



CONTENTS

Asterisks * preceding page numbers refer to clinical studies.

- *3573** An Epidemiological Perspective of the Biology of Cancer. Richard Doll.
- 3584** *In Vitro* Analysis of the Response of Multicellular Tumor Spheroids Exposed to Chemotherapeutic Agents *in Vitro* or *in Vivo*. John M. Yuhas, Anne E. Tarleton, and James G. Harman.
- *3590** Detection of Cell-mediated Immune Reactivity of Breast Cancer Patients by the Leukocyte Adherence Inhibition Response to MCF-7 Extracts. Andrew B. Rudczynski, Charissa A. Dyer, and Richard F. Mortensen.
- 3595** Dormancy and Spontaneous Recurrence of Human Breast Cancer *in Vitro*. John M. Yuhas and Anne E. Tarleton.
- 3599** Calcium Dependence of Ionophore A23187-induced Lymphocyte Cytotoxicity. Nurit Kaiser and Isidore S. Edelman.
- 3604** Heterogeneity in the Membrane Proteins of Human Lymphoid Cell Lines as Seen in Sodium Dodecyl Sulfate-Polyacrylamide Electrophoresis Slab Gels. Kevin M. Rogan, Thomas J. Faldetta, William Boto, John J. Aiken, James L. DeMartino, Rawleigh C. Howe, Robert C. Spiro, and Robert E. Humphreys.
- 3611** Binding Characteristics of Zearalenone Analogs to Estrogen Receptors. David T. Kiang, B. J. Kennedy, S. V. Pathre, and Chester J. Mirocha.
- *3616** Complement Receptor-positive, Sheep Erythrocyte Receptor-negative Lymphoblasts in Childhood Acute Lymphocytic Leukemia. Ellen R. Richie, Steven J. Culbert, Margaret P. Sullivan, and Jan van Eys.
- 3621** Selective Response of DNA Polymerase β to Bleomycin-induced Breaks in DNA. Mona L. Coetzee, Robin Chou, and Peter Ove.
- 3628** Guanyl O⁶-Arylamination and O⁶-Arylation of DNA by the Carcinogen *N*-Hydroxy-1-naphthylamine. Fred F. Kadlubar, James A. Miller, and Elizabeth C. Miller.
- 3639** Metabolic α -Hydroxylation of the Tobacco-specific Carcinogen, *N'*-Nitrosonornicotine. Chi-hong B. Chen, Stephen S. Hecht, and Dietrich Hoffmann.
- 3646** Effects of Insulin *in Vivo* and *in Vitro* on Amino Acid Transport into Cells from the R3230AC Mammary Adenocarcinoma and Their Relationship to Tumor Growth. Paul J. Hissin and Russell Hilf.
- 3656** Effect of Adriamycin and Analogs on the Nuclear Fluorescence of Propidium Iodide-stained Cells. Awtar Krishan, Ram N. Ganapathi, and Mervyn Israel.
- 3663** Increased Tyrosine Phenol-Lyase Activity in Mice following Pyridoxal Phosphate Administration. Gary W. Elmer, Leonard Minor, Gary G. Meadows, Darrell H. Spackman, and Vernon Riley.
- 3668** Increased Tumor Immunity in Mice Inoculated with Muconomycin A-treated B16 Melanoma Cells. Constance E. Brinckerhoff and Martin Lubin.
- 3673** Effect of Glucocorticoid Hormones *in Vitro* on the Structural Integrity of Nuclei in Corticosteroid-sensitive and -resistant Lines of Lymphosarcoma P1798. Mary L. Nicholson and Donald A. Young.
- *3681** Comparison of Tritiated Thymidine Labeling and Suicide Indices in Acute Nonlymphocytic Leukemia. Harvey Preisler and Davidia Shoham.
- 3685** Heterogeneity of Murine Erythroleukemia Cells with Respect to Tumor Promoter-mediated Inhibition of Cell Differentiation. Eitan Fibach, Hiroshi Yamasaki, I. Bernard Weinstein, Paul A. Marks, and Richard A. Rifkind.
- 3689** Metabolism of Benzo(a)pyrene and Identification of the Major Benzo(a)pyrene-DNA Adducts in Cultured Human Colon. Herman Autrup, Curtis C. Harris, Benjamin F. Trump, and Alan M. Jeffrey.
- 3697** Localization and Significance of γ -Glutamyl-transpeptidase in Normal and Neoplastic Mouse Skin. Lawrence M. De Young, W. L. Richards, W. Bonzelet, L. L. Tsai, and R. K. Boutwell.
- *3702** Effect of Estrogen on Tumor-associated Immunity in Patients with Adenocarcinoma of the Prostate. Richard J. Ablin, Rashid A. Bhatti, and Patrick D. Guinan.
- 3707** Human Lymphoblastoid Cell Lines as Effector Cells in Mitogen-dependent and Antibody-dependent Cell-mediated Lysis. T. F. Jordan, S. Ferrone, M. A. Pellegrino, and G. Dennert.
- *3712** Phase 1 Clinical Investigation of 4'-(9-Acridinylamino)methanesulfon-*m*-anisidide (NSC 249992), a New Acridine Derivative. Sewa S. Legha, Jordan U. Gutterman, Stephen W. Hall, Robert S. Benjamin, Michael A. Burgess, Manuel Valdivieso, and Gerald P. Bodey.

