



CONTENTS†

Asterisks * preceding page numbers refer to studies using human-derived material.

Perspectives in Cancer Research

- 3713 **Oncogenes, Antioncogenes, and the Molecular Bases of Multistep Carcinogenesis.** Robert A. Weinberg.

BASIC SCIENCES

- 3722 **Poorly Metastatic Tumor Cell Variants as Primary Targets of Syngeneic Antibody Responses against Murine Melanoma.** Nanette P. Parratto, Janice M. Odebralski, and Arthur K. Kimura.
- *3729 **Augmentation of Antitumor Efficacy by the Combination of Recombinant Tumor Necrosis Factor and Chemotherapeutic Agents *in Vivo*.** Jody A. Krosnick, James J. Mulé, Joe K. McIntosh, and Steven A. Rosenberg.
- 3734 **Comparison between Tumor pH and Cell Sensitivity to Heat in RIF-1 Tumors.** Masahiro Hiraoka and George M. Hahn.
- 3737 **Regulation of Renal *N*-Nitrosodimethylamine Demethylase Activity by Androgens, Progesterin, Glucocorticoid, and Estrogen in BALB/c Mice.** Surender Ahir and Suresh Mohla.
- 3742 **Low Deformability of Lymphokine-activated Killer Cells as a Possible Determinant of *in Vivo* Distribution.** Akihiko Sasaki, Rakesh K. Jain, Azzam A. Maghazachi, Ronald H. Goldfarb, and Ronald B. Herberman.
- 3747 **Therapeutic Perturbation of the Tumor Ecosystem in Reconstructed Heterogeneous Mouse Mammary Tumors.** Bonnie E. Miller, Fred R. Miller, and Gloria H. Heppner.
- *3754 **An *in Vitro* and *in Vivo* Study of Antitumor Effects of Gossypol on Human SW-13 Adrenocortical Carcinoma.** Y-W. Wu, C. L. Chik, and R. A. Knazek.
- *3759 **Blood Flow, Metabolism, Cellular Microenvironment, and Growth Rate of Human Tumor Xenografts.** F. Kallinowski, K. H. Schlenger, S. Runkel, M. Kloes, M. Stohrer, P. Okunieff, and P. Vaupel.
- 3765 **Decreased Vacuolar Acidification Capacity in Drug-resistant Rat Liver Preneoplastic Nodules.** Göran N. Andersson, Ulla-Britta Torndal, and Lennart C. Eriksson.
- 3770 **Evaluation of the Transplacental Tumorigenicity of the Tobacco-specific Carcinogen 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone in Mice.** Lucy M. Anderson, Stephen S. Hecht, Dwayne E. Dixon, Lee F. Dove, Robert M. Kovatch, Shantu Amin, Dietrich Hoffmann, and Jerry M. Rice.
- *3776 **Estimation of Cell Survival by Flow Cytometric Quantification of Fluorescein Diacetate/Propidium Iodide Viable Cell Number.** Douglas D. Ross, Christopher C. Joneckis, José V. Ordóñez, Allison M. Sisk, Richard K. Wu, Anne W. Hamburger, and Richard E. Nora.
- *3783 **Potentialiation by Interleukin 2 of Burkitt's Lymphoma Therapy with Anti-Pan B (Anti-CD19) Monoclonal Antibodies in a Mouse Xenotransplantation Model.** W. M. J. Vuist, F. v. Buitenen, M. A. de Rie, A. Hekman, P. Rümke, and C. J. M. Melief.
