

# Cancer Research

A Journal of the American Association for Cancer Research

Volume 67 • Number 1

January 1, 2007 • Pages 1–428

## Reviews

**Regulation of mTOR by Phosphatidic Acid?** David A. Foster .....1

**Perspectives of  $\gamma\delta$  T Cells in Tumor Immunology.** Dieter Kabelitz, Daniela Wesch, and Wei He .....5

## Priority Reports

**Extracellular Matrix Metalloproteinase Inducer Up-regulates the Urokinase-Type Plasminogen Activator System Promoting Tumor Cell Invasion.** Cathy Quemener, Eric E. Gabison, Benyoussef Naïmi, Géraldine Lescaille, Faten Bougateg, Marie Pierre Podgorniak, Géraldine Labarchède, Celeste Lebbé, Fabien Calvo, Suzanne Menashi, and Samia Mourah.....9

**Ribonucleotide Reductase Small Subunit p53R2 Facilitates p21 Induction of G<sub>1</sub> Arrest under UV Irradiation.** Lijun Xue, Bingsen Zhou, Xiyong Liu, Yvonne Heung, Jennifer Chau, Emilie Chu, Shan Li, Chunglin Jiang, Frank Un, and Yun Yen.....16

**Tumor-Targeted Enzyme/Prodrug Therapy Mediates Long-term Disease-Free Survival of Mice Bearing Disseminated Neuroblastoma.** Mary K. Danks, K. Jin Yoon, Rebecca A. Bush, Joanna S. Remack, Monika Wierdl, Lyudmila Tsurkan, Seung U. Kim, Elizabeth Garcia, Marianne Z. Metz, Joseph Najbauer, Philip M. Potter, and Karen S. Aboody.....22

**Human Monocytes, but not Dendritic Cells Derived from Them, Are Defective in Base Excision Repair and Hypersensitive to Methylating Agents.** Manuela Briegert and Bernd Kaina.....26

## Molecular Biology, Pathobiology, and Genetics

**Credentialing Preclinical Pediatric Xenograft Models Using Gene Expression and Tissue Microarray Analysis.** Craig C. Whiteford, Sven Bilke, Braden T. Greer, Qingrong Chen, Till A. Braunschweig, Nicola Cenacchi, Jun S. Wei, Malcolm A. Smith, Peter Houghton, Christopher Morton, C. Patrick Reynolds, Richard Lock, Richard Gorlick, Chand Khanna, Carol J. Thiele, Mikiko Takikita, Daniel Catchpole, Stephen M. Hewitt, and Javed Khan .....32

**Gene Expression Profiling Reveals a Massive, Aneuploidy-Dependent Transcriptional Deregulation and Distinct Differences between Lymph Node–Negative and Lymph Node–Positive Colon Carcinomas.** Marian Grade, Patrick Hörmann, Sandra Becker, Amanda B. Hummon, Danny Wangsa, Sudhir Varma, Richard Simon, Torsten Liersch, Heinz Becker, Michael J. Difilippantonio, B. Michael Ghadimi, and Thomas Ried .....41

**Role for Amplification and Expression of *Glypican-5* in Rhabdomyosarcoma.** Daniel Williamson, Joanna Selfe, Tony Gordon, Yong-Jie Lu, Kathy Pritchard-Jones, Kasumi Murai, Phil Jones, Paul Workman, and Janet Shipley .....57

**Daxx Cooperates with the Axin/HIPK2/p53 Complex to Induce Cell Death.** Qinxu Li, Xuan Wang, Xiaoling Wu, Yanning Rui, Wei Liu, Jifeng Wang, Xinghao Wang, Yih-Cherng Liou, Zhiyun Ye, and Sheng-Cai Lin .....66

**Transcriptional Cooperation between the Transforming Growth Factor- $\beta$  and Wnt Pathways in Mammary and Intestinal Tumorigenesis.** Etienne Labbé, Lisa Lock, Ainhoa Letamendia, Agnieszka E. Gorska, Robert Gryfe, Steven Gallinger, Harold L. Moses, and Liliana Attisano.....75

