

## In Memoriam

Judah Folkman, MD (1933–2008).....1283

## Editorial

**Gemcitabine Resistance in Pancreatic Cancer: Picking the Key Players**

□□ *Commentary on Liau and Whang, p. 1470*

Michael P. Kim and Gary E. Gallick .....1284

## CCR Drug Update

**Temsirolimus, an Inhibitor of Mammalian Target of Rapamycin.** Brian I. Rini.....1286

## Molecular Pathways

**Platinum Resistance: The Role of DNA Repair Pathways.** Lainie P. Martin, Thomas C. Hamilton, and Russell J. Schilder.....1291

## Report from the FDA

**U.S. Food and Drug Administration Approval: Panitumumab for Epidermal Growth Factor Receptor–Expressing Metastatic Colorectal Carcinoma with Progression Following Fluoropyrimidine-, Oxaliplatin-, and Irinotecan-Containing Chemotherapy Regimens.**

Ruthann M. Giusti, Kaushikkumar Shastri, Anne M. Pilaro, Chana Fuchs, Ruth Cordoba-Rodriguez, Kallappa Koti, Mark Rothmann, Angela Yuxin Men, Hong Zhao, Monica Hughes, Patricia Keegan, Karen D. Weiss, and Richard Pazdur.....1296

## Reviews

**Immunohistochemical Analysis of Phosphotyrosine Signal Transducer and Activator of Transcription 3 and Epidermal Growth Factor Receptor Autocrine Signaling Pathways in Head and Neck Cancers and Metastatic Lymph Nodes.** Raja R. Seethala, William E. Gooding, Phoebe N. Handler, Bobby Collins, Qing Zhang, Jill M. Siegfried, and Jennifer R. Grandis.....1303

**Therapeutic Nanoparticles for Drug Delivery in Cancer.** Kwangjae Cho, Xu Wang, Shuming Nie, Zhuo (Georgia) Chen, and Dong M. Shin .....1310

## Human Cancer Biology

**Transcription Factor Signal Transducer and Activator of Transcription 5 Promotes Growth of Human Prostate Cancer Cells *In vivo*.** Ayush Dagvadorj, Robert A. Kirken, Benjamin Leiby, James Karras, and Marja T. Nevalainen.....1317

**Targeted Intraoperative Radiotherapy Impairs the Stimulation of Breast Cancer Cell Proliferation and Invasion Caused by Surgical Wounding.** Barbara Belletti, Jayant S. Vaidya, Sara D'Andrea, Frank Entschladen, Mario Roncadin, Francesca Lovat, Stefania Berton, Tiziana Perin, Ezio Candiani, Sonia Reccanello, Andrea Veronesi, Vincenzo Canzonieri, Mauro G. Trovò, Kurt S. Zaenker, Alfonso Colombatti, Gustavo Baldassarre, and Samuele Massarut.....1325

**Enhanced Expression of RAD51 Associating Protein-1 Is Involved in the Growth of Intrahepatic Cholangiocarcinoma Cells.** Kazutaka Obama, Seiji Satoh, Ryuji Hamamoto, Yoshiharu Sakai, Yusuke Nakamura, and Yoichi Furukawa .....1333

## Imaging, Diagnosis, Prognosis

**hsa-miR-210 Is Induced by Hypoxia and Is an Independent Prognostic Factor in Breast Cancer.** Carme Camps, Francesca M. Buffa, Stefano Colella, John Moore, Christos Sotiriou, Helen Sheldon, Adrian L. Harris, Jonathan M. Gleadle, and Jiannis Ragoussis.....1340

