Barriers to Integrating Gene Profiling for Stage II Colon Cancer. Scott Kopetz and James L. Abbruzzese .......................................................... 7451

Inhibition of Vascular Endothelial Growth Factor Receptor-1/Wnt/β-catenin Crosstalk Leads to Tumor Cell Death. Benjamin D. Zeitlin, Lee M. Ellis, and Jacques E. Nör ........................................ 7453

Commentary on Jorissen et al., p. 7642

Commentary on Naik et al., p. 7529

Bendamustine in B-Cell Malignancies: The New 46-Year-Old Kid on the Block. Varsha Gandhi and Jan A. Burger .......................................................... 7456

Hyaluronan-CD44 Interactions in Cancer: Paradoxes and Possibilities. Bryan P. Toole ........ 7462

From the Editor. Susan E. Bates .................................................................................. 7469

Resistance to Targeted Therapies: Refining Anticancer Therapy in the Era of Molecular Oncology. Lee M. Ellis and Daniel J. Hicklin .................................................. 7471


Biomarkers of Resistance to Epidermal Growth Factor Receptor Monoclonal Antibodies in Patients with Metastatic Colorectal Cancer. Michaela S. Banck and Axel Grothey ........................................ 7492

Resistance to Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitors in Non–Small Cell Lung Cancer. Peter S. Hammerman, Pasi A. Jänne, and Bruce E. Johnson ............ 7502

Resistance to Tyrosine Kinase Inhibitors in Gastrointestinal Stromal Tumors. Ann W. Gramza, Christopher L. Corless, and Michael C. Heinrich .......................................................... 7510

Mechanisms of Resistance to Imatinib and Second-Generation Tyrosine Inhibitors in Chronic Myeloid Leukemia. Dragana Milojkovic and Jane Apperley ........................................ 7519

Vascular Endothelial Growth Factor Receptor-1 Is Synthetic Lethal to Aberrant β-Catenin Activation in Colon Cancer. Snehal Naik, Robin S. Dothager, Jayne Marasa, Cory L. Lewis, and David Piwnica-Worms .......................................................... 7529


Differential Thymidylate Synthase Expression in Different Variants of Large-Cell Carcinoma of the Lung. Valentina Monica, Giorgio V. Scagliotti, Paolo Ceppi, Luisella Righi, Alberto Cambieri, Marco Lo Iacono, Silvia Saviozzi, Marco Volante, Silvia Novello, and Mauro Papotti .......................................................... 7547
Characterizing the Clinical Relevance of an Embryonic Stem Cell Phenotype in Lung Adenocarcinoma. Marvaretta Stevenson, William Mostertz, Chaitanya Acharya, William Kim, Kelli Walters, William Barry, Kristin Higgins, Sascha A. Tuchman, Jeffrey Crawford, Gordana Vlahovic, Neal Ready, Mark Onaitis, and Anil Potti ..........................................................753

Smoking-Related Gene Expression in Laser Capture–Microdissected Human Lung. Xiang-Lin Tan, Tao Wang, Shengli Xiong, Shalini V. Kumar, Weiguang Han, and Simon D. Spivack ............... 7562

14-3-3ζ Amplifies Androgen Receptor Actions in Prostate Cancer. Mark A. Titus, Jiann-an Tan, Christopher W. Gregory, O. Harris Ford, Romesh R. Subramanian, Haian Fu, Elizabeth M. Wilson, James L. Mohler, and Frank S. French ............................................................... 7571

Analysis of VIII. Gene Alterations and Their Relationship to Clinical Parameters in Sporadic Conventional Renal Cell Carcinoma. Alison C. Young, Rachel A. Craven, Dena Cohen, Claire Taylor, Christopher Booth, Patricia Harnden, David A. Cairns, Dewi Astuti, Walter Gregory, Eamonn R. Maher, Margaret A. Knowles, Adrian Joyce, Peter J. Selby, and Rosamonde E. Banks ........................................................................................................ 7582

Inhibition of Functional Hyaluronan-CD44 Interactions in CD133-positive Primary Human Ovarian Carcinoma Cells by Small Hyaluronan Oligosaccharides. Mark G. Slomiany, Lu Dai, Lauren R. Tolliver, G. Daniel Grass, Yiping Zeng, and Bryan P. Toole ............................................................... 7593

