



CONTENTS

Review

- 5991 **Ataxia-Telangiectasia and Cellular Responses to DNA Damage.** M. Stephen Meyn.

Advances in Brief

- 6002 **Comparative Genomic *in Situ* Hybridization of Colon Carcinomas with Replication Error.** Jürgen Schlegel, Gabi Stumm, Harry Scherthan, Tina Bocker, Hubert Zimigibl, Josef Rüschoff, and Ferdinand Hofstädter.
- 6006 **Immunohistochemical Detection of the Cyclin-dependent Kinase Inhibitor 2/Multiple Tumor Suppressor Gene 1 (*CDKN2/MTS1*) Product p16^{INK4A} in Archival Human Solid Tumors: Correlation with Retinoblastoma Protein Expression.** Joseph Geradts, Robert A. Kratzke, Gloria A. Niehans, and Clint E. Lincoln.
- 6012 **Abrogation of p53-induced Apoptosis by the Hepatitis B Virus X Gene.** Xin Wei Wang, Michael K. Gibson, Wim Vermeulen, Heidi Yeh, Kathleen Forrester, Horst-Werner Stürzbecher, Jan H. J. Hoeijmakers, and Curtis C. Harris.
- 6017 **O⁶-Methylguanine DNA Adduct Formation and Modulation by Ethanol in Placenta and Fetal Tissues after Exposure of Pregnant Patas Monkeys to *N*-Nitrosodimethylamine.** Saranjit K. Chhabra, Vassilis L. Souliotis, Jeffrey W. Harbaugh, Stephanie W. Krasnow, Ann B. Jones, Lucy M. Anderson, and Sotirios A. Kyrtopoulos.
- 6021 **Microtubule-active Drugs Taxol, Vinblastine, and Nocodazole Increase the Levels of Transcriptionally Active p53.** Roy B. Tishler, Diana M. Lamppu, Sonia Park, and Brendan D. Price.
- 6026 **Ischemia Reperfusion Injury in Tumors: The Role of Oxygen Radicals and Nitric Oxide.** Charles S. Parkins, Madeleine F. Dennis, Michael R. L. Stratford, Sally A. Hill, and David J. Chaplin.
- 6030 **Structural Organization of the Human Folylpolypoly- γ -glutamate Synthetase Gene: Evidence for a Single Genomic Locus.** Shirley M. Taylor, Sarah J. Freemantle, and Richard G. Moran.
- 6035 **Lung Cancer Risk in African-Americans in Relation to a Race-specific *CYP1A1* Polymorphism.** Stephanie J. London, Ann K. Daly, Karen S. Fairbrother, Clair Holmes, Catherine L. Carpenter, William C. Navidi, and Jeffrey R. Idle.
- 6038 **Description of a Novel Fusion Transcript between *HMGI-C*, a Gene Encoding for a Member of the High Mobility Group Proteins, and the Mitochondrial Aldehyde Dehydrogenase Gene.** Bernd Kazmierczak, Yvonne Hennig, Sylke Wanschura, Piere Rogalla, Sabine Bartnitzke, Wim Van de Ven, and Jörn Bullerdiek.
- 6040 **Reduced Motility Related Protein-1 (*MRP-1/CD9*) Gene Expression as a Factor of Poor Prognosis in Non-Small Cell Lung Cancer.** Masahiko Higashiyama, Toshihiko Taki, Yoshiaki Ieki, Masashi Adachi, Cheng-long Huang, Takashi Koh, Ken Kodama, Osamu Doi, and Masayuki Miyake.
- 6045 **Mch3, a Novel Human Apoptotic Cysteine Protease Highly Related to CPP32.** Teresa Fernandes-Alnemri, Atsushi Takahashi, Robert Armstrong, Joseph Krebs, Lawrence Fritz, Kevin J. Tomaselli, Lijuan Wang, Zailin Yu, Carlo M. Croce, Guy Salvesson, William C. Earnshaw, Gerald Litwack, and Emad S. Alnemri.
- 6053 **Genomic Organization of the *ATM* Locus Involved in Ataxia-Telangiectasia.** Debora Rasio, Massimo Negrini, and Carlo M. Croce.

- 6058 **Molecular Cloning of CDK7-associated Human MAT1, a Cyclin-dependent Kinase-activating Kinase (CAK) Assembly Factor.** Ann Yee, Michael A. Nichols, Lingtao Wu, Frederick L. Hall, Ryuji Kobayashi, and Yue Xiong.

Regular Articles

Biochemistry and Biophysics

- 6063 **Microsatellite Instability, Mismatch Repair Deficiency, and Genetic Defects in Human Cancer Cell Lines.** Jayne C. Boyer, Asad Umar, John I. Risinger, James R. Lipford, Michael Kane, Shang Yin, J. Carl Barrett, Richard D. Kolodner, and Thomas A. Kunkel.

