



CONTENTS

Advances in Brief

- 4667 Dietary Restriction Reduces Insulin-like Growth Factor I Levels, Which Modulates Apoptosis, Cell Proliferation, and Tumor Progression in p53-deficient Mice.** Sandra E. Dunn, Frank W. Kari, John French, Joel R. Leininger, Greg Travlos, Ralph Wilson, and J. Carl Barrett.
- 4673 Hyperlipidemia Enhancement of Renal Preneoplasia but not Tumor Formation Is Due to Elevated Apoptosis in the Eker Rat.** Shunji Miki, Yoshitsugu Miki, Hiroaki Mitani, Bunzo Sato, Masahiro Yamamoto, and Okio Hino.
- 4677 Trichoepitheliomas Contain Somatic Mutations in the Overexpressed *PTCH* Gene: Support for a Gatekeeper Mechanism in Skin Tumorigenesis.** Igor Vořechovský, Anne Birgitte Undén, Bengt Sandstedt, Rune Toftgård, and Mona Ståhle-Bäckdahl.
- 4682 Somatic Mutations of the *MEN1* Tumor Suppressor Gene in Sporadic Gastrinomas and Insulinomas.** Zhengping Zhuang, Alexander O. Vortmeyer, Svetlana Pack, Steve Huang, Thu A. Pham, Chaoyu Wang, Won-Sang Park, Sunita K. Agarwal, Larisa V. Debelenko, MaryBeth Kester, Siradanahalli C. Guru, Pachiappan Manickam, Shodimu-Emmanuel Olufemi, Fang Yu, Christina Heppner, Judy S. Crabtree, Monica C. Skarulis, David J. Venzon, Michael R. Emmert-Buck, Allen M. Spiegel, Settara C. Chandrasekharappa, Francis S. Collins, A. Lee Burns, Stephen J. Marx, Robert T. Jensen, Lance A. Liotta, and Irina A. Lubensky.
- 4687 Androgen-independent Prostate Cancer Progression in the TRAMP Model.** Jeffrey R. Gingrich, Roberto J. Barrios, Michael W. Kattan, Hyun S. Nahm, Milton J. Finegold, and Norman M. Greenberg.
- 4692 Loss of *FHIT* Expression in Cervical Carcinoma Cell Lines and Primary Tumors.** David L. Greenspan, Denise C. Connolly, Rong Wu, Rachel Y. Lei, Joshua T. C. Vogelstein, Young-Tak Kim, Jung Eun Mok, Nubia Muñoz, F. Xavier Bosch, Keerti Shah, and Kathleen R. Cho.
- 4699 A Precise Interchromosomal Reciprocal Exchange between Hot Spots for Cleavable Complex Formation by Topoisomerase II in Amsacrine-treated Chinese Hamster Ovary Cells.** Rui-Hua Zhou, Peng Wang, Ying Zou, Colleen K. Jackson-Cook, and Lawrence F. Povirk.
- 4703 Loss of p21^{Waf1/Cip1} Sensitizes Tumors to Radiation by an Apoptosis-independent Mechanism.** Bradley G. Wouters, Amato J. Giaccia, Nicholas C. Denko, and J. Martin Brown.
- 4707 Early Age at Diagnosis in Families Providing Evidence of Linkage to the Hereditary Prostate Cancer Locus (*HPC1*) on Chromosome 1.** Henrik Grönberg, Jianfeng Xu, Jeffrey R. Smith, John D. Carpten, Sarah D. Isaacs, Diha Freije, G. Steven Bova, Patrick C. Walsh, Francis S. Collins, Jeffrey M. Trent, Deborah A. Meyers, and William B. Isaacs.
- 4710 Somatic Deletions and Mutations in the Cowden Disease Gene, *PTEN*, in Sporadic Thyroid Tumors.** Patricia L. M. Dahia, Debbie J. Marsh, Zimu Zheng, Jan Zedenius, Paul Komminoth, Tony Frisk, Goran Wallin, Ramon Parsons, Michel Longy, Catharina Larsson, and Charis Eng.
- 4714 Activated *Ki-ras* Enhances Sensitivity of Ceramide-induced Apoptosis without c-Jun NH₂-Terminal Kinase/Stress-activated Protein Kinase or Extracellular Signal-regulated Kinase Activation in Human Colon Cancer Cells.** Mariko Ohmori, Senji Shirasawa, Masanori Furuse, Koji Okumura, and Takehiko Sasazuki.
- 4718 Association of Human T-Cell Leukemia Virus and Myelodysplastic Syndrome in a Central European Population.** Heidrun Karlic, Michaela Möstl, Hermann Mucke, Borislava Pavlova, Michael Pfeilstöcker, and Renate Heinz.
- 4722 Adenovirus-Mediated Overexpression of the Transcription Factor E2F-1 Induces Apoptosis in Human Breast and Ovarian Carcinoma Cell Lines and Does Not Require *p53*.** Kelly K. Hunt, Jiong Deng, Ta-Jen Liu, Marcia Wilson-Heiner, Stephen G. Swisher, Gary Clayman, and Mien-Chie Hung.
- 4727 Sunlight Induces Pyrimidine Dimers Preferentially at 5-Methylcytosine Bases.** Stella Tommasi, Mikhail F. Denissenko, and Gerd P. Pfeifer.
- 4731 Patched (*ptch*)-associated Preferential Expression of Smoothed (*smoh*) in Human Basal Cell Carcinoma of the Skin.** Mireille Kallassy, Rune Toftgård, Masato Ueda, Keiko Nakazawa, Igor Vořechovský, Hiroshi Yamasaki, and Hisayoshi Nakazawa.
- 4736 *PTEN/MMAC1* Mutations in Endometrial Cancers.** John I. Risinger, A. Kate Hayes, Andrew Berchuck, and J. Carl Barrett.
- 4739 Microsatellite Instability Analysis: A Multicenter Study for Reliability and Quality Control.** Tina Bocker, Johannes Diermann, Waltraut Friedl, Johannes Gebert, Elke Holinski-Feder, Judith Karner-Hanusch, Magnus von Knebel-Doerberitz, Konrad Koelble, Gabriela Moeslein, Hans-Konrad Schackert, Hans-Christian Wirtz, Richard Fishel, and Josef Rüschoff.

