## Contents

**Highlights of This Issue** 1345

### SPECIAL FEATURES

**Editors’ Note**

1347  
*Introducing New Strategies in…*  
James L. Abbruzzese, Alexander M.M. Eggermont, and Eric H. Rubin

**CCR New Strategies**

1348  
*New Strategies in Kidney Cancer: Therapeutic Advances through Understanding the Molecular Basis of Response and Resistance*  
Brian I. Rini

**CCR Translations**

1355  
*Does Lapatinib Work against HER2-negative Breast Cancers?*  
Ingrid A. Mayer and Carlos L. Arteaga  
*See article p. 1486*

**Statistics in Clinical Cancer Research**

1358  
*Testing Clonal Relatedness of Tumors Using Array Comparative Genomic Hybridization: A Statistical Challenge*  
Irina Ostrovnaya and Colin B. Begg

**CCR Drug Updates**

1368  
*Everolimus*  
Peter J. Houghton

**Molecular Pathways**

1373  
*HER3 Comes of Age: New Insights into Its Functions and Role in Signaling, Tumor Biology, and Cancer Therapy*  
Marcia R. Campbell, Dhara Amin, and Mark M. Moasser

1384  
*Cyclooxygenase-2 and Cancer Treatment: Understanding the Risk Should Be Worth the Reward*  
David G. Menter, Richard L. Schilsky, and Raymond N. DuBois

**Human Cancer Biology**

1391  
*High-Resolution Array Comparative Genomic Hybridization in Sporadic and Celiac Disease–Related Small Bowel Adenocarcinomas*  
Begoña Diosdado, Tineke E. Buffart, Russell Watkins, Beatriz Carvalho, Bauke Ylstra, Marianne Tijssen, Anne S. Bolijn, Fraser Lewis, Karen Maude, Caroline Verbeke, Iris D. Nagtegaal, Heike Grabsch, Chris J.J. Mulder, Phil Quirk, Peter Howdle, and Gerrit A. Meijer

1402  
*Critical Role of Ge12 and Ge13 for Human Small Cell Lung Cancer Cell Proliferation In vitro and Tumor Growth In vivo*  
Marius Grzelinski, Olaf Pinkenburg, Thomas Büch, Maike Gold, Stefanie Stohr, Hermann Kalwa, Thomas Guder, and Achim Aigner

1416  
*Association of TGF-β1 Genetic Variants with HPV16-positive Oropharyngeal Cancer*  
Xiaoxiang Guan, Erich M. Sturgis, Dapeng Lei, Zhensheng Liu, Kristina R. Dahlstrom, Qingyi Wei, and Guojun Li

1423  
*ZIP4 Regulates Pancreatic Cancer Cell Growth by Activating IL-6/STAT3 Pathway through Zinc Finger Transcription Factor CREB*  
Yuqing Zhang, Uddalak Bharadwaj, Craig D. Logsdon, Changyi Chen, Qi Zhi Yao, and Min Li

1431  
*Neuroblastoma Progression Correlates with Downregulation of the Lymphangiogenesis Inhibitor sVEGFR-2*  
Jürgen Becker, Helena Pavlakovic, Fabian Ludewig, Fabiola Wilting, Herbert A. Weich, Romulo Albuquerque, Jayakrishna Ambati, and Jörg Wilting
CANCER THERAPY: PRECLINICAL

Patient-Derived First Generation Xenografts of Non–Small Cell Lung Cancers: Promising Tools for Predicting Drug Responses for Personalized Chemotherapy

Xin Dong, Jun Guan, John C. English, Julia Flint, John Yee, Kenneth Evans, Nevin Murray, Calum MacAulay, Raymond T. Ng, Peter W. Cout, Wan L. Lam, Janessa Laskin, Victor Ling, Stephen Lam, and Yuzhuo Wang

Comparative Profiling of the Novel Epothilone, Sagopilone, in Xenografts Derived from Primary Non–Small Cell Lung Cancer

Stefanie Hammer, Anette Sommer, Iduna Fichtner, Michael Becker, Jana Rolff, Johannes Merk, Ulrich Klar, and Jens Hoffmann

An Adenoviral Vaccine Encoding Full-Length Inactivated Human Her2 Exhibits Potent Immunogenicity and Enhanced Therapeutic Efficacy without Oncogenicity

Zachary Hartman, Junping Wei, Takuya Osada, Oliver Glass, Gangjun Lei, Xiao-Yi Yang, Sharon Pepelnski, Dong-Wan Kim, Wenle Xia, Neil Spector, Jeffrey Marks, William Barry, Amy Hobeika, Gayathri Devi, Andrea Amalfitano, Michael A. Morse, H. Kim Lyerly, and Timothy M. Clay

Lestaurnibin Enhances the Antitumor Efficacy of Chemotherapy in Murine Xenograft Models of Neuroblastoma

Radhika Iyer, Audrey E. Evans, Xiaoxue Qi, Ruth Ho, Jane E. Minturn, Huaqing Zhao, Naomi Balamuth, John M. Maris, and Garrett M. Brodeur

Lapatinib Restores Hormone Sensitivity with Differential Effects on Estrogen Receptor Signaling in Cell Models of Human Epidermal Growth Factor Receptor 2–Negative Breast Cancer with Acquired Endocrine Resistance


Preclinical Investigation of PEGylated Tumor Necrosis Factor α in Dogs with Spontaneous Tumors: Phase 1 Evaluation

