



CONTENTS

Asterisks * preceding page numbers refer to clinical studies.

- 2199 **Amino-terminal Sequences of the Major Tryptic Peptides Obtained from Carcinoembryonic Antigen by Digestion with Trypsin in the Presence of Triton X-100.** John E. Shively, Michael J. Kessler, and Charles W. Todd.
- *2209 **In Vivo Perturbation of Human Marrow Cell Cycle Progression by Ifosfamide.** Robert E. Rentschler, Barthel Barlogie, Dennis A. Johnston, and Gerald P. Bodey.
- 2216 **A Hydroxylapatite Micromethod for Measuring Estrogen Receptor in Human Breast Cancer.** Roberto E. Garola and William L. McGuire.
- 2221 **Casein and α -Lactalbumin Detection in Breast Cancer Cells by Immunocytochemistry.** Damon C. Herbert, Robert E. Burke, and William L. McGuire.
- 2224 **Effects of Glucocorticoids on the Interaction of Lymphoblastoid Cells with Human Endothelial Cells *in Vitro*.** Richard D. Maca, Glenna L. Fry, and Adrienne D. Hakes.
- 2229 **Oncogenicity of Purine 3-Oxide and Unsubstituted Purine in Rats.** Morris N. Teller, Alfredo Giner-Sorolla, Gerhard Stöhrer, John M. Budinger, and George B. Brown.
- 2233 **Potentiation by 2'-Deoxycoformycin of the Inhibitory Effect by 3'-Deoxyadenosine (Cordycepin) on Nuclear RNA Synthesis in L1210 Cells *in Vitro*.** Robert I. Glazer, Timothy J. Lott, and Ann L. Peale.
- 2239 **Inhibition of Ovariectomy-induced Rat Mammary Tumor Regression by a Mammosomatotropic Tumor.** Edward J. Diamond, Sukur Khan, Samuel Koprak, and Vincent P. Hollander.
- 2246 ***In Vitro* Transformation of Epidermal Cells from Newborn Mice.** T. J. Slaga, A. Viaje, W. M. Bracken, S. G. Buty, D. R. Miller, S. M. Fischer, C. K. Richter, and J. N. Dumont.
- 2253 **Effect of Progressive Neoplastic Growth on the Decarboxylation of DL-[1-¹⁴C]Ornithine by Lymphocytes from C3H/He Tumor Hosts.** J. Vaage, S. Agarwal, and J. L. Reinertsen.
- 2259 **Methionine Requirement and Replacement by Homocysteine in Tissue Cultures of Selected Rodent and Human Malignant and Normal Cells.** Willi Kreis and Maureen Goodenow.
- 2263 **Enhancement of Experimental Lung Metastases by Cultured B16 Melanoma Cells Treated with (\pm)-1,2-Bis(3,5-dioxopiperazin-1-yl)propane (ICRF-159).** John Stephen Lazo, Donald E. Ingber, and Alan C. Sartorelli.
- 2271 **Effect of Structure on Tumor Specificity of Alicyclic α -Amino Acids.** Lee C. Washburn, Tan Tan Sun, Jack B. Anon, and Raymond L. Hayes.
- 2274 **Alteration of the Ability of Liver Microsomes to Activate N-2-Flourenylacetamide to a Mutagen of *Salmonella typhimurium* during Hepatocarcinogenesis.** Daniel L. Stout and Frederick F. Becker.
- 2279 **Cellular Immunity to Mammary Tumor Virus in Normal and Tumor-bearing C3H/HeN Mice.** Aldo Tagliabue, Ronald B. Herberman, and James L. McCoy.
- 2285 **Altered Growth Properties of Chinese Hamster Cells Exposed to 1-Methylguanine and 7-Methylguanine.** R. W. Trewyn and Sylvia J. Kerr.
- 2290 **Effects of Heat on the Centrosomes of Chinese Hamster Ovary Cells.** Marny D. Barrau, Gary R. Blackburn, William C. Dewey.
- 2295 **Growth Retardation and Prevention of Ehrlich Solid Tumor by *Clostridium perfringens* Type A Spores and Culture Supernatant.** Jean-Rock Lapointe and Vincent Portelance.
- 2301 **Metabolic Conversion of 12-O-Tetradecanoylphorbol-13-acetate in Adult and Newborn Mouse Skin and Mouse Liver Microsomes.** David L. Berry, William M. Bracken, Susan M. Fischer, Aurora Viaje, and Thomas J. Slaga.
- 2307 **Competitive Binding and Metabolism of Several Carcinogenic Polycyclic Aromatic Hydrocarbons by AKR Mouse Embryo Cells in Culture.** Thomas H. Zytovicz, Harold L. Moses, and Thomas C. Spelsberg.
- 2314 **Resistance to 9- β -D-Arabinofuranosyladenine in Murine Tumor Cells.** G. A. LePage.
- 2317 **Combination Chemotherapy in Sequence for the Treatment of L1210 Leukemia.** DeWayne Roberts and Susan L. Hilliard.

