

Cancer Research

A Journal of the American Association for Cancer Research

Volume 67 • Number 13

July 1, 2007 • Pages 5999–6530

Reviews

Nuclear and Cytoplasmic Survivin: Molecular Mechanism, Prognostic, and Therapeutic Potential. Roland H. Stauber, Wolf Mann, and Shirley K. Knauer5999

The Role of Vascular Cell Adhesion Molecule-1 in Tumor Immune Evasion. T-C. Wu6003

Priority Reports

Lineage-Specific Dependency of Lung Adenocarcinomas on the Lung Development Regulator TTF-1. Hisaaki Tanaka, Kiyoshi Yanagisawa, Keiko Shinjo, Ayumu Taguchi, Ken Maeno, Shuta Tomida, Yukako Shimada, Hirota Osada, Takayuki Kosaka, Hideo Matsubara, Tetsuya Mitsudomi, Yoshitaka Sekido, Mitsune Tanimoto, Yasushi Yatabe, and Takashi Takahashi6007

Inhibition of Tumor Metastasis by a Growth Factor Receptor Bound Protein 2 Src Homology 2 Domain–Binding Antagonist. Alessio Giubellino, Yang Gao, Sunmin Lee, Min-Jung Lee, James R. Vasselli, Sampath Medepalli, Jane B. Trepel, Terrence R. Burke, Jr., and Donald P. Bottaro6012

Increased Susceptibility to Colitis-Associated Cancer of Mice Lacking *TIR8*, an Inhibitory Member of the Interleukin-1 Receptor Family. Cecilia Garlanda, Federica Riva, Tania Veliz, Nadia Polentarutti, Fabio Pasqualini, Enrico Radaelli, Marina Sironi, Manuela Nebuloni, Elisabetta Omodeo Zorini, Eugenio Scanziani, and Alberto Mantovani6017

Androgen Withdrawal in Patients Reduces Prostate Cancer Hypoxia: Implications for Disease Progression and Radiation Response. Michael Milosevic, Peter Chung, Chris Parker, Robert Bristow, Ants Toi, Tony Panzarella, Padraig Warde, Charles Catton, Cynthia Menard, Andrew Bayley, Mary Gospodarowicz, and Richard Hill6022

RING Domain–Mediated Interaction Is a Requirement for MDM2's E3 Ligase Activity. Hidehiko Kawai, Vanessa Lopez-Pajares, Mihee M. Kim, Dmitri Wiederschain, and Zhi-Min Yuan6026

Molecular Biology, Pathobiology, and Genetics

Patterns of Known and Novel Small RNAs in Human Cervical Cancer. Weng-Onn Lui, Nader Pourmand, Bruce K. Patterson, and Andrew Fire6031

High-Mobility Group A1 Proteins Inhibit Expression of Nucleotide Excision Repair Factor Xeroderma Pigmentosum Group A. Jennifer E. Adair, Scott C. Maloney, Gregory A. Dement, Kelsey J. Wertzler, Michael J. Smerdon, and Raymond Reeves6044

Protein Kinase C ϵ Is Overexpressed in Primary Human Non–Small Cell Lung Cancers and Functionally Required for Proliferation of Non–Small Cell Lung Cancer Cells in a p21/Cip1-Dependent Manner. Kyung-Mi Bae, Heiman Wang, Guohua Jiang, Melissa G. Chen, Li Lu, and Lei Xiao6053

Altered Expression of the Early Mitotic Checkpoint Protein, CHFR, in Breast Cancers: Implications for Tumor Suppression. Lisa M. Privette, Maria E. González, Lei Ding, Celina G. Kleer, and Elizabeth M. Petty6064

The RON Receptor Tyrosine Kinase Mediates Oncogenic Phenotypes in Pancreatic Cancer Cells and Is Increasingly Expressed during Pancreatic Cancer Progression. Ryan M. Thomas, Kenya Toney, Cecilia Fenoglio-Preiser, Monica P. Revelo-Penafiel, Sunil R. Hingorani, David A. Tuveson, Susan E. Waltz, and Andrew M. Lowy6075

Murine Cell Lines Derived from *Pten* Null Prostate Cancer Show the Critical Role of PTEN in Hormone Refractory Prostate Cancer Development. Jing Jiao, Shunyou Wang, Rong Qiao, Igor Vivanco, Philip A. Watson, Charles L. Sawyers, and Hong Wu6083

