



CONTENTS

Advances in Brief

- 4551 Requirement of p34^{cdc2} Kinase for Apoptosis Mediated by the Fas/APO-1 Receptor and Interleukin 1 β -converting Enzyme-related Proteases. Siu-Long Yao, Karen A. McKenna, Saul J. Sharkis, and Atul Bedi.
- 4556 Isolation of Prostate-derived Single Cells and Cell Clusters from Human Peripheral Blood. Burkhard Brandt, Ralf Junker, Cord Griwatz, Stefan Heidl, Olaf Brinkmann, Axel Semjonow, Gerd Assmann, and Kurt S. Zänker.
- 4562 Mutations in the Human Homologue of *Drosophila patched* (*PTCH*) in Basal Cell Carcinomas and the Gorlin Syndrome: Different *in Vivo* Mechanisms of *PTCH* Inactivation. Anne Birgitte Unden, Erika Holmberg, Barbro Lundh-Rozell, Mona Ståhle-Bäckdahl, Peter G. Zaphiropoulos, Rune Toftgård, and Igor Vořechovsky.
- 4566 Evaluation of Cyclooxygenase-2 Inhibitor for Potential Chemopreventive Properties in Colon Carcinogenesis. Bandaru S. Reddy, Chinthalapally V. Rao, and Karen Seibert.
- 4570 Insulin-like Growth Factor I Receptor-mediated Circuit in Ewing's Sarcoma/Peripheral Neuroectodermal Tumor: A Possible Therapeutic Target. Katia Scotlandi, Stefania Benini, Manuela Sarti, Massimo Serra, Pier-Luigi Lollini, Daniela Maurici, Piero Picci, Maria Cristina Manara, and Nicola Baldini.
- 4575 Mutations in the *BRCA2* Gene in Hepatocellular Carcinomas. Toyomasa Katagiri, Yusuke Nakamura, and Yoshio Miki.
- 4578 Characterization of Functional Messenger RNA Splice Variants of *BRCA1* Expressed in Nonmalignant and Tumor-derived Breast Cells. Meiling Lu, Suzanne D. Conzen, Charles N. Cole, and Bradley A. Arrick.
- 4582 Expression of *p21* Is Not Required for Senescence of Human Fibroblasts. Andrew S. C. Medcalf, Andres J. P. Klein-Szanto, and Vincent J. Cristofalo.
- 4586 A p18 Mutant Defective in CDK6 Binding in Human Breast Cancer Cells. Jacques Lapointe, Yves Lachance, Yvan Labrie, and Claude Labrie.
- 4590 Cell Cycle Control of *BRCA2*. James P. Vaughn, Frank D. Cirisano, Gudrun Huper, Andrew Berchuck, P. Andrew Futreal, Jeffrey R. Marks, and J. Dirk Iglehart.
- 4595 Genomic Structure of the Transforming Growth Factor β Type II Receptor Gene and Its Mutations in Hereditary Nonpolyposis Colorectal Cancers. Shi-Long Lu, Wen-Cong Zhang, Yoshimitsu Akiyama, Tadashi Nomizu, and Yasuhito Yuasa.
- 4599 Mutations in the Human Homologue of the *Drosophila patched* Gene in Caucasian and African-American Nevroid Basal Cell Carcinoma Syndrome Patients. Abirami Chidambaram, Alisa M. Goldstein, Mae R. Gailani, Bernard Gerrard, Sherri J. Bale, John J. DiGiovanna, Allen E. Bale, and Michael Dean.
- 4602 Abrogation of Shedding of Immunosuppressive Neuroblastoma Gangliosides. Ruixiang Li and Stephan Ladisch.
- 4606 Differential Expression of Psoriasis Messenger RNA between *in Situ* and Invasive Human Breast Carcinoma. Etienne Leygue, Linda Snell, Tamara Hiller, Helmut Dotzlaw, Kate Hole, Leigh C. Murphy, and Peter H. Watson.
- 4610 Expression of the Epstein Barr Virus Transforming Protein LMP1 Causes a Rapid and Transient Stimulation of the Bcl-2 Homologue Mcl-1 Levels in B-Cell Lines. Shu Wang, Martin Rowe, and Erik Lundgren.