<b>Evaluation of Colon Cancer–Specific Antigen 2 as a Potential Serum Marker for Colorectal Cancer.</b> Eddy S. Leman, Robert E. Schoen, Ahmed Magheli, Lori J. Sokoll, Daniel W. Chan, and Robert H. Getzenberg.....	<b>1349</b>
<b>A Multiparametric Serum Kallikrein Panel for Diagnosis of Non–Small Cell Lung Carcinoma.</b> Chris Planque, Lin Li, Yingye Zheng, Antoninus Soosaipillai, Karen Reckamp, David Chia, Eleftherios P. Diamandis, and Lee Goodglick.....	<b>1355</b>
<b>Quantitative Monitoring of Adenocarcinoma Development in Rodents by Magnetic Resonance Imaging.</b> Joel R. Garbow, Min Wang, Yian Wang, Ronald A. Lubet, and Ming You .....	<b>1363</b>
<b>Basal-Like Breast Cancer Defined by Five Biomarkers Has Superior Prognostic Value than Triple-Negative Phenotype.</b> Maggie C.U. Cheang, David Voduc, Chris Bajdik, Samuel Leung, Steven McKinney, Stephen K. Chia, Charles M. Perou, and Torsten O. Nielsen .....	<b>1368</b>
<b>Vascular Imaging of Solid Tumors in Rats with a Radioactive Arsenic-Labeled Antibody that Binds Exposed Phosphatidylserine.</b> Marc Jennewein, Matthew A. Lewis, Dawen Zhao, Edward Tsyganov, Nikolai Slavine, Jin He, Linda Watkins, Vikram D. Kodibagkar, Sean O’Kelly, Padmakar Kulkarni, Peter P. Antich, Alex Hermanne, Frank Rösch, Ralph P. Mason, and Philip E. Thorpe.....	<b>1377</b>
<b>Dietary Intake of Lactose as a Strong Predictor for Secretor Status of Nipple Aspirate Fluid in Healthy Premenopausal Nonlactating Women.</b> Yafei Huang, Karl E. Anderson, Manubai Nagamani, James J. Grady, and Lee-Jane W. Lu.....	<b>1386</b>
<b>Germ Cell Origin of Testicular Carcinoid Tumors.</b> Phillip H. Abbosh, Shaobo Zhang, Gregory T. MacLennan, Rodolfo Montironi, Antonio Lopez-Beltran, Joseph P. Rank, Lee Ann Baldrige, and Liang Cheng .....	<b>1393</b>
<b>WDR19 Expression is Increased in Prostate Cancer Compared with Normal Cells, but Low-Intensity Expression in Cancers is Associated with Shorter Time to Biochemical Failures and Local Recurrence.</b> Biaoyang Lin, Angelita G. Utleg, Karsten Gravdal, James T. White, Ole J. Halvorsen, Wei Lu, Lawrence D. True, Robert Vessella, Paul H. Lange, Peter S. Nelson, Leroy Hood, Karl-Henning Kalland, and Lars A. Akslen.....	<b>1397</b>
<b>Cell Adhesion Molecules, Vascular Endothelial Growth Factor, and Basic Fibroblast Growth Factor in Patients with Non–Small Cell Lung Cancer Treated with Chemotherapy with or without Bevacizumab—an Eastern Cooperative Oncology Group Study.</b> Afshin Dowlati, Robert Gray, Alan B. Sandler, Joan H. Schiller, and David H. Johnson .....	<b>1407</b>
<b>Tumor-Infiltrating Lymphocytes and Perforation in Colon Cancer Predict Positive Response to 5-Fluorouracil Chemotherapy.</b> Melinda Morris, Cameron Platell, and Barry Iacopetta .....	<b>1413</b>
<b>Use of Preoperative Plasma Endoglin for Prediction of Lymph Node Metastasis in Patients with Clinically Localized Prostate Cancer.</b> Jose A. Karam, Robert S. Svatek, Pierre I. Karakiewicz, Andrea Gallina, Claus G. Roehrborn, Kevin M. Slawin, and Shahrokh F. Shariat .....	<b>1418</b>
<b>Prognostic Significance of Macrophage Infiltration in Leiomyosarcomas.</b> Cheng-Han Lee, Inigo Espinosa, Suzan Vrijaldenhoven, Subbaya Subramanian, Kelli D. Montgomery, Shirley Zhu, Robert J. Marinelli, Johannes L. Peterse, Neal Poulin, Torsten O. Nielsen, Rob B. West, C. Blake Gilks, and Matt van de Rijn .....	<b>1423</b>
<b>Sensitive and Specific New Enzyme-Linked Immunosorbent Assay for N-ERC/Mesothelin Increases its Potential as a Useful Serum Tumor Marker for Mesothelioma.</b> Kazu Shiomi, Yoshiaki Hagiwara, Kouji Sonoue, Tatsuya Segawa, Kazuya Miyashita, Masahiro Maeda, Hiroshi Izumi, Kimihiko Masuda, Masataka Hirabayashi, Takao Moroboshi, Takashi Yoshiyama, Atsuko Ishida, Yuji Natori, Akira Inoue, Masashi Kobayashi, Yukinori Sakao, Hideaki Miyamoto, Kazuhisa Takahashi, and Okio Hino .....	<b>1431</b>