- 3789 **Influences of Diet and Strain on the Proliferative Effect on the Rat Urinary Bladder Induced by Sodium Saccharin.** Emily M. Garland, Takao Sakata, Maria J. Fisher, Tsuneo Masui, and Samuel M. Cohen.
- 3795 **Altered Expression of Retrovirus-like Sequences and Cellular Oncogenes in Mice Fed Methyl-deficient Diets.** L. L. Hsieh, E. Wainfan, S. Hoshina, M. Dizik, and I. B. Weinstein.
- 3800 **Nitrogen Excretion in Cancer Cachexia and Its Modification by a High Fat Diet in Mice.** Susan A. Beck and Michael J. Tisdale.
- *3805 **Elevation of Intracellular Calcium Ion by Prostaglandin E₁ and Its Inhibition by Protein Kinase C in a Human Megakaryocyte Leukemia Cell Line.** Masashi Adachi, Ryukichi Ryo, Akinori Yoshida, Keisuke Teshigawara, Nobuo Yamaguchi, Masahiko Hoshijima, Yoshimi Takai, and Takeyuki Sato.
- *3809 **Cysteine Protease Activities and Tumor Development in Human Colorectal Carcinoma.** Kieran Sheahan, Sania Shuja, and Mary Jo Murnane.
- 3815 **Inhibition of the Metastasis of Murine Malignant Melanoma by Synthetic Polymeric Peptides Containing Core Sequences of Cell-adhesive Molecules.** Ikuo Saiki, Joji Iida, Jun Murata, Ryu Ogawa, Norio Nishi, Kazuhisa Sugimura, Seiichi Tokura, and Ichiro Azuma.
- *3823 **Kinetic Analysis of Cell Killing Effect Induced by Cytosine Arabinoside and Cisplatin in Relation to Cell Cycle Phase Specificity in Human Colon Cancer and Chinese Hamster Cells.** Shogo Ozawa, Yuichi Sugiyama, Junko Mitsushashi, and Makoto Inaba.
- *3829 **Differential Induction of Spermidine/Spermine *N*-Acetyltransferase in Human Lung Cancer Cells by the Bis(ethyl)polyamine Analogues.** Robert A. Casero, Jr., Paul Celano, Stephanie J. Ervin, Carl W. Porter, Raymond J. Bergeron, and Paul R. Libby.
- *3834 **Isolation and Characterization of a Novel Cytolytic Factor in Purple Fluid of the Sea Hare, *Aplysia kurodai*.** Masatoshi Yamazaki, Katsuya Kimura, Jun Kisugi, Koji Muramoto, and Hisao Kamiya.
- 3839 **Sister Chromatid Exchange Induced by Etheno-ATP Derivatives *in Vitro*.** Mary K. Conner, Ruth A. Modzelewski, and Noriko Kawatani.
- *3844 **Adriamycin Activation and Oxygen Free Radical Formation in Human Breast Tumor Cells: Protective Role of Glutathione Peroxidase in Adriamycin Resistance.** Birandra K. Sinha, Edward G. Mimnaugh, Sankaran Rajagopalan, and Charles E. Myers.
- *3849 **Secretion of Parathyroid Hormone-like Activity from Human T-Cell Lymphotropic Virus Type I-infected Lymphocytes.** Seiji Fukumoto, Toshio Matsumoto, Toshiki Watanabe, Hiroo Takahashi, Isao Miyoshi, and Etsuro Ogata.
- 3853 **Modulation of Prostaglandin Biosynthesis in Hypoxic Murine Mammary Adenocarcinoma Cells by Misonidazole.** David R. Shalinsky, Dennis B. McNamara, and Krishna C. Agrawal.

