



CONTENTS

Perspectives in Cancer Research

- 2463 DNA Methylation Errors and Cancer. Peter A. Jones.

Advances in Brief

- 2468 Glucose Catabolism in Cancer Cells: Amplification of the Gene Encoding Type II Hexokinase. Annette Rempel, Saroj P. Mathupala, Constance A. Griffin, Anita L. Hawkins, and Peter L. Pedersen.
- 2472 Aberrant FHIT Transcripts in Merkel Cell Carcinoma. Gabriella Sozzi, Hansjuerg Alder, Silvana Torielli, Valentina Corletto, Raffaele Baffa, Maria Luisa Veronese, Massimo Negrini, Silvana Pilotti, Marco A. Pierotti, Kay Huebner, and Carlo Maria Croce.
- 2475 Correlation of Chloroethylnitrosourea Resistance with ERCC-2 Expression in Human Tumor Cell Lines as Determined by Quantitative Competitive Polymerase Chain Reaction. Zhong-Ping Chen, Areti Malapetsa, Daniela Marcantonio, Gérard Mohr, Susan Brien, and Lawrence C. Panasci.
- 2479 Enhancement of Cytolytic T Lymphocyte Precursor Frequency in Melanoma Patients following Immunization with the MAGE-1 Peptide Loaded Antigen Presenting Cell-based Vaccine. Xueyou Hu, Nitya G. Chakraborty, Jonathan R. Sporn, Scott H. Kurtzman, M. T. Ergin, and Bijay Mukherji.
- 2484 Multiple Head and Neck Tumors: Evidence for a Common Clonal Origin. Gauri C. Bedi, William H. Westra, Edward Gabrielson, Wayne Koch, and David Sidransky.
- 2488 Genetic Progression Model for Head and Neck Cancer: Implications for Field Cancerization. Joseph Califano, Peter van der Riet, William Westra, Homaira Nawroz, Gary Clayman, Steven Piantadosi, Russell Corio, Daniel Lee, Benjamin Greenberg, Wayne Koch, and David Sidransky.
- 2493 Frequent Loss of the *P16^{INK4a}* Gene Product in Human Pituitary Tumors. Michael Woloschak, Aiqin Yu, Jiaqi Xiao, and Kalmon D. Post.
- 2497 Novel Germline *p16* Mutation in Familial Malignant Melanoma in Southern Sweden. Åke Borg, Ulla Johansson, Oskar Johannsson, Sara Håkansson, Johan Westerdahl, Anna Måsbäck, Håkan Olsson, and Christian Ingvar.
- 2501 Frequent Microsatellite Instability in Epithelial Borderline Ovarian Tumors. Jacob Tangir, Nancy S. Loughridge, Ross S. Berkowitz, Michael G. Muto, Debra A. Bell, William R. Welch, and Samuel C. Mok.
- 2506 Deletion of a Nonconserved Region of Bcl-2 Confers a Novel Gain of Function: Suppression of Apoptosis with Concomitant Cell Proliferation. Erik J. Uhlmann, Cieta D'Sa-Eipper, T. Subramanian, Andrew J. Wagner, Nissim Hay, and G. Chinnadurai.
- 2510 Accumulation of *p16^{CDKN2A}* in Response to Ultraviolet Irradiation Correlates with a Late S-G₂-Phase Cell Cycle Delay. Xue Qing Wang, Brian G. Gabrielli, Amanda Milligan, Joanne L. Dickinson, Toni M. Antalis, and Kay A. O. Ellem.
- 2515 The Angiogenic Factor Midkine Is Expressed in Bladder Cancer, and Overexpression Correlates with a Poor Outcome in Patients with Invasive Cancers. Tim O'Brien, David Cranston, Susan Fuggle, Roy Bicknell, and Adrian L. Harris.