Cyclin G1 Is a Target of miR-122a, a MicroRNA Frequently Down-regulated in Human Hepatocellular Carcinoma. Laura Gramantieri, Manuela Ferracin, Francesca Fornari, Angelo Veronese, Silvia Sabbioni, Chang-Gong Liu, George A. Calin, Catia Giovannini, Eros Ferrazzi, Gian Luca Grazi, Carlo M. Croce, Luigi Bolondi, and Massimo Negrini6092

Phosphorylation of ATR-Interacting Protein on Ser²³⁹ Mediates an Interaction with Breast-Ovarian Cancer Susceptibility 1 and Checkpoint Function. Monica Venere, Andrew Snyder, Omar Zgheib, and Thanos D. Halazonetis6100

Human Papillomavirus 16 E5 Oncogene Contributes to Two Stages of Skin Carcinogenesis. John P. Maufort, Sybil M. Genther Williams, Henry C. Pitot, and Paul F. Lambert6106

A 3' Enhancer Controls Snail Expression in Melanoma Cells. Matthew B. Palmer, Parimal Majumder, Myesha R. Green, Paul A. Wade, and Jeremy M. Boss6113

EGFR Activation Results in Enhanced Cyclooxygenase-2 Expression through p38 Mitogen-Activated Protein Kinase-Dependent Activation of the Sp1/Sp3 Transcription Factors in Human Gliomas. Kaiming Xu and Hui-Kuo G. Shu6121

MicroRNA Expression Profiling in Prostate Cancer. Kati P. Porkka, Minja J. Pfeiffer, Kati K. Waltering, Robert L. Vessella, Teuvo L.J. Tammela, and Tapio Visakorpi6130

Alterations of the HBPI Transcriptional Repressor Are Associated with Invasive Breast Cancer. K. Eric Paulson, Kimberly Rieger-Christ, Michael A. McDevitt, Charlotte Kuperwasser, Jiyoun Kim, Vincent E. Unanue, Xiaowei Zhang, Maowen Hu, Robin Ruthazer, Stephen P. Berasi, Chun-Yin Huang, Dilip Giri, Seth Kaufman, John M. Dugan, Joanne Blum, Georges Netto, David E. Wazer, Ian C. Summerhayes, and Amy S. Yee6136

Incorporation of an Internal Ribosome Entry Site–Dependent Mechanism in Arsenic-Induced GADD45 α Expression. Qingshan Chang, Deepak Bhatia, Yadong Zhang, Terry Meighan, Vince Castranova, Xianglin Shi, and Fei Chen6146

Cell, Tumor, and Stem Cell Biology

O-Glycosylation Regulates LNCaP Prostate Cancer Cell Susceptibility to Apoptosis Induced by Galectin-1. Hector F. Valenzuela, Karen E. Pace, Paula V. Cabrera, Rachel White, Katja Porvari, Helena Kaija, Pirkko Vihko, and Linda G. Baum6155

Contents (Continued)