Carcinogenesis

- 6071 **Tumor Suppressor Loci on Mouse Chromosomes 9 and 16 Are Lost at Distinct Stages of Tumorigenesis in a Transgenic Model of Islet Cell Carcinoma.** Sareh Parangi, William Dietrich, Gerhard Christofori, Eric S. Lander, and Douglas Hanahan.
- 6077 **Volume-sensitive Chloride Channels Associated with Human Cervical Carcinogenesis.** Cheng-Yang Chou, Meng-Ru Shen, and Sheng-Nan Wu.
- 6084 **Mutant p53 but not Hepatitis B Virus X Protein Is Present in Hepatitis B Virus-related Human Hepatocellular Carcinoma.** Frank Henkler, Naushin Waseem, Matthew H. C. Golding, Malcolm R. Alison, and Rajen Koshy.
- 6092 **Mutation Screening in the *hMLH1* Gene in Swedish Hereditary Nonpolyposis Colon Cancer Families.** Pia Tannergård, James R. Lipford, Richard Kolodner, Jan Erik Frödin, Magnus Nordenskjöld, and Annika Lindblom.
- 6097 **Differential Cellular and Subcellular Expression of the Human Multifunctional Apurinic/Apyrimidinic Endonuclease (APE/ref-1) DNA Repair Enzyme.** John R. Duguid, John N. Eble, Teresa M. Wilson, and Mark R. Kelley.

Clinical Investigations

- 6103 **Prognostic Significance of Cell Kinetics in Laryngeal Squamous Cell Carcinoma: Clinicopathological Associations.** Rosa Maria Tomasino, Elio Daniele, Viviana Bazan, Vincenza Morello, Vincenzo Tralongo, Rosabianca Nuara, Claudia Nagar, Maria Salvato, Federico Ingria, Salvatore Restivo, Gabriella Dardanoni, Aldo Vecchione, and Antonio Russo.

Experimental Therapeutics

- 6109 **DNA Topoisomerase II α Expression Is Associated with Alkylating Agent Resistance.** Joseph P. Eder, Jr., Victor T-W. Chan, Shu-Wing Ng, Naiyer A. Rizvi, Stergios Zacharoulis, Beverly A. Teicher, and Lowell E. Schnipper.
- 6117 **Enhanced Antitumor Activity for the Thymidylate Synthase Inhibitor 1843U89 through Decreased Host Toxicity with Oral Folic Acid.** Gary K. Smith, Herbert Amyx, Christine M. Boytos, David S. Duch, Robert Ferone, and H. Robert Wilson.
- 6126 **Imaging the Expression of Transfected Genes *in Vivo*.** Juri G. Tjuvajev, Gunther Stockhammer, Revathi Desai, Hisao Uehara, Kyoichi Watanabe, Bernd Gansbacher, and Ronald G. Blasberg.

Immunology

- 6133 **Host CD4⁺ T Lymphocytes Are Required for the Synergistic Action of Interferon- α/β and Adoptively Transferred Immune Cells in the Inhibition of Visceral ESb Metastases.** Thomas J. Kaido, Chantal Maury, and Ion Gresser.
- 6140 **Analysis of the T Cell Receptor in the Lymphoproliferative Disease of Granular Lymphocytes: Superantigen Activation of Clonal CD3⁺ Granular Lymphocytes.** Renato Zambello, Livio Trentin, Monica Facco, Andrea Cerutti, Rosaria Sancetta, Antonella Milani, Roberto Raimondi, Cristina Tassinari, Carlo Agostini, and Gianpietro Semenzato.
- 6146 **The Involvement of Transforming Growth Factor β in the Impaired Antitumor T-Cell Response at the Gut-associated Lymphoid Tissue (GALT).** Mamoru Harada, Kenichi Matsunaga, Yoshiharu Oguchi, Hiroko Iijima, Osamu Ito, Koji Tamada, Genki Kimura, and Kikuo Nomoto.

