



CONTENTS

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

BASIC SCIENCES

- 5049 **Redifferentiation as a Basis for Remodeling of Carcinogen-induced Hepatocyte Nodules to Normal Appearing Liver.** Masae Tatematsu, Yoshiaki Nagamine, and Emmanuel Farber.
- 5059 **Comparative Study of the Sugar Chains of γ -Glutamyltranspeptidases Purified from Rat Liver and Rat AH-66 Hepatoma Cells.** Katsuko Yamashita, Akira Hitoi, Naoyuki Taniguchi, Noriko Yokosawa, Yutaka Tsukada, and Akira Kobata.
- *5064 **New Method for Detecting Epstein-Barr Virus Association in Nonproducer Lymphoblastoid Cell Lines.** Sergio Giunta and Giuseppe Groppa.
- 5068 **Transport of Pyruvate in Mitochondria from Different Tumor Cells.** G. Paradies, F. Capuano, G. Palombini, T. Galeotti, and S. Papa.
- 5072 **Dose-Response Study of *N*-Nitrosoproline Formation in Rats and a Deduced Kinetic Model for Predicting Carcinogenic Effects Caused by Endogenous Nitrosation.** Hiroshi Ohshima, Garry A. T. Mahon, Jürgen Wahrendorf, and Helmut Bartsch.
- 5077 **Measurement of 7-Methylguanine as an Estimate of the Amount of Dimethylnitrosamine Formed following Administration of Aminopyrine and Nitrite to Rats.** Charles T. Gombar, Julia Zubroff, Gary D. Strahan, and Peter N. Magee.
- 5081 **Metastatic Behavior of an Adriamycin-resistant Murine Tumor.** R. Giavazzi, L. Miller, and I. R. Hart.
- 5087 **Induction of Transformation by Six Classes of Chemical Carcinogens in Adult Rat Liver Epithelial Cells.** Tomiko Shimada, Kazunori Furukawa, Dawn M. Kreiser, Andrea Cawein, and Gary M. Williams.
- *5093 **Potential of 1- β -D-Arabinofuranosylcytosine Metabolism and Cytotoxicity by 2,3-Dihydro-1*H*-imidazo[1,2-*b*]pyrazole in the Human Promyelocytic Leukemic Cell, HL-60.** S. Grant, K. Bhalla, F. Rauscher III, and E. Cadman.
- 5101 **Critical Modulation by Thymidine and Hypoxanthine of Sequential Methotrexate-5-Fluorouracil Synergism in Murine L1210 Cells.** A. A. Piper, S. E. Nott, W. B. Mackinnon, and M. H. N. Tattersall.
- 5106 **Extraction of Immunogenic and Suppressogenic Antigens from Variants of B16 Melanoma Exhibiting Low or High Metastatic Potentials.** Stephen J. LeGrue and Donald R. Hearn.
- *5112 **Flow Cytometric Analysis of Adenosine Analogue Lymphocytotoxicity.** Richard F. Kefford, Ian W. Taylor, and Richard M. Fox.
- 5120 **Influence of Surgical Removal and Effect of Levamisole on Cytotoxic T-Cell-mediated Antitumor Immunity in Mice.** Katsushige Gomi, Makoto Morimoto, and Kikuo Nomoto.
- 5126 **Quantitative Flow Cytometric Determination of Anthracycline Content of Rat Bone Marrow Cells.** Kees Nooter, Ger van den Engh, and Pieter Sonneveld.
- 5131 **Immunochemical Detection and Quantitation of Mitochondrial Cytochrome P-450 and Reduced Nicotinamide Adenine Dinucleotide Phosphate: Cytochrome P-450 Reductase in the Rat Ventral Prostate.** Tapio Haaparanta, James Halpert, Hans Glaumann, and Jan-Åke Gustafsson.
- 5138 **Different Patterns of Lectin Binding and Cell Surface Sialylation Detected on Related High- and Low-Metastatic Tumor Lines.** Peter Altevogt, Mina Fogel, Rachanee Cheinsong-Popov, Jim Dennis, Peter Robinson, and Volker Schirmacher.
- *5145 **Enhancement of the Incorporation of 5-Fluorodeoxyuridylate into DNA of HL-60 Cells by Metabolic Modulations.** Masao Tanaka, Kiyoji Kimura, and Shonen Yoshida.
- 5151 ***In Vivo* Antitumor Activity of the Bitter Melon (*Momordica charantia*).** Catherine Jilka, Beth Striffler, G. William Fortner, Esther F. Hays, and Dolores J. Takemoto.
- 5156 **Antiteratogenic Effects of Tumor Inhibitors, Caffeine, Antipain, and Retinoic Acid in Mice.** Taisei Nomura, Takayuki Enomoto, Keiko Shibata, Tohru Kanzaki, Hiroyuki Tanaka, Shinsuke Hata, Sakae Kimura, Takeshi Kusafuka, Kazushi Sobue, Shinpei Miyamoto, Hiroshi Nakano, and Hiroko Gotoh.
- 5163 **Strong Evidence from Studies with Brachymorphic Mice and Pentachlorophenol That 1'-Sulfooxysafrole Is the Major Ultimate Electrophilic and Carcinogenic Metabolite of 1'-Hydroxysafrole in Mouse Liver.** Eric W. Boberg, Elizabeth C. Miller, James A. Miller, Alan Poland, and Amy Liem.
- 5174 **Induction of Ornithine Decarboxylase Activity and DNA Synthesis in Hairless Mouse Epidermis by Retinoids.** Michael J. Connor and Nicholas J. Lowe.

