**Highlights of This Issue**

**SPECIAL FEATURES**

**CCR Translations**

4295 "License to Kill" Reflects Joint Action of CD4 and CD8 T Cells
Cornelis J.M. Melief
See related article, p. 4508

**CCR Perspectives in Drug Approval**

4297 Developing Standards for Breakthrough Therapy Designation in Oncology
Sandra J. Horning, Daniel A. Haber, Wendy K.D. Selig, S. Percy Ivy, Samantha A. Roberts, Jeff D. Allen, Ellen V. Sigal, and Charles L. Sawyers
See related article, p. 4305

4305 Accelerated Approval and Breakthrough Therapy Designation: Oncology Drug Development on Speed?
James C. Yao, Funda Meric-Bernstam, J. Jack Lee, and S. Gail Eckhardt
See related article, p. 4297

**Molecular Pathways**

4309 Molecular Pathways: Reactive Oxygen Species Homeostasis in Cancer Cells and Implications for Cancer Therapy
Veronique Nogueira and Nissim Hay

**Reviews**

4315 Impact of Bioinformatic Procedures in the Development and Translation of High-Throughput Molecular Classifiers in Oncology
Charles Ferté, Andrew D. Trister, Erich Huang, Brian M. Bot, Justin Guinney, Frederic Commo, Solveig Sieberts, Fabrice André, Benjamin Besse, Jean-Charles Soria, and Stephen H. Friend

4326 BRAF in Melanoma: Current Strategies and Future Directions
April K.S. Salama and Keith T. Flaherty

**HUMAN CANCER BIOLOGY**

4335 Regulation of Cell Proliferation and Migration by Keratin19-Induced Nuclear Import of Early Growth Response-1 in Breast Cancer Cells
Ji-hyun Ju, Wonsok Yang, Kyung-min Lee, Sunhwa Oh, KeeSoo Nam, Sarah Shim, Soon Young Shin, Myung Chan Gye, In-Sun Chu, and Incheol Shin

**CANCER THERAPY: PRECLINICAL**

4347 Effective Activity of Cytokine-Induced Killer Cells against Autologous Metastatic Melanoma Including Cells with Stemness Features
Loretta Gammaitoni, Lidia Giraud, Valeria Leuci, Maja Todorovic, Giulia Mesiano, Franco Picciotto, Alberto Pisacane, Alessandro Zaccagna, Maria Giuseppa Volpe, Susanna Gallo, Daniela Caravelli, Elena Giaccone, Tiziana Venesio, Antonella Balsamo, Ymera Pignochino, Giovanni Grignani, Fabrizio Carnevale-Schianca, Massimo Aglietta, and Dario Sangiolo

4359 Contribution of Abcc4-Mediated Gastric Transport to the Absorption and Efficacy of Dasatinib
Brian D. Furmanski, Shuiying Hu, Ken-ichi Fujita, Lie Li, Alice A. Gibson, Laura J. Janke, Richard T. Williams, John D. Schuetz, Alex Sparreboom, and Sharyn D. Baker

