

Highlights of This Issue 3717

SPECIAL FEATURES

CCR Translations

- 3719 **Dual PI3K/mTOR Inhibitors: Does p53 Modulate Response?**
Oleksandr Ekshyyan, Arunkumar Anandharaj, and Cherie-Ann O. Nathan
See article, p. 3808

CCR Perspectives in Drug Approval

- 3722 **Use of Multiple Endpoints and Approval Paths Depicts a Decade of FDA Oncology Drug Approvals**
Michael B. Shea, Samantha A. Roberts, Jessica C. Walrath, Jeff D. Allen, and Ellen V. Sigal

Molecular Pathways

- 3732 **Molecular Pathways: Environmental Estrogens Activate Nongenomic Signaling to Developmentally Reprogram the Epigenome**
Rebecca Lee Yean Wong and Cheryl Lyn Walker

- 3738 **Molecular Pathways: PI3K Pathway Targets in Triple-Negative Breast Cancers**
Vallerie Gordon and Shantanu Banerji

Review

- 3745 **Optical Image-Guided Cancer Surgery: Challenges and Limitations**
Stijn Keereweer, Pieter B.A.A. Van Driel, Thomas J.A. Snoeks, Jeroen D.F. Kerrebijn, Robert J. Baatenburg de Jong, Alexander L. Vahrmeijer, Henricus J.C.M. Sterenborg, and Clemens W.G.M. Löwik

HUMAN CANCER BIOLOGY

- 3755 **T_H2 Cytokines from Malignant Cells Suppress T_H1 Responses and Enforce a Global T_H2 Bias in Leukemic Cutaneous T-cell Lymphoma**
Emmanuella Guenova, Rei Watanabe, Jessica E. Teague, Jennifer A. Desimone, Ying Jiang, Mitra Dowlatshahi, Christoph Schlapbach, Knut Schaeckel, Alain H. Rook, Marianne Tawa, David C. Fisher, Thomas S. Kupper, and Rachael A. Clark
- 3764 **S100B Promotes Glioma Growth through Chemoattraction of Myeloid-Derived Macrophages**
Huaqing Wang, Leying Zhang, Ian Y. Zhang, Xuebo Chen, Anna Da Fonseca, Shihua Wu, Hui Ren, Sam Badie, Sam Sadeghi, Mao Ouyang, Charles D. Warden, and Behnam Badie
- 3776 **Glioma Grade Is Associated with the Accumulation and Activity of Cells Bearing M2 Monocyte Markers**
Michael Prosniak, Larry A. Harshyne, David W. Andrews, Lawrence C. Kenyon, Kamila Bedelbaeva, Tatiyana V. Apanasovich, Ellen Heber-Katz, Mark T. Curtis, Paolo Cotzia, and D. Craig Hooper
- 3787 **Genotype-Specific Abnormalities in Mitochondrial Function Associate with Distinct Profiles of Energy Metabolism and Catecholamine Content in Pheochromocytoma and Paraganglioma**
Jyotsna U. Rao, Udo F.H. Engelke, Richard J.T. Rodenburg, Ron A. Wevers, Karel Pacak, Graeme Eisenhofer, Nan Qin, Benno Kusters, Angelina G. Goudswaard, Jacques W.M. Lenders, Ad R.M.M. Hermus, Arjen R. Mensenkamp, Henricus P.M. Kunst, Fred C.G.J. Sweep, and Henri J.L.M. Timmers

CANCER THERAPY: PRECLINICAL

- 3796 **Functional Profiling of Receptor Tyrosine Kinases and Downstream Signaling in Human Chondrosarcomas Identifies Pathways for Rational Targeted Therapy**
Yi-Xiang Zhang, Jolieke G. van Oosterwijk, Ewa Sicinska, Samuel Moss, Stephen P. Remillard, Tom van Wezel, Claudia Bühnemann, Andrew B. Hassan, George D. Demetri, Judith V.M.G. Bovée, and Andrew J. Wagner


