



## CONTENTS

### Advances in Brief

- 2823 Expression of Bone Sialoprotein, a Bone Matrix Protein, in Human Breast Cancer.** A. Bellahcène, M-P. Merville, and V. Castronovo.
- 2827 DNA Polymerase  $\beta$  Gene Mutation in Human Prostate Cancer.** Yasushi Dobashi, Taro Shuin, Hiromichi Tsuruga, Hiroji Uemura, Soichiro Torigoe, and Yoshinobu Kubota.
- 2830 Liposomal Vincristine Which Exhibits Increased Drug Retention and Increased Circulation Longevity Cures Mice Bearing P388 Tumors.** Nancy L. Boman, Dana Masin, Lawrence D. Mayer, Pieter R. Cullis, and Marcel B. Bally.
- 2834 Up-Regulation of a Mutant Form of *p53* by Doxorubicin in Human Squamous Carcinoma Cells.** Tim Tak Kwok, Chi Ho Mok, and Lynne Menton-Brennan.
- 2837 Fusion of the *EWS* and *WT1* Genes in the Desmoplastic Small Round Cell Tumor.** Marc Ladanyi and William Gerald.
- 2841 Infrequent *K-ras* Activation in Superficial-Type (Flat) Colorectal Adenomas and Adenocarcinomas.** Toshinari Minamoto, Kiyoshi Sawaguchi, Masayoshi Mai, Naoyuki Yamashita, Takashi Sugimura, and Hiroyasu Esumi.
- 2845 Synergistic Interaction between Tirapazamine and Cyclophosphamide in Human Breast Cancer Xenografts.** Virginia K. Langmuir, Julie A. Rooker, Maureen Osen, Holly L. Mendonca, and Keith R. Laderoute.
- 2848 Chromosome 9 Allelic Losses and Microsatellite Alterations in Human Bladder Tumors.** Irene Orlow, Pilar Lianes, Louis Lacombe, Guido Dalbagni, Victor E. Reuter, and Carlos Cordon-Cardo.
- 2852 Frequent Somatic Mutations and Loss of Heterozygosity of the von Hippel-Lindau Tumor Suppressor Gene in Primary Human Renal Cell Carcinomas.** Taro Shuin, Keiichi Kondo, Soichiro Torigoe, Takeshi Kishida, Yoshinobu Kubota, Masahiko Hosaka, Yoji Nagashima, Hitoshi Kitamura, Farida Latif, Berton Zbar, Michael I. Lerman, and Masahiro Yao.
- 2856 Humoral Immunity against a Tandem Repeat Epitope of Human Mucin MUC-1 in Sera from Breast, Pancreatic, and Colon Cancer Patients.** Yasuo Kotera, J. Darrell Fontenot, Gabriele Pecher, Richard S. Metzgar, and Olivera J. Finn.
- 2861 Frequent Detection of Codon 877 Mutation in the Androgen Receptor Gene in Advanced Prostate Cancers.** Jaya P. Gaddipati, David G. McLeod, Howard B. Heidenberg, Isabell A. Sesterhenn, Michael J. Finger, Judd W. Moul, and Shiv Srivastava.
- 2865 An RNA-binding Protein Gene, *TLS/FUS*, Is Fused to *ERG* in Human Myeloid Leukemia with t(16;21) Chromosomal Translocation.** Hitoshi Ichikawa, Kimiko Shimizu, Yasuhide Hayashi, and Misao Ohki.
- 2869 Fusion of *PAX7* to *FKHR* by the Variant t(1;13)(p36;q14) Translocation in Alveolar Rhabdomyosarcoma.** Richard J. Davis, Celina M. D'Cruz, Mark A. Lovell, Jaclyn A. Biegel, and Frederic G. Barr.
- 2873 Nucleophosmin (*NPM*) Gene Rearrangements in Ki-1-positive Lymphomas.** F. Bullrich, S. W. Morris, M. Hummel, S. Pileri, H. Stein, and C. M. Croce.

### Regular Articles

#### *Biochemistry and Biophysics*

- 2878 Induction of Microsomal and Peroxisomal Enzymes by Dehydroepiandrosterone and Its Reduced Metabolite in Rats.** Russell A. Prough, Stephanie Johnson Webb, Hui-Qiong Wu, David P. Lapenson, and David J. Waxman.

#### *Carcinogenesis*

- 2887 Metabolic Activation of the Food Mutagen 3-Amino-1,4-dimethyl-5H-pyrido-[4,3-b]indole (Trp-P-1) in Endothelial Cells of Cytochrome P-450-induced Mice.** Eva B. Brittebo and Ingvar Brandt.
- 2895 Enhancement by Organosulfur Compounds from Garlic and Onions of Diethylnitrosamine-induced Glutathione S-Transferase-Positive Foci in the Rat Liver.** Nobuyasu Takada, Tsutomu Matsuda, Tatsuyuki Ootoshi, Yoshihisa Yano, Shuzo Otani, Tooru Hasegawa, Dai Nakae, Yoichi Konishi, and Shoji Fukushima.