- *5178 Inhibition of Phorbol Ester-mediated Interleukin-2 Production by Cellular Differentiating Agents.** Amiram Ravid, Miriam Patya, Albert L. Rubin, Kurt H. Stenzel, and Abraham Novogrodsky.
- *5184 Nerve Growth Factor Receptors of Human Tumors of Neural Crest Origin: Characterization of Binding Site Heterogeneity and Alteration by Theophylline.** Richard J. Riopelle, Tina Haliotis, and John C. Roder.
- 5190 Cerebrospinal Fluid and Plasma Pharmacokinetics of High Doses of 1- β -D-Arabinofuranosylcytosine in Nonhuman Primates.** Jose A. Lopez, G. Peter Beardsley, John G. Krikorian, Ronald W. Mortara, and Ram P. Agarwal.
- 5194 Bovine Bladder Urothelial Cell Activation of Carcinogens to Metabolites Mutagenic to Chinese Hamster V79 Cells and *Salmonella typhimurium*.** Linda A. Oglesby, Cathy Hix, Linda Snow, Pat MacNair, Marianne Seig, and Robert Langenbach.
- 5200 Relative Carcinogenic Activity of Various Synthetic and Natural Estrogens in the Syrian Hamster Kidney.** Jonathan J. Li, Sara Antonia Li, John K. Klicka, Jonathan A. Parsons, and Luke K. T. Lam.
- 5205 Effects of Propylthiouracil on Urinary Metabolites of Cyclophosphamide in Rats.** Kazuo Chijiwa, Willem G. Linscheer, Krishan L. Raheja, and Chaidong Cho.
- 5210 Effect of Methotrexate with 5-Methyltetrahydrofolate Rescue and Dietary Homocystine on Survival of Leukemic Mice and on Concentrations of Liver Adenosylamino Acids.** Mary A. Hilton, Jerald L. Hoffman, and Margaret K. Sparks.
- 5217 Effect of Tumor Promoter 12-O-Tetradecanoylphorbol-13-acetate on Recovery of Methotrexate-, N-(Phosphonacetyl)-L-aspartate-, and Cadmium-resistant Colony-forming Mouse and Hamster Cells.** Ferenc Bojan, Anne R. Kinsella, and Margaret Fox.
- 5222 Molecular and Biological Characterization of Anticarcinogenic and Tumor Cell Growth-inhibitory Activities of Syrian Hamster Lymphotoxin.** Janet H. Ransom and Charles H. Evans.
- 5228 Parenteral Level of Glucose Intake on Glucose Homeostasis, Tumor Growth, Gluconeogenesis, and Body Composition in Normal and Tumor-bearing Rats.** Ivan L. Cameron and Virginia A. Ord.
- 5235 Use of Chromatofocusing to Distinguish Estradiol Receptor from Ovarian-dependent and -independent Rat Mammary Tumors.** Alena H. Coufalik, Mark Feldman, Micsunica Platica, Lewis Toth, David Dreiling, and Vincent P. Hollander.
- 5240 Role of Suppressor Cells in the Decline of Natural Killer Cell Activity in Estrogen-treated Mice.** Vita K. Milisauskas, Gustavo Cudkowicz, and Ichiro Nakamura.
- 5244 Interrelation between Tumor Cell Proliferation and 17-Fluoresceinated Estrone Binding following Primary Tumor Removal, Radiation, Cyclophosphamide, or Tamoxifen.** Bernard Fisher, Nurten Gunduz, and Elizabeth A. Saffer.
