



CONTENTS

Advances in Brief

- 1773 **Granulosa Cell Tumors Express erbB4 and Are Sensitive to the Cytotoxic Action of Heregulin- β 2/PE40.** Christophe Furger, Rodney J. Fiddes, David I. Quinn, Ron J. Bova, Roger J. Daly, and Robert L. Sutherland.
- 1779 **Direct Evidence that Apoptosis Enhances Tumor Responses to Fractionated Radiotherapy.** Brent A. Rupnow, Albert D. Murtha, Rodolfo M. Alarcon, Amato J. Giaccia, and Susan J. Knox.
- 1785 **Involvement of Nitric Oxide during Phthalocyanine (Pc4) Photodynamic Therapy-mediated Apoptosis.** Sanjay Gupta, Nihal Ahmad, and Hasan Mukhtar.
- 1789 **Potential of Chlorambucil Cytotoxicity in B-Cell Chronic Lymphocytic Leukemia by Inhibition of DNA-dependent Protein Kinase Activity Using Wortmannin.** Garyfallia Christodoulopoulos, Catherine Muller, Bernard Salles, Rehan Kazmi, and Lawrence Panasci.
- 1793 **Selective Sensitivity to Radiation of Cerebral Glioblastomas Harboring p53 Mutations.** Mitsuhiro Tada, Ryoji Matsumoto, Richard D. Iggo, Rikiya Onimaru, Hiroki Shirato, Yutaka Sawamura, and Yumiko Shinohe.
- 1798 **Missense Mutations in SMOH in Sporadic Basal Cell Carcinomas of the Skin and Primitive Neuroectodermal Tumors of the Central Nervous System.** Julia Reifenberger, Marietta Wolter, Ruthild G. Weber, Mosaad Megahed, Thomas Ruzicka, Peter Lichter, and Guido Reifenberger.
- 1804 **Chromosome 3p14 Alterations in Lung Cancer: Evidence that FHIT Exon Deletion Is a Target of Tobacco Carcinogens and Asbestos.** Heather H. Nelson, John K. Wiencke, Laura Gunn, John C. Wain, David C. Christiani, and Karl T. Kelsey.
- 1808 **Expression of A Novel Antiapoptosis Gene, Survivin, Correlated with Tumor Cell Apoptosis and p53 Accumulation in Gastric Carcinomas.** Cai-De Lu, Dario C. Altieri, and Nobuhiko Tanigawa.
- 1813 **Transactivation of Transforming Growth Factor α Gene by Hepatitis B Virus preS1.** Masafumi Ono, Keiko Morisawa, Jing Nie, Katsuya Ota, Taketoshi Taniguchi, Toshiji Saibara, and Saburo Onishi.

Regular Articles

Biochemistry and Biophysics

- 1817 **1 α ,25-Dihydroxyvitamin D₃ Inhibits Programmed Cell Death in HL-60 Cells by Activation of Sphingosine Kinase.** Burkhard Kleuser, Olivier Cuvillier, and Sarah Spiegel.
- 1825 **Correlation of High-Resolution Magic Angle Spinning Proton Magnetic Resonance Spectroscopy with Histopathology of Intact Human Brain Tumor Specimens.** Leo Ling Cheng, I-Wen Chang, David N. Louis, and R. Gilberto Gonzalez.

Carcinogenesis

- 1833 **Establishment of a Salmonella Tester Strain Highly Sensitive to Mutagenic Heterocyclic Amines.** Akihiro Suzuki, Hirotaka Kushida, Hiroshi Iwata, Masahiko Watanabe, Takehiko Nohmi, Ken-ichi Fujita, Frank J. Gonzalez, and Tetsuya Kamataki.

Clinical Investigations

- 1839 **BRCA-associated Breast Cancer: Absence of a Characteristic Immunophenotype.** Marc Robson, Prabha Rajan, Paul Peter Rosen, Theresa Gilewski, Yashar Hirschaut, Peter Pressman, Bruce Haas, Larry Norton, and Kenneth Offit.
- 1843 **The Level of Urokinase-type Plasminogen Activator Receptor Is Increased in Serum of Ovarian Cancer Patients.** Cornelis F. M. Sier, Ross Stephens, Jozef Bizik, Andrea Mariani, Marianna Bassan, Nina Pedersen, Luigi Frigerio, Augusto Ferrari, Keld Danø, Nils Brønner, and Francesco Blasi.

