



CONTENTS

Advances in Brief

- 2321 **Enhanced Expression of Prostate-specific Membrane Antigen Gene in Prostate Cancer as Revealed by *in Situ* Hybridization.** Masako Kawakami and Jun Nakayama.
- 2325 **Multidrug Resistance Protein (MRP) Expression in Retinoblastoma Correlates with the Rare Failure of Chemotherapy despite Cyclosporine for Reversal of P-Glycoprotein.** Helen S. L. Chan, Ying Lu, Thomas M. Grogan, George Haddad, David R. Hipfner, Susan P. C. Cole, Roger G. Deeley, Victor Ling, and Brenda L. Gallie.
- 2331 **Patterns of Chromosomal Imbalances in Adenocarcinoma and Squamous Cell Carcinoma of the Lung.** Iver Petersen, Michael Bujard, Simone Petersen, Günter Wolf, Almut Goeze, Anke Schwendel, Holger Langreck, Klaus Gellert, Martin Reichel, Kelly Just, Stanislas du Manoir, Thomas Cremer, Manfred Dietel, and Thomas Ried.
- 2336 **Human *patched* (*PTCH*) mRNA Is Overexpressed Consistently in Tumor Cells of Both Familial and Sporadic Basal Cell Carcinoma.** Anne Birgitte Undén, Peter G. Zaphiropoulos, Kerstin Bruce, Rune Toftgård, and Mona Ståhle-Bäckdahl.
- 2341 **Potent Growth Inhibitory Activity of Zidovudine on Cultured Human Breast Cancer Cells and Rat Mammary Tumors.** Carston R. Wagner, George Ballato, Abraham O. Akanni, Edward J. McIntee, Richard S. Larson, Shu-ling Chang, and Yusuf J. Abul-Hajj.
- 2346 **Trioma-based Vaccination against B-Cell Lymphoma Confers Long-Lasting Tumor Immunity.** Ralph Mocikat, Michael Selmayr, Stefan Thierfelder, and Horst Lindhofer.
- 2350 **Frequent Mutation of the *E2F-4* Cell Cycle Gene in Primary Human Gastrointestinal Tumors.** Rhonda F. Souza, Jing Yin, Kara N. Smolinski, Tong-Tong Zou, Suna Wang, Ying-Qiang Shi, Mun-Gan Rhyu, John Cottrell, John M. Abraham, Kelli Biden, Lisa Simms, Barbara Leggett, G. Steven Bova, Tom Frank, Steven M. Powell, Haruhiko Sugimura, Joanne Young, Noam Harpaz, Kenji Shimizu, Nagahide Matsubara, and Stephen J. Meltzer.
- 2354 **Expression of CD66a (Human C-CAM) and Other Members of the Carcinoembryonic Antigen Gene Family of Adhesion Molecules in Human Colorectal Adenomas.** Peter Nollau, Hanjo Scheller, Maria Kona-Horstmann, Stefan Rohde, Friedrich Hagenmüller, Christoph Wagener, and Michael Neumaier.
- 2358 **Absence of G_{α} Gene Mutations in Childhood Thyroid Tumors after Chernobyl in Contrast to Sporadic Adult Thyroid Neoplasia.** Volker Waldmann and Hartmut M. Rabes.
- 2362 **Expression of the Tumor-associated Gene *MN*: A Potential Biomarker for Human Renal Cell Carcinoma.** James M. McKiernan, Ralph Buttyan, Neil H. Bander, Michael D. Stifelman, Aaron E. Katz, Min-Wei Chen, Carl A. Olsson, and Ihor S. Sawczuk.
- 2366 **Overexpression of *CDC25A* and *CDC25B* in Head and Neck Cancers.** Daniela Gasparotto, Roberta Maestro, Sara Piccinin, Tamara Vukosavljevic, Luigi Barzan, Sandro Sulpharo, and Mauro Boiocchi.
- 2369 **Mutations of the *PATCHED* Gene in Several Types of Sporadic Extracutaneous Tumors.** Jingwu Xie, Ronald L. Johnson, Xiaoli Zhang, John W. Bare, Fred M. Waldman, Philip H. Cogen, Anil G. Menon, Robert S. Warren, Ling-Chun Chen, Matthew P. Scott, and Ervin H. Epstein, Jr.
- 2373 **Telomerase Expression in Respiratory Epithelium during the Multistage Pathogenesis of Lung Carcinomas.** Kazuo Yashima, Leslie A. Litzky, Larry Kaiser, Thomas Rogers, Stephen Lam, Ignacio I. Wistuba, Sara Milchgrub, Sudhir Srivastava, Mieczyslaw A. Piatyszek, Jerry W. Shay, and Adi F. Gazdar.
- 2378 **Characterization of the Human Homologue of *RAD54*: A Gene Located on Chromosome 1p32 at a Region of High Loss of Heterozygosity in Breast Tumors.** Debora Rasio, Yoshiki Murakumo, David Robbins, Tim Roth, Aaron Silver, Massimo Negrini, Carl Schmidt, John Burczak, Richard Fishel, and Carlo M. Croce.
- 2384 **Suppression of Metastasis in Human Breast Carcinoma MDA-MB-435 Cells after Transfection with the Metastasis Suppressor Gene, *KiSS-1*.** Jeong-Hyung Lee and Danny R. Welch.
- 2388 **Abrogation of Taxol-induced G_2 -M Arrest and Apoptosis in Human Ovarian Cancer Cells Grown as Multicellular Tumor Spheroids.** Andrea Frankel, Robert Buckman, and Robert S. Kerbel.