Regular Articles

Biochemistry and Biophysics

- 4744 Expression of Three UDP-N-acetyl- α -D-galactosamine:Polypeptide GalNAc N-Acetylgalactosaminyltransferases in Adenocarcinoma Cell Lines.** Marie E. Sutherland, Isao Nishimori, Thomas Caffrey, Eric P. Bennett, Helle Hassan, Ulla Mandel, David Mack, Takeshi Iwamura, Henrik Clausen, and Michael A. Hollingsworth.

Carcinogenesis

- 4749 Diagnostic Microsatellite Instability: Definition and Correlation with Mismatch Repair Protein Expression.** Wolfgang Dietmaier, Sabine Wallinger, Tina Bocker, Frank Kullmann, Richard Fishel, and Josef Rüschoff.

4757 **Inhibition of Human Cytochrome P450-catalyzed Oxidations of Xenobiotics and Procarcinogens by Synthetic Organoselenium Compounds.** Tsutomu Shimada, Karam El-Bayoumy, Pramod Upadhyaya, Thomas R. Sutter, F. Peter Guengerich, and Hiroshi Yamazaki.

4765 **Cyclin D1 Overexpression in Rat Two-Stage Bladder Carcinogenesis and Its Relationship with Oncogenes, Tumor Suppressor Genes, and Cell Proliferation.** Chyi Chia R. Lee, Shinji Yamamoto, Hideki Wanibuchi, Seiji Wada, Kazunobu Sugimura, Taketoshi Kishimoto, and Shoji Fukushima.

Clinical Investigations

4777 **Angiogenesis of Uterine Cervical Carcinoma: Characterization by Pharmacokinetic Magnetic Resonance Parameters and Histological Microvessel Density with Correlation to Lymphatic Involvement.** Hans Hawighorst, Paul G. Knapstein, Wolfgang Weikel, Michael V. Knopp, Ivan Zuna, Almuth Knof, Gunnar Brix, Uwe Schaeffer, Claudia Wilkens, Stefan O. Schoenberg, Marco Essig, Peter Vaupel, and Gerhard van Kaick.

Epidemiology and Prevention

4787 **Associations of Sedentary Lifestyle, Obesity, Smoking, Alcohol Use, and Diabetes with the Risk of Colorectal Cancer.** Loïc Le Marchand, Lynne R. Wilkens, Laurence N. Kolonel, Jean H. Hankin, and Li-Ching Lyu.