- 2321 **Altered Polyamine Profiles in Prostatic Hyperplasia and in Kidney Tumors.** Udo Dunzendorfer and Diane Haddock Russell.
- 2325 **Effects of 5-Fluorouracil on 5-Fluorodeoxyuridine 5'-Monophosphate and 2-Deoxyuridine 5'-Monophosphate Pools, and DNA Synthesis in Solid Mouse L1210 and Rat Walker 256 Tumors.** Philip Klubes, Kristine Connelly, Ingeborg Cerna, and H. George Mandel.
- 2332 **Effect of Inoculation with Neuraminidase-treated Tumor Cells on Macrophage Cytotoxicity *in Vitro*.** Charles D. Alley and Michael J. Snodgrass.
- 2339 **Proliferation Kinetics of a Human Breast Cancer Line *in Vitro* following Treatment with 17 β -Estradiol and 1- β -D-Arabinofuranosylcytosine.** Ralph R. Weichselbaum, Samuel Hellman, Anthony J. Piro, John J. Nove, and John B. Little.
- 2343 **Successful Transplantation of Human Benign Breast Tumors into the Athymic Nude Mouse and Demonstration of Enhanced DNA Synthesis by Human Placental Lactogen.** M. Jean McManus, Sara E. Dombroske, Marek M. Pienkowski, Tim J. Anderson, Laurene C. Mann, John S. Schuster, Linda L. Vollweiler, and Clifford W. Welsch.
- 2350 **Effects of Phorbol-12-myristate-13-acetate on the Phenotypic Program of Cultured Chondroblasts and Fibroblasts.** Mark E. Lowe, Maurizio Pacifici, and H. Holtzer.
- 2357 **Cytotoxic and Metabolic Effects of Adenosine and Adenine on Human Lymphoblasts.** Floyd F. Snyder, Michael S. Hershfield, and J. Edwin Seegmiller.
- 2363 **Comparison of Biochemical and Biological Effects of Four Nitrosoureas with Differing Carbamoylating Activities.** Herbert E. Kann, Jr.
- 2367 **Comparative Behavior of Simian Virus 40 T-Antigen and of Tumor-specific Surface and Transplantation Antigens during Partial Purification.** Samuel W. Luborsky, Chungming Chang, Samuel J. Pancake, and Peter T. Mora.
- 2372 **Regulation of Plasma Free Fatty Acid Mobilization by Dietary Glucose in Ehrlich Ascites Tumor-bearing Mice.** Nome Baker, Virginia Hill, and Murad Ookhtens.
- 2378 **Folate and Pterin Metabolism by Cancer Cells in Culture.** Baldassarre Stea, Peter S. Backlund, Jr., Phillip B. Berkey, Arthur K. Cho, Barbara C. Halpern, Richard M. Halpern, and Roberts A. Smith.
- 2385 **Effects of Several Vasoactive Drugs on the Vascular Resistance of MT-W9B Tumors in W/Fu Rats.** Randy Jirtle, Kelly H. Clifton, and John H. G. Rankin.
- 2391 **Relative Carcinogenic Effectiveness of Derivatives of Nitrosodiethylamine in Rats.** W. Lijinsky and H. Wayne Taylor.
- 2395 **Sensitivity to 1,3-Bis(2-chloroethyl)-1-nitrosourea and 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea of the EMT6 Tumor *in Vivo* as Determined by Both Tumor Volume Response and *in Vitro* Plating Assay.** Peter R. Twentyman.
- 2401 **Inhibition of Deoxynucleotide-polymerizing Enzyme Activities of Human Cells and of Simian Sarcoma Virus by Heparin.** Richard A. DiCioccio and B. I. Sahai Srivastava.
- 2408 **Resistance of Resting 3T6 Mouse Fibroblasts to Methotrexate Cytotoxicity.** Lee F. Johnson, Carolyn L. Fuhrman, and Herbert T. Abelson.
- 2413 **Alkaline Phosphatase Activities of 6-Thiopurine-sensitive and -resistant Sublines of Sarcoma 180.** Men Hui Lee, You-Mei Huang, and Alan C. Sartorelli.
- 2419 **Immunological Studies on Alkaline Phosphatases of 6-Thiopurine-sensitive and -resistant Sublines of Sarcoma 180.** Men Hui Lee, You-Mei Huang, and Alan C. Sartorelli.
- 2424 **Reduced Nicotinamide Adenine Dinucleotide Phosphate-dependent Formation of 2,3-Dihydro-2,3-dihydroxyafatoxin B₁ from Aflatoxin B₁ by Hepatic Microsomes.** Jen-Kun Lin, Kevin A. Kennan, Elizabeth C. Miller, and James A. Miller.
- *2429 **Estrogen Synthesis and Estradiol Binding by Human Mammary Tumors.** Rose Marie Varela and Thomas L. Dao.
- 2434 **Steroid Receptor Analyses of Nine Human Breast Cancer Cell Lines.** Kathryn B. Horwitz, David T. Zava, Arulananam K. Thilagar, Erling M. Jensen, and William L. McGuire.
- 2438 **Macromolecular Binding and Metabolism of the Carcinogen 1,2-Dibromoethane.** Donald L. Hill, Tzu-Wen Shih, Thomas P. Johnston, and Robert F. Struck.
- 2443 **Mammary Tumor Virus Oncogenesis and Tumor Immunogenicity in Three Sublines of the C3H Mouse.** Jan Vaage and Daniel Medina.
- 2448 **DNA Crosslinking by *in Vivo* Treatment with 1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea of Sensitive and Resistant Human Colon Carcinoma Xenografts in Nude Mice.** Cornelius B. Thomas, Rainhardt Osieka, and Kurt W. Kohn.
- 2455 **Observations on the Question of Horizontal Transmission of Mouse Mammary Tumor Virus.** Dan H. Moore and Jane A. Holben.
- 2458 **Metabolism and Cytotoxicity of 5-Azacytidine in Cultured Novikoff Rat Hepatoma and P388 Mouse Leukemia Cells and Their Enhancement by Preincubation with Pyrazofurin.** Peter G. W. Plagemann, Marsha Behrens, and David Abraham.
- 2467 **Comparison of Procoagulant Activity in Tissue Culture Medium from Normal and Transformed Fibroblasts.** Stuart G. Gordon and Barbara J. Lewis.