Cancer Therapy: Preclinical

Interactions between MDM2 and TP53 Genetic Alterations, and Their Impact on Response to MDM2 Inhibitors and Other Chemotherapeutic Drugs in Cancer Cells. Wanqing Liu, Lilun He, Jacqueline Ramirez, and Mark J. Ratain ................................................................. 7602

Novel Inhibitors of Fatty Acid Synthase with Anticancer Activity. Teresa Puig, Carlos Turrado, Bellinda Benhamú, Helena Aguilar, Joana Relat, Silvia Ortega-Guitiérrez, Gemma Casals, Pedro F. Marrero, Ander Urruticoechea, Diego Haro, María Luz López-Rodríguez, and Ramon Colomer ........................................................................................................ 7608

ABCC2, ABCC3, and ABCB1, but not CYP3A, Protect against Trabectedin-Mediated Hepatotoxicity. Robert A.B. van Waterschoot, Rhandy M. Eman, Els Wagenaar, Cornelia M.M. van der Kruijssen, Hilde Rosing, Jos H. Beijnen, and Alfred H. Schinkel ............................................................ 7616


Imaging, Diagnosis, Prognosis

Metastasis-Associated Gene Expression Changes Predict Poor Outcomes in Patients with Dukes Stage B and C Colorectal Cancer. Robert N. Jorissen, Peter Gibbs, Michael Christie, Saurabh Prakash, Lara Lipton, Jayesh Desai, David Kerr, Lauri A. Aaltonen, Diego Arango, Mogens Kruhoffer, Torben F. Ørntoft, Claus Lindbjerg Andersen, Mike Gruidl, Vidya P. Kamath, Steven Eschrich, Timothy J. Yeatman, and Oliver M. Sieber ........................................................................ 7642


miR-195 and miR-483-5p Identified as Predictors of Poor Prognosis in Adrenocortical Cancer. Patsy Siok Hwa Soon, Lyndal J. Tacon, Anthony J. Gill, Christopher F. Bambach, Mark S. Sywak, Peter R. Campbell, Michael W. Yeh, Steven G. Wong, Roderick J. Clifton-Bligh, Bruce G. Robinson, and Stan B. Siddhu ............................................................................ 7684


Cancer Therapy: Clinical

A Phase I Clinical Trial of CHT-25 a 131I-Labeled Chimeric Anti-CD25 Antibody Showing Efficacy in Patients with Refractory Lymphoma. Gairin Dancey, John Violet, Alessandra Malaroda, Alan J. Green, Surinder K. Sharma, Roslyn Francis, Shokri Othman, Sweta Parker, John Buscombe, Natalie Griffin, Pei-San Chan, Anmol Malhotra, Nicholas Woodward, Alan Ramsay, Philip Ross, T. Andrew Lister, Peter Amlot, Richard Begent, and Christopher McNamara ................................................................. 7701

Phase II Trial of Temozolomide and Sorafenib in Advanced Melanoma Patients with or without Brain Metastases. Ravi K. Amaravadi, Lynn M. Schuchter, David F. McDermott, Amy Kramer, Lydia Giles, Kristi Gramlich, Mary Carberry, Andrea B. Troxel, Richard Lettero, Katherine L. Nathanson, Michael B. Atkins, Peter J. O'Dwyer, and Keith T. Flaherty ........................................................................ 7711


Clinical Benefit of Allogeneic Melanoma Cell Lysate–Pulsed Autologous Dendritic Cell Vaccine in MAGE-Positive Colorectal Cancer Patients. Han Chong Toh, Who-Wong Wang, Whay Kuang Chia, Pia Kvistborg, Li Sun, Kelly Teo, Yee Peng Phoon, Yatanar Soe, Sze Huey Tan, Siew Wan Hee, Kian Fong Foo, Simon Ong, Wen Hsin Koo, Mai-Britt Zocca, and Mogens H. Claesson ........................................................................... 7726

Susceptibility and Prevention


About the Cover

In a targeted RNA interference screen of the human kinome, VEGFR1/Flt1 was identified as a positive regulator of Wnt/β-catenin signaling and found to be synthetic lethal in the context of aberrant Wnt activation, such as that found in colon cancer. Even in the presence of siRNA targeting VEGFR1, immunofluorescence analysis showed nuclear translocation of β-catenin upon stimulation with Wnt. Thus, VEGFR1 likely regulates Wnt signaling at the level of posttranslational modification of β-catenin and represents a potential therapeutic target for treatment of Wnt/β-catenin—addicted cancers. For further details, please see Naik and colleagues on page 7529 in this issue.