Experimental Therapeutics

4795 **Selective Tumor Apoptosis by MF13, L-Prolyl-L-m-[bis(chloroethyl)amino]-phenylalanyl-L-norvaline Ethyl Ester, a New Sarco-lysin Containing Tripeptide.** John Roboz, Jiandong Jiang, James F. Holland, and J. George Bekesi.

4803 **Potent Antitumor Activity of a Novel Nucleoside Analogue, BCH-4556 (β -L-Dioxolane-cytidine), in Human Renal Cell Carcinoma Xenograft Tumor Models.** Salam A. Kadhim, Terry L. Bowlin, William R. Waud, Elyzabeth G. Angers, Lucie Bibeau, Jean-Marc DeMuys, Krzysztof Bednarski, Alex Cimpoaia, and Giorgio Attardo.

4811 **Cellular Pharmacokinetics and Cytotoxicity of Camptothecin and Topotecan at Normal and Acidic pH.** Attia Gabr, Annemieke Kuin, Marjanka Aalders, Hoda El-Gawly, and Lou A. Smets.

4817 **O^6 -Methylguanine-DNA Methyltransferase (MGMT) Transfectants of a 1,3-Bis(2-chloroethyl)-1-nitrosourea (BCNU)-sensitive Colon Cancer Cell Line Selectively Repopulate Heterogeneous MGMT⁺/MGMT⁻ Xenografts after BCNU and O^6 -Benzylguanine plus BCNU.** Weldon P. Phillips, Jr., James K. V. Willson, Sanford D. Markowitz, Elizabeth Zborowska, Nasir H. Zaidi, Lili Liu, Nahida H. Gordon, and Stanton L. Gerson.

4824 **Systemic Therapy with 3BIT, a Triple Combination Cocktail of Anti-CD19, -CD22, and -CD38-Saporin Immunotoxins, Is Curative of Human B-Cell Lymphoma in Severe Combined Immunodeficient Mice.** David J. Flavell, Armored Noss, Karen A. F. Pulford, Noel Ling, and Sopsamorn U. Flavell.

4830 **Potential of Cytochrome P450/Cyclophosphamide-based Cancer Gene Therapy by Coexpression of the P450 Reductase Gene.** Ling Chen, Li J. Yu, and David J. Waxman.

4838 **Induction of Apoptosis and Cell Cycle Arrest by CP-358,774, an Inhibitor of Epidermal Growth Factor Receptor Tyrosine Kinase.** James D. Moyer, Elsa G. Barbacci, Kenneth K. Iwata, Lee Arnold, Bruce Boman, Ann Cunningham, Catherine DiOrio, Jonathan Doty, Michael J. Morin, Mikel P. Moyer, Mark Neveu, Vincent A. Pollack, Leslie R. Pustilnik, Margaret M. Reynolds, Don Sloan, April Theleman, and Penny Miller.

Immunology

4849 **Monocyte Chemoattractant Protein Inhibits the Generation of Tumor-reactive T Cells.** Liaomin Peng, Suyu Shu, and John C. Krauss.

4855 **Human Papillomavirus-specific Cytotoxic T Lymphocytes in Patients with Cervical Intraepithelial Neoplasia Grade III.** Mercy Nimako, Alison N. Fiander, Gavin W. G. Wilkinson, Leszek K. Borysiewicz, and Stephen Man.

Molecular Biology and Genetics

4862 **Persistent Clonal Proliferation of Human T-lymphotropic Virus Type I-infected Cells *in Vivo*.** Ken-ichiro Etoh, Sadahiro Tamiya, Kazunari Yamaguchi, Akihiko Okayama, Hirohito Tsubouchi, Toru Ideta, Nancy Mueller, Kiyoshi Takatsuki, and Masao Matsuoka.

4868 **CDKN2A/p16 Is Inactivated in Most Melanoma Cell Lines.** Marina Castellano, Pamela M. Pollock, Marilyn K. Walters, Louise E. Sparrow, Louise M. Down, Brian G. Gabrielli, Peter G. Parsons, and Nicholas K. Hayward.

4876 **Ribonucleotide Reductase R2 Gene Expression and Changes in Drug Sensitivity and Genome Stability.** Aiping Huang, Huizhou Fan, William R. Taylor, and Jim A. Wright.

4882 **Regulation of Collagenase-3 Expression in Human Breast Carcinomas Is Mediated by Stromal-Epithelial Cell Interactions.** José A. Urfá, Mona Stahle-Bäckdahl, Motoharu Seiki, Antonio Fueyo, and Carlos López-Otin.