## Cancer Therapy: Clinical

<b>IFN-<math>\alpha</math>2b–Induced Signal Transduction and Gene Regulation in Patient Peripheral Blood Mononuclear Cells Is Not Enhanced by a Dose Increase from 5 to 10 Megaunits/m<sup>2</sup>.</b> Jason M. Zimmerer, Amy M. Lehman, Amy S. Ruppert, Carl W. Noble, Thomas Olencki, Michael J. Walker, Kari Kendra, and William E. Carson III .....	<b>1438</b>
--	-------------

<b>Phase I and Pharmacokinetic Study of Bortezomib in Combination with Idarubicin and Cytarabine in Patients with Acute Myelogenous Leukemia.</b> Eyal C. Attar, Daniel J. De Angelo, Jeffrey G. Supko, Ferdinando D'Amato, David Zahrieh, Andres Sirulnik, Martha Wadleigh, Karen K. Ballen, Steve McAfee, Kenneth B. Miller, James Levine, Ilene Galinsky, Elizabeth G. Trehu, David Schenkein, Donna Neuberger, Richard M. Stone, and Philip C. Amrein.....	1446
<b>Allogeneic Granulocyte Macrophage Colony-Stimulating Factor–Secreting Tumor Immunotherapy Alone or in Sequence with Cyclophosphamide for Metastatic Pancreatic Cancer: A Pilot Study of Safety, Feasibility, and Immune Activation.</b> Dan Laheru, Eric Lutz, James Burke, Barbara Biedrzycki, Sara Solt, Beth Onners, Irena Tartakovsky, John Nemunaitis, Dung Le, Elizabeth Sugar, Kristen Hege, and Elizabeth Jaffee.....	1455
<b>Phase I/II Study of Atrasentan, an Endothelin A Receptor Antagonist, in Combination with Paclitaxel and Carboplatin as First-Line Therapy in Advanced Non–Small Cell Lung Cancer.</b> Alberto A. Chiappori, Eric Haura, Francisco A. Rodriguez, David Boulware, Rachna Kapoor, Anthony M. Neuger, Richard Lush, Barbara Padilla, Michelle Burton, Charles Williams, George Simon, Scott Antonia, Daniel M. Sullivan, and Gerold Bepler .....	1464