- 5248 Tumorigenicity *In Vivo* and Induction of Mutagenesis and DNA Repair *In Vitro* by Aclacinomycin A and Marcellomycin: Structure-Activity Relationship and Predictive Value of Short-Term Tests.** Johannes Westendorf, Hildegard Marquardt, M. B. Ketkar, Ulrich Mohr, and Hans Marquardt.
- 5252 Modification of Chemotherapeutic Effects on L1210 Cells Using Hematoporphyrin and Light.** Stephen P. Creekmore and Daniel S. Zaharko.
- 5258 Denitrosation as a Determinant of Nitrosocimetidine *In Vivo* Activity.** David E. Jensen.
- *5268 Structure-Activity Relationships of a New Series of Retinoidal Benzoic Acid Derivatives as Measured by Induction of Differentiation of Murine F9 Teratocarcinoma Cells and Human HL-60 Promyelocytic Leukemia Cells.** Sidney Strickland, Theodore R. Breitman, Fritz Frickel, Axel Nürrenbach, Erich Hädicke, and Michael B. Sporn.
- *5273 Covalent Labeling of Rat Thymocyte and Human Lymphoid Glucocorticoid Receptor.** Carol M. Foster, Howard J. Eisen, and Clara D. Bloomfield.
- 5278 Pharmacology and Neurotoxicity of *cis*-Diamminedichloroplatinum, Bleomycin, 5-Fluorouracil, and Cyclophosphamide Administration following Osmotic Blood-Brain Barrier Modification.** Edward A. Neuwelt, Peggy A. Barnett, Mark Glasberg, and Eugene P. Frenkel.
- *5286 Patterns of Cross-Resistance to the Antifolate Drugs Trimetrexate, Metoprine, Homofolate, and CB3717 in Human Lymphoma and Osteosarcoma Cells Resistant to Methotrexate.** Heyke Diddens, Dietrich Niethammer, and Robert C. Jackson.
- 5293 Comparative Genotoxicity of Adriamycin and Menogarol, Two Anthracycline Antitumor Agents.** B. K. Bhuyan, D. M. Zimmer, J. H. Mazurek, R. J. Trzos, P. R. Harbach, V. S. Shu, and M. A. Johnson.
- *5298 Tamoxifen and 5-Fluorouracil in Breast Cancer: Cytotoxic Synergism *In Vitro*.** Chris Benz, Ed Cadman, John Gwin, Terrence Wu, Jane Amara, Arnold Eisenfeld, and Priscilla Dannies.
- *5304 Tamoxifen and 5-Fluorouracil in Breast Cancer: Modulation of Cellular RNA.** Chris Benz, George Santos, and Ed Cadman.
- 5309 Combined Cytotoxic Effect of Low-Dose 5-Fluorouracil and Hydroxyurea on 9L Cells *In Vitro*.** Shu Kobayashi and Takao Hoshino.
- 5314 Metastatic Heterogeneity of Cells from Lewis Lung Carcinoma.** Anne-Louise van Lamsweerde, Nicole Henry, and Gilbert Vaes.
- 5321 Collagen Degradation by Metastatic Variants of Lewis Lung Carcinoma: Cooperation between Tumor Cells and Macrophages.** Nicole Henry, Anne-Louise van Lamsweerde, and Gilbert Vaes.
- 5328 Antitumor Effect of Actinomycin D Entrapped in Liposomes Bearing Subunits of Tumor-specific Monoclonal Immunoglobulin M Antibody.** Yoshiyuki Hashimoto, Minoru Sugawara, Takashi Masuko, and Hiroshi Hojo.