Tumor Biology

4889 **CD44 Expression Is Aberrant in Benign Schwann Cell Tumors Possessing Mutations in the Neurofibromatosis Type 2, but not Type 1, Gene.** Larry Sherman, Lee B. Jacoby, Johannes Lampe, Patricia Pelton, Adriano Aguzzi, Peter Herrlich, and Helmut Ponta.

4898 **Establishment of Human Peripheral Lung Epithelial Cell Lines (HPL1) Retaining Differentiated Characteristics and Responsiveness to Epidermal Growth Factor, Hepatocyte Growth Factor, and Transforming Growth Factor β 1.** Akira Masuda, Masashi Kondo, Toshiko Saito, Yasushi Yatabe, Tomoko Kobayashi, Mitsumasa Okamoto, Motokazu Suyama, Toshitada Takahashi, and Takashi Takahashi.

4905 **MXII, a Putative Tumor Suppressor Gene, Suppresses Growth of Human Glioblastoma Cells.** Daniel S. Wechsler, Candace A. Shelly, Christy A. Petroff, and Chi V. Dang.

4913 **DNA Hypermethylation at the D17S5 Locus in Non-Small Cell Lung Cancers: Its Association with Smoking History.** Keisuke Eguchi, Yae Kanai, Koichi Kobayashi, and Setsuo Hirohashi.

4916 **Role of Intracellular Redox Status in Apoptosis Induction of Human T-Cell Leukemia Virus Type I-infected Lymphocytes by 13-*cis*-Retinoic Acid.** Keizo Furuue, Tetsuro Sasada, Yasuyo Ueda-Taniguchi, Akira Yamauchi, Takashi Inamoto, Yoshio Yamaoka, Hiroshi Masutani, and Junji Yodoi.

4924 **Specific and Efficient Peptide Substrates for Assaying the Proteolytic Activity of Prostate-specific Antigen.** Samuel R. Denmeade, Wei Lou, Janita Lövgren, Johan Malm, Hans Lilja, and John T. Isaacs.

4931 **Differential Effects of Synthetic Nuclear Retinoid Receptor-selective Retinoids on the Growth of Human Non-Small Cell Lung Carcinoma Cells.** Shi-Yong Sun, Ping Yue, Marcia I. Dawson, Braham Shroet, Serge Michel, William W. Lamph, Richard A. Heyman, Min Teng, Roshantha A. S. Chandraratna, Koichi Shudo, Waun K. Hong, and Reuben Lotan.

4940 B Lymphocytes from Patients with Chronic Lymphoproliferative Disorders Are Equipped with Different Costimulatory Molecules. Livio Trentin, Renato Zambello, Rosaria Sancetta, Monica Facco, Andrea Cerutti, Alessandra Perin, Marta Siviero, Umberto Basso, Michela Bortolin, Fausto Adami, Carlo Agostini, and Gianpietro Semenzato.

4948 Elimination of Established Murine Colon Carcinoma Metastases by Antibody-Interleukin 2 Fusion Protein Therapy. Rong Xiang, Holger N. Lode, Carrie S. Dolman, Torsten Dreier, Nissi M. Varki, Xiuqi Qian, Kin-Ming Lo, Yan Lan, Michael Super, Stephen D. Gillies, and Ralph A. Reisfeld.

4956 Betulinic Acid Triggers CD95 (APO-1/Fas)- and p53-independent Apoptosis via Activation of Caspases in Neuroectodermal Tumors. Simone Fulda, Claudia Friesen, Marek Los, Carsten Scaffidi, Walter Mier, Mary Benedict, Gabriel Nuñez, Peter H. Krammer, Marcus E. Peter, and Klaus-Michael Debatin.

4965 Mechanisms of the Regulation of Thioredoxin Reductase Activity in Cancer Cells by the Chemopreventive Agent Selenium. Alfred Gallegos, Margareta Berggren, John R. Gasdaska, and Garth Powis.

4971 Announcements

1998 Annual Meeting
Future Annual Meetings of the AACR
AACR Minority Scholar Awards in
Cancer Research Supported by the
National Cancer Institute (CMBP)
Gertrude B. Elion Cancer Research
Award
AACR Research Fellowships
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**

4973 Errata

H. S. Friedman *et al.*, 57: 2933–2936,
1997.
G. Cardi *et al.*, 57: 3517–3519, 1997.

4974 Employment Register

4985 Author Index

Cancer Research

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

57 (21)

Cancer Res 1997;57:4667-4984.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/57/21.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/57/21.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.