



## CONTENTS

### Perspectives in Cancer Research

- 937 **The Paradoxical Association of Regression with a Poor Prognosis in Melanoma Contrasted with a Good Prognosis in Keratoacanthoma.** Richmond T. Prehn.

### Advances in Brief

- 941 **Tumor Oxygenation Predicts for the Likelihood of Distant Metastases in Human Soft Tissue Sarcoma.** David M. Brizel, Sean P. Scully, John M. Harelson, Lester J. Layfield, Joseph M. Bean, Leonard R. Prosnitz, and Mark W. Dewhirst.
- 944 **Molecular Cloning of a Novel Membrane-type Matrix Metalloproteinase from a Human Breast Carcinoma.** Xose S. Puente, Alberto M. Pendás, Elena Llano, Gloria Velasco, and Carlos López-Otín.
- 950 **Definition and Refinement of a Region of Loss of Heterozygosity at 11q23.3-q24.3 in Epithelial Ovarian Cancer Associated with Poor Prognosis.** Hani Gabra, J. E. Vivienne Watson, Karen J. Taylor, James Mackay, Robert C. F. Leonard, C. Michael Steel, David J. Porteous, and John F. Smyth.
- 955 **Three Secretory Phospholipase A<sub>2</sub> Genes That Map to Human Chromosome 1P35-36 Are Not Mutated in Individuals with Attenuated Adenomatous Polyposis Coli.** Lisa N. Spirio, William Kutchera, Michelle V. Winstead, Benjamin Pearson, Craig Kaplan, Margaret Robertson, Elizabeth Lawrence, Randall W. Burt, Jay A. Tischfield, Mark F. Leppert, Stephen M. Prescott, and Ray White.
- 959 **Function of the Integrin  $\alpha 6 \beta 1$  in Metastatic Breast Carcinoma Cells Assessed by Expression of a Dominant-Negative Receptor.** Leslie M. Shaw, Celia Chao, Ulla M. Wewer, and Arthur M. Mercurio.
- 964 **Effect of Radiation on Interstitial Fluid Pressure and Oxygenation in a Human Tumor Xenograft.** Cynthia A. Znati, Maury Rosenstein, Yves Boucher, Michael W. Epperly, William D. Bloomer, and Rakesh K. Jain.
- 969 **Switching Viral Latency to Viral Lysis: A Novel Therapeutic Approach for Epstein-Barr Virus-associated Neoplasia.** Marina I. Gutiérrez, Jean-Gabriel Judde, Ian T. Magrath, and Kishor G. Bhatia.
- 973 **The Estrogen Receptor CpG Island Is Methylated in Most Hematopoietic Neoplasms.** Jean-Pierre J. Issa, Barbara A. Zehnbauser, Curt I. Civin, Michael I. Collector, Saul J. Sharkis, Nancy E. Davidson, Scott H. Kaufmann, and Stephen B. Baylin.
- 978 **Potential Gastrointestinal Tumor Suppressor Locus at the 3p14.2 FRA3B Site Identified by Homozygous Deletions in Tumor Cell Lines.** Kumar Kastury, Raffaele Baffa, Teresa Druck, Masataka Ohta, Maria Grazia Coticelli, Hiroshi Inoue, Massimo Negrini, Massimo Rugge, Dolly Huang, Carlo M. Croce, Juan Palazzo, and Kay Huebner.

### Regular Articles

#### Biochemistry and Biophysics

- 984 **Glucuronidation Associated with Intrinsic Resistance to Mycophenolic Acid in Human Colorectal Carcinoma Cells.** Trevor J. Franklin, Vivien Jacobs, Geraint Jones, Patrick Plé, and Pierre Bruneau.
- 988 **Transport of Glutathione, Glucuronate, and Sulfate Conjugates by the MRP Gene-encoded Conjugate Export Pump.** Gabriele Jedlitschky, Inka Leier, Ulrike Buchholz, Karin Barnouin, Gerhart Kurz, and Dietrich Keppler.

- 995 **Methyl-Donor Deficiency Due to Chemically Induced Glutathione Depletion.** Khingkan Lertratanangkoon, Ralph S. Orkiszewski, and Joseph M. Scimeca.