- 3717 **Induction of Neoplasms in Hamster Tracheal Grafts with 3-Methylcholanthrene-coated Lycra Fibers.** Brooke T. Mossman and John E. Craighead.
- 3723 **Long-Term Organ Culture of Human Uterine Endocervix.** Walter Schürch, Elizabeth M. McDowell, and Benjamin F. Trump.
- 3734 **Direct Study of Alkylating Agent-RNA Interaction by ¹³Carbon Nuclear Magnetic Resonance Spectroscopy.** Ching-jer Chang and Chi-Gen Lee.
- 3737 **Use of Resistant or Hypersensitive Variant Clones of Friend Cells in Analysis of Mode of Action of Inducers.** Giovanni Rovera and Stuart Surrey.
- 3745 **Antiproliferative Agents and Differential Survival between Normal and Cancer Cells.** Kenneth K. Tsu-boi and Linda K. Kwong.
- 3751 **Multiple Neurotransmitter Synthesis by Human Neuroblastoma Cell Lines and Clones.** June L. Biedler, Suzanne Roffler-Tarlov, Melitta Schachner, and Lewis S. Freedman.
- 3758 **Heterogeneity in Drug Sensitivity among Tumor Cell Subpopulations of a Single Mammary Tumor.** G. H. Heppner, D. L. Dexter, T. DeNucci, F. R. Miller, and P. Calabresi.
- 3764 **Induction of Alkaline Phosphatase Activity in HeLa Cells by Choline Chloride.** Walker Wharton and Barry Goz.
- 3769 **Nuclear Thyroid Hormone Receptors in a Human Breast Cancer Cell Line.** Robert E. Burke and William L. McGuire.
- 3774 **Erythropoietin Responsiveness *in Vivo* of Friend Virus Target Cells for Transformation and Virus Replication.** A. G. Nasrallah and M. P. McGarry.
- 3779 **Changes in Cyclic Adenosine 3':5'-Monophosphate Levels during Induction of Differentiation in Murine Erythroleukemia Cells.** Yair Gazitt, Roberta C. Reuben, Arline D. Deitch, Paul A. Marks, and Richard A. Rifkind.
- *3784 **A Clinical-Pharmacological Evaluation of Hepatic Arterial Infusions of 5-Fluoro-2'-deoxyuridine and 5-Fluorouracil.** William D. Ensminger, Andre Rosowsky, Vic Raso, David C. Levin, Michael Glode, Steven Come, Glenn Steele, and Emil Frei, III.
- 3793 **Vinyl Carbamate as a Promutagen and a More Carcinogenic Analog of Ethyl Carbamate.** Gary A. Dahl, James A. Miller, and Elizabeth C. Miller.
- *3805 **Dissociation between Aryl Hydrocarbon Hydroxylase Activity in Cultured Pulmonary Macrophages and Blood Lymphocytes from Lung Cancer Patients.** Theodore L. McLemore, R. Russell Martin, Nelda P. Wray, Elroy T. Cantrell, and David L. Busbee.
- 3812 **High Pressure Liquid Chromatographic Assay for α Hydroxylation of *N*-Nitrosopyrrolidine by Isolated Rat Liver Microsomes.** Chi-hong B. Chen, G. David McCoy, Stephen S. Hecht, Dietrich Hoffmann, and Ernst L. Wynder.
- 3817 **Treatment of Transplanted Murine Tumors with an Oncolytic Virus and Cyclophosphamide.** John E. Eiselein, Max W. Biggs, and Judie R. Walton.
- 3823 **Growth of a Human Breast Cancer Cell Line in Serum-free Hormone-supplemented Medium.** Joseph C. Allegra and Marc E. Lippman.
- 3830 **A New *in Vitro* Cell Line Established from Human Large Cell Variant of Oat Cell Lung Cancer.** Edwin R. Fisher and John D. Paulson.
- 3836 **Natural History of Papillary Lesions of the Urinary Bladder in Schistosomiasis.** Robert E. Kuntz, Allen W. Cheever, George T. Bryan, Jerry A. Moore, and Tao-cheng Huang.
- 3840 **Population Density as a Factor in the Evolution of Neoplastic Cell Lines.** William G. Taylor, Richard F. Camalier, Robert W. Tucker, and Katherine K. Sanford.
- 3847 **Rescue of Human Lymphoid Cells from the Effects of Methotrexate *in Vitro*.** John P. Groff and Raymond L. Blakley.
- 3854 **Specificity of Response in Hamster Cells Induced to Produce Plasminogen Activator by the Tumor Promoter, 12-O-Tetradecanoylphorbol-13-acetate.** Judith K. Christman, Richard P. Copp, Lauri Pedrinan, and Cornelius E. Whalen.
- 3861 **[³H]Benzo(a)pyrene Metabolism in Tracheal Epithelial Microsomes and Tracheal Organ Cultures.** Marc J. Mass and David G. Kaufman.
- *3867 **Disposition and Metabolism of 1-(Tetrahydro-2-furanyl)-5-fluorouracil (Florafur) in Humans.** John A. Benvenuto, Katherine Lu, Stephen W. Hall, Robert S. Benjamin, and Ti Li Loo.
- 3871 **Comparative Susceptibilities of Hybrid Mice to Four Mammary Tumor Viruses from Two Mouse Strains.** Dan H. Moore, Carmen F. Merryman, Paul H. Maurer, and Jane A. Holben.
- 3879 **Characterization of the Human Melanoma Cell Line (KHM-1) Containing Phosphodiesterase Activity Only for Cyclic Adenosine 3':5'-Monophosphate.** Lloyd E. King, Jr., Solomon S. Solomon, and Ken Hashimoto.
- 3886 **Effect of Tumor Promoters on the Response of Cultured Embryonic Chick Ganglia to Nerve Growth Factor.** Douglas N. Ishii.
- 3894 **Selective Destruction of Human Leukemic Cells by Alkyl-lysophospholipids.** Reinhard Andreesen, Manuel Modolell, Hans U. Weltzien, Hansjörg Eibl, Herbert H. Common, Georg W. Löhr, and Paul G. Munder.
- 3900 **Enhancement of DNA Chain Breakage by Bleomycin A₂ in the Presence of Microsomes and Reduced Nicotinamide Adenine Dinucleotide Phosphate.** Naoki Yamanaka, Taketoshi Kato, Keiko Nishida, and Kazuo Ota.