- 2519 *DPC4*, a Candidate Tumor Suppressor Gene, Is Altered Infrequently in Head and Neck Squamous Cell Carcinoma. Se Kyu Kim, Youhong Fan, Vali Papadimitrakopoulou, Gary Clayman, Walter N. Hittelman, Waun Ki Hong, Reuben Lotan, and Li Mao.
- 2522 Modulation of p53 Expression by Human Recombinant Interferon- α 2a Correlates with Abrogation of Cisplatin Resistance in a Human Melanoma Cell Line. Pamela A. Davol, Frederick A. Goulette, A. Raymond Frackelton, Jr., and James W. Darnowski.
- 2527 *DPC4* Gene in Various Tumor Types. Mieke Schutte, Ralph H. Hruban, Lora Hedrick, Kathleen R. Cho, Gyongyi Molnar Nadasdy, Craig L. Weinstein, G. Steven Bova, William B. Isaacs, Paul Cairns, Homaira Nawroz, David Sidransky, Robert A. Casero, Jr., Paul S. Meltzer, Stephan A. Hahn, and Scott E. Kern.
- 2531 Amount of Interleukin 12 Available at the Tumor Site Is Critical for Tumor Regression. Mario P. Colombo, Maddalena Vagliani, Fabio Spreafico, Mariella Parenza, Claudia Chiodoni, Cecilia Melani, and Antonella Stoppacciaro.
- 2535 Processing of a Precursor of 72-Kilodalton Type IV Collagenase/Gelatinase A by a Recombinant Membrane-Type 1 Matrix Metalloproteinase. Takeshi Kinoshita, Hiroshi Sato, Takahisa Takino, Michiyasu Itoh, Toshifumi Akizawa, and Motoharu Seiki.

Regular Articles

Biochemistry and Biophysics

- 2539 Molecular Modeling of the Amino-Terminal Zinc Ring Domain of BRCA1. Rachelle J. Bienstock, Tom Darden, Roger Wiseman, Lee Pedersen, and J. Carl Barrett.

Carcinogenesis

- 2546 Increase of a Type of Oxidative DNA Damage, 8-Hydroxyguanine, and Its Repair Activity in Human Leukocytes by Cigarette Smoking. Shinya Asami, Takeshi Hirano, Raizo Yamaguchi, Yoshiaki Tomioka, Hideaki Itoh, and Hiroshi Kasai.
- 2550 The Capability of Rat Colon Tissue Slices to Metabolize the Cooked-Food Carcinogen 2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine. Michael A. Malfatti, M. Suzanne Connors, Robert J. Mauthe, and James S. Felton.
- 2556 Cyclooxygenase-2 Overexpression and Tumor Formation Are Blocked by Sulindac in a Murine Model of Familial Adenomatous Polyposis. Susan K. Boolbol, Andrew J. Dannenberg, Amy Chadburn, Charles Martucci, XiaoJun Guo, John T. Ramonetti, Maria Abreu-Goris, Harold L. Newmark, Martin L. Lipkin, Jerome J. DeCosse, and Monica M. Bertagnolli.

Endocrinology

- 2561 A Comparison between the Efficacy of Somatostatin Receptor Scintigraphy and That of *in Situ* Hybridization for Somatostatin Receptor Subtype 2 Messenger RNA to Predict Therapeutic Outcome in Carcinoid Patients. Eva Tiensuu Janson, Anders Gobl, Karl Mikael Kälkner, and Kjell Öberg.

Experimental Therapeutics

- 2566 **Engineered Stromal Layers and Continuous Flow Culture Enhance Multidrug Resistance Gene Transfer in Hematopoietic Progenitors.** Francesco Bertolini, Manuela Battaglia, Chiara Corsini, Lorenza Lazzari, Davide Soligo, Carlo Zibera, and Karin Thalmeier.
- 2573 **Characterization of Novel Human Leukemic Cell Lines Selected for Resistance to Merbarone, a Catalytic Inhibitor of DNA Topoisomerase II.** Hiroki Kusumoto, Queen E. Rodgers, Friedrich Boege, Susana C. Raimondi, and William T. Beck.
- 2584 **Increase of β_{III} - and β_{IVa} -Tubulin Isoforms in Human Prostate Carcinoma Cells as a Result of Estramustine Resistance.** Sulabha Ranganathan, Dwayne W. Dexter, Christopher A. Benetatos, Andrew E. Chapman, Kenneth D. Tew, and Gary R. Hudes.
- 2590 **Interleukin 2 (IL-2) Receptor Expression and Sensitivity to Diphtheria Fusion Toxin DAB₃₈₉IL-2 in Cultured Hematopoietic Cells.** Gian G. Re, Cory Waters, Louis Poisson, Mark C. Willingham, Kazuo Sugamura, and Arthur E. Frankel.
- 2596 **Inheritance of Susceptibility to Bleomycin-induced Pulmonary Fibrosis in the Mouse.** Christina K. Haston, Christopher I. Amos, Terri M. King, and Elizabeth L. Travis.
- 2602 **Antitumor Activity of 1 M Tegafur-0.4 M 5-Chloro-2,4-dihydroxypyridine-1 M Potassium Oxonate (S-1) against Human Colon Carcinoma Orthotopically Implanted into Nude Rats.** Tetsuhiko Shirasaka, Koushi Nakano, Teiji Takechi, Hiroyasu Satake, Junji Uchida, Akio Fujioka, Hitoshi Saito, Hiroyuki Okabe, Kiyomi Oyama, Setsuo Takeda, Norio Unemi, and Masakazu Fukushima.

