



CONTENTS

Advances in Brief

- 4743** Emergence of Adenomatous Aberrant Crypt Foci (ACF) from Hyperplastic ACF with Concomitant Increase in Cell Proliferation. Kazuhiko Otori, Kenji Sugiyama, Takahiro Hasebe, Shoji Fukushima, and Hiroyasu Esumi.
- 4747** Tumor Growth Inhibition Mediated by Lymphotoxin: Evidence of B Lymphocyte Involvement in the Antitumor Response. Zhihai Qin and Thomas Blankenstein.
- 4752** Treatment of Human Malignant Meningiomas by G207, a Replication-competent Multimutated Herpes Simplex Virus 1. Takahito Yazaki, Herbert J. Manz, Samuel D. Rabkin, and Robert L. Martuza.
- 4757** Correlation of High Lactate Levels in Human Cervical Cancer with Incidence of Metastasis. Georg Schwickert, Stefan Walenta, Kolbein Sundfjord, Einar K. Rofstad, and Wolfgang Mueller-Klieser.
- 4760** Elevated DNA Repair Capacity Is Associated with Intrinsic Resistance of Lung Cancer to Chemotherapy. Nie Zeng-Rong, Jesse Paterson, Lesley Alpert, Ming-Sound Tsao, Jean Viallet, and Moulay A. Alaoui-Jamali.
- 4765** High Cytokine Production and Effective Antitumor Activity of a Recombinant Vaccinia Virus Encoding Murine Interleukin 12. Jennifer B. Meko, John H. Yim, Kangla Tsung, and Jeffrey A. Norton.
- 4771** Transfection of Complementary DNAs for the Heavy and Light Subunits of Human γ -Glutamylcysteine Synthetase Results in an Elevation of Intracellular Glutathione and Resistance to Melphalan. R. Timothy Mulcahy, Howard H. Bailey, and Jerry J. Gipp.
- 4776** Regression of Established Tumors in Mice Mediated by the Oral Administration of a Recombinant *Listeria monocytogenes* Vaccine. Zhen-Kun Pan, Georgios Ikonomidis, Drew Pardoll, and Yvonne Paterson.
- 4780** Rejection Antigen Peptides on BALB/c RL δ 1 Leukemia Recognized by Cytotoxic T Lymphocytes: Derivation from the Normally Untranslated 5' Region of the *c-Akt* Proto-Oncogene Activated by Long Terminal Repeat. Hisashi Wada, Mitsutoshi Matsuo, Akiko Uenaka, Naoki Shimbara, Kenji Shimizu, and Eiichi Nakayama.
- 4784** The Normal Cell Cycle Activation Program Is Exploited during the Infection of Quiescent B Lymphocytes by Epstein-Barr Virus. Martine Hollyoake, Albert Stühler, Paul Farrell, John Gordon, and Alison Sinclair.
- 4788** Expression of Thymidine Kinase Messenger RNA and a Related Transcript Is Modulated by Radioprotector WR1065. Gayle E. Woloschak, Tatjana Paunesku, Chin-Mei Chang-Liu, and David J. Grdina.
- 4793** X Chromosome Inactivation and Microsatellite Instability in Early and Advanced Bilateral Ovarian Carcinomas. Tjong-Won Park, Juan C. Felix, and Thomas C. Wright, Jr.
- 4797** Microsatellite Instability in Colorectal Adenocarcinoma Cell Lines That Have Full-Length Adenomatous Polyposis Coli Protein. Christopher D. Heinen, Diane Richardson, Ray White, and Joanna Groden.
- 4800** Loss of the Chromosomal Region 10q23-25 in Prostate Cancer. Ian C. Gray, Stewart M. A. Phillips, Susan J. Lee, John P. Neoptolemos, Jean Weissenbach, and Nigel K. Spurr.
- 4804** Suppression of Growth of Renal Carcinoma Cells by the von Hippel-Lindau Tumor Suppressor Gene. Fan Chen, Takeshi Kishida, Fuh-Mei Duh, Paul Renbaum, Mary L. Orcutt, Laura Schmidt, and Berton Zbar.
- 4808** Enzyme/Prodrug Gene Therapy: Comparison of Cytosine Deaminase/5-Fluorocytosine Versus Thymidine Kinase/Ganciclovir Enzyme/Prodrug Systems in a Human Colorectal Carcinoma Cell Line. Quynh T. Trinh, Elizabeth A. Austin, Doris M. Murray, Vincent C. Knick, and Brian E. Huber.
- 4813** Chromosome 5 Suppresses Tumorigenicity of PC3 Prostate Cancer Cells: Correlation with Re-expression of α -Catenin and Restoration of E-Cadherin Function. Charles M. Ewing, Ning Ru, Ronald A. Morton, John C. Robinson, Margaret J. Wheelock, Keith R. Johnson, J. Carl Barrett, and William B. Isaacs.
- 4818** Oncogenic Aberrations of p16^{INK4/CDKN2} and Cyclin D1 Cooperate to Dereulate G₁ Control. Jiri Lukas, Louise Aagaard, Michael Strauss, and Jiri Bartek.
- 4824** Tumor Necrosis Factor α -induced Leukocyte Adhesion in Normal and Tumor Vessels: Effect of Tumor Type, Transplantation Site, and Host Strain. Dai Fukumura, Hassan A. Salehi, Brian Witwer, Ronald F. Tuma, Robert J. Melder, and Rakesh K. Jain.
- 4830** Different Tumor Types from BRCA2 Carriers Show Wild-Type Chromosome Deletions on 13q12-q13. Julius Gudmundsson, Gudrun Johannesdottir, Jon Thor Bergthorsson, Adalgeir Arason, Sigurdur Ingvarsson, Valgardur Egilsson, and Rosa Björk Barkardottir.
- 4833** Lack of p16^{INK4} or Retinoblastoma Protein (pRb), or Amplification-associated Overexpression of cdk4 Is Observed in Distinct Subsets of Malignant Glioma Tumors and Cell Lines. Ju He, Jeffrey J. Olson, and C. David James.

