Contents

Highlights of This Issue   593

SPECIAL FEATURES

CCR Translations

595  New Treatments for Rhabdomyosarcoma: The Importance of Target Practice
Frederic G. Barr
See article p. 796

Molecular Pathways

598  Molecular Pathways: Targeting Mechanisms of Asbestos and Erionite Carcinogenesis in Mesothelioma
Michele Carbone and Haining Yang

CCR Focus

606  A Millennium Goal for Cancer
Susan E. Bates

607  Overview of the AACR Clinical and Translational Cancer Research Think Tank Meeting
Kenneth C. Anderson and Raymond N. DuBois

612  Impact of Genomics on Personalized Cancer Medicine
Carlos L. Arteaga and José Baselga

619  Making Personalized Cancer Medicine a Reality: Challenges and Opportunities in the Development of Biomarkers and Companion Diagnostics
David R. Parkinson, Bruce E. Johnson, and George W. Sledge

625  Genetically Modified Mouse Models for Biomarker Discovery and Preclinical Drug Testing
Raju Kucherlapati

631  Imaging: Strategies, Controversies, and Opportunities
Ronald Blasberg and David Piwnica-Worms

638  Reports from the 2010 Clinical and Translational Cancer Research Think Tank Meeting: Design Strategies for Personalized Therapy Trials
Donald A. Berry, Roy S. Herbst, and Eric H. Rubin

Review

645  Cancer Dormancy: A Model of Early Dissemination and Late Cancer Recurrence
D. P. Pérez, Melissa J. Labonte, Pierre Bohanès, Wu Zhang, Leonor Benhamin, Yan Ning, Takeru Wakatsuki, Fotios Loupakis, and Heinz-Josef Lenz

HUMAN CANCER BIOLOGY

654  Notch Signaling Promotes Growth and Invasion in Uveal Melanoma

666  Modeling a Lethal Prostate Cancer Variant with Small-Cell Carcinoma Features
Vassiliki Tzalepi, Jexin Zhang, Jing-Fang Lu, Brittany Klee, Guanglin Wu, Xinhai Wan, Anh Hoang, Elfen Efthathiou, Kanishka Sircar, Nora M. Navone, Patricia Troncoso, Shoudan Liang, Christopher J. Logothetis, Sankar N. Maiti, and Ana M. Aparicio

678  Expansion of a CD8^+ PD-1^+ Replicative Senescence Phenotype in Early Stage CLL Patients Is Associated with Inverted CD4/CD8 Ratios and Disease Progression
Claudia Nunes, Ryan Wong, Malcolm Mason, Chris Fegan, Stephen Man, and Chris Pepper

700  Genome-Wide CpG Island Profiling of Intraductal Papillomatous Malignant Neoplasms of the Pancreas
Seung-Mo Hong, Noriyuki Omura, Audrey Vincent, Ang Li, Spencer Knight, Jun Yu, Ralph H. Hruban, and Michael Goggins
Upregulated IL-19 in Breast Cancer Promotes Tumor Progression and Affects Clinical Outcome

Chung-Hsi Hsing, Hung-Chi Cheng, Yu-Hsiang Hsu, Chien-Hui Chan, Ching-Hua Yeh, Chien-Feng Li, and Ming-Shi Chang

Activation of β-Catenin Signaling in Androgen Receptor–Negative Prostate Cancer Cells

Xinhai Wan, Jie Liu, Jing-Fang Lu, Vassiliki Tzelepi, Jun Yang, Michael W. Starbuck, Lixia Diao, Jing Wang, Eleni Efthathiou, Elba S. Vazquez, Patricia Troncoso, Sankar N. Maity, and Nora M. Navone

MiR-1 Downregulation Cooperates with MACC1 in Promoting MET Overexpression in Human Colon Cancer