Regular Articles

Carcinogenesis

- 2394 **Metal Ion-dependent Hydrogen Peroxide-induced DNA Damage Is More Sequence Specific than Metal Specific.** Henry Rodriguez, Gerald P. Holmquist, Ralph D'Agostino, Jr., Jean Keller, and Steven A. Akman.
- 2404 **Toxin-induced Increase in Survival Factor Receptors: Modulation of the Threshold for Apoptosis.** Catherine C. Boyle and John A. Hickman.
- 2410 **Vitamin E Inhibits Apoptosis, DNA Modification, and Cancer Incidence Induced by Iron-mediated Peroxidation in Wistar Rat Kidney.** Daxian Zhang, Shigeru Okada, Yingyan Yu, Pingdong Zheng, Raizo Yamaguchi, and Hiroshi Kasai.
- 2415 **Methylnitrosourea-induced Tumorigenesis in *MGMT* Gene Knockout Mice.** Kunihiko Sakumi, Akiko Shiraishi, Seiichiro Shimizu, Teruhisa Tsuzuki, Takatoshi Ishikawa, and Mutsuo Sekiguchi.

Endocrinology

- 2419 **Effect of Dietary 2(3)-*tert*-Butyl-4-hydroxyanisole on the Metabolism and Action of Estradiol and Estrone in Female CD-1 Mice.** Bao Ting Zhu, Joseph Lech, Robert T. Rosen, and Allan H. Conney.
- 2428 **Alteration in γ -Glutamyl Transpeptidase Activity and Messenger RNA of Human Prostate Carcinoma Cells by Androgen.** Maureen O. Ripple, Peter A. Pickhardt, and George Wilding.

Experimental Therapeutics

- 2434 **The Tyrphostin AG17 Induces Apoptosis and Inhibition of *cdk2* Activity in a Lymphoma Cell Line That Overexpresses *bcl-2*.** Giuseppe A. Palumbo, Nirit Yarom, Aviv Gazit, Ziv Sandalon, Michal Baniyash, Nurit Kleinberger-Doron, Alexander Levitzki, and Dina Ben-Yehuda.

2440 Enhanced Uptake of Doxorubicin into Bronchial Carcinoma: β -Glucuronidase Mediates Release of Doxorubicin from a Glucuronide Prodrug (HMR 1826) at the Tumor Site. Thomas E. Mürdter, Bernhard Sperker, Kari T. Kivistö, Monika McClellan, Peter Fritz, Godehard Friedel, Albert Linder, Klaus Bosslet, Heikki Toomes, Rainer Dierkesmann, and Heyo K. Kroemer.

2446 Relationships between the Mitochondrial Permeability Transition and Oxidative Stress during ara-C Toxicity. Karen L. Backway, Ernest A. McCulloch, Sue Chow, and David W. Hedley.