Regular Articles

Biochemistry and Biophysics

- 4837** Riboflavin-mediated Photosensitization of *Vinca* Alkaloids Distorts Drug Sensitivity Assays. Christof Granzow, Marijana Kopun, and Till Kröber.
- 4844** ET-18-OCH₃ Inhibits Nuclear Factor- κ B Activation by 12-O-Tetradecanoylphorbol-13-acetate but not by Tumor Necrosis Factor- α or Interleukin 1 α . Larry W. Daniel, Francesca Civali, Michael A. Rogers, Pamela K. Smitherman, Paul A. Raju, and Mario Roederer.
- 4850** The H-ras Oncogene Interferes with Retinoic Acid Signaling and Metabolism in NIH3T3 Cells. Karolina Kósa, Carol S. Jones, and Luigi M. De Luca.
- 4855** Characterization of the Receptor Protein Tyrosine Phosphatase Gene Product PTP γ : Binding and Activation by Triphosphorylated Nucleosides. Claudio Sorio, Jeannine Mendrola, Zhuangwei Lou, Sal LaForgia, Carlo M. Croce, and Kay Huebner.

Carcinogenesis

- 4865** Cholesterol Sulfate, a Second Messenger for the η Isoform of Protein Kinase C, Inhibits Promotional Phase in Mouse Skin Carcinogenesis. Kazuhiro Chida, Akiko Murakami, Tomoko Tagawa, Tohgo Ikuta, and Toshio Kuroki.
- 4870** Chemoprevention by Dehydroepiandrosterone and Indomethacin in a Rat Multiorgan Carcinogenesis Model. Masa-Aki Shibata, Ryohei Hasegawa, Katsumi Imaida, Akihiro Hagiwara, Kumiko Ogawa, Masao Hirose, Nobuyuki Ito, and Tomoyuki Shirai.
- 4875** Promotion of *N*-Nitrosodiethylamine-initiated Hepatocellular Tumors and Hepatoblastomas by 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin or Aroclor 1254 in C57BL/6, DBA/2, and B6D2F1 Mice. Lisa E. Beebe, Laura W. Fornwald, Bhallchandra A. Diwan, Miriam R. Anver, and Lucy M. Anderson.