† The CONTENTS arranged by Subject Category can be found immediately following these CONTENTS.

- 3857 Effects on C3H Mouse Mammary Cancer of Changing from a High Fat to a Low Fat Diet before, at, or after Puberty. Jerald Silverman, Jean Powers, Paul Stromberg, Joseph A. Pultz, and Suzanne Kent.
- 3861 Enhancement of the Frequency of Methotrexate Resistance by γ -Radiation in Chinese Hamster Ovary and Mouse 3T6 Cells. Rakesh C. Sharma and Robert T. Schimke.
- 3867 Enhanced Efflux of [PH]Vinblastine from Chinese Hamster Ovary Cells Transfected with a Full-Length Complementary DNA Clone for the *mdr1* Gene. James R. Hammond, Rose M. Johnstone, and Philippe Gros.
- 3872 Acquisition by the Murine Host of Responsiveness toward Various Neoplastic Cell Lines, but not toward Self, through Adoptive Transfer of a Helper T-Lymphocyte Clone with Antiself Specificity. Johan Grooten and Walter Fiers.
- *3879 Characterization of Sequences Related to the Mouse Mammary Tumor Virus That Are Specific to MCF-7 Breast Cancer Cells. Felicity E. B. May and Bruce R. Westley.
- 3884 Growth Stimulation, Altered Regulation of Epidermal Growth Factor Receptors, and Autocrine Transformation of Spontaneously Transformed Normal Rat Kidney Cells by Transforming Growth Factor β . Matthew A. Nugent, Elizabeth A. Lane, Jorma Keski-Oja, Harold L. Moses, and Michael J. Newman.
- *3891 An Epitope Common to Ganglioside *O*-Acetyl-G_{D3} and G_{D3} Recognized by Antibodies in Melanoma Patients after Active Specific Immunotherapy. Mepur H. Ravindranath, Donald L. Morton, and Reiko F. Irie.
- *3898 Differences in Responsiveness of Clonally Derived AXC/SSh Rat Prostate Cancer Cells to Secreted or Prototypic Mitogens. Sydney A. Shain and Judith D. Koger.
- *3904 Increased Secretion, Altered Processing, and Glycosylation of Pro-Cathepsin D in Human Mammary Cancer Cells. F. Capony, C. Rougeot, P. Montcourrier, V. Cavailles, G. Salazar, and H. Rochefort.
- *3910 Reversible Suppression of *c-myc* Expression in a Human Colon Carcinoma Line by the Anticancer Agent *N*-Methylformamide. Devasis Chatterjee, Andrew Mendelsohn, Peter R. Shank, and Todd M. Savarese.
- *3917 Modifying Effect of Cinnamaldehyde and Cinnamaldehyde Derivatives on Cell Inactivation and Cellular Uptake of *cis*-Diamminedichloroplatinum(II) in Human NHIK 3025 Cells. John M. Dornish, Erik O. Pettersen, and Reidar Oftebro.
- *3922 Characterization of the 3' Region of the Human DNA Topoisomerase I Gene. Bing-Sen Zhou, Kenneth F. Bastow, and Yung-chi Cheng.
- 3928 Purification and Some Properties of a Lung-derived Growth Factor That Differentially Stimulates the Growth of Tumor Cells Metastatic to the Lung. Philip G. Cavanaugh and Garth L. Nicolson.
- *3934 Simultaneous Measurement of Progesterone Receptors and DNA Indices by Flow Cytometry: Characterization of an Assay in Breast Cancer Cell Lines. Mark L. Graham II, Paul A. Bunn, Jr., Phillip B. Jewett, Carolina Gonzalez-Aller, and Kathryn B. Horwitz.
- *3943 Simultaneous Measurement of Progesterone Receptors and DNA Indices by Flow Cytometry: Analysis of Breast Cancer Cell Mixtures and Genetic Instability of the T47D Line. Mark L. Graham II, Karen E. Dalquist, and Kathryn B. Horwitz.
- *3950 Identification by Monoclonal Antibody of the Tumor Antigen of a Human Autologous Breast Cancer Cell That Is Involved in Cytotoxicity by a Cytotoxic T-Cell Clone. Mamoru Okubo, Noriyuki Sato, Yoshimasa Wada, Shuji Takahashi, Katsuji Torimoto, Nobuaki Takahashi, Takashi Sato, Minoru Okazaki, Kazuaki Asaishi, and Kokichi Kikuchi.
- 3955 Prevention of Doxorubicin-induced Hematotoxicity in Mice by Interleukin 1. Deborah A. Eppstein, Carole G. Kurahara, Nicholas A. Bruno, and Timothy G. Terrell.
- *3961 Rhodamine Dyes as Potential Agents for Photochemotherapy of Cancer in Human Bladder Carcinoma Cells. Christopher R. Shea, Norah Chen, Joanne Wimberly, and Tayyaba Hasan.
- 3966 Endogenous Retroviral *env* Genes after *N*-Methyl-*N'*-nitro-*N*-nitrosoguanidine Treatment of Mouse Tumor Cells: Stable DNA Amplification and Rearrangement. Doris Apt, Jeanette Schreck, and Peter Altevogt.
- 3972 Growth-associated Shedding of a Tumor Antigen (CE7) Detected by a Monoclonal Antibody. Itsuo Chiba, Ren Jin, Jun-ichi Hamada, Masuo Hosokawa, Noritoshi Takeichi, and Hiroshi Kobayashi.
- *3976 Targeting of Methotrexate-containing Liposomes with a Monoclonal Antibody against Human Renal Cancer. Mandip Singh, Tarun Ghose, Gary Faulkner, Jaroslav Kralovec, and Michael Mezei.
- 3985 Focal Impairment of Growth in Hepatocellular Neoplasms of C57BL/6 Mice: A Possible Explanation for the Strain's Resistance to Hepatocarcinogenesis. Saburo Kakizoe, Stanley Goldfarb, and Thomas D. Pugh.
- *3990 Effects of Bryostatins and Retinoic Acid on Phorbol Ester- and Diacylglycerol-induced Squamous Differentiation in Human Tracheobronchial Epithelial Cells. A. M. Jetten, M. A. George, G. R. Pettit, and J. I. Rearick.
- *3996 Establishment of a Clonal Human Chondrosarcoma Cell Line with Cartilage Phenotypes. Masaharu Takigawa, Koji Tajima, Hai-Ou Pan, Motomi Enomoto, Akihiro Kinoshita, Fujio Suzuki, Yoshiro Takano, and Yoichi Mori.
- 4003 Selective Implantation and Growth in Rats and Mice of Experimental Liver Metastasis in Acinar Zone One. Emilio Barberá-Guillem, Ana Alonso-Varona, and Fernando Vidal-Vanaclocha.
- *4011 Relationship of Cytosolic Estrogen and Progesterone Receptor Content and the Growth Fraction in Human Mammary Carcinomas. Günter Vollmer, Johannes Gerdes, and Rudolf Knuppen.