- 3808 **PI3K/mTOR Inhibitor PF-04691502 Antitumor Activity Is Enhanced with Induction of Wild-Type TP53 in Human Xenograft and Murine Knockout Models of Head and Neck Cancer**
Amanda Herzog, Yansong Bian, Robert Vander Broek, Bradford Hall, Jamie Coupar, Hui Cheng, Anastasia L. Sowers, John D. Cook, James B. Mitchell, Zhong Chen, Ashok B. Kulkarni, and Carter Van Waes
See commentary, p. 3719
- 3820 **Inhibition of GSK3B Bypass Drug Resistance of p53-Null Colon Carcinomas by Enabling Necroptosis in Response to Chemotherapy**
Emanuela Grassilli, Robert Narloch, Elena Federzoni, Leonarda Ianzano, Fabio Pisano, Roberto Giovannoni, Gabriele Romano, Laura Masiero, Biagio Eugenio Leone, Serena Bonin, Marisa Donada, Giorgio Stanta, Kristian Helin, and Marialuisa Lavitrano
- 3832 **Leukemia Cell-Rhabdovirus Vaccine: Personalized Immunotherapy for Acute Lymphoblastic Leukemia**
David P. Conrad, Jovian Tsang, Meaghan Maclean, Jean-Simon Diallo, Fabrice Le Boeuf, Chantal G. Lemay, Theresa J. Falls, Kelley A. Parato, John C. Bell, and Harold L. Atkins
- 3844 **Targeting Natural Killer Cells to Acute Myeloid Leukemia *In Vitro* with a CD16 \times 33 Bispecific Killer Cell Engager and ADAM17 Inhibition**
Andres Wiernik, Bree Foley, Bin Zhang, Michael R. Verneris, Erica Warlick, Michelle K. Gleason, Julie A. Ross, Xianghua Luo, Daniel J. Weisdorf, Bruce Walcheck, Daniel A. Vallera, and Jeffrey S. Miller
- 3856 **Therapeutic Potential of HSP90 Inhibition for Neurofibromatosis Type 2**
Karo Tanaka, Ascia Eskin, Fabrice Chareyre, Walter J. Jessen, Jan Manent, Michiko Niwa-Kawakita, Ruihong Chen, Cory H. White, Jeremie Vitte, Zahara M. Jaffer, Stanley F. Nelson, Allan E. Rubenstein, and Marco Giovannini
- 3871 **Nanoparticles Engineered with Rituximab and Loaded with Nutlin-3 Show Promising Therapeutic Activity in B-Leukemic Xenografts**
Rebecca Voltan, Paola Secchiero, Barbara Ruozi, Flavio Forni, Chiara Agostinis, Lorenzo Caruso, Maria Angela Vandelli, and Giorgio Zauli
- 3881 **Targeting Treatment-Resistant Breast Cancer Stem Cells with FKBPL and Its Peptide Derivative, AD-01, via the CD44 Pathway**
Lana McClements, Anita Yakkundi, Angelos Papaspyropoulos, Hannah Harrison, Matthew P. Ablett, Puthen V. Jithesh, Hayley D. McKeen, Rachel Bennett, Christopher Donley, Adrien Kissenpfennig, Stuart McIntosh, Helen O. McCarthy, Eric O'Neill, Robert B. Clarke, and Tracy Robson
- 3894 **USP8 Is a Novel Target for Overcoming Gefitinib Resistance in Lung Cancer**
Sanguine Byun, Sung-Young Lee, Jihoon Lee, Chul-Ho Jeong, Lee Farrand, Semi Lim, Kanamata Reddy, Ji Young Kim, Mee-Hyun Lee, Hyong Joo Lee, Ann M. Bode, Ki Won Lee, and Zigang Dong
- 3905 **Ketogenic Diets Enhance Oxidative Stress and Radio-Chemo-Therapy Responses in Lung Cancer Xenografts**
Bryan G. Allen, Sudershan K. Bhatia, John M. Buatti, Kristin E. Brandt, Kaleigh E. Lindholm, Anna M. Button, Luke I. Szweda, Brian J. Smith, Douglas R. Spitz, and Melissa A. Fath

IMAGING, DIAGNOSIS, PROGNOSIS

- 3914 **Temporal and Spatial Evolution of Therapy-Induced Tumor Apoptosis Detected by Caspase-3-Selective Molecular Imaging**
Quang-Dé Nguyen, Ioannis Lavdas, James Gubbins, Graham Smith, Robin Fortt, Laurence S. Carroll, Martin A. Graham, and Eric O. Aboagye
- 3925 **Spinophilin Loss Correlates with Poor Patient Prognosis in Advanced Stages of Colon Carcinoma**
Purificacion Estevez-Garcia, Iker Lopez-Calderero, Sonia Molina-Pinelo, Sandra Muñoz-Galvan, Ana Salinas, Lourdes Gomez-Izquierdo, Antonio Lucena-Cacace, Blanca Felipe-Abrio, Luis Paz-Ares, Rocio Garcia-Carbonero, and Amancio Carnero
- 3936 **Developing a Common Language for Tumor Response to Immunotherapy: Immune-Related Response Criteria Using Unidimensional Measurements**
Mizuki Nishino, Anita Giobbie-Hurder, Maria Gargano, Margaret Suda, Nikhil H. Ramaiya, and F. Stephen Hodi

3944 | **Evaluation of Midkine as a Diagnostic Serum Biomarker in Hepatocellular Carcinoma**
Wen-Wei Zhu, Jia-Jian Guo, Lei Guo, Hu-Liang Jia, Ming Zhu, Ju-Bo Zhang, Christopher A. Loffredo, Marshonna Forgues, Hua Huang, Xu-Jian Xing, Ning Ren, Qiong-Zhu Dong, Hai-Jun Zhou, Zheng-Gang Ren, Nai-Qing Zhao, Xin Wei Wang, Zhao-You Tang, Lun-Xiu Qin, and Qing-Hai Ye