Endothelin Receptor Type B Counteracts Tenascin-C–Induced Endothelin Receptor Type A–Dependent Focal Adhesion and Actin Stress Fiber Disorganization. Katrin Lange, Martial Kammerer, Monika E. Hegi, Stefan Grotegut, Antje Dittmann, Wentao Huang, Erika Fluri, George W. Yip, Martin Götte, Christian Ruiz, and Gertraud Orend.....	6163
Breast Cancer Antiestrogen Resistance-3 Expression Regulates Breast Cancer Cell Migration through Promotion of p130^{Cas} Membrane Localization and Membrane Ruffling. Randy S. Schrecengost, Rebecca B. Riggins, Keena S. Thomas, Michael S. Guerrero, and Amy H. Bouton.....	6174
Podocalyxin Increases the Aggressive Phenotype of Breast and Prostate Cancer Cells <i>In vitro</i> through Its Interaction with Ezrin. Steven Sizemore, Muzaffer Cicek, Nywana Sizemore, Kwok Peng Ng, and Graham Casey.....	6183
Retinoblastoma Tumor Suppressor Status Is a Critical Determinant of Therapeutic Response in Prostate Cancer Cells. Ankur Sharma, Clay E.S. Comstock, Erik S. Knudsen, Khanh H. Cao, Janet K. Hess-Wilson, Lisa M. Morey, Jason Barrera, and Karen E. Knudsen.....	6192
FRA-1 Proto-Oncogene Induces Lung Epithelial Cell Invasion and Anchorage-Independent Growth <i>In vitro</i>, but Is Insufficient to Promote Tumor Growth <i>In vivo</i>. Pavan Adiseshaiah, Daniel J. Lindner, Dhananjaya V. Kalvakolanu, and Sekhar P. Reddy.....	6204
Tumor-Suppressive Activity of the Cell Death Activator GRIM-19 on a Constitutively Active Signal Transducer and Activator of Transcription 3. Sudhakar Kalakonda, Shreeram C. Nallar, Daniel J. Lindner, Jiadi Hu, Sekhar P. Reddy, and Dhananjaya V. Kalvakolanu.....	6212
Critical Role for TrkB Kinase Function in Anoikis Suppression, Tumorigenesis, and Metastasis. Thomas R. Geiger and Daniel S. Peeper.....	6221
Born to Be Exported: COOH-Terminal Nuclear Export Signals of Different Strength Ensure Cytoplasmic Accumulation of Nucleophosmin Leukemic Mutants. Niccolò Bolli, Ildo Nicoletti, M. Felicetta De Marco, Barbara Bigerna, Alessandra Pucciarini, Roberta Mannucci, Maria Paola Martelli, Arcangelo Liso, Cristina Mecucci, Francesco Fabbiano, Massimo F. Martelli, Beric R. Henderson, and Brunangelo Falini.....	6230
Cholesterol Sensitivity of Endogenous and Myristoylated Akt. Rosalyn M. Adam, Nishit K. Mukhopadhyay, Jayoung Kim, Dolores Di Vizio, Bekir Cinar, Kelly Boucher, Keith R. Solomon, and Michael R. Freeman.....	6238
Quantitative Assessment of the p53-Mdm2 Feedback Loop Using Protein Lysate Microarrays. Sundhar Ramalingam, Peter Honkanen, Lynn Young, Tsutomu Shimura, John Austin, Patricia S. Steeg, and Satoshi Nishizuka.....	6247
A Novel Epidermal Growth Factor Receptor Inhibitor Promotes Apoptosis in Non-Small Cell Lung Cancer Cells Resistant to Erlotinib. Thibault de La Motte Rouge, Lorenzo Galluzzi, Ken A. Olaussen, Yael Zermati, Ezgi Tasdemir, Thomas Robert, Hugues Ripoche, Vladimir Lazar, Philippe Dessen, Francis Harper, Gerard Pierron, Guillaume Pinna, Natalia Araujo, Annick Harel-Belan, Jean-Pierre Armand, Tai Wai Wong, Jean Charles Soria, and Guido Kroemer.....	6253
Regulation of Mammalian Target of Rapamycin Activity in PTEN-Inactive Prostate Cancer Cells by IκB Kinase α. Han C. Dan, Mazhar Adli, and Albert S. Baldwin.....	6263
The Unhydrolyzable Fenretinide Analogue 4-Hydroxybenzylretinone Induces the Proapoptotic Genes <i>GADD153 (CHOP)</i> and <i>Bcl-2–Binding Component 3 (PUMA)</i> and Apoptosis that Is Caspase-Dependent and Independent of the Retinoic Acid Receptor. Allyson L. Anding, Jason S. Chapman, Derek W. Barnett, Robert W. Curley, Jr., and Margaret Clagett-Dame.....	6270
Repression of <i>BCL2</i> by the Tumor Suppressor Activity of the Lysyl Oxidase Propeptide Inhibits Transformed Phenotype of Lung and Pancreatic Cancer Cells. Min Wu, Chengyin Min, Xiaobo Wang, Ziyang Yu, Kathrin H. Kirsch, Philip C. Trackman, and Gail E. Sonenshein.....	6278