Douglas H. Thamm, Ilene D. Kurzman, Mike A. Clark, E.J. Ehrhart III, Susan L. Kraft, Daniel L. Gustafson, and David M. Vail

IMAGING, DIAGNOSIS, PROGNOSIS

Lapatinib, a Dual EGFR and HER2 Kinase Inhibitor, Selectively Inhibits HER2-Amplified Human Gastric Cancer Cells and is Synergistic with Trastuzumab In vitro and In vivo

Zev A. Wainberg, Adrian Anghel, Amrita J. Desai, Raul Ayala, Tong Luo, Brent Safran, Marlena S. Fejzo, J. Randolph Hecht, Dennis J. Slamon, and Richard S. Finn

Defucosylated Humanized Anti-CCR4 Monoclonal Antibody KW-0761 as a Novel Immunotherapeutic Agent for Adult T-cell Leukemia/Lymphoma

Toshihiko Ishii, Takashi Ishida, Atae Utsunomiya, Atsushi Inagaki, Hiroki Yano, Hirokazu Komatsu, Shinsuke Iida, Kazunori Imada, Takashi Uchiyama, Shiro Akinaga, Kenya Shitara, and Ryuzo Ueda

Accurate Outcome Prediction in Neuroblastoma across Independent Data Sets Using a Multigene Signature

Katleen De Preter, Joëlle Vermeulen, Benedikt Brors, Olivier Delattre, Angelika Eggert, Matthias Fischer, Isabelle Janoueix-Lerosey, Cinzia Lavaringo, John M. Maris, Jaime Mora, Akira Nakagawara, André Oberthuber, Miki Ohira, Gudrun Schleiermacher, Alexander Schramm, Johannes H. Schulte, Qun Wang, Frank Westermann, Frank Speleman, and Jo Vandesompele

Evaluation of Treatment-Associated Inflammatory Response on Diffusion-Weighted Magnetic Resonance Imaging and 2-[18F]-Fluoro-2-Deoxy-D-Glucose-Positron Emission Tomography Imaging Biomarkers


Low Level Her2 Overexpression Is Associated with Rapid Tumor Cell Proliferation and Poor Prognosis in Prostate Cancer

A Novel, Highly Sensitive Antibody Allows for the Routine Detection of ALK-Rearranged Lung Adenocarcinomas by Standard Immunohistochemistry

Evaluation of the ETS-Related Gene mRNA in Urine for the Detection of Prostate Cancer

Melanoma MicroRNA Signature Predicts Post-Recurrence Survival

Development of Immunohistochemistry Assays to Assess GALNT14 and FUT3/6 in Clinical Trials of Dulainermin and Droxitumab
Howard M. Stern, Mary Padilla, Klaus Wagner, Lukas Amler, and Avi Ashkenazi

IDH1 and IDH2 Mutations Are Prognostic but not Predictive for Outcome in Anaplastic Oligodendrogial Tumors: A Report of the European Organization for Research and Treatment of Cancer Brain Tumor Group
Martin J. van den Bent, Hendrikus J. Dubbink, Yannick Marie, Alba A. Brandes, Martin J.B. Taphoorn, Pieter Wesseling, Marc Frenay, Coen C. Tijssen, Denis Lacombe, Ahmed Idbaih, Ronald van Marion, Johan M. Kros, Winand N.M. Dinjens, Thierry Gorlia, and Marc Sanson

CANCER THERAPY: CLINICAL

Cyclooxygenase-2 Inhibition Does Not Improve the Reduction in Ductal Carcinoma In situ Proliferation with Aromatase Inhibitor Therapy: Results of the ERISAC Randomized Placebo-Controlled Trial

The First-in-Human Study of the Hydrogen Sulfate (Hyd-Sulfate) Capsule of the MEK1/2 Inhibitor AZD6244 (ARRY-142886): A Phase I Open-Label Multicenter Trial in Patients with Advanced Cancer

Estrogen Receptor-α Phosphorylation at Serine 305, Nuclear p21-Activated Kinase 1 Expression, and Response to Tamoxifen in Postmenopausal Breast Cancer
Josefine Becker, Lambert Skoog, Tommy Fonander, Bo Nordenskjöld, and Olle Stål

A Phase II Clinical Trial of Ixabepilone (Ixempra; BMS-247550; NSC 710428), an Epothilone B Analog, in Patients with Metastatic Renal Cell Carcinoma
Hui Huang, Michael Meneeefee, Maureen Edgerly, Sen Zhuang, Herb Kotz, Marianne Poruchynsky, Lyn Mickley Huff, Susan Bates, and Tito Fojo

Diverse Patterns of T-Cell Response against Multiple Newly Identified Human Y Chromosome–Encoded Minor Histocompatibility Epitopes
Yishai Ofran, Haesook T. Kim, Vladimir Brusic, Loren Blake, Michael Mandrell, Catherine J. Wu, Stefanie Sarantopoulos, Roberto Bellucci, Derin B. Reskin, Robert J. Soiffer, Joseph H. Antin, and Jerome Ritz
The featured image is a lung adenocarcinoma stained with a novel, highly sensitive and specific antibody recognizing the ALK oncoprotein (*brown staining*) and counterstained with hematoxylin (*blue staining*). The tumor was shown to harbor a rearrangement of the ALK locus by genetic analysis. This assay will facilitate the routine identification of ALK-rearranged lung adenocarcinomas in clinical practice and detect lung cancers that may be responsive to ALK inhibitors. For details, see the article by Mino-Kenudson and colleagues on page 1561 of this issue.