Cristina Migliore, Valentina Martin, Vera P. Leoni, Angelo Restivo, Luigi Atzori, Annalisa Petrelli, Claudio Isella, Luigi Zorcolo, Ivana Sarotto, Giuseppe Casula, Paolo M. Comoglio, Amedeo Columbano, and Silvia Giordano

Oncogene Mutation Profiling of Pediatric Solid Tumors Reveals Significant Subsets of Embryonal Rhabdomyosarcoma and Neuroblastoma with Mutated Genes in Growth Signaling Pathways

Neerav Shukla, Nabahet Ameur, Ismail Yilmaz, Khedoudja Nafa, Chyau-Yueh Lau, Angela Marchetti, Laetitia Borsu, Frederic G. Barr, and Marc Ladanyi

Selective Tumor Hypoxia Targeting by Hypoxia-Activated Prodrug TH-302 Inhibits Tumor Growth in Preclinical Models of Cancer

Jessica D. Sun, Qian Liu, Jingli Wang, Dharmendra Ahluwalia, Damien Ferraro, Yan Wang, Jian-Xin Duan, W. Steve Ammons, John G. Curd, Mark D. Matteucci, and Charles P. Hart

Omental Adipose Tissue–Derived Stromal Cells Promote Vascularization and Growth of Endometrial Tumors


Modulation of NOXA and MCL-1 as a Strategy for Sensitizing Melanoma Cells to the BH3-Mimetic ABT-737

Keryn M. Lucas, Nethia Mohana-Kumaran, Diana Lau, Xu Dong Zhang, Peter Hersey, David C. Huang, Wolfgang Weninger, Nikolas K. Haass, and John D. Allen

Antitumor Activity of Sustained N-Myc Reduction in Rhabdomyosarcomas and Transcriptional Block by Antigene Therapy

Roberto Tonelli, Alan McIntyre, Consuelo Camerin, Zoe S. Walters, Korinne Di Leo, Joanna Selfe, Stefania Purgato, Edoardo Missiaglia, Andrea Tortori, Jane Renshaw, Annalisa Astolfi, Kathryn R. Taylor, Salvatore Serravalle, Ryan Bishop, Cristina Nanni, Linda J. Valentijn, Andrea Faccini, Ivo Leuschner, Serena Formica, Jorge S. Reis-Filho, Valentina Ambrosini, Khin Thway, Monica Franzoni, Brenda Summersgill, Rossanella Marchelli, Patrizia Hrelia, Giorgio Cantelli-Forti, Stefano Fantl, Roberto Corradini, Andrea Pession, and Janet Shipley

Methylated RASSF1a Is the First Specific DNA Marker for Minimal Residual Disease Testing in Neuroblastoma

Janine Stutterheim, Fatima Ait Ichou, Emmy den Ouden, Rogier Versteeg, Huib N. Caron, Godelieve A.M. Tytgat, and C. Ellen van der Schoot

External Validation of Diagnostic Models to Estimate the Risk of Malignancy in Adnexal Masses

Caroline Van Holsbeke, Ben Van Calster, Tom Bourne, Silvia Ajossa, Antonia C. Testa, Stefano Guerriero, Robert Fruscio, Andrea Alberto Lissoni, Artur Czekierdowski, Luca Savelli, Sabine Van Huffel, Lil Valentín, and Dirk Timmerman

Mitotic Checkpoints and Chromosome Instability Are Strong Predictors of Clinical Outcome in Gastrointestinal Stromal Tumors

Pauline Lagarde, Gaëlle Pérot, Audrey Kauffmann, Céline Bruard, Valérie Dapremont, Isabelle Hostein, Agnès Neuvile, Agnieszka Wozniak, Raf Sciot, Patrick Schoffski, Alain Aurias, Jean-Michel Coidre, Maria Debrec-Rychter, and Frédéric Chibon
Pharmacokinetically Stabilized Cystine Knot Peptides That Bind Alpha-v-Beta-6 Integrin with Single-Digit Nanomolar Affinities for Detection of Pancreatic Cancer