Experimental Therapeutics, Molecular Targets, and Chemical Biology

BRCA1 Activates a G₂-M Cell Cycle Checkpoint following 6-Thioguanine–Induced DNA Mismatch Damage. Kazuhiko Yamane, Jane E. Schupp, and Timothy J. Kinsella.....	6286
Tumor Suppressor 101F6 and Ascorbate Synergistically and Selectively Inhibit Non-Small Cell Lung Cancer Growth by Caspase-Independent Apoptosis and Autophagy. Shoichiro Ohtani, Arifumi Iwamaru, Wuguo Deng, Kentaro Ueda, Guanglin Wu, Gitanjali Jayachandran, Seiji Kondo, Edward N. Atkinson, John D. Minna, Jack A. Roth, and Lin Ji.....	6293
Adipose Tissue–Derived Human Mesenchymal Stem Cells Mediated Prodrug Cancer Gene Therapy. Lucia Kucerova, Veronika Altanerova, Miroslava Matuskova, Silvia Tyciakova, and Cestmir Altaner.....	6304
Sodium Selenite Induces Superoxide-Mediated Mitochondrial Damage and Subsequent Autophagic Cell Death in Malignant Glioma Cells. Eun Hee Kim, Seonghyang Sohn, Hyuk Jae Kwon, Seung U. Kim, Min-Jung Kim, Su-Jae Lee, and Kyeong Sook Choi.....	6314
AKT1 Amplification Regulates Cisplatin Resistance in Human Lung Cancer Cells through the Mammalian Target of Rapamycin/p70S6K1 Pathway. Ling-Zhi Liu, Xiang-Dong Zhou, Guisheng Qian, Xianglin Shi, Jing Fang, and Bing-Hua Jiang.....	6325
Inhibition of Heat Shock Protein 27–Mediated Resistance to DNA Damaging Agents by a Novel PKCδ-V5 Heptapeptide. Eun-Ho Kim, Hae-June Lee, Dae-Hoon Lee, Sangwoo Bae, Jae-Won Soh, Dooil Jeoung, Joon Kim, Chul-Koo Cho, Yoon-Jin Lee, and Yun-Sil Lee.....	6333
Identification of Griseofulvin as an Inhibitor of Centrosomal Clustering in a Phenotype-Based Screen. Blanka Rebacz, Thomas O. Larsen, Mads H. Clausen, Mads H. Rønneest, Harald Löffler, Anthony D. Ho, and Alwin Krämer.....	6342
Combined Targeting of Endothelin A Receptor and Epidermal Growth Factor Receptor in Ovarian Cancer Shows Enhanced Antitumor Activity. Laura Rosanò, Valeriana Di Castro, Francesca Spinella, Giampaolo Tortora, Maria Rita Nicotra, Pier Giorgio Natali, and Anna Bagnato.....	6351
Histone Deacetylase Inhibitors Induce Premature Sister Chromatid Separation and Override the Mitotic Spindle Assembly Checkpoint. Laura Magnaghi-Jaulin, Grégory Eot-Houllier, Géraldine Fulcrand, and Christian Jaulin.....	6360
Amphipathic Peptide-Based Fusion Peptides and Immunoconjugates for the Targeted Ablation of Prostate Cancer Cells. Kaushal Rege, Suraj J. Patel, Zaki Megeed, and Martin L. Yarmush.....	6368
Folate Receptor–Specific Antitumor Activity of EC131, a Folate-Maytansinoid Conjugate. Joseph A. Reddy, Elaine Westrick, Hari K.R. Santhapuram, Stephen J. Howard, Michael L. Miller, Marilyn Vetzal, Iontcho Vlahov, Ravi V.J. Chari, Victor S. Goldmacher, and Christopher P. Leamon.....	6376
Antitumor Activity of PR-171, a Novel Irreversible Inhibitor of the Proteasome. Susan D. Demo, Christopher J. Kirk, Monette A. Aujay, Tonia J. Buchholz, Maya Dajee, Mark N. Ho, Jing Jiang, Guy J. Laidig, Evan R. Lewis, Francesco Parlati, Kevin D. Shenk, Mark S. Smyth, Congcong M. Sun, Marcy K. Vallone, Tina M. Woo, Christopher J. Molineaux, and Mark K. Bennett.....	6383

Contents (*Continued*)

Superoxide Signaling Mediates *N*-acetyl-L-cysteine-Induced G₁ Arrest: Regulatory Role of Cyclin D1 and Manganese Superoxide Dismutase. Sarita G. Menon, Ehab H. Sarsour, Amanda L. Kalen, Sujatha Venkataraman, Michael J. Hitchler, Frederick E. Domann, Larry W. Oberley, and Prabhat C. Goswami6392

Delivery of 5-Aza-2'-Deoxycytidine to Cells Using Oligodeoxynucleotides. Christine B. Yoo, Shinwu Jeong, Gerda Egger, Gangning Liang, Pasit Phiasivongsa, Chunlin Tang, Sanjeev Redkar, and Peter A. Jones6400

The Role of Protein Binding in Induction of Apoptosis by Phenethyl Isothiocyanate and Sulforaphane in Human Non-Small Lung Cancer Cells. Lixin Mi, Xiantao Wang, Sudha Govind, Brian L. Hood, Timothy D. Veenstra, Thomas P. Conrads, Daniel T. Saha, Radoslav Goldman, and Fung-Lung Chung6409

Effects of Chromatin-Modifying Agents on CD34⁺ Cells from Patients with Idiopathic Myelofibrosis. Jun Shi, Yan Zhao, Takefumi Ishii, Wenyang Hu, Selcuk Sozer, Wei Zhang, Edward Bruno, Valerie Lindgren, Mingjiang Xu, and Ronald Hoffman6417