Immunology

- 2607 **Dendritic Epidermal T Cells in Ultraviolet-irradiated Skin Enhance Skin Tumor Growth by Inhibiting CD4⁺ T-Cell-mediated Immunity.** Lois L. Cavanagh and Gary M. Halliday.

Molecular Biology and Genetics

- 2616 **Estrogen-induced Proto-Oncogene and Suppressor Gene Expression in the Hamster Kidney: Significance for Estrogen Carcinogenesis.** Xiaoying Hou, Jonathan J. Li, Wenbiao Chen, and Sara Antonia Li.
- 2621 **Inheritance of Abnormal Expression of SOS-like Response in Xeroderma Pigmentosum and Hereditary Cancer-prone Syndromes.** Peter J. Abrahams, Ada Houweling, Paulien D. M. Cornelissen-Steijger, Fré Arwert, Fred H. Menko, Herbert M. Pinedo, Carrol Terleth, and Alex J. van der Eb.

- 2626 **Resistance of a Variant *ras*-transformed Cell Line to Phenotypic Reversion by Farnesyl Transferase Inhibitors.** George C. Prendergast, Joseph P. Davide, Peter F. Lebowitz, Robert Wechsler-Reya, and Nancy E. Kohl.
- 2633 **Identification of Murine p120^{cas} Isoforms and Heterogeneous Expression of p120^{cas} Isoforms in Human Tumor Cell Lines.** Yin-Yuan Mo and Albert B. Reynolds.
- 2641 ***PRGI*: A Novel Early-Response Gene Transcriptionally Induced by Pituitary Adenylate Cyclase Activating Polypeptide in a Pancreatic Carcinoma Cell Line.** Heiner Schäfer, Anna Trauzold, Erhard G. Siegel, Ulrich R. Fölsch, and Wolfgang E. Schmidt.
- 2649 ***In Vivo* Ubiquitination and Proteasome-mediated Degradation of p53.** Carl G. Maki, Jon M. Huibregtse, and Peter M. Howley.

Tumor Biology

- 2655 **Biallelic Alterations of Both *ETV6* and *CDKN1B* Genes in a t(12;21) Childhood Acute Lymphoblastic Leukemia Case.** Iwona Wlodarska, Mathijs Baens, Pieter Peeters, Jeroen Aerssens, Cristina Mecucci, Penelope Brock, Peter Marynen, and Herman Van den Berghe.
- 2662 **Augmentation of Tumor Metastasis by Platelet-activating Factor.** Suhn-Young Im, Hyun-Mi Ko, Yoo-Seung Ko, Jung-Woo Kim, Hern-Ku Lee, Tai-You Ha, Hwanghee Blaise Lee, Sang-Jin Oh, Suk Bai, Ki-Chul Chung, Young-Bo Lee, Hyen-Sam Kang, and Soon-Bai Chun.
- 2666 **Epidermal Growth Factor-Responsive and -Refractory Carcinomas Initiated with *N*-methyl-*N*-nitrosourea in Rat Urinary Bladder.** Kiyohide Fujimoto, Yoshinori Tanaka, Alfred Rademaker, and Ryoichi Oyasu.
- 2671 **Extent of Tumor Vascularization Correlates with Prognosis and Hematogenous Metastasis in Gastric Carcinomas.** Nobuhiko Tanigawa, Hirokazu Amaya, Mitsuyoshi Matsumura, Takumi Shimomatsuya, Tetsuya Horiuchi, Ryusuke Muraoka, and Masayuki Iki.

Letters to the Editor

- 2677 **Correspondence re: J. A. Knol *et al.*, Incorporation of 5-Bromo-2'-deoxyuridine into Colorectal Liver Metastases and Liver in Patients Receiving a 7-Day Hepatic Arterial Infusion. *Cancer Res.*, 55: 3687-3691, 1995.** Jerry M. Collins, Raymond W. Klecker, Alfred E. Chang, and Timothy J. Kinsella. Reply by James A. Knol, Theodore S. Lawrence, William D. Ensminger, Philip L. Stetson, Suzette C. Walker, Zhoamin Yang, Susan DeRemer, and John M. Robertson.

2679 Announcements

1997 Annual Meeting
Call for Nominations for AACR Awards
AACR Special Conferences in Cancer
Research
Calendar of Events

2682 Author Index

AACR 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)

56 (11)

Cancer Res 1996;56:2463-2681.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/56/11.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/56/11.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.