**Induction of Human Arylamine *N*-Acetyltransferase Type I by Androgens in Human Prostate Cancer Cells.** Neville J. Butcher, Natasha L. Tetlow, Catherine Cheung, Gysell M. Broadhurst, and Rodney F. Minchin .....85

**Identification of a Novel Tumor Suppressor Gene *p34* on Human Chromosome 6q25.1.** Min Wang, Haris G. Vikis, Yan Wang, Dongmei Jia, Daolong Wang, Laura J. Bierut, Joan E. Bailey-Wilson, Christopher I. Amos, Susan M. Pinney, Gloria M. Petersen, Mariza de Andrade, Ping Yang, Jonathan S. Wiest, Pamela R. Fain, Ann G. Schwartz, Adi Gazdar, John Minna, Colette Gaba, Henry Rothschild, Diptarsi Mandal, Elena Kupert, Daniela Seminara, Yan Liu, Avinash Viswanathan, Ramaswamy Govindan, Marshall W. Anderson, and Ming You .....93

**Bin1 Ablation in Mammary Gland Delays Tissue Remodeling and Drives Cancer Progression.** Mee Young Chang, Janette Boulden, Erika Sutanto-Ward, James B. Duhadaway, Alejandro Peralta Soler, Alexander J. Muller, and George C. Prendergast .....100

**Dominant-Negative Fas Mutation Is Reversed by Down-expression of c-FLIP.** Marie Bénétteau, Sophie Daburon, Jean-François Moreau, Jean-Luc Taupin, and Patrick Legembre .....108

**DNA Replication Licensing Factor Minichromosome Maintenance Deficient 5 Rescues p53-Mediated Growth Arrest.** Mukesh K. Agarwal, A.R.M. R. Amin, and Munna L. Agarwal.....116

## Cell, Tumor, and Stem Cell Biology

**Tumor Necrosis Factor- $\alpha$  Blocks Apoptosis in Melanoma Cells when BRAF Signaling Is Inhibited.** Vanessa C. Gray-Schopfer, Maria Karasarides, Robert Hayward, and Richard Marais.....122

**Aberrant Splicing of Cyclin-Dependent Kinase–Associated Protein Phosphatase KAP Increases Proliferation and Migration in Glioblastoma.** Yi Yu, Xiuli Jiang, Brad S. Schoch, Rona S. Carroll, Peter M. Black, and Mark D. Johnson .....130