CLINICAL AND EPIDEMIOLOGICAL INVESTIGATIONS

- 4015 Reproductive Histories and Premenopausal Breast Cancer: Different Estimates Using Population, Neighborhood, or Hospital Controls. Eiliv Lund.
- 4020 Consumption of Fermented Milk Products and Breast Cancer: A Case-Control Study in the Netherlands. Pieter van't Veer, Jacqueline M. Dekker, Jos W. J. Lamers, Frans J. Kok, Evert G. Schouten, Henny A. M. Brants, Ferd Sturmans, and Rudolph J. J. Hermus.
- 4024 Effect of Smoking and Alcohol Consumption on Laryngeal Cancer Risk in Coastal Texas. Roni T. Falk, Linda W. Pickle, Linda Morris Brown, Thomas J. Mason, Patricia A. Buffler, and Joseph F. Fraumeni, Jr.

- 4030 Occupational Exposures of Parents of Children with Acute Non-lymphocytic Leukemia: A Report from the Childrens Cancer Study Group.** Jonathan D. Buckley, Leslie L. Robison, Robert Swotinsky, David H. Garabrant, Michelle LeBeau, Paul Manchester, Mark E. Nesbit, Lorrie Odom, John M. Peters, William G. Woods, and G. Denman Hammond.
- 4038 Infectious and Noninfectious Exposures in the Etiology of Light Chain Myeloma: A Case-Control Study.** Ann R. Williams, Noel S. Weiss, Thomas D. Koepsell, Joseph L. Lyon, and G. Marie Swanson.
- 4042 Cytotoxicity of Interleukin 2-Toxin toward Lymphocytes from Patients with Adult T-Cell Leukemia.** T. Kiyokawa, K. Shirono, T. Hattori, H. Nishimura, K. Yamaguchi, J. C. Nichols, T. B. Strom, J. R. Murphy, and K. Takatsuki.
- 4047 Epithelial Ovarian Cancer and the Ability to Conceive.** Alice S. Whittemore, Marion L. Wu, Ralph S. Paffenbarger, Jr., Dorien L. Sarles, James B. Kampert, Stella Grosser, Dexter L. Jung, Samuel Ballon, Michael Hendrickson, and Janet Mohle-Boetani.
- 4053 Specific Localization of Thallium 201 in Human High-Grade Astrocytoma by Microautoradiography.** James M. Mountz, Pamela A. Raymond, Paul E. McKeever, Jack G. Modell, Terry W. Hood, Linda K. Barthel, and Kate A. Stafford-Schuck.
- 4057 Phase I Trial of Recombinant Human γ -Interferon and Recombinant Human Tumor Necrosis Factor in Patients with Advanced Gastrointestinal Cancer.** James L. Abbruzzese, Bernard Levin, Jaffer A. Ajani, Jack S. Faintuch, Samuel Saks, Yehuda Z. Patt, Charlene Edwards, Karen Ende, and Jordan U. Gutterman.
- 4062 Phase I Evaluation of an Anti-Breast Carcinoma Monoclonal Antibody 260F9-Recombinant Ricin A Chain Immunoconjugate.** Louis M. Weiner, Joyce O'Dwyer, Joanne Kitson, Robert L. Comis, Arthur E. Frankel, Robert J. Bauer, Michael S. Konrad, and Eric S. Groves.
- * * *
- 4068 Announcements**
AACR Special Conferences in Cancer Research
Future Annual Meetings of the AACR
Collected Perspectives in Cancer Research
Calendar of Events
- 4069 Author Index**

NOTE: AACR forms available in the back of this issue--

- Application for Active and Corresponding Membership
- Application for Associate Membership

Cancer Research

VOLUME 49 • NUMBER 14

CONTENTS Arranged by Subject Category

Perspectives in Cancer Research

- 3713 **Oncogenes, Antioncogenes, and the Molecular Bases of Multistep Carcinogenesis.** Robert A. Weinberg.