- 3904 Estrogen Receptor Assay in Human Mammary Carcinoma with the Synthetic Estrogen 11 β -Methoxy-17 α -ethinyl-1,3,5(10)-estratriene-3,17 β -diol (R 2858).** Sam Okret, Örjan Wrangé, Bo Nordenskjöld, Claes Silfverswärd, and Jan-Åke Gustafsson.
- 3910 Establishment and Characterization of a Human Cancer Cell Line That Produces Human Colony-stimulating Factor.** Tetsuro Okabe, Noriharu Sato, Yukio Kondo, Shigetaka Asano, Nakaaki Ohsawa, Kinori Kosaka, and Yoshito Ueyama.
- 3918 Carcinogenicity of Triethanolamine in Mice and Its Mutagenicity after Reaction with Sodium Nitrite in Bacteria.** Hiroshi Hoshino and Hiroshi Tanooka.
- 3922 Androgen Effects Mediated by Estrogen Receptor in 7,12-Dimethylbenz(a)anthracene-induced Rat Mammary Tumors.** Marcel Garcia and Henri Rochefort.
- 3930 Insulin Receptors in Zajdela Rat Ascites Hepatoma Cells and Their Sensitivity to Certain Enzymes and Lectins.** J. Capeau, J. Picard, and M. Caron.
- 3938 Increased Polyamine Concentration and Tumor-derived Lactate Dehydrogenase Activity in Physiological Fluids during Regression of a Heterologous Tumor Transplant.** Gunnar Andersson, Gun Bengtsson, Agneta Albinsson, Stina Rosén, and Olle Heby.
- 3944 A Differential Interaction of Daunomycin, Adriamycin, and N-Trifluoroacetyladiamycin-14-Valerate with Mouse Peritoneal Macrophages.** Terenzio Facchinetti, Avraham Raz, and Rachel Goldman.
- 3950 Metabolism of Proline in a Human Leukemic Lymphoblastoid Cell Line.** Georges Lorans, Claude Rosenfeld, Maurice Petitou, Françoise Phan-Dinh-Tuy, and Georges Mathe.
- 3954 Olfactory Neuroepithelioma in a Domestic Carp (*Cyprinus carpio*).** Takatoshi Ishikawa, Prince Masahito, and Shozo Takayama.
- 3960 Differential Effects of Lectins on the *in Vitro* Growth of Normal Mouse Lung Cells and Low- and High-Cancer-derived Cell Lines.** M. J. Vilarem, J. Jouanneau, D. Le François, and R. Bourrillon.
- 3966 Communication: 5-Methyltetrahydrofolic Acid, 5-Formyltetrahydrofolic Acid (Folinic Acid), and Folic Acid Requirements of Normal and Rous Sarcoma Virus-infected Chicken Fibroblasts.** Samuel D. Balk, Dana LeSturgeon, and Richard S. Mitchell.
- 3969 Letter to the Editor: Changes in the Composition of Sulfated Mucopolysaccharides during Neoplastic Transformation of Cerebral Tissue.** Carl P. Dietrich, Carlos T. Schibuola, Lucia O. Sampaio, and Ioshie Ibara.
- 3972 Books Received**
- 3975 Announcements**
- 3976 Erratum**
- 3977 Author Index**

Cancer Research

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

38 (11 Part 1)

Cancer Res 1978;38:3573-3977.

Updated version Access the most recent version of this article at:
http://cancerres.aacrjournals.org/content/38/11_Part_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/38/11_Part_1.citation. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.