- 5335 **Synergistic Effect of Vitamin E and Selenium in the Chemoprevention of Mammary Carcinogenesis in Rats.** Paula M. Horvath and Clement Ip.
- 5342 **Effects of Alterations in Early Hormonal Environment on Development and Hormone Dependency of Carcinogen-induced Mammary Tumors in Rats.** P. W. Sylvester, C. F. Aylsworth, D. A. Van Vugt, and J. Meites.
- *5347 **Stability, Characterization, and Kinetics of ¹¹¹In-labeled Monoclonal Antitumor Antibodies in Normal Animals and Nude Mouse-Human Tumor Models.** Samuel E. Halpern, Phillip L. Hagan, Paul R. Garver, James A. Koziol, Agnes W. N. Chen, James M. Frincke, Richard M. Bartholomew, Gary S. David, and Thomas H. Adams.
- *5356 **Participation of Pterins in the Control of Lymphocyte Stimulation and Lymphoblast Proliferation.** Irmgard Ziegler, Ulrike Hamm, and J. Berndt.
- 5360 **Correlation of Growth Morphology and Clonability with Malignancy of WEHI-7 T-Cell Lymphoma Sublines.** Susanne B. Gjedde.
- 5365 **Dormancy versus Extinction of Mouse Leydig Cell Tumors following Endocrine-induced Regression.** Robert A. Huseby.
- *5379 **Characterization of a Human Ovarian Carcinoma Cell Line (NIH:OVCAR-3) with Androgen and Estrogen Receptors.** Thomas C. Hamilton, Robert C. Young, Wilma M. McKoy, Karen R. Grotzinger, John A. Green, Elizabeth W. Chu, Jacqueline Whang-Peng, Alfred M. Rogan, William R. Green, and Robert F. Ozols.
- 5390 **Occurrence of the Tumor-specific, Calcium-binding Protein, Oncomodulin, in Virally Transformed Normal Rat Kidney Cells.** J. P. Durkin, L. M. Brewer, and J. P. MacManus.
- *5395 **Correlation of Malignancy with the Intracellular Na⁺:K⁺ Ratio in Human Thyroid Tumors.** Imre Zs.-Nagy, György Lustyik, Géza Lukács, Valéria Zs.-Nagy, and György Balázs.
- 5403 **Morphological Studies on V2 Carcinoma Invasion and Tumor-associated Connective Tissue Changes in the Rabbit Mesentery.** Peter Sträuli, Annemarie In-Albon, and Gisela Haemmerli.
- *5411 **Gastrin-releasing Peptide-related Peptides in a Human Malignant Lung Carcinoid Tumor.** Kevin A. Roth, Christopher J. Evans, Eckard Weber, Jack D. Barchas, David G. Bostwick, and Klaus G. Bensch.
- 5416 **Correlation of Alkaline Phosphatase Activity to Normal T-Cell Differentiation and to Radiation Leukemia Virus-induced Preleukemic Cells in the C57BL Mouse Thymus.** Gérard Goffinet, Marie-Paule Houben-Defresne, and Jacques Boniver.
- 5427 **Prevention of Chronic Doxorubicin Cardiotoxicity in Beagles by Liposomal Encapsulation.** E. H. Herman, A. Rahman, V. J. Ferrans, J. A. Vick, and P. S. Schein.
- 5433 **Effects of Tumor Promoters on the Frequency of Metallothionein I Gene Amplification in Cells Exposed to Cadmium.** Kenshi Hayashi, Hirota Fujiki, and Takashi Sugimura.
- 5437 **Characterization of Metastatic Clones Derived from a Metastatic Variant of Mouse Colon Adenocarcinoma 26.** Takashi Tsuruo, Takao Yamori, Kuniko Naganuma, Shigeru Tsukagoshi, and Yoshio Sakurai.
- 5443 **Effect of Retinoic Acid on the Growth and Morphology of a Prostatic Adenocarcinoma Cell Line Cloned for the Retinoid Inducibility of Alkaline Phosphatase.** David H. Reese, Bent Gordon, Howard G. Gratzner, Alice J. Claffin, Theodore I. Malinin, Norman L. Block, and Victor A. Politano.
- 5451 **New Method to Quantitate Clonogenic Tumor Cells in the Blood Circulation of Mice.** Norio Suzuki.
- *5456 **Establishment of Different Clonal Strains from a Human Sarcoma of the Stomach: Tumorigenic Heterogeneity in Athymic Nude Mice.** Tetsuro Okabe, Atsuko Suzuki, Masahira Hirono, Norikazu Tamaoki, Mitsuo Oshimura, and Fumimaro Takaku.
- *5462 **Effect of Human Fibroblast Interferon on the Antiviral Activity of Mammalian Cells Treated with Bleomycin, Vincristine, or Mitomycin C.** Robert J. Suhadolnik, Yosuke Sawada, Maryann B. Flick, Nancy L. Reichenbach, and Joseph D. Mosca.
- 5467 **Modulation of Plasminogen Activator in Rodent Mammary Tumors by Hormones and Other Effectors.** Rafael Mira-y-Lopez, E. Reich, and Liliana Ossowski.
- 5478 **Establishment and Characterization of a Transplantable Rat Myelomonocytic Leukemia.** Tetsuya Moriuchi, Tsuneyuki Oikawa, Takao Kodama, Hideo Yamaguchi, and Hiroshi Kobayashi.
- *5484 **Enhancement of Actinomycin D- and *cis*-Diammine-dichloroplatinum(II)-induced Killing of Human Fibroblasts by Human β -Interferon.** Masafumi Inoue and Y. H. Tan.
- *5489 **Identification of the Gastrointestinal and Pancreatic Cancer-associated Antigen Detected by Monoclonal Antibody 19-9 in the Sera of Patients as a Mucin.** John L. Magnani, Zenon Steplewski, Hilary Koprowski, and Victor Ginsburg.
- 5493 **New Histochemical Method for Measuring Intratumoral Macrophages and Macrophage Recruitment into Experimental Metastases.** Peter J. Bugelski, Richard L. Kirsh, and George Poste.
- *5502 **Phenotypic Characteristics of Cells Derived from Precursors of Human Melanoma.** Meenhard Herlyn, Dorothee Herlyn, David E. Elder, Edward Bondi, Donato LaRossa, Ralph Hamilton, Henry F. Sears, Gloria Balaban, DuPont Guerry IV, Wallace H. Clark, and Hilary Koprowski.
- *5509 **Immunohistochemical Localization of Prostate Carcinoma-associated Antigens.** George L. Wright, Jr., Mary Lou Beckett, James J. Starling, Paul F. Schellhammer, Susan M. Sieg, Leopoldo E. Ladaga, and Solobodan Poleskic.

