

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**
David Páez, Melissa J. Labonte, Pierre Bohanes, Wu Zhang, Leonor Benhanim, Yan Ning, Takeru Wakatsuki, Fotios Loupakis, and Heinz-Josef Lenz

HUMAN CANCER BIOLOGY

- 654 **Notch Signaling Promotes Growth and Invasion in Uveal Melanoma**
Laura Asnaghi, Katayoon B. Ebrahimi, Karisa C. Schreck, Eli E. Bar, Michael L. Coonfield, W. Robert Bell, James Handa, Shannath L. Merbs, J. William Harbour, and Charles G. Eberhart
- 666 **Modeling a Lethal Prostate Cancer Variant with Small-Cell Carcinoma Features**
Vassiliki Tzelepi, Jiexin Zhang, Jing-Fang Lu, Brittany Kleb, Guanglin Wu, Xinhai Wan, Anh Hoang, Eleni Efsthathiou, Kanishka Sircar, Nora M. Navone, Patricia Troncoso, Shoudan Liang, Christopher J. Logothetis, Sankar N. Maity, 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
- 688 **Primary Colorectal Cancers and Their Subsequent Hepatic Metastases Are Genetically Different: Implications for Selection of Patients for Targeted Treatment**
Joost S. Vermaat, Isaac J. Nijman, Marco J. Koudijs, Frank L. Gerritse, Stefan J. Scherer, Michal Mokry, Wijnand M. Roessingh, Nico Lansu, Ewart de Bruijn, Richard van Hillegersberg, Paul J. van Diest, Edwin Cuppen, and Emile E. Voest
- 700 **Genome-Wide CpG Island Profiling of Intraductal Papillary Mucinous Neoplasms of the Pancreas**
Seung-Mo Hong, Noriyuki Omura, Audrey Vincent, Ang Li, Spencer Knight, Jun Yu, Ralph H. Hruban, and Michael Goggins

713 **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

726 **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 Efstathiou, Elba S. Vazquez, Patricia Troncoso, Sankar N. Maity, and Nora M. Navone

737 **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

748 **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 Ameer, Ismail Yilmaz, Khedoudja Nafa, Chyau-Yueh Lau, Angela Marchetti, Laetitia Borsu, Frederic G. Barr, and Marc Ladanyi

CANCER THERAPY: PRECLINICAL

758 **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

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

Ann H. Klopp, Yan Zhang, Travis Solley, Felipe Amaya-Manzanares, Frank Marini, Michael Andreeff, Bisrat Debeb, Wendy Woodward, Rosemarie Schmandt, Russell Broaddus, Karen Lu, and Mikhail G. Kolonin

783 **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

796 **Antitumor Activity of Sustained N-Myc Reduction in Rhabdomyosarcomas and Transcriptional Block by Antigen Therapy**

Roberto Tonelli, Alan McIntyre, Consuelo Camerin, Zoë 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, Rosangela Marchelli, Patrizia Hrelia, Giorgio Cantelli-Forti, Stefano Fanti, Roberto Corradini, Andrea Pession, and Janet Shipley

See commentary p. 595

IMAGING, DIAGNOSIS, PROGNOSIS

808 **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

815 **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 Valentin, and Dirk Timmerman

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

Pauline Lagarde, Gaëlle Pérot, Audrey Kauffmann, Céline Brulard, Valérie Dapremont, Isabelle Hostein, Agnès Neuville, Agnieszka Wozniak, Raf Sciot, Patrick Schöffski, Alain Aurias, Jean-Michel Coindre, Maria Debiec-Rychter, and Frédéric Chibon

839 | **Pharmacokinetically Stabilized Cystine Knot Peptides That Bind Alpha-v-Beta-6 Integrin with Single-Digit Nanomolar Affinities for Detection of Pancreatic Cancer**
Richard H. Kimura, Robert Teed, Benjamin J. Hackel, Marybeth A. Pysz, Courtney Z. Chuang, Ataya Sathirachinda, Jürgen K. Willmann, and Sanjiv S. Gambhir

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

CANCER THERAPY: CLINICAL

858 | **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 Hampl, 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 Luck Murphy, Peter Illei, Thomas W. Dubensky Jr, Joseph E. Eiden, Elizabeth M. Jaffee, and Daniel A. Laheru

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

PREDICTIVE BIOMARKERS AND PERSONALIZED MEDICINE

882 | **Clinical Effects of Adjuvant Active Specific Immunotherapy Differ between Patients with Microsatellite-Stable and Microsatellite-Unstable Colon Cancer**
Vincent A. de Weger, Annelies W. Turksma, Quirinus J.M. Voorham, Zeldia Euler, Herman Bril, Alfons J. van den Eertwegh, Elisabeth Bloemena, Herbert M. Pinedo, Jan B. Vermorken, Harm van Tinteren, Gerrit A. Meijer, and Erik Hooijberg

890 | **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, Kimmie 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. Bertagnolli, and Charles S. Fuchs

901 | **Opposing Effects of Runx2 and Estradiol on Breast Cancer Cell Proliferation: *In Vitro* Identification of Reciprocally Regulated Gene Signature Related to Clinical Letrozole Responsiveness**
Nyam-Osor Chimgé, Sanjeev K. Baniwal, Jingqin Luo, Simon Coetzee, Omar Khalid, Benjamin P. Berman, Debu Tripathy, Matthew J. Ellis, and Baruch Frenkel

LETTER TO THE EDITOR

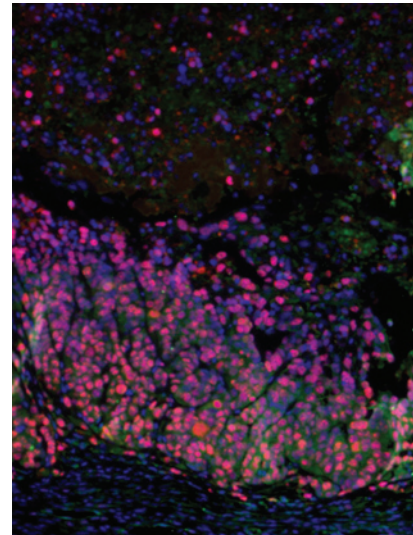
912 | **Targeting Proteasomal Protein Degradation in Cancer—Letter**
William K.K. Wu

CORRECTION

913 | **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.



Clinical Cancer Research

18 (3)

Clin Cancer Res 2012;18:593-913.

Updated version Access the most recent version of this article at:
<http://clincancerres.aacrjournals.org/content/18/3>

E-mail alerts [Sign up to receive free email-alerts](#) related to this article or journal.

Reprints and Subscriptions To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at pubs@aacr.org.

Permissions To request permission to re-use all or part of this article, use this link <http://clincancerres.aacrjournals.org/content/18/3>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.