#### *Clinical Investigations*

- 2900 Prognostic Impact of Urokinase-type Plasminogen Activator and Its Inhibitor PAI-1 in Completely Resected Gastric Cancer.** Hjalmar Nekarda, Manfred Schmitt, Kurt Ulm, Andrea Wenninger, Holger Vogelsang, Karen Becker, Jürgen D. Roder, Ulrich Fink, and Jörg R. Siewert.
- 2908 The Prognostic Significance of Neuroendocrine Markers and Carcinoembryonic Antigen in Patients with Resected Stage I and II Non-Small Cell Lung Cancer.** Stephen L. Graziano, Arthur H. Tatum, Nancy B. Newman, Albert Oler, Leslie J. Kohman, Linda J. Veit, Gary P. Gamble, Mary J. Coleman, Seirin Barmada, and Suzanne O'Lear.
- 2914 Clinical Utility of the Immunocytochemical Detection of p53 Protein in Cytological Specimens.** Stephanie P. Dowell, Philip O. G. Wilson, Nawal W. Derias, David P. Lane, and Peter A. Hall.

#### *Epidemiology*

- 2919 Cancer Risk in Humans Predicted by Increased Levels of Chromosomal Aberrations in Lymphocytes: Nordic Study Group on the Health Risk of Chromosome Damage.** Lars Hagmar, Anton Brøgger, Inger-Lise Hansteen, Sverre Heim, Benkt Högstedt, Lisbeth Knudsen, Bo Lambert, Kaija Linnainmaa, Felix Mitelman, Ingrid Nordenson, Christina Reuterwall, Sisko Salomaa, Staffan Skerfving, and Marja Sorsa.

#### *Experimental Therapeutics*

- 2923 Growth Inhibition, Tumor Maturation, and Extended Survival in Experimental Brain Tumors in Rats Treated with Phenylacetate.** Zvi Ram, Dvorit Samid, Stuart Walbridge, Eric M. Oshiro, John J. Viola, Jung-Hwa Tao-Cheng, Sonsoles Shack, Alain Thibault, Charles E. Myers, and Edward H. Oldfield.
- 2928 Transfection with a *bcl-2* Expression Vector Protects Transplanted Bone Marrow from Chemotherapy-induced Myelosuppression.** Seiji Kondo, Dali Yin, Tatsuo Morimura, Yoshifumi Oda, Haruhiko Kikuchi, and Juji Takeuchi.

- 2934 **Hormonal Regulation of Insulin-like Growth Factor II and Insulin-like Growth Factor Binding Protein Expression by Breast Cancer Cells *in Vivo*: Evidence for Stromal Epithelial Interactions.** Andrea Manni, Betty Badger, Lisa Wei, Andrea Zaenglein, Rhea Grove, Sonny Khin, Daniel Heitjan, Shunichi Shimasaki, and Nicholas Ling.
- 2943 **Yeast Topoisomerase II Mutants Resistant to Anti-Topoisomerase Agents: Identification and Characterization of New Yeast Topoisomerase II Mutants Selected for Resistance to Etoposide.** Ya-Xia Liu, Yuchu Hsiung, Mehrdad Jannatipour, Yvonne Yeh, and John L. Nitiss.
- 2952 **Effect of  $\alpha$ -Interferon on P-Glycoprotein Expression and Function and on Verapamil Modulation of Doxorubicin Resistance.** Yuan Kang and Roger R. Perry.
- 2959 **Targeting the Cytotoxicity of Topoisomerase II-directed Epipodophyllotoxins to Tumor Cells in Acidic Environments.** Peter Buhl Jensen, Boe Sandahl Sørensen, Maxwell Sehested, Pernille Grue, Erlend J. F. Demant, and Heine H. Hansen.
- 2964 **Kinetics of Bromodeoxyuridine Elimination from Human Colon Cancer Cells *In Vitro* and *In Vivo*.** Theodore S. Lawrence, Mary A. Davis, Philip L. Stetson, Jonathan Maybaum, and William D. Ensminger.
- 3001 **Molecular Analysis of Ethyl Methanesulfonate-induced Mutations at the *hprt* Gene in the Ethyl Methanesulfonate-sensitive Chinese Hamster Cell Line EM-C11 and Its Parental Line CHO9.** Christel W. Op het Veld, Matgorzata Z. Zdzienicka, Harry Vrieling, Paul H. M. Lohman, and Albert A. van Zeeland.
- 3007 **Point Mutations and Allelic Deletion of Tumor Suppressor Gene *DCC* in Human Esophageal Squamous Cell Carcinomas and Their Relation to Metastasis.** Satoshi Miyake, Kagami Nagai, Kunihide Yoshino, Michiei Oto, Mitsuo Endo, and Yasuhito Yuasa.
- 3011 **Characteristics of Somatic Mutation of the Adenomatous Polyposis Coli Gene in Colorectal Tumors.** Michiko Miyaki, Motoko Konishi, Rei Kikuchi-Yanoshita, Masayuki Enomoto, Tohru Igari, Kiyoko Tanaka, Masatoshi Muraoka, Hiromi Takahashi, Yoko Amada, Masashi Fukayama, Yoshiharu Maeda, Takeo Iwama, Yoshio Mishima, Takeo Mori, and Morio Koike.
- 3021 **Deletion of Two Separate Regions on Chromosome 3p in Breast Cancers.** Ling-Chun Chen, Kouji Matsumura, Guoren Deng, Wayne Kurisu, Britt-Marie Ljung, Michael I. Lerman, Frederick M. Waldman, and Helene S. Smith.
- 3025 ***p53* Mutations in Pancreatic Carcinoma and Evidence of Common Involvement of Homocopolymer Tracts in DNA Microdeletions.** Mark S. Redston, Carlos Caldas, Albert B. Seymour, Ralph H. Hruban, Luis da Costa, Charles J. Yeo, and Scott E. Kern.
- 3034 **Isolation of Complementary DNA Encoding K-Cadherin, a Novel Rat Cadherin Preferentially Expressed in Fetal Kidney and Kidney Carcinoma.** Yun-Yan Xiang, Masamitsu Tanaka, Makoto Suzuki, Hisaki Igarashi, Etsuko Kiyokawa, Yasuhisa Naito, Yoshihisa Ohtawara, Qiong Shen, Haruhiko Sugimura, and Isamu Kino.
- 3042 **Mutation Spectrum of the Retinoblastoma Gene in Osteosarcomas.** Bun-ichiro Wadayama, Junya Toguchida, Takashi Shimizu, Kanji Ishizaki, Masao S. Sasaki, Yoshihiko Kotoura, and Takao Yamamuro.

