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

6178  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. Frederick, Alexander Gelbard, Jeffrey N. Myers, and Ehab Y. Hanna

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

6122  Quantitative Immunofluorescence Reveals the Signature of Active B-cell Receptor Signaling in Diffuse Large B-cell Lymphoma

6136  Expression Profiling of Archival Tumors for Long-term Health Studies
       Levi Waldron, Shuji Ogino, Yujin Hoshida, Kaori Shimaji, Amy E. McCart Reed, Peter T. Simpson, Yoshifumi Baba, Katsuhiko Nisho, Nicola Segata, Ana Cristina Vargas, Margaret C. Cummings, Sunil R. Lakhan, Gregory J. Kirkner, Edward Giovannucci, John Quackenbush, Todd R. Golub, Charles S. Fuchs, Giovanni Parmigiani, and Curtis Huttenhower

6147  Decreased NK Cells in Patients with Head and Neck Cancer Determined in Archival DNA

6155  Stemness of B-cell Progenitors in Multiple Myeloma Bone Marrow
       Kelly Boucher, Nancy Parquet, Raymond Widen, Kenneth Shain, Rachid Baz, Melissa Alsin, John Koomen, Claudio Anasetti, William Dalton, and Lia E. Perez

6169  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. Biely, Mark G. Kris, Maureen E. Zakowski, and Marc Ladanyi
Overexpression of Ecdysoneless in Pancreatic Cancer and Its Role in Oncogenesis by Regulating Glycolysis


In Vivo Phosphoantigen Levels in Bisphosphonate-Treated Human Breast Tumors Trigger Vy9V62 T-cell Antitumor Cytotoxicity through ICAM-1 Engagement

Ismahène Benzaid, Hannu Mönkkönen, Edith Bonneye, Jukka Mönkkönen, and Philippe Clézardin

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 Amodio, Umberto Foresta, Marta Lionetti, Maria R. Pitiari, Maria E. Gallo Cantafio, Annamaria Guilla, Francesco Conforti, Eugenio Morelli, Vera Tomaino, Marco Rossi, Massimo Negrini, Manlio Ferrazini, 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 Matsushima-Miyagi, Koji Hatano, Motonari Nomura, Liu Li-Wen, Tomoyuki Nishikawa, Kotaro Saga, Takashiki Shimbo, and Yasufumi Kaneda

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

Magalie Dosset, Yann Godet, Charlène Vauchy, Laurent Beziaud, Yu Chun Lone, Christine Sedlik, Christelle Liard, Emilie Levionnois, Bertrand Clerc, Federico Sandoval, Etienne Dagouindau, Simon Wain-Hobson, Eric Tarbour, 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

CANCER THERAPY: PRECLINICAL

Radioimmunotherapy of Fibroblast Activation Protein Positive Tumors by Rapidly Internalizing Antibodies

Eliane Fischer, Krishna Chaitanya, Thomas Wiess, Andreas Wadle, 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 Okabe, Kazuko Sakato, 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 Mudumurtu, Jacqueline E. Smith, Stacey L. Hembrauf, Peter Atadja, Victor E. Marquez, and Kapil Bhalala

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


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

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

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

Magalie Dosset, Yann Godet, Charlène Vauchy, Laurent Beziaud, Yu Chun Lone, Christine Sedlik, Christelle Liard, Emilie Levionnois, Bertrand Clerc, Federico Sandoval, Etienne Dagouindau, Simon Wain-Hobson, Eric Tarbour, 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
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>6306</td>
<td>Measurement of Tumor VEGF-A Levels with $^{89}$Zr-Bevacizumab PET as an Early Biomarker for the Antiangiogenic Effect of Everolimus Treatment in an Ovarian Cancer Xenograft Model</td>
<td>Arne R.M. van der Bilt, Anton G.T. Terwisscha van Scheltinga, Hetty Timmer-Bosscha, Carolien P. Schröder, Linda Pot, Jos G.W. Kosterink, Ate G.J. van der Zee, Marjolijn N. Lub-de Hooge, Steven de Jong, Elisabeth G.E. de Vries, and Anna K.L. Reyners</td>
</tr>
<tr>
<td>6315</td>
<td>Scatter Spectroscopic Imaging Distinguishes between Breast Pathologies in Tissues Relevant to Surgical Margin Assessment</td>
<td>Ashley M. Laughney, Venkataramanan Krishnaswamy, Elizabeth J. Rizzo, Mary C. Schwab, Richard J. Barth, Brian W. Pogue, Keith D. Paulsen, and Wendy A. Wells</td>
</tr>
<tr>
<td>6326</td>
<td>Impact of the Integrin Signaling Adaptor Protein NEDD9 on Prognosis and Metastatic Behavior of Human Lung Cancer</td>
<td>Shunsuke Kondo, Satoshi Iwata, Taketo Yamada, Yusuke Inoue, Hiromi Ichihara, Yoshiko Kichikawa, Tomoki Katayose, Akiko Souta-Kuribara, Hiroto Yamazaki, Osamu Hosono, Hiroshi Kawasaki, Hiroto Tanaka, Yuichiro Hayashi, Michiie Sakamoto, Kazunori Kamiya, Nam H. Dang, and Chikao Morimoto</td>
</tr>
<tr>
<td>6339</td>
<td>Clinical Significance of the Genetic Landscape of Pancreatic Cancer and Implications for Identification of Potential Long-term Survivors</td>
<td>Shinich1 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</td>
</tr>
<tr>
<td>6348</td>
<td>Serum Lactate Dehydrogenase Is Prognostic for Survival in Patients with Bone Metastases from Breast Cancer: A Retrospective Analysis in Bisphosphonate-Treated Patients</td>
<td>Janet E. Brown, Richard J. Cook, Allan Lipton, and Robert E. Coleman</td>
</tr>
<tr>
<td>6356</td>
<td>Outcomes of Phase II Clinical Trials with Single-Agent Therapies in Advanced/Metastatic Non–Small Cell Lung Cancer Published between 2000 and 2009</td>
<td>Filip Janku, Donald A. Berry, Jing Gong, Henrique A. Parsons, David J. Stewart, and Razelle Kurzrock</td>
</tr>
<tr>
<td>6364</td>
<td>Using Pharmacokinetic and Pharmacodynamic Data in Early Decision Making Regarding Drug Development: A Phase I Clinical Trial Evaluating Tyrosine Kinase Inhibitor, AEE788</td>
<td>Jose Baselga, Alain C. Mita, Patrick Schöflski, Hérinlde Dunez, Frederico Rojo, Josep Tabernero, Clifford DiLea, William Miełowski, Christie Low, Jerry Huang, Margaret Dugan, Kathryn Parker, Eric Walk, Allan van Oosterom, Erika Martinelli, and Chris H. Takimoto</td>
</tr>
<tr>
<td>6373</td>
<td>Personalized Medicine in a Phase I Clinical Trials Program: The MD Anderson Cancer Center Initiative</td>
<td>Apostolos-Maria Tsimberidou, Nancy G. Iskander, David S. Hong, Jennifer J. Wheler, Gerald S. Falchuk, Siqing Fu, Sarina Pihl-Paul, Aung Naing, Filip Janku, Rajyalakshmi Luthra, Yang Ye, Sijin Wen, Donald Berry, and Razelle Kurzrock</td>
</tr>
<tr>
<td>6384</td>
<td>Association between VEGF Splice Isoforms and Progression-Free Survival in Metastatic Colorectal Cancer Patients Treated with Bevacizumab</td>
<td>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</td>
</tr>
</tbody>
</table>
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 deoxynucleotidyl 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.