BASIC SCIENCES

Biochemistry and Biophysics

- 3765 **Decreased Vacuolar Acidification Capacity in Drug-resistant Rat Liver Preneoplastic Nodules.** Göran N. Andersson, Ulla-Britta Torndal, and Lennart C. Eriksson.
- 3800 **Nitrogen Excretion in Cancer Cachexia and Its Modification by a High Fat Diet in Mice.** Susan A. Beck and Michael J. Tisdale.
- *3809 **Cysteine Protease Activities and Tumor Development in Human Colorectal Carcinoma.** Kieran Sheahan, Sania Shuja, and Mary Jo Murnane.
- *3834 **Isolation and Characterization of a Novel Cytolytic Factor in Purple Fluid of the Sea Hare, *Aplysia kurodai*.** Masatoshi Yamazaki, Katsuya Kimura, Jun Kisugi, Koji Muramoto, and Hisao Kamiya.
- 3884 **Growth Stimulation, Altered Regulation of Epidermal Growth Factor Receptors, and Autocrine Transformation of Spontaneously Transformed Normal Rat Kidney Cells by Transforming Growth Factor β .** Matthew A. Nugent, Elizabeth A. Lane, Jorma Keski-Oja, Harold L. Moses, and Michael J. Newman.
- *3898 **Differences in Responsiveness of Clonally Derived AXC/SSh Rat Prostate Cancer Cells to Secreted or Prototypic Mitogens.** Sydney A. Shain and Judith D. Koger.
- *3904 **Increased Secretion, Altered Processing, and Glycosylation of Pro-Cathepsin D in Human Mammary Cancer Cells.** F. Capony, C. Rougeot, P. Montcourrier, V. Cavailles, G. Salazar, and H. Rochefort.
- 3928 **Purification and Some Properties of a Lung-derived Growth Factor That Differentially Stimulates the Growth of Tumor Cells Metastatic to the Lung.** Philip G. Cavanaugh and Garth L. Nicolson.
- *3990 **Effects of Bryostatins and Retinoic Acid on Phorbol Ester- and Diacylglycerol-induced Squamous Differentiation in Human Tracheobronchial Epithelial Cells.** A. M. Jetten, M. A. George, G. R. Pettit, and J. I. Rearick.

Carcinogenesis

- 3737 **Regulation of Renal *N*-Nitrosodimethylamine Demethylase Activity by Androgens, Progestin, Glucocorticoid, and Estrogen in BALB/c Mice.** Surrender Ahir and Suresh Mohla.
- 3770 **Evaluation of the Transplacental Tumorigenicity of the Tobacco-specific Carcinogen 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone in Mice.** Lucy M. Anderson, Stephen S. Hecht, Dwayne E. Dixon, Lee F. Dove, Robert M. Kovatch, Shantu Amin, Dietrich Hoffmann, and Jerry M. Rice.
- 3789 **Influences of Diet and Strain on the Proliferative Effect on the Rat Urinary Bladder Induced by Sodium Saccharin.** Emily M. Garland, Takao Sakata, Maria J. Fisher, Tsuneo Masui, and Samuel M. Cohen.

- 3795 **Altered Expression of Retrovirus-like Sequences and Cellular Oncogenes in Mice Fed Methyl-deficient Diets.** L. L. Hsieh, E. Wainfan, S. Hoshina, M. Dizik, and I. B. Weinstein.

- 3839 **Sister Chromatid Exchange Induced by Etheno-ATP Derivatives *in Vitro*.** Mary K. Conner, Ruth A. Modzelewski, and Noriko Kawatani.

- 3857 **Effects on C3H Mouse Mammary Cancer of Changing from a High Fat to a Low Fat Diet before, at, or after Puberty.** Jerald Silverman, Jean Powers, Paul Stromberg, Joseph A. Pultz, and Suzanne Kent.

Endocrinology

- *3849 **Secretion of Parathyroid Hormone-like Activity from Human T-Cell Lymphotropic Virus Type I-infected Lymphocytes.** Seiji Fukumoto, Toshio Matsumoto, Toshiki Watanabe, Hiroo Takahashi, Isao Miyoshi, and Etsuro Ogata.
- *3934 **Simultaneous Measurement of Progesterone Receptors and DNA Indices by Flow Cytometry: Characterization of an Assay in Breast Cancer Cell Lines.** Mark L. Graham II, Paul A. Bunn, Jr., Phillip B. Jewett, Carolina Gonzalez-Aller, and Kathryn B. Horwitz.
- *3943 **Simultaneous Measurement of Progesterone Receptors and DNA Indices by Flow Cytometry: Analysis of Breast Cancer Cell Mixtures and Genetic Instability of the T47D Line.** Mark L. Graham II, Karen E. Dalquist, and Kathryn B. Horwitz.
- *4011 **Relationship of Cytosolic Estrogen and Progesterone Receptor Content and the Growth Fraction in Human Mammary Carcinomas.** Günter Vollmer, Johannes Gerdes, and Rudolf Knuppen.