2452 Apoptosis Primarily Accounts for the Growth-inhibitory Properties of Sulindac Metabolites and Involves a Mechanism That Is Independent of Cyclooxygenase Inhibition, Cell Cycle Arrest, and p53 Induction. Gary A. Piazza, Alanna K. Rahm, Tyler S. Finn, Benjamin H. Fryer, Han Li, Alan L. Stoumen, Rifat Pamukcu, and Dennis J. Ahnen.

Immunology

2460 The Effect of Interleukin 12 Desensitization on the Antitumor Efficacy of Recombinant Interleukin 12. Christina M. Coughlin, Maria Wysocka, Giorgio Trinchieri, and William M. F. Lee.

2468 Bryostatin-1 and IFN- γ Synergize for the Expression of the Inducible Nitric Oxide Synthase Gene and for Nitric Oxide Production in Murine Macrophages. Lynn S. Taylor, George W. Cox, Giovanni Melillo, Maria Carla Bosco, and Igor Espinoza-Delgado.

Molecular Biology and Genetics

2474 A Screening for BRCA1 Mutations in Breast and Breast-Ovarian Cancer Families from the Stockholm Region. Moraima Zelada-Hedman, Brita Wasteson Arver, Antonio Claro, Jindong Chen, Barbro Werelius, Helen Kok, Kerstin Sandelin, Sara Håkansson, Tone Ikdahl Andersen, Åke Borg, Anne-Lise Børresen Dale, and Annika Lindblom.

Tumor Biology

2478 The GTPase and Rho GAP Domains of p190, a Tumor Suppressor Protein That Binds the *M*, 120,000 Ras GAP, Independently Function as Anti-Ras Tumor Suppressors. Dennis Z. M. Wang, M. S. A. Nur-E-Kamal, Anjali Tikoo, William Montague, and Hiroshi Maruta.

2485 *K-ras* Gene Mutations in Normal Colorectal Tissues from *K-ras* Mutation-positive Colorectal Cancer Patients. Dan Zhu, Phouthone Keohavong, Sydney D. Finkelstein, Patricia Swalsky, Anke Bakker, Joel Weissfeld, Sudhir Srivastava, and Theresa L. Whiteside.

2493 Quiescence in R3327-G Rat Prostate Tumors after Androgen Ablation. Alan Pollack, Daryl Lim Joon, Catherine S. Wu, Charles Sikes, Masatoshi Hasegawa, Nicholas H. A. Terry, R. Allen White, Gunar K. Zagars, and Marvin L. Meistrich.

2501 Immunohistochemical Detection of E-Cadherin in Differentiated Thyroid Carcinomas Correlates with Clinical Outcome. Reinhard von Wasielewski, Axel Rhein, Martin Werner, Georg F. W. Scheumann, Henning Dralle, Eyck Pötter, Georg Brabant, and Axel Georgii.

2508 Role of the *p53* Tumor Suppressor Gene in the Tumorigenicity of Burkitt's Lymphoma Cells. Barry W. Cherney, Kishor G. Bhatia, Cecilia Sgadari, Marina I. Gutierrez, Howard Mostowski, Sandra E. Pike, Ghanshyam Gupta, Ian T. Magrath, and Giovanna Tosato.

2516 Expression and Transcriptional Regulation of the *PD-1 α* /Autotaxin Gene in Neuroblastoma. Hiroyuki Kawagoe, Mary L. Stracke, Hajime Nakamura, and Kimihiko Sano.

2522 The High Affinity α IIb β 3 Integrin Is Involved in Invasion of Human Melanoma Cells. Mohit Trikha, Jozsef Timar, Steven K. Lundy, Karoly Szekeres, Yinlong Cai, Arthur T. Porter, and Kenneth V. Honn.

2529 Increased Facilitated Transport of Dehydroascorbic Acid without Changes in Sodium-dependent Ascorbate Transport in Human Melanoma Cells. Charles Spielholz, David W. Golde, Alan N. Houghton, Francisco Nualart, and Juan Carlos Vera.

2538 Announcements

1998 Annual Meeting
Future Annual Meetings of the AACR
Call for Nominations for the AACR Awards
AACR Special Conferences in Cancer Research
Calendar of Events

2541 Author Index

Forms available in the back of this issue:

Application for Active and Corresponding Membership

Application for Associate Membership

Also available in the back of this issue:

Guidelines for Submitting Disks to AACR Publications

Cancer Research

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

57 (12)

Cancer Res 1997;57:2321-2540.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/57/12.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/57/12.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.