Highlights of This Issue 6081

SPECIAL FEATURES

CCR Translations
6083 Real-time Pathology to Guide Breast Surgery: Seeing Alone Is Not Believing
Irving J. Bigio
See article p. 6315

6086 Regulatory T Cells Move in When Gliomas Say "I DO"
Bryan D. Choi, Peter E. Fecci, and John H. Sampson
See article p. 6110

Molecular Pathways
6089 Molecular Pathways: The Metabolic Regulator Estrogen-Related Receptor α as a Therapeutic Target in Cancer
Ching-yi Chang and Donald P. McDonnell

6096 Molecular Pathways: Regulation of Metabolism by RB
Brian F. Clem and Jason Chesney

Review
6101 Accelerating Cancer Therapy Development: The Importance of Combination Strategies and Collaboration. Summary of an Institute of Medicine Workshop

HUMAN CANCER BIOLOGY
6110 IDO Expression in Brain Tumors Increases the Recruitment of Regulatory T Cells and Negatively Impacts Survival
Derek A. Wainwright, Irina V. Balyasnikova, Alan L. Chang, Atique U. Ahmed, Kyung-Sub Moon, Brenda Auffinger, Alex L. Tobias, Yu Han, and Maciej S. Lesniak
See commentary p. 6086

Quantitative Immunofluorescence Reveals the Signature of Active B-cell Receptor Signaling in Diffuse Large B-cell Lymphoma

Expression Profiling of Archival Tumors for Long-term Health Studies
Levi Waldron, Shuji Ogino, Yuji Hoshida, Kaori Shimla, Amy E. McCarto Reed, Peter T. Simpson, Yoshiifumi Baba, Katsuhiko Noshoh, Nicola Segata, Ana Cristina Varglist, Margaret C. Cumminsls, Sunil R. Lakhanil, Gregory J. Kirkner, Edward Giovannutrici, John Quackenbush, Todd R. Goluhi, Charles S. Fuchs, Giovanni Parigmigianil, and Curtis Huttenhrower

Decreased NK Cells in Patients with Head and Neck Cancer Determined in Archival DNA

Stemness of B-cell Progenitors in Multiple Myeloma Bone Marrow
Kelly Boucher, Nancy Parquet, Raymond Widen, Kenneth Shain, Rachid Baz, Melissa Alsina, John Koome
Claudio Anasetti, William Dalton, and Lia E. Perez

Molecular Epidemiology of EGFR and KRAS Mutations in 3,026 Lung Adenocarcinomas: Higher Susceptibility of Women to Smoking-Related KRAS-Mutant Cancers
Snjezana Dogan, Ronglai Shen, Daphne C. Ang, Melissa L. Johnson, Sandra P. D’Angelo, Paul K. Paik, Edyta B. Brzostowski, Gregory J. Bailey, Mark G. Kris, Maureen F. Zakowski, and Marc Ladanyi

Establishment and Characterization of Novel Cell Lines from Sinonasal Undifferentiated Carcinoma
Yoko Takahashi, Michael E. Kupferman, Diana Bell, Tilahun Jiffar, June Goo Lee, Tong-Xin Xie, Ning-Wei Li, Mei Zhao, Mitchell J. Frederic, Alexander Gelbard, Jeffrey N. Myers, and Ehab Y. Hanna
Overexpression of Ecdysoneless in Pancreatic Cancer and Its Role in Oncogenesis by Regulating Glycolysis


Proliferation in the Normal FTE Is a Hallmark of the Follicular Phase, Not BRCA Mutation Status

Sophia H.L. George, Anca Milea, and Patricia A. Shaw

Radioimmunotherapy of Fibroblast Activation Protein Positive Tumors by Rapidly Internalizing Antibodies

Eliane Fischer, Krishna Chaitanya, Thomas Wiestic, Andreas Wadde, Andrew M. Scott, Maries van den Broek, Roger Schibli, Stefan Bauer, and Christoph Benner