Immunology

- 3742 **Low Deformability of Lymphokine-activated Killer Cells as a Possible Determinant of *in Vivo* Distribution.** Akihiko Sasaki, Rakesh K. Jain, Azzam A. Maghazachi, Ronald H. Goldfarb, and Ronald B. Herberman.
- *3783 **Potential by Interleukin 2 of Burkitt's Lymphoma Therapy with Anti-Pan B (Anti-CD19) Monoclonal Antibodies in a Mouse Xenotransplantation Model.** W. M. J. Vuist, F. v. Buitenen, M. A. de Rie, A. Hekman, P. Rümke, and C. J. M. Melief.
- 3872 **Acquisition by the Murine Host of Responsiveness toward Various Neoplastic Cell Lines, but not toward Self, through Adoptive Transfer of a Helper T-Lymphocyte Clone with Antiself Specificity.** Johan Grooten and Walter Fiers.
- *3891 **An Epitope Common to Gangliosides *O*-Acetyl- G_{D3} and G_{D3} Recognized by Antibodies in Melanoma Patients after Active Specific Immunotherapy.** Mepur H. Ravindranath, Donald L. Morton, and Reiko F. Irie.
- *3950 **Identification by Monoclonal Antibody of the Tumor Antigen of a Human Autologous Breast Cancer Cell That Is Involved in Cytotoxicity by a Cytotoxic T-Cell Clone.** Mamoru Okubo, Noriyuki Sato, Yoshimasa Wada, Shuji Takahashi, Katsuji Torimoto, Nobuaki Takahashi, Takashi Sato, Minoru Okazaki, Kazuaki Asaishi, and Kokichi Kikuchi.
- 3955 **Prevention of Doxorubicin-induced Hematotoxicity in Mice by Interleukin 1.** Deborah A. Eppstein, Carole G. Kurahara, Nicholas A. Bruno, and Timothy G. Terrell.

* Indicates studies using human-derived material.

- 3972 **Growth-associated Shedding of a Tumor Antigen (CE7) Detected by a Monoclonal Antibody.** Itsuo Chiba, Ren Jin, Jun-ichi Hamada, Masuo Hosokawa, Noritoshi Takeichi, and Hiroshi Kobayashi.

Molecular Biology and Genetics

- 3861 **Enhancement of the Frequency of Methotrexate Resistance by γ -Radiation in Chinese Hamster Ovary and Mouse 3T6 Cells.** Rakesh C. Sharma and Robert T. Schimke.
- * 3879 **Characterization of Sequences Related to the Mouse Mammary Tumor Virus That Are Specific to MCF-7 Breast Cancer Cells.** Felicity E. B. May and Bruce R. Westley.
- * 3922 **Characterization of the 3' Region of the Human DNA Topoisomerase I Gene.** Bing-Sen Zhou, Kenneth F. Bastow, and Yung-chi Cheng.
- 3966 **Endogenous Retroviral *env* Genes after *N*-Methyl-*N*'-nitro-*N*-nitrosoguanidine Treatment of Mouse Tumor Cells: Stable DNA Amplification and Rearrangement.** Doris Apt, Jeanette Schreck, and Peter Altevogt.