Endocrinology

- 1850 **Somatostatin Receptor Subtype Specificity and *in Vivo* Binding of a Novel Tumor Tracer, ^{99m}Tc-P829.** Irene Virgolini, Maria Leimer, Hirsch Handmaker, Secondo Lastoria, Claudia Bischof, Pietro Muto, Thomas Pangerl, Doris Gludovacz, Markus Peck-Radosavljevic, John Lister-James, Gerhard Hamilton, Klaus Kaserer, Peter Valent, and Richard Dean.
- 1860 **Selective Down-Regulation of Progesterone Receptor Isoform B in Poorly Differentiated Human Endometrial Cancer Cells: Implications for Unopposed Estrogen Action.** Nirmala S. Kumar, Jennifer Richer, Gareth Owen, Elizabeth Litman, Kathryn B. Horwitz, and Kimberly K. Leslie.
- 1866 **Expression of All Known Vasopressin Receptor Subtypes by Small Cell Tumors Implies a Multifaceted Role for this Neuropeptide.** William G. North, Michael J. Fay, Kenneth A. Longo, and Jinlin Du.
- 1872 **The Key to the Antiestrogenic Mechanism of Raloxifene Is Amino Acid 351 (Aspartate) in the Estrogen Receptor.** Anait S. Levenson and V. Craig Jordan.

Experimental Therapeutics

- 1876 **Induction of Apoptosis in MCF-7:WS8 Breast Cancer Cells by β -Lapachone.** Shelly M. Wuerzberger, John J. Pink, Sarah M. Planchon, Krista L. Byers, William G. Bornmann, and David A. Boothman.
- 1886 **Human DNA Topoisomerase II α -dependent DNA Cleavage and Yeast Cell Killing by Anthracycline Analogues.** Monica Binaschi, Rosalba Farinosi, Caroline A. Austin, L. Mark Fisher, Franco Zunino, and Giovanni Capranico.
- 1893 **Intracellular Expression of a Single-Chain Antibody Directed against Human Papillomavirus Type 16 E7 Oncoprotein Achieves Targeted Antineoplastic Effects.** Feng Wang-Johanning, G. Yancey Gillespie, Jon Grim, Claudine Rancourt, Ronald D. Alvarez, Gene P. Siegal, and David T. Curiel.
- 1901 **Heterogeneity of Intracellular pH and of Mechanisms That Regulate Intracellular pH in Populations of Cultured Cells.** Anne H. Lee and Ian F. Tannock.

- 1909 **Telomerase from Human Leukemia Cells: Properties and Its Interaction with Deoxynucleoside Analogues.** Rekha B. Pai, S. Balakrishna Pai, Marina Kukhanova, Ginger E. Dutschman, Xin Guo, and Yung-Chi Cheng.
- 1914 **Prolactin Activates Stat1 But Does Not Antagonize Stat1 Activation and Growth Inhibition by Type I Interferons in Human Breast Cancer Cells.** John D. Schaber, Hui Fang, Jun Xu, Philip M. Grimley, and Hallgeir Rui.
- 1920 **A Flavonoid Antioxidant, Silymarin, Inhibits Activation of erbB1 Signaling and Induces Cyclin-dependent Kinase Inhibitors, G₁ Arrest, and Anticarcinogenic Effects in Human Prostate Carcinoma DU145 Cells.** Xiaolin Zi, Adam W. Grasso, Hsing-Jien Kung, and Rajesh Agarwal.
- 1930 **A Peptidomimetic Antagonist of the Integrin $\alpha_5\beta_3$ Inhibits Leydig Cell Tumor Growth and the Development of Hypercalcemia of Malignancy.** Christopher P. Carron, Debra M. Meyer, Jodi A. Pegg, V. Wayne Engleman, Maureen A. Nickols, Steven L. Settle, William F. Westlin, Peter G. Ruminski, and G. Allen Nickols.
- 1936 **Isolation of Human O⁶-Alkylguanine-DNA Alkyltransferase Mutants Highly Resistant to Inactivation by O⁶-Benzylguanine.** Meng Xu-Welliver, Sreenivas Kanugula, and Anthony E. Pegg.
- 1946 **Adenovirus-mediated Transduction of *Escherichia coli* Uracil Phosphoribosyltransferase Gene Sensitizes Cancer Cells to Low Concentrations of 5-Fluorouracil.** Fumihiko Kanai, Takayuki Kawakami, Hirofumi Hamada, Akiko Sadata, Yoko Yoshida, Torao Tanaka, Makoto Ohashi, Keisuke Tateishi, Yasushi Shiratori, and Masao Omata.
- 1952 **Vascular Endothelial Growth Factor as a Marker of Tumor Endothelium.** Rolf A. Brekken, Xianming Huang, Steven W. King, and Philip E. Thorpe.