- 4614 Osteocalcin Promoter-based Toxic Gene Therapy for the Treatment of Osteosarcoma in Experimental Models. Song-Chu Ko, Jun Cheon, Chinghai Kao, Akinobu Gotoh, Toshiro Shirakawa, Robert A. Sikes, Gerard Karsenty, and Leland W. K. Chung.
- 4620 E7 Protein of Human Papilloma Virus-16 Induces Degradation of Retinoblastoma Protein through the Ubiquitin-Proteasome Pathway. Sarah N. Boyer, David E. Wazer, and Vimla Band.
- 4625 Association of Macrophage Infiltration with Angiogenesis and Prognosis in Invasive Breast Carcinoma. Russell D. Leek, Claire E. Lewis, Ruth Whitehouse, Michael Greenall, Jane Clarke, and Adrian L. Harris.

Regular Articles

Biochemistry and Biophysics

- 4630 Immortalization and Transformation Are Associated with Specific Alterations in Choline Metabolism. Kishore K. Bhakoo, Stephen R. Williams, Catarina L. Florian, Hartmut Land, and Mark D. Noble.
- 4636 Hyperresistance of Leukemia Cells to Photodynamic Inactivation after Long-Term Exposure to Hemin. Fubao Lin and Albert W. Girotti.

Carcinogenesis

- 4644 Cytokeratin, Lectin, and Acidic Mucin Modulation in Differentiating Colonic Epithelial Cells of Mice after Feeding Western-style Diets. Kan Yang, Kunhua Fan, Harold Newmark, Denis Leung, Martin Lipkin, Vernon E. Steele, and Gary J. Kelloff.
- 4649 Transformation *in Vitro* of a Nontumorigenic Rat Urothelial Cell Line by Hydrogen Peroxide. Masato Okamoto, Koji Kawai, Catherine A. Reznikoff, and Ryoichi Oyasu.
- 4654 Frequency and Spectrum of Ethylnitrosourea-induced Mutation at the *hprt* and *lacI* Loci in Splenic Lymphocytes of Exposed *lacI* Transgenic Mice. Vernon E. Walker, Nancy J. Gorelick, Julie L. Andrews, Teresa R. Craft, Johan G. deBoer, Barry W. Glickman, and Thomas R. Skopek.
- 4662 Microsatellite Instability-associated Mutations Associate Preferentially with the Intestinal Type of Primary Gastric Carcinomas in a High-Risk Population. Yeun-Jun Chung, Ji-Min Song, Joo-Young Lee, Yong-Tae Jung, Eun-Joo Seo, Sang-Wook Choi, and Mun-Gan Rhyu.
- 4666 Carcinogenicity of 2',3'-Dideoxycytidine in Mice. Ghanta N. Rao, Bradley J. Collins, Herschell D. Giles, James E. Heath, Julie F. Foley, Richard D. May, and Lorrene A. Buckley.

Clinical Investigations

- 4673 Cytopathological Analysis of Sputum in Patients with Airflow Obstruction and Significant Smoking Histories. Timothy C. Kennedy, Susan P. Proudfoot, Wilbur A. Franklin, Thomas A. Merrick, Geno Saccomanno, Mary E. Corkill, Donna L. Mumma, Karim E. Sirgi, York E. Miller, Philip G. Archer, and Allan Prochazka.
- 4679 Inadequate Production of Hematopoietic Growth Factors in Hairy Cell Leukemia: Up-Regulation of Interleukin 6 by Recombinant IFN- α *in Vitro*. Josef D. Schwarzmeier, Martin Hilgarth, Son T. Nguyen, Medhat Shehata, Gerhard Gruber, Andreas Spittler, Martin Willheim, George Boltz-Nitulescu, Paul Höcker, and Rudolf Berger.