## Contents (*Continued*)

<b>Gene Expression Profile of Metastatic Human Pancreatic Cancer Cells Depends on the Organ Microenvironment.</b> Toru Nakamura, Isaiah J. Fidler, and Kevin R. Coombes .....	139
<b>A Glycolytic Mechanism Regulating an Angiogenic Switch in Prostate Cancer.</b> Jianhua Wang, Jincheng Wang, Jinlu Dai, Younghun Jung, Chuen-Long Wei, Yu Wang, Aaron M. Havens, Phillip J. Hogg, Evan T. Keller, Kenneth J. Pienta, Jacques E. Nor, Cun-Yu Wang, and Russell S. Taichman .....	149
<b>Heterozygous Deletion of Mitotic Arrest–Deficient Protein 1 (MAD1) Increases the Incidence of Tumors in Mice.</b> Yoichi Iwanaga, Ya-Hui Chi, Akiko Miyazato, Sergey Sheleg, Kerstin Haller, Jean-Marie Peloponese, Jr., Yan Li, Jerrold M. Ward, Robert Benezra, and Kuan-Teh Jeang .....	160
<b>Akt1 Ablation Inhibits, whereas Akt2 Ablation Accelerates, the Development of Mammary Adenocarcinomas in Mouse Mammary Tumor Virus (MMTV)-ErbB2/Neu and MMTV-Polyoma Middle T Transgenic Mice.</b> Ioanna G. Maroulakou, William Oemler, Stephen P. Naber, and Philip N. Tsichlis .....	167
<b>c-Jun NH<sub>2</sub>-Terminal Kinase 2 Is Required for Ras Transformation Independently of Activator Protein 1.</b> Christina Nielsen, Jacob Thastrup, Trine Bottzauw, Marja Jäättelä, and Tuula Kallunki .....	178
<b>Amplification of Tumor Hypoxic Responses by Macrophage Migration Inhibitory Factor–Dependent Hypoxia-Inducible Factor Stabilization.</b> Millicent Winner, Albert C. Koong, Beatriz E. Rendon, Wayne Zundel, and Robert A. Mitchell .....	186
<b>hTERT Is Expressed in Cancer Cell Lines Despite Promoter DNA Methylation by Preservation of Unmethylated DNA and Active Chromatin around the Transcription Start Site.</b> Rebekah L. Zinn, Kevin Pruitt, Sayaka Eguchi, Stephen B. Baylin, and James G. Herman .....	194
<b>Experimental Therapeutics, Molecular Targets, and Chemical Biology</b>	
<b>An Osteoprotegerin-like Peptidomimetic Inhibits Osteoclastic Bone Resorption and Osteolytic Bone Disease in Myeloma.</b> Deborah J. Heath, Karin Vanderkerken, Xin Cheng, Orla Gallagher, Matthew Prideaux, Ramachandran Murali, and Peter I. Croucher .....	202
<b>An Organometallic Protein Kinase Inhibitor Pharmacologically Activates p53 and Induces Apoptosis in Human Melanoma Cells.</b> Keiran S.M. Smalley, Rooha Contractor, Nikolas K. Haass, Angela N. Kulp, G. Ekin Atilla-Gokcumen, Douglas S. Williams, Howard Bregman, Keith T. Flaherty, Maria S. Soengas, Eric Meggers, and Meenhard Herlyn .....	209
<b>TRAIL Induces Receptor-Interacting Protein 1–Dependent and Caspase-Dependent Necrosis-Like Cell Death under Acidic Extracellular Conditions.</b> Olivier Meurette, Amélie Rebillard, Laurence Huc, Gwenaëlle Le Moigne, Delphine Merino, Olivier Micheau, Dominique Lagadic-Gossmann, and Marie-Thérèse Dimanche-Boitrel .....	218
<b>Inactivated Sendai Virus Particles Eradicate Tumors by Inducing Immune Responses through Blocking Regulatory T Cells.</b> Masayuki Kurooka and Yasufumi Kaneda .....	227
<b>Potentialiation of Kinesin Spindle Protein Inhibitor–Induced Cell Death by Modulation of Mitochondrial and Death Receptor Apoptotic Pathways.</b> Ulka Vijapurkar, Wei Wang, and Ronald Herbst .....	237