Molecular Biology and Genetics

- 6152 **Overexpression of the XPA Repair Gene Increases Resistance to Ultraviolet Radiation in Human Cells by Selective Repair of DNA Damage.** James E. Cleaver, Wayne C. Charles, Mindy L. McDowell, Walt J. Sadinski, and David L. Mitchell.
- 6161 **Wild-Type p53 and v-Src Exert Opposing Influences on Human Vascular Endothelial Growth Factor Gene Expression.** Debabrata Mukhopadhyay, Leonidas Tsiokas, and Vikas P. Sukhatme.
- 6166 **Interleukin-1 β -converting Enzyme Mediates Cisplatin-induced Apoptosis in Malignant Glioma Cells.** Seiji Kondo, Barbara P. Barna, Tatsuo Morimura, Juji Takeuchi, Junying Yuan, Aytac Akbasak, and Gene H. Barnett.
- 6172 **Genetic Analysis of Benign, Low-Grade, and High-Grade Ovarian Tumors.** Hiroshi Iwabuchi, Masaru Sakamoto, Hotaka Sakunaga, Yen-Ying Ma, Maria L. Carcangiu, Daniel Pinkel, Teresa L. Yang-Feng, and Joe W. Gray.
- 6181 **Regulation of Transforming Growth Factor β Receptors in H-ras Oncogene-transformed Rat Intestinal Epithelial Cells.** Jianmin Zhao and Ronald N. Buick.
- 6189 **Genomic Alterations and Instabilities in Renal Cell Carcinomas and Their Relationship to Tumor Pathology.** Catherine A. Thrash-Bingham, Hernando Salazar, Jerome J. Freed, Richard E. Greenberg, and Kenneth D. Tartof.
- 6196 **c-fos Is Not Essential for v-abl-induced Lymphomagenesis.** Enrique Saez, Heather Oppenheim, Jennifer Smoluk, Janet W. Andersen, Richard A. Van Etten, and Bruce M. Spiegelman.
- 6200 **Multiple Mechanisms of p16^{INK4A} Inactivation in Non-Small Cell Lung Cancer Cell Lines.** Geoffrey I. Shapiro, Julie E. Park, Christian D. Edwards, Li Mao, Adrian Merlo, David Sidransky, Mark E. Ewen, and Barrett J. Rollins.

Tumor Biology

- 6210 **Superoxide Dismutase in SAS Human Tongue Carcinoma Cell Line Is a Factor Defining Invasiveness and Cell Motility.** Hirohito Muramatsu, Katsuhisa Kogawa, Maki Tanaka, Kazuhiko Okumura, Yoshiki Nishihori, Kazuhiko Koike, Takashi Kuga, and Yoshiro Niitsu.
- 6215 **Loss of the Tumorigenic Phenotype with *in Vitro*, but not *in Vivo*, Passaging of a Novel Series of Human Bronchial Epithelial Cell Lines: Possible Role of an $\alpha5/\beta1$ -Integrin-Fibronectin Interaction.** Joan H. Schiller and Gerard Bitner.
- 6222 **Mapping of the Vascular Endothelial Growth Factor-producing Hypoxic Cells in Multicellular Tumor Spheroids Using a Hypoxia-specific Marker.** Nahid S. Waleh, Michael D. Brody, Merrill A. Knapp, Holly L. Mendonca, Edith M. Lord, Cameron J. Koch, Keith R. Laderoute, and Robert M. Sutherland.
- 6227 **5-Ethynyluracil (776C85): Effects on the Antitumor Activity and Pharmacokinetics of Tegafur, a Prodrug of 5-Fluorouracil.** Shousong Cao, David P. Baccanari, Suzanne S. Joyner, Stephen T. Davis, Youcef M. Rustum, and Thomas Spector.
- 6231 **O⁶-Alkylguanine-DNA Alkyltransferase Attenuates Triazene-induced Cytotoxicity and Tumor Cell Immunogenicity in Murine L1210 Leukemia.** Grazia Graziani, Isabella Faraoni, Ursula Grohmann, Roberta Bianchi, Lucia Binaglia, Geoffrey Paul Margison, Amanda Jane Watson, Laura Orlando, Enzo Bonmassar, and Stefania D'Atri.
- 6237 **Identification of Melanoma Inhibitory Activity and Other Differentially Expressed Messenger RNAs in Human Melanoma Cell Lines with Different Metastatic Capacity by Messenger RNA Differential Display.** Jan J. M. van Groningen, Henri P. J. Bloemers, and Guido W. M. Swart.
- 6244 **c-fos-induced Osteosarcoma Formation in Transgenic Mice: Cooperativity with c-jun and the Role of Endogenous c-fos.** Zhao-Qi Wang, Jun Liang, Karl Schellander, Erwin F. Wagner, and Agamemnon E. Grigoriadis.

6252 Announcements

Future Annual Meetings of the AACR
Gertrude Elion Cancer Research Award
New Research Fellowships Available
Travel Grants from the Comprehensive
Minority Biomedical Program of the
National Cancer Institute
AACR Special Conferences in Cancer
Research
Recent Death
Calendar of Events

6255 Acknowledgment to Reviewers

6265 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:**

**Advance Registration Form for the
87th Annual Meeting**

**Guidelines for Submitting Disks to
AACR Publications**

Cancer Research

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

55 (24)

Cancer Res 1995;55:5991-6264.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/55/24.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/55/24.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.