### Highlights of This Issue

**1**

**SPECIAL FEATURES**

**CCR Translations**

3  
**CD137 as a Biomarker for Tumor-Reactive T Cells: Finding Gold in the Desert**<br>Yuwen Zhu and Lieping Chen<br>See related article, p. 44

6  
**Targeting Metabolic Scavenging in Pancreatic Cancer**<br>Costas A. Lyssiotis and Lewis C. Cantley<br>See related article, p. 120

**CCR Perspectives in Drug Approval**

9  

**CCR Drug Updates**

15  
**Trastuzumab Emtansine: A Novel Antibody–Drug Conjugate for HER2-Positive Breast Cancer**<br>Ian Krop and Eric P. Winer

**Molecular Pathways**

21  
**Molecular Pathways: SWI/SNF (BAF) Complexes Are Frequently Mutated in Cancer—Mechanisms and Potential Therapeutic Insights**<br>Xiaofeng Wang, Jeffrey R. Haswell, and Charles W.M. Roberts

28  
**Molecular Pathways: Sterols and Receptor Signaling in Cancer**<br>Linara Gabitova, Andrey Gorin, and Igor Astsaturov

**Review**

35  
**Noncoding RNAs in Prostate Cancer: The Long and the Short of It**<br>Eva M. Bolton, Alexandra V. Tuzova, Anna L. Walsh, Thomas Lynch, and Antoinette S. Perry

### HUMAN CANCER BIOLOGY

44  
**CD137 Accurately Identifies and Enriches for Naturally Occurring Tumor-Reactive T Cells in Tumor**<br>Qunrui Ye, De-Gang Song, Mathilde Foussin, Tori Yamamoto, Andrew Best, Chunsheng Li, George Coukos, and Daniel J. Powell Jr.<br>See related article, p. 3

56  

68  

76  
**HDM2 Regulation by AURKA Promotes Cell Survival in Gastric Cancer**<br>Vikas Sebdev, Ahmed Katsa, Janet Arras, Dunfa Peng, Mohammed Soutto, Jeffrey Esedey, Alexander Zaika, Abbes Belkhiri, and Wael El-Rifai

87  
**Discrete Molecular Classes of Ovarian Cancer Suggestive of Unique Mechanisms of Transformation and Metastases**<br>Nilesh L. Gardi, Tejaswini U. Deshpande, Swapnil C. Kamble, Sagar R. Badhe, and Sharmila A. Bapat

100  
**Genes Upregulated in Prostate Cancer Reactive Stroma Promote Prostate Cancer Progression In Vivo**<br>Olga Dakhova, David Rowley, and Michael Ittmann

### CANCER THERAPY: PRECLINICAL

110  
**The ATP-Competitive mTOR Inhibitor INK128 Enhances In Vitro and In Vivo Radiosensitivity of Pancreatic Carcinoma Cells**<br>Thomas J. Hayman, Amy Wahba, Barbara H. Rath, Heekyong Rae, Tamalee Krapm, Uma T. Shankavaram, Kevin Campphasen, and Philip J. Tofilon
120 Targeting of NAD Metabolism in Pancreatic Cancer Cells: Potential Novel Therapy for Pancreatic Tumors
Claudia C.S. Chini, Anaitilde M. Gonzalez Guerrico, Verónica Nin, Juliana Camacho-Pereira, Carlos Escande, Maria Thereza Barbosa, and Eduardo N. Chini
See related article, p. 6

131 Interleukin-7 Mediates Selective Expansion of Tumor-redirected Cytotoxic T Lymphocytes (CTLs) without Enhancement of Regulatory T-cell Inhibition
Serena K. Perna, Daria Pagliara, Aruna Mahendravada, Hao Liu, Malcolm K. Brenner, Barbara Savoldo, and Gianpietro Dotti

140 Transient Activation of Hedgehog Pathway Rescued Irradiation-Induced Hyposalivation by Preserving Salivary Stem/Progenitor Cells and Parasympathetic Innervation
Bo Hai, Lizi Binh Qin, Zhenhua Yang, Qingguo Zhao, Lei Shangguan, Xinyu Yi, Yanqiu Zhao, Sangroh Kim, Dharanipathy Rangaraj, and Fei Liu