Preclinical Pharmacology and Experimental Therapeutics

- * 3729 **Augmentation of Antitumor Efficacy by the Combination of Recombinant Tumor Necrosis Factor and Chemotherapeutic Agents *in Vivo*.** Jody A. Krosnick, James J. Mulé, Joe K. McIntosh, and Steven A. Rosenberg.
- 3734 **Comparison between Tumor pH and Cell Sensitivity to Heat in RIF-1 Tumors.** Masahiro Hiraoka and George M. Hahn.
- 3747 **Therapeutic Perturbation of the Tumor Ecosystem in Reconstructed Heterogeneous Mouse Mammary Tumors.** Bonnie E. Miller, Fred R. Miller, and Gloria H. Heppner.
- * 3754 **An *in Vitro* and *in Vivo* Study of Antitumor Effects of Gossypol on Human SW-13 Adrenocortical Carcinoma.** Y-W. Wu, C. L. Chik, and R. A. Knazek.
- * 3776 **Estimation of Cell Survival by Flow Cytometric Quantification of Fluorescein Diacetate/Propidium Iodide Viable Cell Number.** Douglas R. Ross, Christopher C. Joneckis, José V. Ordóñez, Allison M. Sisk, Richard K. Wu, Anne W. Hamburger, and Richard E. Nora.
- 3815 **Inhibition of the Metastasis of Murine Malignant Melanoma by Synthetic Polymeric Peptides Containing Core Sequences of Cell-adhesive Molecules.** Ikuo Saiki, Joji Iida, Jun Murata, Ryu Ogawa, Norio Nishi, Kazuhisa Sugimura, Seiichi Tokura, and Ichiro Azuma.
- * 3823 **Kinetic Analysis of Cell Killing Effect Induced by Cytosine Arabinoside and Cisplatin in Relation to Cell Cycle Phase Specificity in Human Colon Cancer and Chinese Hamster Cells.** Shogo Ozawa, Yuichi Sugiyama, Junko Mitsuhashi, and Makoto Inaba.
- * 3844 **Adriamycin Activation and Oxygen Free Radical Formation in Human Breast Tumor Cells: Protective Role of Glutathione Peroxidase in Adriamycin Resistance.** Birandra K. Sinha, Edward G. Mimnaugh, Sankaran Rajagopalan, and Charles E. Myers.
- 3853 **Modulation of Prostaglandin Biosynthesis in Hypoxic Murine Mammary Adenocarcinoma Cells by Misonidazole.** David R. Shalinsky, Dennis B. McNamara, and Krishna C. Agrawal.
- 3867 **Enhanced Efflux of [³H]Vinblastine from Chinese Hamster Ovary Cells Transfected with a Full-Length Complementary DNA Clone for the *mdr1* Gene.** James R. Hammond, Rose M. Johnstone, and Philippe Gros.
- * 3910 **Reversible Suppression of *c-myc* Expression in a Human Colon Carcinoma Line by the Anticancer Agent *N*-Methylformamide.** Devasis Chatterjee, Andrew Mendelsohn, Peter R. Shank, and Todd M. Savarese.

- * 3917 **Modifying Effect of Cinnamaldehyde and Cinnamaldehyde Derivatives on Cell Inactivation and Cellular Uptake of *cis*-Diamminedichloroplatinum(II) in Human NHIK 3025 Cells.** John M. Dornish, Erik O. Pettersen, and Reidar Oftebro.

- * 3961 **Rhodamine Dyes as Potential Agents for Photochemotherapy of Cancer in Human Bladder Carcinoma Cells.** Christopher R. Shea, Norah Chen, Joanne Wimberly, and Tayyaba Hasan.
- * 3976 **Targeting of Methotrexate-containing Liposomes with a Monoclonal Antibody against Human Renal Cancer.** Mandip Singh, Tarun Ghose, Gary Faulkner, Jaroslav Kralovec, and Michael Mezei.

Tumor Biology

- 3722 **Poorly Metastatic Tumor Cell Variants as Primary Targets of Syngeneic Antibody Responses against Murine Melanoma.** Nanette P. Parratto, Janice M. Odebralski, and Arthur K. Kimura.
- * 3759 **Blood Flow, Metabolism, Cellular Microenvironment, and Growth Rate of Human Tumor Xenografts.** F. Kallinowski, K. H. Schlenger, S. Runkel, M. Kloes, M. Stohrer, P. Okunieff, and P. Vaupel.
- * 3805 **Elevation of Intracellular Calcium Ion by Prostaglandin E₁ and Its Inhibition by Protein Kinase C in a Human Megakaryocyte Leukemia Cell Line.** Masashi Adachi, Ryukichi Ryo, Akinori Yoshida, Keisuke Teshigawara, Nobuo Yamaguchi, Masahiko Hoshijima, Yoshimi Takai, and Takeyuki Sato.
- * 3829 **Differential Induction of Spermidine/Spermine *N*¹-Acetyltransferase in Human Lung Cancer Cells by the Bis(ethyl)polyamine Analogues.** Robert A. Casero, Jr., Paul Celano, Stephanie J. Ervin, Carl W. Porter, Raymond J. Bergeron, and Paul R. Libby.
- 3985 **Focal Impairment of Growth in Hepatocellular Neoplasms of C57BL/6 Mice: A Possible Explanation for the Strain's Resistance to Hepatocarcinogenesis.** Saburo Kakizoe, Stanley Goldfarb, and Thomas D. Pugh.
- * 3996 **Establishment of a Clonal Human Chondrosarcoma Cell Line with Cartilage Phenotypes.** Masaharu Takigawa, Koji Tajima, Hai-Ou Pan, Motomi Enomoto, Akihiro Kinoshita, Fujio Suzuki, Yoshiro Takano, and Yoichi Mori.
- 4003 **Selective Implantation and Growth in Rats and Mice of Experimental Liver Metastasis in Acinar Zone One.** Emilio Barberá-Guillem, Ana Alonso-Varona, and Fernando Vidal-Vanaclocha.