Activation of HER Family Signaling as a Mechanism of Acquired Resistance to ALK Inhibitors in EML4–ALK–Positive Non–Small Cell Lung Cancer

Junko Tanizaki, Isamu Okamoto, Takafumi Okabe, Kazuko Sakao, Kaoru Tanaka, Hidetoshi Hayashi, Hiroyasu Kaneda, Ken Takezawa, Kiyoko Kuwata, Haruka Yamaguchi, Erina Hatashita, Kazuto Nishio, and Kazuhiro Nakagawa

Superior Efficacy of a Combined Epigenetic Therapy against Human Mantle Cell Lymphoma Cells

Warren Fiskus, Rekha Rao, Ramesh Balusu, Siddhartha Ganguly, Jianguo Tao, Eduardo Sotomayor, Uma Mudumuru, Jacqueline E. Smith, Stacey L. Hembruff, Peter Atadja, Victor E. Marquez, and Kapil Bhalla

Targeting the PI3K Pathway in the Brain—Efficacy of a PI3K Inhibitor Optimized to Cross the Blood–Brain Barrier


In Vivo Phosphoantigen Levels in Bisphosphonate-Treated Human Breast Tumors Trigger VyV02 T-cell Antitumor Cytotoxicity through ICAM-1 Engagement

Ismahene Benzaid, Hannu Mönkkönen, Edith Bonneley, Jukka Mönkkönen, and Philippe Crézard

Synthetic miR-34a Mimics as a Novel Therapeutic Agent for Multiple Myeloma: In Vitro and In Vivo Evidence

Maria T. Di Martino, Emanuela Leone, Nicola Amadio, Umberto Foresta, Marta Lionetti, Maria R. Pitarri, Maria E. Gallo Cantafio, Annamaria Guilla, Francesco Conforti, Eugenio Morelli, Vera Tomaini, Marco Rossi, Massimo Negrini, Manlio Ferrarini, Michele Caraglia, Massoud A. Shammas, Nikhil C. Munshi, Kenneth C. Anderson, Antonino Neri, Pierosandro Tagliaferri, and Pierfrancesco Tassone

TRAIL and Noxa Are Selectively Upregulated in Prostate Cancer Cells Downstream of the RIG-1/MAVS Signaling Pathway by Nonreplicating Sendai Virus Particles

Taeko Matsumotshima-Miyagi, Koji Hatano, Motonari Nomura, Liu Li-Wen, Tomoyuki Nishikawa, Kotaro Saga, Takashi Shimbo, and Yasufumi Kaneda

Universal Cancer Peptide-Based Therapeutic Vaccine Breaks Tolerance against Telomerase and Eradicates Established Tumor

Magalie Dosset, Yann Godet, Charline Vauchy, Laurent Beziad, Yu Chun Lone, Christine Sedlik, Christelle Liard, Emeline Levionnois, Bertrand Clerc, Federico Sandoval, Etienne Daguidanau, Simon Wain-Hobson, Eric Tartour, Pierre Langlade-Demoyen, Christophe Borg, and Olivier Adotévi

Antibody-Dependent Cell-Mediated Cytotoxicity Overcomes NK Cell Resistance in MLL-Rearranged Leukemia Expressing Inhibitory KIR Ligands but Not Activating Ligands

Wing Keung Chan, May Kung Sutherland, Ying Li, Jonathan Zalevsky, Sarah Schell, and Wing Leung
### IMAGING, DIAGNOSIS, PROGNOSIS

**Measurement of Tumor VEGF-A Levels with 89Zr-Bevacizumab PET as an Early Biomarker for the Antiangiogenic Effect of Everolimus Treatment in an Ovarian Cancer Xenograft Model**


**Scatter Spectroscopic Imaging Distinguishes between Breast Pathologies in Tissues Relevant to Surgical Margin Assessment**

