rat Mammary Adenocarcinoma.** John W. Kreider, Gerald L. Bartlett, Cinda M. Boyer, and Dallas M. Purnell.
- * 993 **Predictive Value of Cerebrospinal Fluid Polyamines in Medulloblastoma.** Laurence J. Marton, Michael S. Edwards, Victor A. Levin, Warren P. Lubich, and Charles B. Wilson.
- 998 **Inhibitory Effect of Prostaglandin F_{2 α} on the Growth of a Hormone-dependent Rat Mammary Tumor.** William Jubiz, Jacqueline Frailey, and Jean B. Smith.
- 1001 **Development of a Metastatic Brain Tumor Model in Mice.** Frances K. Conley.

- 1008 **Quantitative Studies of *in Vitro* Morphological Transformation of Syrian Hamster Cells by Inorganic Metal Salts.** J. A. DiPaolo and B. C. Casto.
- 1014 **Different Susceptibilities of Human Melanoma and Breast Carcinoma Cell Lines to Retinoic Acid-induced Growth Inhibition.** Reuben Lotan.
- 1020 ***N,N*-Dimethylformamide-induced Alteration of Cell Culture Characteristics and Loss of Tumorigenicity in Cultured Human Colon Carcinoma Cells.** Daniel L. Dexter, James A. Barbosa, and Paul Calabresi.
- 1026 **A Survey of Growth in Soft Agar and Cell Surface Properties as Markers for Transformation in Adult Rat Liver Epithelial-like Cell Cultures.** Richard H. C. San, Michael F. Laspia, Andrew I. Soiefer, Carol J. Maslansky, Jerry M. Rice, and Gary M. Williams.
- 1035 **Induction of Mouse Epidermal Ornithine Decarboxylase Activity and DNA Synthesis by Ultraviolet Light.** Ajit K. Verma, Nicholas J. Lowe, and R. K. Boutwell.
- 1041 **Enhancement of Biochemical Transformation of Mammalian Cells by Herpes Simplex Virus following Nitrosomethylurea Treatment.** Mary K. Howett, Anthony E. Pegg, and Fred Rapp.
- 1046 **Unusual Sensitivity of Ataxia Telangiectasia Cells to Bleomycin.** Alexander M. R. Taylor, Christine M. Rosney, and Jean B. Campbell.
- 1051 **Comparative Studies of Glucose Metabolism in HTC, RLC, MH₁C₁, and Reuber H35 Rat Hepatoma Cells.** Denis H. J. Schamhart, Klaas W. van de Poll, and Roeland van Wijk.
- 1056 **Induction of Differentiation of Rauscher Virus-induced Mouse Myeloid Leukemia Cells with a Factor(s) in Ascitic Fluid and Inhibitors of Nucleic Acid and Protein Syntheses.** Kenji Sugiyama, Motoo Hozumi, and Junko Okabe.
- 1063 **Comparison of Cytotoxic Effect and Cellular Uptake of 1- β -D-Arabinofuranosylcytosine and Its *N*⁴-Acyl Derivatives, Using Cultured KB Cells.** Takashi Tsuruo, Harumi Iida, Shigeru Tsukagoshi, and Yoshio Sakurai.
- 1071 **Synergistic Action of Vincristine and Adriamycin in the Treatment of Experimental Rat Leukemia L5222.** W. J. Zeller, M. Berger, and D. Schmähl.
- * 1074 **Characteristics of the Lesions and Risk of Malignant Conversion Associated with the Type of Human Papillomavirus Involved in Epidermodysplasia Veruciformis.** Gérard Orth, Stefania Jablonska, Maria Jarzabek-Chorzelska, Slavomir Obalek, Genowefa Rzesa, Michel Favre, and Odile Croissant.
- 1083 **Metabolism and Formation of DNA Adducts of Benzo(a)pyrene in Human Diploid Fibroblasts.** Hugo W. Rüdiger, Julia Marxen, F.-Valentin Kohl, Hans Melderis, and Peter v. Wichert.
- 1089 **Activation of 2-Acetylaminofluorene in the Nuclei of Rat Liver.** Kaname Kawajiri, Hiromichi Yonekawa, Eiichi Hara, and Yusaku Tagashira.
- * 1094 **Effect of Estrogen and Progestin Treatments on Endometria from Postmenopausal Women.** R. J. B. King, M. I. Whitehead, S. Campbell, and J. Minardi.
- 1102 **Metabolism of 1- β -D-Arabinofuranosyluracil in Mouse L5178Y Cells.** Werner E. G. Müller and Rudolf K. Zahn.
- 1108 ***In Vivo* and *In Vitro* Studies of Experimental Ovarian Adenocarcinoma in Rats.** S. Sekiya, N. Endoh, Y. Kikuchi, T. Katoh, A. Matsuura, H. Iwasawa, B. Takeda, and H. Takamizawa.
- 1113 **Early Decrease in Hyaluronidase-sensitive Cell Surface Charge during the Differentiation of Friend Erythroleukemic Cells by Dimethyl Sulfoxide.** Chikako Sato, Kiyohide Kojima, Kimiko Nishizawa, and Yoji Ikawa.
- 1118 **Humoral Antibody Response to Bovine Leukemia Virus Infection in Cattle and Sheep.** Françoise Bex, Claudine Bruck, Marc Mammerickx, Daniel Portetelle, Jacques Ghysdael, Yvette Cleuter, Madeleine Leclercq, Daniel Dekegel, and Arsène Burny.
- Communications**
- 1124 **Stability of Estrogen Receptors in Frozen Human Breast Tumor Tissue.** Pearl C. Namkung, Roger E. Moe, and Philip H. Petra.
- 1126 **Stimulation of Resistance to Tumor Growth of Athymic Nude Mice Pretreated by Combined Local Hyperthermia and X-Irradiation.** A. Yerushalmi and Y. Weinstein.
- 1129 **Inhibition of Spontaneous Breast Cancer Formation in Female C3H (*A^u/a*) Mice by Long-Term Treatment with Dehydroepiandrosterone.** Arthur G. Schwartz.
- 1133 **Preparation of Permanent Slides of Intact Soft-Agar Colony Cultures of Hematopoietic and Tumor Stem Cells.** Sydney E. Salmon and Ronald N. Buick.
- 1137 **Letter to the Editor: Request for Specimens from Organ Transplant and Immunodeficiency Patients Who Developed Lymphomas.** George Klein, Israel Penn, and Werner Henle.
- 1138 **Announcements**
- 1139 **Errata**
- 1140 **Author Index**

Cancer Research

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

39 (3)

Cancer Res 1979;39:663-1139.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/39/3.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, contact the AACR Publications Department at permissions@aacr.org.