Clinical Investigations

- 4881** Tumor Necrosis Factor and Coagulopathy in Patients with Prostate Cancer. Jun Nakashima, Masaaki Tachibana, Munechisa Ueno, Shiro Baba, and Hiroshi Tazaki.

Endocrinology

- 4886** Pituitary Adenylate Cyclase Activating Peptide Receptors Regulate the Growth of Non-Small Cell Lung Cancer Cells. Farah Zia, Mirela Fagarasan, Kamil Bitar, David H. Coy, Joe R. Pisegna, Steve A. Wank, and Terry W. Moody.
- 4892** Reduction in the Expression and Action of Transforming Growth Factor β 1 on Lactotrophs during Estrogen-induced Tumorigenesis in the Anterior Pituitary. Martine Pastorcic, Alok De, Nadka Boyadjieva, Wylie Vale, and Dipak K. Sarkar.

Epidemiology

- 4899** Alcohol and Pancreatic Cancer in Blacks and Whites in the United States. Debra T. Silverman, Linda M. Brown, Robert N. Hoover, Mark Schiffman, Keith D. Lillemoe, Janet B. Schoenberg, G. Marie Swanson, Richard B. Hayes, Raymond S. Greenberg, Jacques Benichou, Ann G. Schwartz, Jonathan M. Liff, and Linda M. Pottern.
- 4906** Cigarette Smoking in Relation to Risk of Large Bowel Cancer in Women. Polly A. Newcomb, Barry E. Storer, and Pamela M. Marcus.
- 4910** Correlation of DNA Adducts in Blood Mononuclear Cells with Tobacco Carcinogen-induced Damage in Human Lung. John K. Wiencke, Karl T. Kelsey, Andrea Varkonyi, Karen Semey, John C. Wain, Eugene Mark, and David C. Christiani.

Experimental Therapeutics

- 4915** A Radioresistant Variant Derived from a Human Neuroblastoma Cell Line Is Less Prone to Radiation-induced Apoptosis. James Russell, Thomas Edward Wheldon, and Peter Stanton.
- 4922** *BCL-2* Expression Delays Drug-induced Apoptosis but Does Not Increase Clonogenic Survival after Drug Treatment in HeLa Cells. Dong X. Yin and Robert T. Schimke.
- 4929** Attenuation of Interleukin 2-induced Pulmonary Vascular Leak Syndrome by Low Doses of Oral Methotrexate. Susan Quinn DeJoy, Robert Jeyaseelan, Sr., Lawrence W. Torley, Steven R. Schow, Michael M. Wick, and Suresh S. Kerwar.
- 4936** Efficacy of Acylfulvene Illudin Analogues against a Metastatic Lung Carcinoma MV522 Xenograft Nonresponsive to Traditional Anticancer Agents: Retention of Activity against Various *mdr* Phenotypes and Unusual Cytotoxicity against ERCC2 and ERCC3 DNA Helicase-deficient Cells. Michael J. Kelner, Trevor C. McMorris, Leita Estes, Robin J. Starr, Mary Rutherford, Mark Montoya, Kyra M. Samson, and Raymond Taetle.

