# Contents

## Highlights of This Issue 753

## SPECIAL FEATURES

### CCR Translations

#### 755

**Predictive Biomarkers to Anti-VEGF Therapy: Progress toward an Elusive Goal**
Rekha Gyanchandani and Seungwon Kim

*See article, p. 929*

### Molecular Pathways

#### 758

**Molecular Pathways: Multimodal Cancer-Killing Mechanisms Employed By Oncolytic Vesiculoviruses**
Douglas J. Mahoney and David F. Stojdl

### Review

#### 764

**The Definition of Primary and Secondary Glioblastoma**
Hiroko Ohgaki and Paul Kleihues

### HUMAN CANCER BIOLOGY

#### 773

**Lactate Dehydrogenase B Is Required for the Growth of KRAS-Dependent Lung Adenocarcinomas**
Mark L. McCleland, Adam S. Adler, Laura Deming, Ely Cosino, Leslie Lee, Elizabeth M. Blackwood, Margaret Solon, Janet Tao, Li Li, David Shames, Erica Jackson, William F. Forrest, and Ron Firestein

#### 785

**Reciprocal Interactions between Tumor-Associated Macrophages and CD44-Positive Cancer Cells via Osteopontin/CD44 Promote Tumorigenicity in Colorectal Cancer**
Guanhua Rao, Hongyi Wang, Baowei Li, Li Huang, Danfeng Xue, Xiaohui Wang, Haijing Jin, Jun Wang, Yushan Zhu, Youyong Lu, Lei Du, and Quan Chen

#### 798

**SHP2 Is Overexpressed and Inhibits pSTAT1-Mediated APM Component Expression, T-cell Attracting Chemokine Secretion, and CTL Recognition in Head and Neck Cancer Cells**
Michael S. Leibowitz, Raghvendra M. Srivastava, Pedro A. Andrade Filho, Ann Marie Egloff, Lin Wang, Raja R. Seethala, Soldano Ferrone, and Robert L. Ferris

## CANCER THERAPY: PRECLINICAL

#### 809

**Identification of FGFR4 as a Potential Therapeutic Target for Advanced-Stage, High-Grade Serous Ovarian Cancer**

#### 821

**Influence of Human OATP1B1, OATP1B3, and OATP1A2 on the Pharmacokinetics of Methotrexate and Paclitaxel in Humanized Transgenic Mice**
Evita van de Steeg, Anita van Esch, Els Wagenaar, Kathryn E. Kenworthy, and Alfred H. Schinkel

#### 833

**Blocked Autophagy Using Lysosomotropic Agents Sensitizes Resistant Prostate Tumor Cells to the Novel Akt Inhibitor AZD5363**
Francois Lamoureux, Christian Thomas, Claire Crafter, Masafumi Kumano, Fan Zhang, Barry R. Davies, Martin E. Gleave, and Amina Zoubeidi

#### 845

**Caspase-Independent Cell Death Is Involved in the Negative Effect of EGF Receptor Inhibitors on Cisplatin in Non–Small Cell Lung Cancer Cells**
Hirohito Yamaguchi, Jennifer L. Hsu, Chun-Te Chen, Ying-Nai Wang, Ming-Chuan Hsu, Shih-Shin Chang, Yi Du, How-Wen Ko, Roy Herbst, and Mien-Chie Hung

#### 855

**Development and Characterization of HPV-Positive and HPV-Negative Head and Neck Squamous Cell Carcinoma Tumorgrafts**
Randall J. Kimple, Paul M. Harari, Alexandra D. Torres, Robert Z. Yang, Benjamin J. Sorian, Menggang Yu, Eric A. Armstrong, Grace C. Blitzer, Molly A. Smith, Laurel D. Lorenz, Denis Lee, David T. Yang, Timothy M. McCulloch, Gregory K. Hartig, and Paul F. Lambert
Topotecan and Doxorubicin Combination to Treat Recurrent Ovarian Cancer: The Influence of Drug Exposure Time and Delivery Systems to Achieve Optimum Therapeutic Activity
Nilesh A. Patankar, Julia Pritchard, Mariska van Grinsven, Maryam Osooly, and Marcel B. Bally

DNA Methylation as an Adjunct to Histopathology to Detect Prevalent, Inconspicuous Dysplasia and Early-Stage Neoplasia in Barrett's Esophagus
Muhammad A. Alvi, Xinxue Liu, Maria O'Donovan, Richard Newton, Lorenz Wernisch, Nicholas B. Shannon, Kareem Shariff, Massimiliano di Pietro, Jacques J.G.H.M. Bergman, Krish Ragunath, and Rebecca C. Fitzgerald

The Immune Signature of CD8+ CCR7+ T Cells in the Peripheral Circulation Associates with Disease Recurrence in Patients with HNSCC
Malgorzata Czystowska, William Gooding, Miroslaw J. Szczepanski, Andres Lopez-Abaitero, Robert L. Ferris, Jonas T. Johnson, and Theresa L. Whiteside

A Phase I/II Trial of Pazopanib in Combination with Lapatinib in Adult Patients with Relapsed Malignant Glioma
David A. Reardon, Morris D. Groves, Patrick T. Wen, Louis Nabors, Tom Mikkelson, Steve Rosenfeld, Jeffrey Raizer, Jorge Barriuso, Roger E. McLendon, A. Benjamin Suttle, Bo Ma, C. Martin Curtis, Mohammed M. Dar, and Johann de Bono

First-in-Man Phase I Study of GC33, a Novel Recombinant Humanized Antibody Against Glypican-3, in Patients with Advanced Hepatocellular Carcinoma
Andrew X. Zhu, Philip J. Gold, Anthony B. El-Khoueiry, Thomas A. Abrams, Hideo Morikawa, Norihisa Ohishi, Toshikiko Ohtomo, and Philip A. Philip

Predictive Impact of Circulating Vascular Endothelial Growth Factor in Four Phase III Trials Evaluating Bevacizumab
Priti S. Hegde, Adrian M. Jubb, Dafeng Chen, Nicole F. Li, Y. Gloria Meng, Coen Bernaards, Rebecca Elliott, Stefan J. Scherer, and Daniel S. Chen
See commentary, p.755

Increased CDA Expression/Activity in Males Contributes to Decreased Cytidine Analog Half-Life and Likely Contributes to Worse Outcomes with 5-Azacytidine or Decitabine Therapy
Reda Z. Mahfouz, Ania Jankowska, Quteba Ebrahem, Xiaorong Gu, Valeria Visconte, Ali Tabarrioki, Pramod Terse, Joseph Covey, Kenneth Chan, Yonghua Ling, Kory J. Engelke, Mikkael A. Sekeres, Ramon Tiu, Jaroslaw Maciejewski, Tomas Radivoyevitch, and Yogen Saunthararajah

Correction: Redirecting Gene-Modified T Cells toward Various Cancer Types Using Tagged Antibodies
ABOUT THE COVER

The image displays a human prostate cell line (PC-3) that has been stained with antibodies against the autophagy marker Light Chain 3 (LC3; green) after rapamycin treatment. During autophagy, LC3-I is converted to LC3-II through lipidation by a ubiquitin-like system involving Atg7 and Atg3 that allows for LC3 to become associated with autophagic vesicles, as shown by green punctae. Tumor cell nuclei are visualized by DAPI (blue). For details, see the article by Lamoureux and colleagues on page 833 of this issue.