<b>Par-4–Dependent Apoptosis by the Dietary Compound Withaferin A in Prostate Cancer Cells.</b> Sowmyalakshmi Srinivasan, Rama S. Ranga, Ravshan Burikhanov, Seong-Su Han, and Damodaran Chendil .....	246
<b>Imaging Tumors with an Albumin-Binding Fab, a Novel Tumor-Targeting Agent.</b> Mark S. Dennis, Hongkui Jin, Debra Dugger, Renhui Yang, Leanne McFarland, Annie Ogasawara, Simon Williams, Mary J. Cole, Sarajane Ross, and Ralph Schwall .....	254
<b>Multidrug Resistance Protein 4 Protects Bone Marrow, Thymus, Spleen, and Intestine from Nucleotide Analogue–Induced Damage.</b> Martin G. Belinsky, Ping Guo, Kun Lee, Feng Zhou, Elena Kotova, Alex Grinberg, Heiner Westphal, Irina Shchaveleva, Andres Klein-Szanto, James M. Gallo, and Gary D. Kruh .....	262
<b>Anti-HER2 Cationic Immunoemulsion as a Potential Targeted Drug Delivery System for the Treatment of Prostate Cancer.</b> Danny Goldstein, Ofer Gofrit, Abraham Nyska, and Simon Benita .....	269
<b>Transgenic Overexpression of RasGRP1 in Mouse Epidermis Results in Spontaneous Tumors of the Skin.</b> Carolyn E. Oki-Idouchi and Patricia S. Lorenzo .....	276
<b>Metronomic Chemotherapy Enhances the Efficacy of Antivasular Therapy in Ovarian Cancer.</b> Aparna A. Kamat, Tae Jin Kim, Charles N. Landen, Jr., Chunhua Lu, Liz Y. Han, Yvonne G. Lin, William M. Merritt, Premal H. Thaker, David M. Gershenson, Farideh Z. Bischoff, John V. Heymach, Robert B. Jaffe, Robert L. Coleman, and Anil K. Sood .....	281
<b>Nitric Oxide in Physiologic Concentrations Targets the Translational Machinery to Increase the Proliferation of Human Breast Cancer Cells: Involvement of Mammalian Target of Rapamycin/eIF4E Pathway.</b> Shehla Pervin, Rajan Singh, Esteves Hernandez, Guoyao Wu, and Gautam Chaudhuri .....	289
<b>Delivery of CCL21 to Metastatic Disease Improves the Efficacy of Adoptive T-Cell Therapy.</b> Uma Thanarajasingam, Laura Sanz, Rosa Diaz, Jian Qiao, Luis Sanchez-Perez, Tim Kottke, Jill Thompson, John Chester, and Richard G. Vile .....	300
<b>Pegylated Recombinant Human Arginase (rhArg-peg<sub>5,000mw</sub>) Inhibits the <i>In vitro</i> and <i>In vivo</i> Proliferation of Human Hepatocellular Carcinoma through Arginine Depletion.</b> Paul Ning-Man Cheng, Tin-Lun Lam, Wai-Man Lam, Sam-Mui Tsui, Anthony Wai-Ming Cheng, Wai-Hung Lo, and Yun-Chung Leung .....	309
<b>Adamantyl-Substituted Retinoid-Related Molecules Bind Small Heterodimer Partner and Modulate the Sin3A Repressor.</b> Lulu Farhana, Marcia I. Dawson, Mark Leid, Li Wang, David D. Moore, Gang Liu, Zeben Xia, and Joseph A. Fontana .....	318
<b>[<sup>177</sup>Lu]Pertuzumab: Experimental Therapy of HER-2–Expressing Xenografts.</b> Mikael Persson, Lars Gedda, Hans Lundqvist, Vladimir Tolmachev, Hans Nordgren, Per-Uno Malmström, and Jörgen Carlsson .....	326
<b>ADAM10 Inhibition of Human CD30 Shedding Increases Specificity of Targeted Immunotherapy <i>In vitro</i>.</b> Dennis A. Eichenauer, Vijaya Lakshmi Simhadri, Elke Pogge von Strandmann, Andreas Ludwig, Vance Matthews, Katrin S. Reiners, Bastian von Tresckow, Paul Saftig, Stefan Rose-John, Andreas Engert, and Hinrich P. Hansen .....	332