Tumor Infiltration by T Lymphocytes Expressing Chemokine Receptor 7 (CCR7) Is Predictive of Favorable Outcome in Patients with Advanced Colorectal Carcinoma
Pierpaolo Correale, Maria Saveria Rotundo, Cirino Botta, Maria Teresa Del Vecchio, Chiara Ginanneschi, Antonella Lichetta, Raffaele Conca, Serena Apollinari, Fabio De Luca, Pierfrancesco Tassone, and Pierosandro Tagliaferri

A Live-Attenuated Listeria Vaccine (ANZ-100) and a Live-Attenuated Listeria Vaccine Expressing Mesothelin (CRS-207) for Advanced Cancers: Phase I Studies of Safety and Immune Induction
Dung T. Le, Dirk G. Brockstedt, Ran Nir-Paz, Johannes Hamp, Shruti Mathur, John Nemunaitis, Daniel H. Sterman, Raffit Hassan, Eric Lutz, Bentley Moyer, Martin Giedlin, Jana-Lynn Louis, Elizabeth A. Sugar, Alice Pons, Andrea L. Cox, Jordana Levine, Aimee Murphy, Peter Blei, Thomas W. Dubensky Jr, Joseph E. Eiden, Elizabeth M. Jaffe, and Daniel A. Laheru

Stem Cell Pathways Contribute to Clinical Chemoresistance in Ovarian Cancer
Adam D. Steg, Kerri S. Bevis, Ashwini A. Katre, Angela Ziebarth, Zachary C. Dobbins, Ronald D. Alvarez, Kui Zhang, Michael Conner, and Charles N. Landen

Clinical Effects of Adjuvant Active Specific Immunotherapy Differ between Patients with Microsatellite-Stable and Microsatellite-Instable Colon Cancer
Vincent A. de Weger, Annelies W. Turksma, Quirinus J.M. Voorham, Zelda Euler, Herman Neel, Alfonso J. van den Eertwegh, Elisabeth Bloemena, Herbert M. Pinedo, Jan B. Vermerken, Harm van Tinteren, Gerrit A. Meijer, and Erik Hooijberg

Predictive and Prognostic Roles of BRAF Mutation in Stage III Colon Cancer: Results from Intergroup Trial CALGB 89803
Shuji Ogino, Kaori Shima, Jeffrey A. Meyerhardt, Nadine J. McCleary, Kimmy Ng, Donna Hollis, Leonard B. Saltz, Robert J. Mayer, Paul Schaefer, Renaud Whittom, Alexander Hantel, Al B. Benson III, Donna Spiegelman, Richard M. Goldberg, Monica M. Bertagolli, and Charles S. Fuchs

Opposing Effects of Runx2 and Estradiol on Breast Cancer Cell Proliferation: In Vitro Identification of Reciprocally Regulated Gene Signature Related to Clinical Letrozole Responsiveness
Nyan-Osor Change, Sanjeev K. Banerji, Jingjin Luo, Simon Coetzee, Omar Khalid, Benjamin P. Berman, Deb Tripathy, Matthew J. Ellis, and Baruch Frenkel

Targeting Proteasomal Protein Degradation in Cancer—Letter
William K.K. Wu

Correction: Improving T-cell Therapy for Relapsed EBV-Negative Hodgkin Lymphoma by Targeting Upregulated MAGE-A4

ABOUT THE COVER

A section of endometrial tumor xenografted in a mouse injected with Wi38 fibroblasts that fail to support tumor vascularization. Immunofluorescence analysis with antibodies against CD31 (green) and Ki67 (red) shows lack of CD31-positive vasculature and Ki67-positive proliferating cells exclusively in the peripheral tumor layer (bottom), whereas injection of omental adipose stromal cells increases tumor proliferation and vascularization. For details, see the article by Klopp and colleagues on page 771 of this issue.