- 2473 **Differences in the Properties of Cytoplasmic Particles and in the Expression of Virus-specific Information in the Thymus of Normal and Lymphomatous AKR Mice.** Corrado Gurgo, Maurice C. Bondurant, and Sandra H. Bridges.
- 2480 **Oncogenicity and Immunogenicity Associated with Membranes Isolated from Cell-free Ascites Fluid of Lymphoma-bearing Mice.** A. Raz, R. Barzilai, G. Spira, and M. Inbar.
- 2486 **Multicellular Tumor Spheroid Formation by Breast Cancer Cells Isolated from Different Sites.** John M. Yuhas, Anne E. Tarleton, and Karen B. Molzen.
- 2492 **Influence of Serial Transplantation on the Immunological-Clinical Correlates of BALB/cfC3H Mouse Mammary Tumors.** J. C. Hager, F. R. Miller, and G. H. Heppner.
- 2501 ***In Vitro* Metabolism and Mutagenic Activation of 2-Acetylaminofluorene by Subcellular Liver Fractions from Cotton Rats.** Herman A. J. Schut and Snorri S. Thorgeirsson.
- 2508 **Establishment of a Human Plasma Cell Line *in Vitro*.** Kenneth H. Burk, Benjamin Drewinko, Jose M. Trujillo, and Michael J. Ahearn.
- 2514 **A Comparison of Cell Cycle-related Changes in Postmitotic and Quiescent AF8 Cells as Measured by Cytofluorometry after Acridine Orange Staining.** T. Ashihara, F. Traganos, R. Baserga, and Z. Darzynkiewicz.
- 2519 **Serum Alkaline Phosphatase Isoenzymes in Lymphoproliferative Diseases.** Beverly Dulis and Irwin B. Wilson.
- *2523 **Genetic and Communicable Effects on Carcinoembryonic Antigen Expressivity in the Cancer Family Syndrome.** Hoda A. Guirgis, Henry T. Lynch, Randall E. Harris, and Jacques P. Vandevoorde.
- 2529 **Susceptibilities of Normal and Malignant Human Lung Cells in Culture to the Cytocidal Action of Antitumor Agents.** Hohko Tsukeda, Satoshi Mizuno, and Kazuo Nitta.
- 2533 **Effects of 2-Acetylaminofluorene on Diurnal Oscillations in Nucleic Acid Metabolism in Two Classes of Nuclei Isolated from Rat Liver.** Donald E. Bushnell and James R. Jeter, Jr.
- 2539 **Mutagenesis of Chinese Hamster Cells *in Vitro* by Combination Treatments with Methyl Methanesulfonate and *N*-Acetoxy-2-acetylaminofluorene.** Brian C. Myhr and Joseph A. DiPaolo.
- *2544 **A Statistical Model for Predicting Response of Breast Cancer Patients to Cytotoxic Chemotherapy.** Michael L. Feldstein, Edwin D. Savlov, and Russell Hilf.
- 2549 **Comparison of Uptake and Binding of Two Epipodophyllotoxin Glucopyranosides, 4'-Demethyl Epipodophyllotoxin Thénylidene- β -D-glucoside and 4'-Demethyl Epipodophyllotoxin Ethýlidene- β -D-glucoside, in the L1210 Leukemia Cell.** Larry M. Allen.