- 4941** Combined Vaccination with Major Histocompatibility Class I and Interleukin 2 Gene-transduced Melanoma Cells Synergizes the Cure of Postsurgical Established Lung Metastases. Angel Porgador, Esther Tzehoval, Ezra Vadai, Michael Feldman, and Lea Eisenbach.
- 4950** The Erbstatin Analogue Methyl 2,5-Dihydroxycinnamate Cross-Links Proteins and Is Cytotoxic to Normal and Neoplastic Epithelial Cells by a Mechanism Independent of Tyrosine Kinase Inhibition. Caroline Stanwell, Terrence R. Burke, Jr., and Stuart H. Yuspa.
- 4957** Antiproliferative and Angiostatic Activity of Suramin Analogues. Angela Firsching, Peter Nickel, Patricia Mora, and Bruno Alolio.
- 4962** Selective Use of an Alternative Stop Codon and Polyadenylation Signal within Intron Sequences Leads to a Truncated Topoisomerase II α Messenger RNA and Protein in Human HL-60 Leukemia Cells Selected for Resistance to Mitoxantrone. W. Graydon Harker, D. Lynn Slade, Ryan L. Parr, and Mark H. Holguin.

Immunology

- 4972** Recognition of Multiple Epitopes in the Human Melanoma Antigen gp100 by Peripheral Blood Lymphocytes Stimulated *in Vitro* with Synthetic Peptides. Michael L. Salgaller, Alireza Afshar, Francesco M. Marincola, Licia Rivoltini, Yutaka Kawakami, and Steven A. Rosenberg.
- 4980** B7-1 and Interleukin 12 Synergistically Induce Effective Antitumor Immunity. Christina M. Coughlin, Maria Wysocka, Holly L. Kurzawa, William M. F. Lee, Giorgio Trinchieri, and Stephen L. Eck.
- 4988** Interleukin 15 Induction of Lymphokine-activated Killer Cell Function against Autologous Tumor Cells in Melanoma Patient Lymphocytes by a CD18-Dependent, Perforin-related Mechanism. Ana M. Gamero, Dewayne Ussery, Douglas S. Reintgen, Christopher A. Puleo, and Julie Y. Djeu.

Molecular Biology and Genetics

- 4995** Loss of Heterozygosity on the Short Arm of Chromosome 8 in Male Breast Carcinomas. Rodrigo F. Chuaqui, Julian Sanz-Ortega, Cathy Vocke, W. Marston Linehan, Julian Sanz-Espenera, Zhengping Zhuang, Michael R. Emmert-Buck, and Maria J. Merino.
- 4999** Estradiol Regulation of the Human Retinoic Acid Receptor α Gene in Human Breast Carcinoma Cells Is Mediated via an Imperfect Half-Palindromic Estrogen Response Element and Sp1 Motifs. Arun K. Rishi, Zhi-Ming Shao, Richard G. Baumann, Xiao-Su Li, M. Saeed Sheikh, Shioko Kimura, Nasir Bashirelahi, and Joseph A. Fontana.
- 5007** Biallelic Inactivation of the *APC* Gene in Hepatoblastoma. Hiroki Kurahashi, Koji Takami, Takaharu Oue, Takeshi Kusafuka, Akira Okada, Akio Tawa, Shintaro Okada, and Isamu Nishisho.
- 5012** Differences between Burkitt's Lymphomas and Mouse Plasmacytomas in the Immunoglobulin Heavy Chain/*c-myc* Recombinations That Occur in Their Chromosomal Translocations. Jürgen R. Müller, Siegfried Janz, and Michael Potter.
- 5019** Expression of Cell Cycle Regulatory Factors in Differentiating Osteoblasts: Postproliferative Up-Regulation of Cyclins B and E. Elisheva Smith, Baruch Frenkel, Robert Schlegel, Antonio Giordano, Jane B. Lian, Janet L. Stein, and Gary S. Stein.
- 5025** Simultaneous Amplification of Four DNA Repair Genes and β -Actin in Human Lymphocytes by Multiplex Reverse Transcriptase-PCR. Qingyi Wei, Xudong Xu, Lie Cheng, Randy J. Legerski, and Francis Ali-Osman.
- 5030** Distinct Nonrandom Patterns of Chromosomal Aberrations in the Progression of Squamous Cell Carcinomas of the Head and Neck. Anja I. Soder, Anton H. N. Hopman, Frans C. S. Ramaekers, Christian Conrad, and Franz X. Bosch.