## Contents (*Continued*)

**Mechanisms of Mitotic Cell Death Induced by Chemotherapy-Mediated G<sub>2</sub> Checkpoint Abrogation.** Celia Vogel, Christian Hager, and Holger Bastians .....339

**Inhibition of Histone Deacetylation Does Not Block Resilencing of p16 after 5-Aza-2'-Deoxycytidine Treatment.** Gerda Egger, Ana M. Aparicio, Sonia G. Escobar, and Peter A. Jones .....346

### Immunology

**High Number of Intraepithelial CD8<sup>+</sup> Tumor-Infiltrating Lymphocytes Is Associated with the Absence of Lymph Node Metastases in Patients with Large Early-Stage Cervical Cancer.** Sytse J. Piersma, Ekaterina S. Jordanova, Mariëtte I.E. van Poelgeest, Kitty M.C. Kwappenberg, Jeanette M. van der Hulst, Jan W. Drijfhout, Cornelis J.M. Melief, Gemma G. Kenter, Gert Jan Fleuren, Rienk Offringa, and Sjoerd H. van der Burg .....354

**Tumor-Induced Oxidative Stress Perturbs Nuclear Factor- $\kappa$ B Activity-Augmenting Tumor Necrosis Factor- $\alpha$ -Mediated T-Cell Death: Protection by Curcumin.** Sankar Bhattacharyya, Debaprasad Mandal, Gouri Sankar Sen, Suman Pal, Shuvomoy Banerjee, Lakshmeshri Lahiry, James H. Finke, Charles S. Tannenbaum, Tanya Das, and Gaurisankar Sa .....362

**Vaccination against the Forkhead Family Transcription Factor Foxp3 Enhances Tumor Immunity.** Smita Nair, David Boczkowski, Martin Fassnacht, David Pisetsky, and Eli Gilboa .....371

### Endocrinology

**RET/Papillary Thyroid Carcinoma Oncogenic Signaling through the Rap1 Small GTPase.** Valentina De Falco, Maria Domenica Castellone, Gabriella De Vita, Anna Maria Cirafici, Jerome M. Hershman, Carmen Guerrero, Alfredo Fusco, Rosa Marina Melillo, and Massimo Santoro .....381

**Down-regulation of Type I Insulin-like Growth Factor Receptor Increases Sensitivity of Breast Cancer Cells to Insulin.** Hua Zhang, Alissa M. Pelzer, David T. Kiang, and Douglas Yee .....391

### Clinical Research

**Establishment of Human Colon Cancer Cell Lines from Fresh Tumors versus Xenografts: Comparison of Success Rate and Cell Line Features.** Virginie Dangles-Marie, Marc Pocard, Sophie Richon, Louis-Bastien Weiswald, Franck Assayag, Patrick Saulnier, Jean-Gabriel Judde, Jean-Louis Janneau, Nathalie Auger, Pierre Validire, Bernard Dutrillaux, Françoise Praz, Dominique Bellet, and Marie-France Poupon .....398

**Allelic Loss in a Minimal Region on Chromosome 16q24 Is Associated with Vitreous Seeding of Retinoblastoma.** Sandrine Gratiias, Harald Rieder, Reinhard Ullmann, Ludger Klein-Hitpass, Stephanie Schneider, Réka Bölöni, Martin Kappler, and Dietmar R. Lohmann .....408

### Epidemiology and Prevention

**Cancer Progression in the Transgenic Adenocarcinoma of Mouse Prostate Mouse Is Related to Energy Balance, Body Mass, and Body Composition, but not Food Intake.** Derek M. Huffman, Maria S. Johnson, Amanda Watts, Ada Elgavish, Isam A. Eltoum, and Tim R. Nagy .....417

### Letters to the Editor

**The Terminology Issue for Myeloid-Derived Suppressor Cells.....425**

**Re: The Terminology Issue for Myeloid-Derived Suppressor Cells.....426**

### Corrections

**Correction: Hypermethylation of ASC/TMSI in Lung Cancer .....427**

**Correction: Gadd45a in MMTV-Ras Mammary Tumorigenesis .....427**

**Correction: EMT in Esophageal Adenocarcinoma.....427**

# Cancer Research

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

## 67 (1)

*Cancer Res* 2007;67:1-427.

**Updated version** Access the most recent version of this article at:  
<http://cancerres.aacrjournals.org/content/67/1>

**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](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link <http://cancerres.aacrjournals.org/content/67/1>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.