151 Gambogic Acid Induces Apoptosis in Imatinib-Resistant Chronic Myeloid Leukemia Cells via Inducing Proteasome Inhibition and Caspase-Dependent Bcr-Abl Downregulation
Xianping Shi, Xin Chen, Xiaofen Li, Xiaoying Lan, Chong Zhao, Shouting Liu, Hongbiao Huang, Ningning Liu, Siyan Liao, Wenbin Song, Ping Zhou, Shunqing Wang, Li Xu, Xuejun Wang, Q. Ping Dou, and Jinbao Liu

164 AXL Is a Key Regulator of Inherent and Chemotherapy-Induced Invasion and Predicts a Poor Clinical Outcome in Early-Stage Colon Cancer

176 Erlotinib, Gefitinib, and Vandetanib Inhibit Human Nucleoside Transporters and Protect Cancer Cells from Gemcitabine Cytotoxicity
Vijaya L. Damaraju, Tara Scriver, Delores Mowles, Michelle Kuzma, Anderson J. Ryan, Carol E. Cass, and Michael B. Sawyer

187 Neutrophils Promote the Malignant Glioma Phenotype through S100A4
Ji Liang, Yuji Piao, Lindsay Holmes, Gregory N. Fuller, Verlene Henry, Ningyi Tao, and John F. de Groot

199 Direct Inhibition of Retinoblastoma Phosphorylation by Nimboxide Causes Cell-Cycle Arrest and Suppresses Glioblastoma Growth
Swagata Karkare, Rishi Raj Chhipa, Jane Anderson, Xiaona Liu, Heather Henry, Anjelika Gasolina, Nicholas Nassar, Jayeeta Roychoudhury, Jason P Clark, Ashish Kumar, Giovanni M. Pauletti, Pradip K. Ghosh, and Biploba Dasgupta

CANCER THERAPY: CLINICAL

213 A Dose-Escalation Study of SAR3419, an Anti-CD19 Antibody Maytansinoid Conjugate, Administered by Intravenous Infusion Once Weekly in Patients with Relapsed/Refractory B-cell Non-Hodgkin Lymphoma
Vincent Ribrag, Jehan Dupuis, Herve Tilly, Franck Morschhauser, Fabrice Laine, Roch Houot, Corinne Haoujion, Christiane Copie, Andrea Varga, John Lambert, Laurence Hatteville, Samira Ziti-Ljajic, Anne Caron, Sandrine Payrard, and Bertrand Coiffier

221 Long-lasting Disease Stabilization in the Absence of Toxicity in Metastatic Lung Cancer Patients Vaccinated with an Epitope Derived from Indoleamine 2,3 Dioxygenase Trine Zeeberg Iversen, Lotte Engell-Noerregaard, Eva Ellebaek, Rikke Andersen, Stine Klaer Larsen, Jon Bjoem, Claus Zeyher, Cécle Goutefangeas, Birthe Moerk Thomsen, Bente Holm, Per thor Straten, Anders Mellemgaard, Mads Hald Andersen, and Inge Marie Svane

233 Phase I Safety, Pharmacokinetic, and Pharmacodynamic Study of SAR245408 (XL147), an Oral Pan-Class I PI3K Inhibitor, in Patients with Advanced Solid Tumors

246 Tumor Growth Rate Is an Early Indicator of Antitumor Drug Activity in Phase I Clinical Trials
Charles Ferté, Marianna Fernandez, Antoine Hollebecque, Serge Koscienly, Antonin Levy, Christophe Massard, Rastislav Balbeda, Brian Bot, Carlos Gomez-Roca, Clarisse Dromain, Samy Ammar, and Jean-Charles Soria
Plasma MicroRNA Are Disease Response Biomarkers in Classical Hodgkin Lymphoma
Kimberley Jones, Jamie P. Nourse, Colm Keane, Atul Bhatnagar, and Maher K. Gandhi

Modeling RAS Phenotype in Colorectal Cancer Uncovers Novel Molecular Traits of RAS Dependency and Improves Prediction of Response to Targeted Agents in Patients
Justin Guinney, Charles Ferté, Jonathan Dry, Robert McEwen, Gilles Manceau, Kl Kao, Kai-Ming Chang, Claus Bendtsen, Kevin Hudson, Erich Huang, Brian Dougherty, Michel Ducrèux, Jean-Charles Soria, Stephen Friend, Jonathan Derry, and Pierre Laurent-Puig