CLINICAL AND EPIDEMIOLOGICAL INVESTIGATIONS

Clinical

- 4042 **Cytotoxicity of Interleukin 2-Toxin toward Lymphocytes from Patients with Adult T-Cell Leukemia.** T. Kiyokawa, K. Shirono, T. Hattori, H. Nishimura, K. Yamaguchi, J. C. Nichols, T. B. Strom, J. R. Murphy, and K. Takatsuki.
- 4047 **Epithelial Ovarian Cancer and the Ability to Conceive.** Alice S. Whittemore, Marion L. Wu, Ralph S. Paffenbarger, Jr., Dorien L. Saries, James B. Kampert, Stella Grosser, Dexter L. Jung, Samuel Ballon, Michael Hendrickson, and Janet Mohle-Boetani.
- 4053 **Specific Localization of Thallium 201 in Human High-Grade Astrocytoma by Microautoradiography.** James M. Mountz, Pamela A. Raymond, Paul E. McKeever, Jack G. Modell, Terry W. Hood, Linda K. Barthel, and Kate A. Stafford-Schuck.
- 4057 **Phase I Trial of Recombinant Human γ -Interferon and Recombinant Human Tumor Necrosis Factor in Patients with Advanced Gastrointestinal Cancer.** James L. Abbruzzese, Bernard Levin, Jaffer A. Ajani, Jack S. Faintuch, Samuel Saks, Yehuda Z. Patt, Charlene Edwards, Karen Ende, and Jordan U. Gutterman.

4062 Phase I Evaluation of an Anti-Breast Carcinoma Monoclonal Antibody 260F9-Recombinant Ricin A Chain Immunoconjugate. Louis M. Weiner, Joyce O'Dwyer, Joanne Kitson, Robert L. Comis, Arthur E. Frankel, Robert J. Bauer, Michael S. Konrad, and Eric S. Groves.

Epidemiological

4015 Reproductive Histories and Premenopausal Breast Cancer: Different Estimates Using Population, Neighborhood, or Hospital Controls. Eiliv Lund.

4020 Consumption of Fermented Milk Products and Breast Cancer: A Case-Control Study in the Netherlands. Pieter van't Veer, Jacqueline M. Dekker, Jos W. J. Lamers, Frans J. Kok, Evert G. Schouten, Henny A. M. Brants, Ferd Sturmans, and Rudolph J. J. Hermus.

4024 Effect of Smoking and Alcohol Consumption on Laryngeal Cancer Risk in Coastal Texas. Roni T. Falk, Linda W. Pickle, Linda Morris Brown, Thomas J. Mason, Patricia A. Buffler, and Joseph F. Fraumeni, Jr.

4030 Occupational Exposures of Parents of Children with Acute Non-lymphocytic Leukemia: A Report from the Childrens Cancer Study Group. Jonathan D. Buckley, Leslie L. Robison, Robert Swotinsky, David H. Garabrant, Michelle LeBeau, Paul Manchester, Mark E. Nesbit, Lorrie Odom, John M. Peters, William G. Woods, and G. Denman Hammond.

4038 Infectious and Noninfectious Exposures in the Etiology of Light Chain Myeloma: A Case-Control Study. Ann R. Williams, Noel S. Weiss, Thomas D. Koepsell, Joseph L. Lyon, and G. Marie Swanson.

* * *

4068 Announcements
AACR Special Conferences in Cancer Research
Future Annual Meetings of the AACR
Collected Perspectives in Cancer Research
Calendar of Events

4069 Author Index

NOTE: AACR forms available in the back of this issue—
• **Application for Active and Corresponding Membership**
• **Application for Associate Membership**

Cancer Research

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

49 (14)

Cancer Res 1989;49:3713-4068.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/49/14.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/49/14.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.