- * 5517 **Plasminogen Activator Secretion of Human Tumors in Short-Term Organ Culture, Including a Comparison of Primary and Metastatic Colon Tumors.** Gabor Markus, Sarah M. Camiolo, Shin Kohga, Judith M. Madeja, and Arnold Mittelman.
- * 5526 **Human Embryonal Cell Carcinoma in Nude Mice.** Manfred Wirth, Barbara Inglin, Werner Romen, and Rolf Ackermann.
- 5533 **Plasma Membrane Lipid Structural Order in Doxorubicin-sensitive and -resistant P388 Cells.** A. Ramu, D. Glaubiger, I. T. Magrath, and A. Joshi.
- * 5538 **Cytotoxicity of Thioether-Lysophospholipids in Leukemias and Tumors of Human Origin.** Wolfgang E. Berdel, Michael Fromm, Ulrich Fink, Wulf Pahlke, Uwe Bicker, Anneliese Reichert, and Johann Rastetter.
- 5544 **Tumor Promoter Actions on Rat Embryonic Development in Culture.** Brian E. Huber and Nigel A. Brown.
- 5552 **12-O-Tetradecanoylphorbol-13-acetate Actions on Macromolecular Synthesis, Ornithine Decarboxylase, and Cellular Differentiation of the Rat Embryonic Visceral Yolk Sac in Culture.** Brian E. Huber and Nigel A. Brown.
- * 5560 **Expression of Erythroid Acetylcholinesterase in the K-562 Leukemia Cell Line.** Franco Ajmar, Cecilia Garrè, Mario Sessarego, Roberto Ravazzolo, Renata Barresi, Giovanna Bianchi Scarrà, and Mario Lituania.
- * 5564 **Effects of a Tumor Promoter on Phospholipid Metabolism in HeLa Cells.** Graeme R. Guy and Andrew W. Murray.