Tumor Biology

- 5038 Aberrant p53 Expression Predicts Clinical Resistance to Cisplatin-based Chemotherapy in Locally Advanced Non-Small Cell Lung Cancer.** Valerie Rusch, David Klimstra, Ennapadam Venkatraman, Julie Oliver, Nael Martini, Richard Gralla, Mark Kris, and Ethan Dmitrovsky.
- 5043 Regulation of the Expression of E-Cadherin on Human Cancer Cells by γ -Linolenic Acid (GLA).** Wen G. Jiang, Steve Hiscox, Maurice B. Hallett, David F. Horrobin, Robert E. Mansel, and Malcolm C. A. Puntis.
- 5049 Angiogenesis in Colorectal Tumors: Microvessel Quantitation in Adenomas and Carcinomas with Clinicopathological Correlations.** Paola Bossi, Giuseppe Viale, Arthur K. C. Lee, RosaMaria Alfano, Guido Coggi, and Silvano Bosari.
- 5054 Egr-1 Negatively Regulates Human Tumor Cell Growth via the DNA-binding Domain.** Ruo-Pan Huang, Chaoting Liu, Yan Fan, Dan Mercola, and Eileen D. Adamson.
- 5063 Characterization of Progesterone Receptor A and B Expression in Human Breast Cancer.** J. Dinny Graham, Christine Yeates, Rosemary L. Balleine, Suzanna S. Harvey, Jane S. Milliken, A. Michael Bilous, and Christine L. Clarke.
- 5069 Cell Cycle Constraints on Peroxide- and Radiation-induced Inhibitory Checkpoints.** Walker Wharton.
- 5075 Inhibition of Fibroblast Growth Factor 2 Expression by Antisense RNA Induced a Loss of the Transformed Phenotype in a Human Hepatoma Cell Line.** Arlette Maret, Bruno Galy, Emmanuelle Arnaud, Francis Bayard, and Hervé Prats.
- 5080 X Chromosome Inactivation in the Normal Female Genital Tract: Implications for Identification of Neoplasia.** George L. Mutter and Kevin A. Boynton.
- 5085 Invasion of Selectively Permeable Sea Urchin Embryo Basement Membranes by Metastatic Tumor Cells, but not by Their Normal Counterparts.** Donna L. Livant, Stephanie Linn, Sonja Markwart, and Jill Shuster.
- 5094 Antigenic Cancer Cells that Escape Immune Destruction Are Stimulated by Host Cells.** Lisa P. Seung, Steven K. Seung, and Hans Schreiber.
- 5101 Both Transforming Growth Factor- β and Substrate Release Are Inducers of Apoptosis in a Human Colon Adenoma Cell Line.** Cheng Ya Wang, James R. Eshleman, James K. V. Willson, and Sanford Markowitz.
- 5106 SCH 51344 Inhibits *ras* Transformation by a Novel Mechanism.** C. Chandra Kumar, Christine Prorock-Rogers, Joe Kelly, Zigang Dong, Jih-jing Lin, Lydia Armstrong, Hsiang-Fu Kung, Michael J. Weber, and Adrian Afonso.

5118 Announcements

Future Annual Meetings of the AACR
Applications for Elion Award and
Research Fellowships
Travel Grants from the Comprehensive
Minority Biomedical Program of the
National Cancer Institute
AACR Special Conferences in Cancer
Research
Calendar of Events

5121 Employment Register

5131 Author Index

**AACR forms available
in the back of this issue:**

**1996 Employment Register
Forms and Instructions**

**Application for Active and
Corresponding Membership**

**Application for Associate
Membership**

**Also available in the back
of this issue:**

**Advance Registration Form for the
87th Annual Meeting**

**Guidelines for Submitting Disks to
AACR Publications**

**Notice: Call for Abstracts for 1996 AACR Annual
Meeting will be reprinted in the November 15, 1995
issue of *Cancer Research*.**