#### Carcinogenesis

- 1006 **Glutathione Conjugates of *tert*-Butyl-hydroquinone, a Metabolite of the Urinary Tract Tumor Promoter 3-*tert*-Butyl-hydroxyanisole, Are Toxic to Kidney and Bladder.** Melanie M. C. G. Peters, Maria I. Rivera, Thomas W. Jones, Terrence J. Monks, and Serrine S. Lau.
- 1012 **Correlation of Regional and Nonlinear Formaldehyde-induced Nasal Cancer with Proliferating Populations of Cells.** Thomas M. Monticello, James A. Swenberg, Elizabeth A. Gross, Joel R. Leininger, Julia S. Kimbell, Steve Seilkop, Thomas B. Starr, James E. Gibson, and Kevin T. Morgan.
- 1023 **Inhibition of Tumor Promotion in SENCAR Mouse Skin by Ethanol Extract of *Zingiber officinale* Rhizome.** Santosh K. Katiyar, Rajesh Agarwal, and Hasan Mukhtar.

#### Clinical Investigations

- 1031 **The Blood Group ABO Gene Transcript Is Down-Regulated in Human Bladder Tumors and Growth-stimulated Urothelial Cell Lines.** Torben F. Ørntoft, Peter Meldgaard, Bent Pedersen, and Hans Wolf.

#### Endocrinology

- 1037 **Restricted Patterns of CD44 Variant Exon Expression in Human Papillary Thyroid Carcinoma.** Gennady Ermak, Timothy Jennings, Lawrence Robinson, Jeffrey S. Ross, and James Figge.
- 1043 **Transactivation of the *PTHrP* Gene in Squamous Carcinomas Predicts the Occurrence of Hypercalcemia in Athymic Mice.** John J. Wysoimerski, Rupangi Vasavada, John Foley, Eleanor C. Weir, William J. Burtis, Subhash C. Kukreja, Theresa A. Guise, Arthur E. Broadus, and William M. Philbrick.

#### Experimental Therapeutics

- 1050 **High-Efficiency *in Vivo* Gene Transfer Using Intraarterial Plasmid DNA Injection following *in Vivo* Electroporation.** Toru Nishi, Kimio Yoshizato, Shigeo Yamashiro, Hideo Takeshima, Kyoichi Sato, Kazuya Hamada, Isao Kitamura, Teizo Yoshimura, Hideyuki Saya, Jun-ichi Kuratsu, and Yukitaka Ushio.
- 1056 **Comparison of *N*-(4-hydroxyphenyl)retinamide and all-*trans*-Retinoic Acid in the Regulation of Retinoid Receptor-mediated Gene Expression in Human Breast Cancer Cell Lines.** Syed M. I. Kazmi, Richard K. Plante, Vito Visconti, and Catherine Y. Lau.
- 1063 **Impaired Proliferation and Tumorigenicity Induced by CCAAT/Enhancer-binding Protein.** Pamela J. Watkins, J. Patrick Condreay, Brian E. Huber, Steven J. Jacobs, and David J. Adams.
- 1068 **Enhancement of Chemosensitivity by Tyrphostin AG825 in High-p185<sup>neu</sup> Expressing Non-Small Cell Lung Cancer Cells.** Chun-Ming Tsai, Alexander Levitzki, Li-Hwa Wu, Kuo-Ting Chang, Chia-Chien Cheng, Aviv Gazit, and Reury-Perng Perng.
- 1075 **Intraperitoneal Photodynamic Therapy of Human Epithelial Ovarian Carcinomatosis in a Xenograft Murine Model.** Kelly L. Molpus, Daniel Kato, Michael R. Hamblin, Lothar Lilge, Michael Bamberg, and Tayyaba Hasan.

- 1083 **Gene Deletion Chemoselectivity: Codeletion of the Genes for p16<sup>INK4</sup>, Methylthioadenosine Phosphorylase, and the  $\alpha$ - and  $\beta$ -Interferons in Human Pancreatic Cell Carcinoma Lines and Its Implications for Chemotherapy.** Zhi-Hao Chen, Hongyang Zhang, and Todd M. Savarese.
- 1091 **Resistance Mechanisms in Human Sarcoma Mutants Derived by Single-Step Exposure to Paclitaxel (Taxol).** Charles Dumontet, George E. Duran, Katherine A. Steger, Lidija Beketic-Oreskovic, and Branimir I. Sikic.
- 1098 **Tissue-targeted Antisense *c-fos* Retroviral Vector Inhibits Established Breast Cancer Xenografts in Nude Mice.** Carlos L. Arteaga and Jeffrey T. Holt.