CLINICAL INVESTIGATIONS

- 5570 **Endogenous Formation of *N*-Nitrosoproline in Cigarette Smokers.** Dietrich Hoffmann and Klaus D. Brunnemann.
- 5575 **Randomized Controlled Study of Adjuvant Immunotherapy with *Nocardia rubra* Cell Wall Skeleton for Inoperable Lung Cancer.** Yuichi Yamamura, Takeshi Ogura, Mitsunori Sakatani, Fumio Hirao, Susumu Kishimoto, Masahiro Fukuoka, Minoru Takada, Masaaki Kawahara, Kiyoyuki Furuse, Osamu Kuwahara, Harumichi Ikegami, and Nobuya Ogawa.
- 5580 **Decreased Natural Killer Cell Activity in Children with Untreated Acute Leukemia.** Anthony G. Nasrallah and Thomas D. Miale.
- 5586 **Increased Whole-Body Protein Turnover in Sick Children with Newly Diagnosed Leukemia or Lymphoma.** C. Lawrence Kien and Bruce M. Camitta.
- 5593 **Tumor Localization in Patients by Radiolabeled Monoclonal Antibodies against Colon Carcinoma.** Jean-Pierre Mach, Jean-Francois Chatal, Jean-Denis Lumbroso, Franz Buchegger, Michel Forni, Jurg Ritschard, Christian Berche, Jean-Yves Douillard, Stephan Carrel, Meenhard Hertlyn, Zenon Steplewski, and Hilary Koprowski.

- 5601 **Influence of Intensive Asparaginase in the Treatment of Childhood Non-T-Cell Acute Lymphoblastic Leukemia.** Stephen E. Sallan, Suzanne Hitchcock-Bryan, Richard Gelber, J. Robert Cassady, Emil Frei III, and David G. Nathan.
- 5608 **Ribonucleotide Content of Mononuclear Cells from Normal Subjects and Patients with Chronic Lymphocytic Leukemia: Increased Nicotinamide Adenine Dinucleotide Concentration in Chronic Lymphocytic Leukemia Lymphocytes.** Leonard F. Liebes, Robert L. Krigel, Maryrose Conklyn, Denise R. Nevrla, and Robert Silber.
- 5618 **Lysosomal Arylsulfatases of Human Leukocytes: Increment of Phosphorylated B Variants in Chronic Myelogenous Leukemia.** Yoshio Uehara, Shinsei Gasa, Akira Makita, Keisuke Sakurada, and Tamotsu Miyazaki.

* * *

Letters to the Editor

- 5623 **Correspondence re: M. H. Antecol and B. B. Mukherjee. Effects of 12-O-Tetradecanoylphorbol-13-acetate on Fibroblasts from Individuals Genetically Predisposed to Cancer.** *Cancer Res.*, 42: 3870-3879, 1982. Levy Kopelovich. Michael H. Antecol and Barid B. Mukherjee.
- 5627 **Correspondence re: D. A. Beck, R. D. Rossen, D. B. DuBois, and C. O. Felice. Synthesis of Antigens, Cross-Reactive with Bovine Serum Albumin, by Cultured Neuroblastoma Cells.** *Cancer Res.*, 43: 858-863, 1983; D. A. Beck, R. D. Rossen, A. Cangir, and D. B. DuBois. **Correlation of Immune Complexes in Disseminated Neuroblastoma with Serum Antibody to Bovine Serum Albumin.** *Cancer Res.*, 43: 879-885, 1983. Theodore Peters, Jr. and Allan S. Cunningham. Daniel A. Beck, Dwight B. DuBois, and Roger D. Rossen.

Meeting Reports

- 5629 **Multiple Primary Neoplasms.** Curtis C. Harris and Keiichi Suemasu.
- 5631 **A National Institutes of Health Workshop Report: Free Radicals in Promotion—A Chemical Pathology Study Section Workshop.** Edmund S. Copeland (ed.).

5638 Special Announcement

5639 Announcements

5641 Books Received

5643 Author Index

5645 Statement of Ownership, Management and Circulation

Cancer Research

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

43 (11)

Cancer Res 1983;43:5049-5642.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/43/11.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/43/11.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.