Ashley M. Laughney, Venkataramanan Krishnaswamy, Elizabeth J. Rizzo, Mary C. Schwab, Richard J. Barth, Brian W. Pogue, Keith D. Paulsen, and Wendy A. Wells

*See commentary p. 6083*

**Impact of the Integrin Signaling Adaptor Protein NEDD9 on Prognosis and Metastatic Behavior of Human Lung Cancer**

Shunshuke Kondo, Satoshi Iwata, Taketo Yamada, Yusuke Inoue, Hiromi Ichihara, Yoshiko Kichikawa, Tomoki Katayose, Akiko Souta-Kuribara, Hiroto Yamazaki, Osamu Hosono, Hiroshi Kawasaki, Hiroshi Tanaka, Yuichiro Hayashi, Michie Sakamoto, Kazunori Kamiya, Nam H. Dang, and Chikao Morimoto

**Clinical Significance of the Genetic Landscape of Pancreatic Cancer and Implications for Identification of Potential Long-term Survivors**

Shinichi Yachida, Catherine M. White, Yoshiki Naito, Yi Zhong, Jacqueline A. Brosnan, Anne M. Macgregor-Das, Richard A. Morgan, Tyler Saunders, Daniel A. Laheru, Joseph M. Herman, Ralph H. Hruban, Alison P. Klein, Siân Jones, Victor Velculescu, Christopher L. Wolfgang, and Christine A. Iacobuzio-Donahue

**Serum Lactate Dehydrogenase Is Prognostic for Survival in Patients with Bone Metastases from Breast Cancer: A Retrospective Analysis in Bisphosphonate-Treated Patients**

Janet E. Brown, Richard J. Cook, Allan Lipton, and Robert E. Coleman

### CANCER THERAPY: CLINICAL

**Outcomes of Phase II Clinical Trials with Single-Agent Therapies in Advanced/Metastatic Non–Small Cell Lung Cancer Published between 2000 and 2009**

Filip Janku, Donald A. Berry, Jing Gong, Henrique A. Parsons, David J. Stewart, and Razelle Kurzrock

**Using Pharmacokinetic and Pharmacodynamic Data in Early Decision Making Regarding Drug Development: A Phase I Clinical Trial Evaluating Tyrosine Kinase Inhibitor, AEE788**

José Baselga, Alain C. Mita, Patrick Schöffski, Herlinde Dumez, Frederico Rojo, Josep Tabernero, Clifford DiLea, William Mielowksi, Christie Low, Jerry Huang, Margaret Dugan, Kathryn Parker, Eric Walk, Allan van Oosterom, Erika Martinelli, and Chris H. Takimoto

**Personalized Medicine in a Phase I Clinical Trials Program: The MD Anderson Cancer Center Initiative**

Apostolia-Maria Tsimberidou, Nancy G. Iskander, David S. Hong, Jennifer J. Wheler, Gerald S. Falchouk, Siqing Fu, Sarina Piha-Paul, Aung Naing, Filip Janku, Rajyalakshmi Luthra, Yang Ye, Sijin Wen, Donald Berry, and Razelle Kurzrock

**Association between VEGF Splice Isoforms and Progression-Free Survival in Metastatic Colorectal Cancer Patients Treated with Bevacizumab**

David O. Bates, Paul J. Catalano, Kirsty E. Symonds, Alex H.R. Varey, Pramila Ramani, Peter J. O’Dwyer, Bruce J. Giantonio, Neal J. Meropol, Al Bowen Benson, and Steven J. Harper
ABOUT THE COVER

Replication-incompetent Sendai virus particles were injected into orthotopic prostate cancers in NOD-SCID mice on day 29 after the inoculation of human prostate cancer PC3 cells. The dual 4,6-diamidino-2-phenylindole (blue) and terminal deoxynucleotide transferase–mediated dUTP nick-end labeling (DAPI; green) staining showed that the TUNEL-positive apoptotic cells were dramatically increased in tumor regions. For details, see the article by Matsushima-Miyagi and colleagues on page 6271 of this issue.