4686 Clinical Experiences with Magnetic Drug Targeting: A Phase I Study with 4'-Epidoxorubicin in 14 Patients with Advanced Solid Tumors. Andreas Stephan Lübbe, Christian Bergemann, Hanno Riess, Folke Schriever, Peter Reichardt, Kurt Possinger, Michael Matthias, Bernd Dörken, Friedhelm Herrmann, Renate Gürtler, Peter Hohenberger, Norbert Haas, Reinhard Sohr, Bernhard Sander, Arne-Jürgen Lemke, Dieter Ohlendorf, Winfried Huhn, and Dieter Huhn.

Experimental Therapeutics

4694 Preclinical Experiences with Magnetic Drug Targeting: Tolerance and Efficacy. Andreas Stephan Lübbe, Christian Bergemann, Winfried Huhn, Thomas Fricke, Hanno Riess, Jeffery Walter Brock, and Dieter Huhn.

4702 Treatment of Intracranial Tumors by Systemic Transfer of Superantigen-activated Tumor-draining Lymph Node T Cells. Mamoru Inoue, Gregory E. Plautz, and Suyu Shu.

4709 Lack of Glutathione Conjugation of Melphalan in the Isolated *in Situ* Liver Perfusion in Humans. Alexander L. Vahrmeijer, C. A. Wilco Snel, David P. T. Steenvoorden, Jos H. Beijnen, K. Sandy Pang, Jan Schutrups, Rommel Tirona, H. Jan Keizer, Jan Hein van Dierendonck, Cornelis J. H. van de Velde, and Gerard J. Mulder.

4715 DNA Damage and p53 Induction Do Not Cause ZD1694-induced Cell Cycle Arrest in Human Colon Carcinoma Cells. Sei-ichi Matsui, Mark A. Arredondo, Carol Wrzosek, and Youcef M. Rustum.

4724 Regional Pharmacokinetics of 5-Bromo-2'-deoxyuridine and 5-Fluorouracil in Dogs: Hepatic Arterial versus Portal Venous Infusions. Han-Yi Kuan, David E. Smith, William D. Ensminger, James A. Knol, Susan J. DeRemer, Zhaomin Yang, and Philip L. Stetson.

4728 Blood Flow, Oxygenation, and Bioenergetic Status of Tumors after Erythropoietin Treatment in Normal and Anemic Rats. Debra K. Kelleher, Ulrike Matthiensen, Oliver Thews, and Peter Vaupel.

4735 Gene-directed Enzyme Prodrug Therapy with a Mustard Prodrug/Carboxypeptidase G2 Combination. Richard Marais, Robert A. Spooner, Yvonne Light, Janet Martin, and Caroline J. Springer.

4743 Overexpression of Bcl-2 or Bcl-x_L Inhibits Ara-C-induced CPP32/Yama Protease Activity and Apoptosis of Human Acute Myelogenous Leukemia HL-60 Cells. Ana Maria Ibrado, Yue Huang, Guofu Fang, Linda Liu, and Kapil Bhalla.

Immunology

4749 Immunization against Epitopes in the Human Melanoma Antigen gp100 following Patient Immunization with Synthetic Peptides. Michael L. Salgaller, Francesco M. Marincola, Janice N. Cormier, and Steven A. Rosenberg.

4758 Cytokine Targeting in Tumors Using a Bispecific Antibody Directed against Carcinoembryonic Antigen and Tumor Necrosis Factor α . Bruno Robert, Jean-Pierre Mach, Jean-Claude Mani, Marc Ychou, Silvio Folli, Jean-Claude Artus, and André Pèlerin.