3955 | **The Prognostic Value of MicroRNAs Varies with Patient Race/Ethnicity and Stage of Colorectal Cancer**
Liselle C. Bovell, Chandrakumar Shanmugam, Balananda-Dhurjati K. Putcha, Venkat R. Katkooori, Bin Zhang, Sejong Bae, Karan P. Singh, William E. Grizzle, and Upendar Manne

3996 | **Phase I Dose-Escalation Study of VB-111, an Antiangiogenic Virotherapy, in Patients with Advanced Solid Tumors**
 Andrew J. Brenner, Yael C. Cohen, Eyal Breitbart, Livnat Bangio, John Sarantopoulos, Francis J. Giles, Ernest C. Borden, Dror Harats, and Pierre L. Triozzi

4008 | **Biomarker Modulation following Short-Term Vorinostat in Women with Newly Diagnosed Primary Breast Cancer**
Vered Stearns, Lisa K. Jacobs, MaryJo Fackler, Theodore N. Tsangaris, Michelle A. Rudek, Michaela Higgins, Julie Lange, Zandra Cheng, Shannon A. Slater, Stacie C. Jeter, Penny Powers, Susanne Briest, Calvin Chao, Carl Yoshizawa, Elizabeth Sugar, Igor Espinoza-Delgado, Saraswati Sukumar, Edward Gabrielson, and Nancy E. Davidson

CANCER THERAPY: CLINICAL

3966 | **Antibiotic Treatment Decreases Microbial Burden Associated with Pseudomyxoma Peritonei and Affects β -Catenin Distribution**
Cristina Semino-Mora, Traci L. Testerman, Hui Liu, Jeannette M. Whitmire, Kimberley Studeman, Yali Jia, Thomas J. McAvoy, Jennifer Francis, Carol Nieroda, Armando Sardi, D. Scott Merrell, and Andre Dubois

3977 | **Exposure-Response Relationships of the Efficacy and Safety of Ipilimumab in Patients with Advanced Melanoma**
Yan Feng, Amit Roy, Eric Masson, Tai-Tsang Chen, Rachel Humphrey, and Jeffrey S. Weber

3987 | **Phase II Study of Everolimus in Patients with Metastatic Colorectal Adenocarcinoma Previously Treated with Bevacizumab-, Fluoropyrimidine-, Oxaliplatin-, and Irinotecan-Based Regimens**
Kimmie Ng, Josep Tabernero, Jimmy Hwang, Emilio Bajetta, Sunil Sharma, Salvatore A. Del Prete, Edward R. Arrowsmith, David P. Ryan, Michaela Sedova, Jin Jin, Kamel Malek, and Charles S. Fuchs

LETTER TO THE EDITOR

4017 | **PD-L1 Expression in B-cell Lymphomas and Virus-Associated Malignancies—Letter**
Mads Hald Andersen

CORRECTION

4018 | **Correction: Concomitant BRAF and PI3K/mTOR Blockade Is Required for Effective Treatment of *BRAF*^{V600E} Colorectal Cancer**

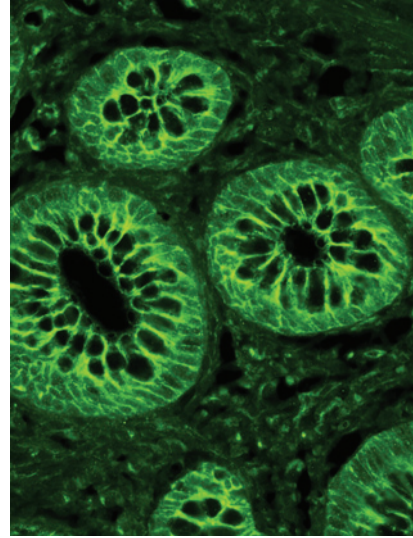
AC icon indicates Author Choice

CME icon indicates that this article is available for continuing medical education credit at <http://cme.aacrjournals.org>

For more information please visit www.aacrjournals.org

ABOUT THE COVER

β -catenin is a transmembrane protein that associates with junctional proteins and assists with the maintenance of cell attachment. As revealed through immunofluorescent staining, β -catenin (shown in green) localizes to the cell membranes and within the lateral junctional complex in normal appendix tissue. In contrast, tissue samples from patients with pseudomyxoma peritonei display primarily cytoplasmic staining of β -catenin and virtually no staining at the intercellular boundaries. However, antibiotic treatment of patients with pseudomyxoma peritonei results in a significant increase in β -catenin within the cell membranes, appearing to aid in the renormalization of β -catenin distribution. For details, see the article by Semino-Mora and colleagues on page 3966 of this issue.



Clinical Cancer Research

19 (14)

Clin Cancer Res 2013;19:3717-4018.

Updated version Access the most recent version of this article at:
<http://clincancerres.aacrjournals.org/content/19/14>

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/19/14>.
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.