### Immunology

- 2969 **Alterations in NF $\kappa$ B/Rel Family Proteins in Splenic T-Cells from Tumor-bearing Mice and Reversal following Therapy.** Paritosh Ghosh, Antonio Sica, Howard A. Young, Jianping Ye, José L. Franco, Robert H. Wiltrout, Dan L. Longo, Nancy R. Rice, and Kristin L. Komschlies.
- 2973 **Role of T-Cell Subsets in the Bispecific Antibody (Anti-Idiotypic  $\times$  Anti-CD3) Treatment of the BCL<sub>1</sub> Lymphoma.** Christian Demanet, Jan Brissinck, Oberdan Leo, Muriel Moser, and Kris Thielemans.

### Molecular Biology and Genetics

- 2979 **Frequent Activation of *ret* Protooncogene by Fusion with a New Activating Gene in Papillary Thyroid Carcinomas.** I. Bongarzone, M. G. Butti, S. Coronelli, M. G. Borrello, M. Santoro, P. Mondellini, S. Pilotti, A. Fusco, G. Della Porta, and M. A. Pierotti.
- 2986 **Detection of Breast Cancer Micrometastases in Axillary Lymph Nodes by Using Polymerase Chain Reaction.** A. Schoenfeld, Y. Luqmani, D. Smith, S. O'Reilly, S. Shousha, H. D. Sinnett, and R. C. Coombes.
- 2991 **Demonstration of Promoter Activity and Alternative Splicing in the Region 5' to Exon 1 of the *APC* Gene.** Andrew Thliveris, Wade Samowitz, Nori Matsunami, Joanna Groden, and Ray White.
- 2996 **Allelotype Analysis of Esophageal Squamous Cell Carcinoma.** Ichio Shibagaki, Yutaka Shimada, Takashi Wagata, Mituo Ikenaga, Masayuki Imamura, and Kanji Ishizaki.

### Tumor Biology

- 3049 **Coexpression of the *c-kit* Receptor and the Stem Cell Factor in Gynecological Tumors.** Masaki Inoue, Satoru Kyo, Masami Fujita, Takayuki Enomoto, and Gen Kondoh.
- 3054 **Dietary Restriction from Middle Age Attenuates Age-associated Lymphoma Development and Interleukin 6 Dysregulation in C57BL/6 Mice.** Michael J. Volk, Thomas D. Pugh, MoonJu Kim, Charles H. Frith, Raymond A. Daynes, William B. Ershler, and Richard Weindruch.
- 3062 **Decreased Connexin Expression and Intercellular Communication in Human Bladder Cancer Cells.** H. Barton Grossman, Monica Liebert, Ike W. Lee, and Sam W. Lee.
- 3066 **Binding of Urokinase to Its Receptor Promotes Migration and Invasion of Human Melanoma Cells *in Vitro*.** Andreas Stahl and Barbara M. Mueller.

### 3072 Announcements

Future Annual Meetings of the AACR  
New Privileges and Responsibilities of  
Corresponding Membership  
Broadening of Associate Membership  
AACR Special Conferences in Cancer  
Research  
Calendar of Events  
Recent Deaths

### 3074 Erratum

S. Kamesaki *et al.*, 53: 4251–4256, 1993.

### 3075 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)

## 54 (11)

*Cancer Res* 1994;54:2823-3074.

**Updated version** Access the most recent version of this article at:  
<http://cancerres.aacrjournals.org/content/54/11.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](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/54/11.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.