4371 Novel Targeting of Phospho-cMET Overcomes Drug Resistance and Induces Antitumor Activity in Multiple Myeloma
Michele Moschetta, Antonio Basile, Arianna Ferrucci, Maria Antonia Frassanito, Luigia Rao, Roberto Ria, Antonio Giovanni Solimando, Nicola Giuliani, Angeline Boccarelli, Fabio Fumarola, Mauro Coluccia, Bernardo Rossini, Simona Ruggieri, Beatrice Nico, Eugenio Maitorano, Domenico Ribatti, Aldo M. Roccaro, and Angelo Vacca
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>4383</td>
<td>Vemurafenib Synergizes with Nutlin-3 to Deplete Survivin and Suppresses Melanoma Viability and Tumor Growth</td>
<td>Zhenyu Ji, Raj Kumar, Michael Taylor, Anpuchchelvi Rajadurai, Alexander Marzuka-Alcalá, Y. Erin Chen, Ching-Ni Jenny Njaau, Keith Flaherty, Goran Jonsson, and Hensin Tsao</td>
</tr>
<tr>
<td>4392</td>
<td>Acquired Resistance to Anti-VEGF Therapy in Glioblastoma Is Associated with a Mesenchymal Transition</td>
<td>Yuji Piao, Ji Liang, Lindsay Holmes, Verlene Henry, Erik Sulman, and John F. de Groot</td>
</tr>
<tr>
<td>4404</td>
<td>β-Mannosylceramide Activates Type I Natural Killer T Cells to Induce Tumor Immunity without Inducing Long-Term Functional Anergy</td>
<td>Jessica J. O’Konek, Shingo Kato, Satomi Takao, Liat Izhak, Zheng Xia, Peter Illarionov, Gurdyal S. Besra, Masaki Terabe, and Jay A. Berzofsky</td>
</tr>
<tr>
<td>4412</td>
<td>Sensitization of Pancreatic Cancer to Chemoradiation by the Chk1 Inhibitor MK8776</td>
<td>Carl G. Engelke, Leslie A. Parsels, Yushen Qian, Qiang Zhang, David Karnak, Jordan R. Robertson, Daria M. Tanska, Dongping Wei, Mary A. Davis, Joshua D. Parsels, Lili Zhao, Joel K. Greenson, Theodore S. Lawrence, Jonathan Maybaum, and Meredith A. Morgan</td>
</tr>
<tr>
<td>4422</td>
<td>Inhibition of Protein Phosphatase 2A Radiosensitizes Pancreatic Cancers by Modulating CDC25C/CDK1 and Homologous Recombination Repair</td>
<td>Dongping Wei, Leslie A. Parsels, David Karnak, Mary A. Davis, Joshua D. Parsels, Amanda C. Marsh, Lili Zhao, Jonathan Maybaum, Theodore S. Lawrence, Yi Sun, and Meredith A. Morgan</td>
</tr>
<tr>
<td>4446</td>
<td>Memantine Protects Rats Treated with Intrathecal Methotrexate from Developing Spatial Memory Deficits</td>
<td>Peter D. Cole, Veena Vijayanathan, Nafeesa F. Ali, Mark E. Waghshul, Eric J. Tanenbaum, Jeremy Price, Videk Dalal, and Maria E. Gulinello</td>
</tr>
<tr>
<td>4455</td>
<td>A Novel Aldehyde Dehydrogenase-3 Activator (Alda-89) Protects Submandibular Gland Function from Irradiation without Accelerating Tumor Growth</td>
<td>Nan Xiao, Hongbin Cao, Che-Hong Chen, Christina S. Kong, Rehan Ali, Cato Chan, Davud Sirjani, Edward Graves, Albert Koong, Amato Giaccia, Daria Mochly-Rosen, and Quynh-Thu Le</td>
</tr>
<tr>
<td>4465</td>
<td>Nimbolide, a Limonoid Triterpene, Inhibits Growth of Human Colorectal Cancer Xenografts by Suppressing the Proinflammatory Microenvironment</td>
<td>Subash C. Gupta, Sahdeo Prasad, Dhanya R. Sethumadhavan, Mangalam S. Nair, Yin-Yuan Mo, and Bharat R. Aggarwal</td>
</tr>
<tr>
<td>4477</td>
<td>Identification of Circulating MicroRNA Signatures for Breast Cancer Detection</td>
<td>Maurice Chan, Chiew Suan Liaw, Shen Mo Ji, Hwee Huang Tan, Chow Yin Wong, Aye Aye Thike, Puay Hoon Tan, Gay Hui Ho, and Ann Siew-Gek Lee</td>
</tr>
<tr>
<td>4488</td>
<td>Phase II Randomized Trial Comparing High-Dose IFN-α2b with Temozolomide Plus Cisplatin as Systemic Adjuvant Therapy for Resected Mucosal Melanoma</td>
<td>Bin Lian, Lu Si, Chuanliang Cui, Zhihong Chi, Xinan Sheng, Lili Mao, Siming Li, Yan Kong, Bixia Tang, and Jun Guo</td>
</tr>
<tr>
<td>4499</td>
<td>Phase I Trial of a New Schedule of Romidepsin in Patients with Advanced Cancers</td>
<td>Laleh Amiri-Kordestani, Victoria Luchenko, Cody J. Peer, Kambiz Ghafourian, James Reynolds, Deb Draper, Robin Frye, Sue Woo, David Venzon, John Wright, Monica Skarulis, William D. Figg, Tito Fojo, Susan E. Bates, and Richard L. Piekarski</td>
</tr>
</tbody>
</table>
Identification of Promiscuous KIF20A Long Peptides Bearing Both CD4⁺ and CD8⁺ T-cell Epitopes: KIF20A-Specific CD4⁺ T-cell Immunity in Patients with Malignant Tumor

Yusuke Tomita, Akira Yuno, Hirotake Tsukamoto, Satoru Senju, Yasuhiro Kuroda, Masatoshi Hirayama, Atsushi Irie, Kenta Kawahara, Junji Yatsuda, Akinobu Hamada, Hirofumi Jono, Koji Yoshida, Takuya Tsunoda, Hirotugu Kohrogi, Yoshihiro Yoshitake, Yusuke Nakamura, Masanori Shinohara, and Yasuharu Nishimura

See commentary, p. 4295

PREDICTIVE BIOMARKERS AND PERSONALIZED MEDICINE

Ki67 Measured after Neoadjuvant Chemotherapy for Primary Breast Cancer


Clinical, Pathologic, and Biologic Features Associated with BRAF Mutations in Non–Small Cell Lung Cancer

Stephanie Cardarella, Atsuko Ogino, Mizuki Nishino, Mohit Butaney, Jeanne Shen, Christine Lydon, Beow Y. Yeap, Lynette M. Sholl, Bruce E. Johnson, and Pasi A. Jänne

LETTER TO THE EDITOR

Oncolytic Virotherapy Trials—Letter

Akseli Hemminki, Minna Oksanen, and Maiju Merisalo-Soikkeli

CORRECTION

Correction: MSH6 Mutations Arise in Glioblastomas during Temozolomide Therapy and Mediate Temozolomide Resistance

ABOUT THE COVER

The cover shows Rad51 foci (red) in pancreatic cancer cells treated with gemcitabine and radiation. Nuclei are stained with DAPI (blue). For details, see the article by Engelke and colleagues on page 4412 of this issue.