4766 The SSX-2 Gene, Which Is Involved in the t(X;18) Translocation of Synovial Sarcomas, Codes for the Human Tumor Antigen HOM-MEL-40. Özlem Türeci, Ugur Sahin, Ingrid Schobert, Michael Koslowski, Holger Schmitt, Hans-Jörg Schild, Frank Stenner, Gerhardt Seitz, Hans-Georg Rammensee, and Michael Pfreundschuh.

Molecular Biology and Genetics

4773 Internal Sequence Variations in the Ha-ras Variable Number Tandem Repeat Rare and Common Alleles Identified by Minisatellite Variant Repeat Polymerase Chain Reaction. Kathleen Conway, Sharon N. Edmiston, Barbara S. Hulka, Peter A. Garrett, and Edison T. Liu.

4778 Gain of 17q24-qter Detected by Comparative Genomic Hybridization in Malignant Tumors from Patients with von Recklinghausen's Neurofibromatosis. Ragnhild A. Lothe, Ritva Karhu, Nils Mandahl, Fredrik Mertens, Gunnar Sæter, Sverre Heim, Anne-Lise Børresen-Dale, and Olli-P. Kallioniemi.

Tumor Biology

4782 Loss of Adipocyte-type Fatty Acid Binding Protein and Other Protein Biomarkers Is Associated with Progression of Human Bladder Transitional Cell Carcinomas. Julio E. Celis, Morten Østergaard, Bodil Basse, Ariana Celis, Jette B. Lauridsen, Gitte P. Ratz, Inger Andersen, Bente Hein, Hans Wolf, Torben F. Ørtoft, and Hanne Holm Rasmussen.

4791 Fas Expression and Function in Normal and Malignant Breast Cell Lines. Maccan M. Keane, Seth A. Ettenberg, Geoffrey A. Lowrey, Edward K. Russell, and Stan Lipkowitz.

4799 Expression of the Angiogenic Factor Thymidine Phosphorylase/Platelet-derived Endothelial Cell Growth Factor in Primary Bladder Cancers. Timothy S. O'Brien, Stephen B. Fox, Andrew J. Dickinson, Helen Turley, Mark Westwood, Amir Moghaddam, Kevin C. Gatter, Roy Bicknell, and Adrian L. Harris.

4805 Carcinoembryonic Antigen Induces Cytokine Expression in Kupffer Cells: Implications for Hepatic Metastasis from Colorectal Cancer. Aniruddha Gangopadhyay, Olga Bajenova, Timothy M. Kelly, and Peter Thomas.

4811 A Function for the Integrin $\alpha_4\beta_4$ in the Invasive Properties of Colorectal Carcinoma Cells. Celia Chao, Margaret M. Lotz, Astrid C. Clarke, and Arthur M. Mercurio.

Virology

4820 SV40 Early Region and Large T Antigen in Human Brain Tumors, Peripheral Blood Cells, and Sperm Fluids from Healthy Individuals. Fernanda Martini, Laura Iaccheri, Lorena Lazzarin, Paolo Carinci, Alfredo Corallini, Massimo Gerosa, Paolo Iuzzolino, Giuseppe Barbanti-Brodano, and Mauro Tognon.

4826 Announcements

Future Annual Meetings of the AACR
1997 Annual Meeting
Call for Nominations for Honorary
Membership
Gertrude Elion Cancer Research Award
AACR Research Fellowships
AACR Minority Scholar Awards
Supported by the National Cancer
Institute
AACR Special Conferences in Cancer
Research
Calendar of Events

4828 Erratum

P. Briand *et al.*, 56: 2039–2044, 1996.

4829 Author Index

Pages 1–33

Call for Abstracts for 1997 AACR Annual Meeting

Includes:
Abstract Submission Instructions
Advance Registration and
Housing Forms

Also available in the back
of this issue:

Application for Active and
Corresponding Membership

Application for Associate
Membership

Guidelines for Submitting Disks to
AACR Publications

Cancer Research

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

56 (20)

Cancer Res 1996;56:4551-7577.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/56/20.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/56/20.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.