- 2555 **Role of Intracisternal A-Particles and of RNA Molecules in Plasmacytoma-associated Immunodeficiency.** Jerry Katzmann, Nirmala Bhoopalam, Paul Heller, Liao-Tsuen Hwang, Marc Ostro, Donald Lavelle, and Dario Giacomoni.
- 2562 **Metabolism of Tritium-labeled 12-O-Tetradecanoylphorbol-13-acetate by Cells in Culture.** Thomas G. O'Brien and Leila Diamond.
- 2567 **A Cell Culture Bioassay to Analyze Metabolism of Phorbol Diester Tumor Promoters.** Thomas G. O'Brien and Leila Diamond.
- 2573 **Antigens on Human Tumor Cells Assayed by Complement Fixation with Allogeneic Sera.** Rishab K. Gupta, Reiko F. Irie, and Donald L. Morton.
- 2581 **Observations on Cell Lines Derived from a Patient with Hodgkin's Disease.** C. Friend, W. Marovitz, G. Henle, W. Henle, D. Tsuei, K. Hirschhorn, J. G. Holland, and J. Cuttner.
- 2592 **Isolation and Identification of a Metabolic Intermediate in the Selective Dechloroethylation of One of the Four Stereoisomers of 4-Methylcyclophosphamide.** George Abel, Peter J. Cox, Peter B. Farmer, Neville J. Haskins, Michael Jarman, Kanti Merai, and Wojciech J. Stec.
- 2600 **Fluorescence Study of DNA-binding Metabolites of Benzo(a)pyrene Formed in Hepatocytes Isolated from 3-Methylcholanthrene-treated Rats.** Bengt Jernström, Sten Orrenius, Ola Undeman, Astrid Gråslund, and Anders Ehrenberg.
- 2608 **Aflatoxin B₁-2,3-dichloride as a Model of the Active Metabolite of Aflatoxin B₁ in Mutagenesis and Carcinogenesis.** Myrtle J. Fahmy, O. G. Fahmy, and D. H. Swenson.
- 2617 **Role of Mercaptoethanol in *in Vitro* DNA Degradation by Neocarzinostatin.** Ryoji Ishida and Taijo Takahashi.
- 2621 **Testing of Known Carcinogens and Noncarcinogens for Their Ability to Induce Unscheduled DNA Synthesis in HeLa Cells.** Carl N. Martin, Anne C. McDermid, and R. Colin Garner.
- *2628 **Photoradiation Therapy for the Treatment of Malignant Tumors.** Thomas J. Dougherty, Jerome E. Kaufman, Abraham Goldfarb, Kenneth R. Weishaupt, Donn Boyle, and Arnold Mittleman.
- 2636 **Hematology and Clinical Chemistry Reference Values for C57BL/6 \times DBA/2 F₁ Mice.** Steadman D. Harrison, Jr., John A. Burdeshaw, Ruth G. Crosby, Anne M. Cusic, and E. Paul Denine.

2640 New Cancer Stamp Issued by United States. Robert A. Kyle.

2642 Meeting Report: The Syrian Hamster in Toxicology and Carcinogenesis Research. Richard A. Adams, Joseph A. DiPaolo, and Freddy Homburger.

2646 Special Announcement

2647 Announcements

2648 Errata

2649 Author Index

Cancer Research

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

38 (8)

Cancer Res 1978;38:2199-2648.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/38/8.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/38/8.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.