Immunology

- 1960 **Vaccination with Multiple Antigen Peptide as Rejection Antigen Peptide in Murine Leukemia.** Akira Manki, Toshiro Ono, Akiko Uenaka, Yoshiki Seino, and Eiichi Nakayama.
- 1965 **DNA Vaccines Encoding Full-Length or Truncated Neu Induce Protective Immunity against Neu-expressing Mammary Tumors.** Ying Chen, Dan Hu, David J. Eling, Joan Robbins, and Thomas J. Kipps.

Molecular Biology and Genetics

- 1972 **Mechanisms of Inactivation of E-Cadherin in Breast Cancer Cell Lines.** Shunsuke Hiraguri, Tony Godfrey, Haruhiko Nakamura, Jeremy Graff, Collin Collins, Laleh Shayesteh, Norman Doggett, Keith Johnson, Margaret Wheelock, James Herman, Stephen Baylin, Daniel Pinkel, and Joe Gray.

- 1978 **Impairment of Nucleotide Excision Repair by Apoptosis in UV-irradiated Mouse Cells.** Maaikje P. G. Vreeswijk, Birgit E. Westland, Martin T. Hess, Hanspeter Naegeli, Harry Vrieling, Albert A. van Zeeland, and Leon H. F. Mullenders.
- 1986 **Functional Characterization of Transforming Growth Factor β Type II Receptor Mutants in Human Cancer.** Malabika De, Wu Yan, Rosalein R. de Jonge, Laure Garrigue-Antar, Vincent F. Vellucci, and Michael Reiss.
- 1993 **p53-dependent Signaling Sustains DNA Replication and Enhances Clonogenic Survival in 254 nm Ultraviolet-irradiated Human Fibroblasts.** Cheryl A. Cistulli and William K. Kaufmann.
- 2003 **Synchronous Oral Carcinomas: Independent or Common Clonal Origin?** Andrea G. M. Scholes, Julia A. Woolgar, Mark A. Boyle, James S. Brown, E. David Vaughan, C. Anthony Hart, Andrew S. Jones, and John K. Field.
- 2007 **4-Oxoretinol, a Metabolite of Retinol in the Human Promyelocytic Leukemia Cell Line NB4, Induces Cell Growth Arrest and Granulocytic Differentiation.** Teresa N. Faria, Roberta Rivi, Fadila Derguini, Pier Paolo Pandolfi, and Lorraine J. Gudas.

Tumor Biology

- 2014 **Decreased MUC1 Expression Induces E-Cadherin-mediated Cell Adhesion of Breast Cancer Cell Lines.** Keiichi Kondo, Nobuoki Kohno, Akihito Yokoyama, and Kunio Hiwada.
- 2020 **Overexpression of a Transmembrane Isoform of Neural Cell Adhesion Molecule Alters the Invasiveness of Rat CNS-1 Glioma.** Geoffrey C. Owens, Elizabeth A. Orr, Bette K. Kleinschmidt DeMasters, Ruth J. Muschel, Michael E. Berens, and Carol A. Kruse.
- 2029 **Mutant RAS Selectively Promotes Sensitivity of Myeloid Leukemia Cells to Apoptosis by a Protein Kinase C-dependent Process.** Angela P. Gallagher, Alan K. Burnett, David T. Bowen, and Richard L. Darley.
- 2036 **Absence of a Radiation-induced First-Cycle G₁-S Arrest in p53⁺ Human Tumor Cells Synchronized by Mitotic Selection.** Hatsumi Nagasawa, Peter Keng, Carl Maki, Yongjia Yu, and John B. Little.
- 2042 **Elevated Cyclins and Cyclin-dependent Kinase Activity in the Rhabdomyosarcoma Cell Line RD.** Erik S. Knudsen, Claudia Pazzagli, Teresa L. Born, Bonnie L. Bertolaet, Karen E. Knudsen, Karen C. Arden, Robert R. Henry, and James R. Feramisco.

2050 Announcements

1999 Annual Meeting
 Future Annual Meetings of the AACR
 AACR Special Conferences in Cancer
 Research
 Calendar of Events

2052 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)

58 (9)

Cancer Res 1998;58:1773-2051.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/58/9.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/58/9.citation>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.