Immunology

Requirement for IFN- γ , CD8⁺ T Lymphocytes, and NKT Cells in Talactoferrin-Induced Inhibition of neu⁺ Tumors. Michela Spadaro, Claudia Curcio, Atul Varadhachary, Federica Cavallo, Jose Engelmayer, Paul Blezinger, Federica Pericle, and Guido Forni6425

Human Neuroblastoma Cells Trigger an Immunosuppressive Program in Monocytes by Stimulating Soluble HLA-G Release. Fabio Morandi, Isabella Levreri, Paola Bocca, Barbara Galleni, Lizzia Raffaghello, Soldano Ferrone, Ignazia Prigione, and Vito Pistoia6433

Spontaneous Mammary Tumors Differ Widely in Their Inherent Sensitivity to Adoptively Transferred T Cells. Erika M. Wall, Katy Milne, Michele L. Martin, Peter H. Watson, Patty Theiss, and Brad H. Nelson6442

Preferential Expression of Very Late Antigen-4 on Type 1 CTL Cells Plays a Critical Role in Trafficking into Central Nervous System Tumors. Kotaro Sasaki, Xinmei Zhu, Cecilia Vasquez, Fumihiko Nishimura, Jill E. Dusak, Jian Huang, Mitsugu Fujita, Amy Wesa, Douglas M. Potter, Paul R. Walker, Walter J. Storkus, and Hideho Okada6451

Elevated Frequencies of Self-reactive CD8⁺ T Cells following Immunization with a Xenoantigen Are Due to the Presence of a Heteroclitic CD4⁺ T-Cell Helper Epitope. Korosh Kianizad, Laura A. Marshall, Natalie Grinshtein, Dannie Bernard, Renate Margl, Sheng Cheng, Friedrich Beermann, Yonghong Wan, and Jonathan Bramson6459

Induction of Postsurgical Tumor Immunity and T-Cell Memory by a Poorly Immunogenic Tumor. Peisheng Zhang, Anik L. Côté, Victor C. de Vries, Edward J. Usherwood, and Mary Jo Turk6468

Endocrinology

Positive Cross-Regulatory Loop Ties GATA-3 to Estrogen Receptor α Expression in Breast Cancer. Jérôme Eeckhoutte, Erika Krasnickas Keeton, Mathieu Lupien, Susan A. Krum, Jason S. Carroll, and Myles Brown6477

Epidemiology and Prevention

Effects of Phenylethyl Isothiocyanate on Early Molecular Events in *N*-Nitrosomethylbenzylamine-Induced Cytotoxicity in Rat Esophagus. Rashmeet K. Reen, Alan A. Dombkowski, Laura A. Kresty, Daniela Cukovic, Jennifer M. Mele, Sridevi Salagrama, Ronald Nines, and Gary D. Stoner6484

The Inhibitory Effect of (-)-Epigallocatechin Gallate on Activation of the Epidermal Growth Factor Receptor Is Associated with Altered Lipid Order in HT29 Colon Cancer Cells. Seiji Adachi, Tomokazu Nagao, Helgi I. Ingolfsson, Frederick R. Maxfield, Olaf S. Andersen, Levy Kopelovich, and I. Bernard Weinstein6493

Indole-3-carbinol Inhibits 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone Plus Benzo(*a*)pyrene-Induced Lung Tumorigenesis in A/J Mice and Modulates Carcinogen-Induced Alterations in Protein Levels. Fekadu Kassie, Lorraine B. Anderson, Robyn Scherber, Nanxiang Yu, David Lahti, Pramod Upadhyaya, and Stephen S. Hecht6502

Are Peroxisome Proliferator-Activated Receptors Involved in Skeletal Muscle Wasting during Experimental Cancer Cachexia? Role of β ₂-Adrenergic Agonists. Gemma Fuster, Silvia Busquets, Elisabet Ametller, Mireia Olivan, Vanessa Almendro, Cibely Cristine Fontes de Oliveira, Maite Figueras, Francisco J. López-Soriano, and Josep M. Argilés6512

Systematic Evaluation of Genetic Variants in the Inflammation Pathway and Risk of Lung Cancer. Eric A. Engels, Xifeng Wu, Jian Gu, Qiong Dong, Jun Liu, and Margaret R. Spitz6520

Corrections

Correction: ATP7A and Drug Resistance and Clinical Drug Resistance6528

Correction: Rapamycin Is an Endothelial Akt Inhibitor6528

Correction: Anti-VEGFR-3 Therapy and Lymph Node Metastasis6528

Editor's Note

Editor's Note6529

Cancer Research

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

67 (13)

Cancer Res 2007;67:5999-6529.

Updated version Access the most recent version of this article at:
<http://cancerres.aacrjournals.org/content/67/13>

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/67/13>.
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.