## Cancer Therapy: Preclinical

<b>HMGA1 Is a Molecular Determinant of Chemoresistance to Gemcitabine in Pancreatic Adenocarcinoma.</b> Siong-Seng Liao and Edward Whang.....	1470
<b>Sensitivity to Epidermal Growth Factor Receptor Inhibitor Requires E-Cadherin Expression in Urothelial Carcinoma Cells.</b> Peter C. Black, Gordon A. Brown, Teruo Inamoto, Marissa Shrader, Ameeta Arora, Arlene O. Siefker-Radtke, Liana Adam, Dan Theodorescu, Xifeng Wu, Mark F. Munsell, Menashe Bar-Eli, David J. McConkey, and Colin P.N. Dinney.....	1478
<b>Linking Antibody Fc Domain to Endostatin Significantly Improves Endostatin Half-life and Efficacy.</b> Tong-Young Lee, Robert M. Tjin Tham Sjin, Shahla Movahedi, Bissan Ahmed, Elke A. Pravda, Kin-Ming Lo, Stephen D. Gillies, Judah Folkman, and Kashi Javaherian .....	1487
<b>Combining the Antigen Processing Components TAP and Tapasin Elicits Enhanced Tumor-Free Survival.</b> Yuanmei Lou, Genc Basha, Robyn P. Seipp, Bing Cai, Susan S. Chen, Alexander R. Moise, Andrew P. Jeffries, Ray S. Gopaul, Timothy Z. Vitalis, and Wilfred A. Jefferies.....	1494
<b>Evaluation of the Antiangiogenic Potential of AQ4N.</b> Martin O'Rourke, Claire Ward, Jenny Worthington, Julie McKenna, Andrea Valentine, Tracy Robson, David G. Hirst, and Stephanie R. McKeown .....	1502
<b>Intravesical Chemotherapy of High-Grade Bladder Cancer with HTI-286, A Synthetic Analogue of the Marine Sponge Product Hemiasterlin.</b> Boris A. Hadaschik, Hans Adomat, Ladan Fazli, Yves Fradet, Raymond J. Andersen, Martin E. Gleave, and Alan I. So .....	1510
<b>Synergy of a Herpes Oncolytic Virus and Paclitaxel for Anaplastic Thyroid Cancer.</b> Shu-Fu Lin, Sizhi Paul Gao, Daniel L. Price, Sen Li, Ting-Chao Chou, Paramjeet Singh, Yu-Yao Huang, Yuman Fong, and Richard J. Wong.....	1519
<b>Tumor Escape from Endogenous, Extracellular Matrix–Associated Angiogenesis Inhibitors by Up-Regulation of Multiple Proangiogenic Factors.</b> Namali T. Fernando, Moritz Koch, Courtney Rothrock, Lila K. Gollogly, Patricia A. D'Amore, Sandra Ryeom, and Sam S. Yoon.....	1529
<b>Impact of Angiogenesis Inhibition by Sunitinib on Tumor Distribution of Temozolomide.</b> Qingyu Zhou, Ping Guo, and James M. Gallo.....	1540
<b>Acquired Resistance to Rituximab Is Associated with Chemotherapy Resistance Resulting from Decreased Bax and Bak Expression.</b> Scott H. Olejniczak, Francisco J. Hernandez-Ilizaliturri, James L. Clements, and Myron S. Czuczman .....	1550
<b>Acquirement of Rituximab Resistance in Lymphoma Cell Lines Is Associated with Both Global CD20 Gene and Protein Down-Regulation Regulated at the Pretranscriptional and Posttranscriptional Levels.</b> Myron S. Czuczman, Scott Olejniczak, Aruna Gowda, Adam Kotowski, Arvinder Binder, Harman Kaur, Joy Knight, Petr Starostik, Julie Deans, and Francisco J. Hernandez-Ilizaliturri.....	1561

---

**Oncolytic Herpes Simplex Virus Type-1 Therapy in a Highly Infiltrative Animal Model of Human Glioblastoma.** Peter C. Huzsthy, Dorota Goplen, Frits Thorsen, Heike Immervoll, Jian Wang, Anja Gutermann, Hrvoje Miletic, and Rolf Bjerkvig.....1571

**Insulin-like Growth Factor-I Receptor Signaling Pathway Induces Resistance to the Apoptotic Activities of SCH66336 (Lonafarnib) through Akt/Mammalian Target of Rapamycin-Mediated Increases in Survivin Expression.** Seung Hyun Oh, Quanri Jin, Edward S. Kim, Fadlo R. Khuri, and Ho-Young Lee.....1581

## Cancer Prevention and Susceptibility

---

**Higher Levels of the Anti-inflammatory Protein CC10 Are Associated with Improvement in Bronchial Dysplasia and Sputum Cytometric Assessment in Individuals at High Risk for Lung Cancer.** Jiping Chen, Stephen Lam, Aprile Pilon, Annette McWilliams, Calum MacAulay, and Eva Szabo .....1590

## Correction

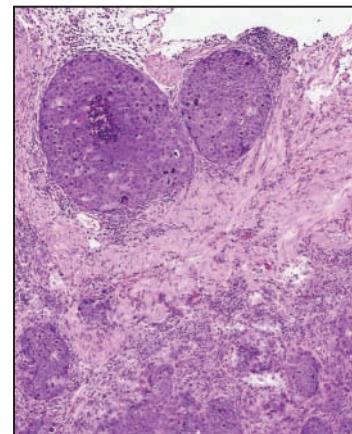
---

**Correction: Article on activation of CCR9/CCL25 in Cutaneous Melanoma**.....1598

---

## About the Cover

H&E staining of a muscle-invasive KUI-7 bladder tumor one month after orthotopic tumor cell inoculation in an untreated nude mouse demonstrating multifocal and aggressive disease. Magnification x10 on a BLISS microscope imaging workstation. In contrast, bi-weekly intravesical chemotherapy with HTI-286 would have significantly delayed tumor growth.



# Clinical Cancer Research

**14 (5)**

*Clin Cancer Res* 2008;14:1283-1598.

**Updated version** Access the most recent version of this article at:  
<http://clincancerres.aacrjournals.org/content/14/5>

**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://clincancerres.aacrjournals.org/content/14/5>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.