### Immunology

- 1104 **Induction of Autologous Tumor Killing by Heat Treatment of Fresh Human Tumor Cells: Involvement of  $\gamma\delta$  T Cells and Heat Shock Protein 70.** Yu-quan Wei, Xia Zhao, Yoshitaka Kariya, Hideki Fukata, Keisuke Teshigawara, and Atsushi Uchida.
- 1111 **Endothelial Intercellular Adhesion Molecule-1 Expression Is Suppressed in Human Malignancies: The Role of Angiogenic Factors.** Arjan W. Griffioen, Cora A. Damen, Stefano Martinotti, Geert H. Blijham, and Gerard Groenewegen.
- 1118 **Humanized Anti-Lewis Y Antibodies: *In Vitro* Properties and Pharmacokinetics in Rhesus Monkeys.** Man Sung Co, Jeanne Baker, K. Bednarik, E. Janzek, W. Neruda, P. Mayer, R. Plot, B. Stumper, Max Vasquez, Cary Queen, and Hans Loibner.
- 1126 **Protection against a Lethal Tumor Challenge with SV40-transformed Cells by the Direct Injection of DNA-encoding SV40 Large Tumor Antigen.** Robert K. Bright, Burton Beames, Michael H. Shearer, and Ronald C. Kennedy.
- 1131 **Interleukin 12 Primes Macrophages for Nitric Oxide Production *in Vivo* and Restores Depressed Nitric Oxide Production by Macrophages from Tumor-bearing Mice: Implications for the Antitumor Activity of Interleukin 12 and/or Interleukin 2.** Jon M. Wigginton, Douglas B. Kuhns, Timothy C. Back, Michael J. Brunda, Robert H. Wiltrout, and George W. Cox.

### Molecular Biology and Genetics

- 1137 **Deletion and Mutation Analyses of the *P16/MTS-1* Tumor Suppressor Gene in Human Ductal Pancreatic Cancer Reveals a Higher Frequency of Abnormalities in Tumor-derived Cell Lines Than in Primary Ductal Adenocarcinomas.** Lingyi Huang, Tamra L. Goodrow, Shi-Yu Zhang, Andres J. P. Klein-Szanto, Hong Chang, and Bruce A. Ruggeri.
- 1142 **Distinct Regions of Allelic Loss on 13q in Prostate Cancer.** Kathleen A. Cooney, Jon C. Wetzell, Sofia D. Merajver, Jill A. Macoska, Timothy P. Singleton, and Kirk J. Wojno.
- 1146 **Chromosome 13q Deletion Mapping in Head and Neck Squamous Cell Carcinomas: Identification of Two Distinct Regions of Preferential Loss.** Roberta Maestro, Sara Piccinin, Claudio Doglioni, Daniela Gasparotto, Tamara Vukosavljevic, Sandro Sulfaro, Luigi Barzan, and Mauro Boiocchi.
- 1151 **Allelotype of Salivary Gland Tumors.** Michael M. Johns III, William H. Westra, Joseph A. Califano, David Eisele, Wayne M. Koch, and David Sidransky.

### Tumor Biology

- 1155 **Inhibitory Effects of Activin on the Growth and Morphogenesis of Primary and Transformed Mammary Epithelial Cells.** Qiu Yan Liu, Birunthi Niranjana, Peter Gomes, Jennifer J. Gomm, Derek Davies, R. Charles Coombes, and Lakjaya Buluwela.
- 1164 **Wide Expression of the Human Erythrocyte Glucose Transporter *Glut1* in Human Cancers.** Mamoun Younes, Lia V. Lechago, Jacqueline R. Somoano, Moni Mosharaf, and Juan Lechago.
- 1168 **Hypoxia Arrests Ovarian Carcinoma Cell Cycle Progression, but Invasion Is Unaffected.** Ana Krtolica and John W. Ludlow.

### 1174 Announcements

Future Annual Meetings of the AACR  
Workshop on Histopathobiology of  
Cancer  
Workshop on Molecular Biology in  
Clinical Oncology  
AACR/ASCO Workshop on Methods  
in Clinical Cancer Research  
AACR Special Conferences in Cancer  
Research  
Calendar of Events

**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**

### 1177 Author Index

# Cancer Research

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

## 56 (5)

*Cancer Res* 1996;56:937-1176.

**Updated version** Access the most recent version of this article at:  
<http://cancerres.aacrjournals.org/content/56/5.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](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link <http://cancerres.aacrjournals.org/content/56/5.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.