

Highlights of This Issue 2415

SPECIAL FEATURES

CCR Translations

- 2417 **For Breast Cancer Prognosis, Immunoglobulin Kappa Chain Surfaces to the Top**
Theresa L. Whiteside and Soldano Ferrone
See article p. 2695
- 2420 **Will Hsp90 Inhibitors Prove Effective in BRAF-Mutant Melanomas?**
Federica Catalanotti and David B. Solit
See article p. 2502

CCR New Strategies

- 2423 **New Strategies in Refractory and Recurrent Neuroblastoma: Translational Opportunities to Impact Patient Outcome**
Kristina A. Cole and John M. Maris

Molecular Pathways

- 2429 **Molecular Pathways: The Role of Primary Cilia in Cancer Progression and Therapeutics with a Focus on Hedgehog Signaling**
Nadia B. Hassounah, Thomas A. Bunch, and Kimberly M. McDermott
- 2436 **Molecular Pathways: Old Drugs Define New Pathways: Non-Histone Acetylation at the Crossroads of the DNA Damage Response and Autophagy**
Oronza Antonietta Botrugno, Thomas Robert, Fabio Vanoli, Marco Foiani, and Saverio Minucci

Review

- 2443 **Squamous Cell Carcinoma of the Lung: Molecular Subtypes and Therapeutic Opportunities**
Pablo Perez-Moreno, Elisabeth Brambilla, Roman Thomas, and Jean-Charles Soria

HUMAN CANCER BIOLOGY

- 2452 **Upregulated JAG1 Enhances Cell Proliferation in Adrenocortical Carcinoma**
Derek P. Simon, Thomas J. Giordano, and Gary D. Hammer

- 2465 **Detection and Characterization of a Novel Subset of CD8⁺CD57⁺ T Cells in Metastatic Melanoma with an Incompletely Differentiated Phenotype**
Richard C. Wu, Shujuan Liu, Jessica A. Chacon, Sheng Wu, Yufeng Li, Pariya Sukhumalchandra, James L. Murray, Jeffrey J. Mollidrem, Patrick Hwu, Hanspeter Pircher, Gregory Lizée, and Laszlo G. Radvanyi

- 2478 **Mesothelin Overexpression Promotes Mesothelioma Cell Invasion and MMP-9 Secretion in an Orthotopic Mouse Model and in Epithelioid Pleural Mesothelioma Patients**
Elliot L. Servais, Christos Colovos, Luis Rodriguez, Adam J. Bograd, Jun-ichi Nitadori, Camelia Sima, Valerie W. Rusch, Michel Sadelain, and Prasad S. Adusumilli

- 2490 **IDH Mutation and Neuroglial Developmental Features Define Clinically Distinct Subclasses of Lower Grade Diffuse Astrocytic Glioma**
Daniel Gorovets, Kasthuri Kannan, Ronglai Shen, Edward R. Kastnerhuber, Nasrin Islamdoust, Carl Campos, Elena Pentsova, Adriana Heguy, Suresh C. Jhanwar, Ingo K. Mellinghoff, Timothy A. Chan, and Jason T. Huse

CANCER THERAPY: PRECLINICAL

- 2502 **The HSP90 Inhibitor XL888 Overcomes BRAF Inhibitor Resistance Mediated through Diverse Mechanisms**
Kim H.T. Paraiso, H. Eirik Haarberg, Elizabeth Wood, Vito W. Rebecca, Y. Ann Chen, Yun Xiang, Antoni Ribas, Roger S. Lo, Jeffrey S. Weber, Vernon K. Sondak, Jobin K. John, Amod A. Sarnaik, John M. Koomen, and Keiran S.M. Smalley
See commentary p. 2420

- 2515 **Inhibition of MEK and PI3K/mTOR Suppresses Tumor Growth but Does Not Cause Tumor Regression in Patient-Derived Xenografts of RAS-Mutant Colorectal Carcinomas**
Giorgia Migliardi, Francesco Sassi, Davide Torti, Francesco Galimi, Eugenia R. Zanella, Michela Buscarino, Dario Ribero, Andrea Muratore, Paolo Massucco, Alberto Pisacane, Mauro Risio, Lorenzo Capussotti, Silvia Marsoni, Federica Di Nicolantonio, Alberto Bardelli, Paolo M. Comoglio, Livio Trusolino, and Andrea Bertotti
- 2526 **Spleen Cells from Young but Not Old Immunized Mice Eradicate Large Established Cancers**
Karin Schreiber, Ainhoa Arina, Boris Engels, Michael T. Spiotto, John Sidney, Alessandro Sette, Theodore G. Karrison, Ralph R. Weichselbaum, Donald A. Rowley, and Hans Schreiber
- 2534 **Akt Inhibitors MK-2206 and Nelfinavir Overcome mTOR Inhibitor Resistance in Diffuse Large B-cell Lymphoma**
Adam M. Petrich, Violetta Leshchenko, Pei-Yu Kuo, Bing Xia, Venu K. Thirukonda, Netha Ulahannan, Shanisha Gordon, Melissa J. Fazzari, B. Hilda Ye, Joseph A. Sparano, and Samir Parekh
- 2545 **Survivin Is a Viable Target for the Treatment of Malignant Peripheral Nerve Sheath Tumors**
Markus P. Ghadimi, Eric D. Young, Roman Belousov, Yiqun Zhang, Gonzalo Lopez, Kristelle Lusby, Christine Kivlin, Elizabeth G. Demicco, Chad J. Creighton, Alexander J. Lazar, Raphael E. Pollock, and Dina Lev
- 2558 **mTOR as a Molecular Target in HPV-Associated Oral and Cervical Squamous Carcinomas**
Alfredo A. Molinolo, Christina Marsh, Mohamed El Dinali, Nitin Gangane, Kaitlin Jennison, Stephen Hewitt, Vyomesh Patel, Tanguy Y. Seiwert, and J. Silvio Gutkind
- 2569 **Peptides Mimicking the Unique ARTS-XIAP Binding Site Promote Apoptotic Cell Death in Cultured Cancer Cells**
Natalia Edison, Tali-Haviv Reingewertz, Yossi Gottfried, Tali Lev, Dotan Zuri, Inbal Maniv, Marie-Jeanne Carp, Gil Shalev, Assaf Friedler, and Sarit Larisch
- 2579 **Preferential Replication of Systemically Delivered Oncolytic Vaccinia Virus in Focally Irradiated Glioma Xenografts**
Sunil J. Advani, Lisa Buckel, Nanhai G. Chen, Daniel J. Scanderbeg, Ulrike Geissinger, Qian Zhang, Yong A. Yu, Richard J. Aguilar, Arno J. Mundt, and Aladar A. Szalay
- 2591 **Pharmacokinetics and Antitumor Efficacy of XMT-1001, a Novel, Polymeric Topoisomerase I Inhibitor, in Mice Bearing HT-29 Human Colon Carcinoma Xenografts**
Mark D. Walsh, Suzan K. Hanna, Jeremy Sen, Sumit Rawal, Carolina B. Cabral, Alex V. Yurkovetskiy, Robert J. Fram, Timothy B. Lowinger, and William C. Zamboni
- 2603 **Dual mTORC1/2 and HER2 Blockade Results in Antitumor Activity in Preclinical Models of Breast Cancer Resistant to Anti-HER2 Therapy**
Celina García-García, Yasir H. Ibrahim, Violeta Serra, Maria Teresa Calvo, Marta Guzmán, Judit Grueso, Claudia Aura, José Pérez, Katti Jessen, Yi Liu, Christian Rommel, Josep Tabernero, José Baselga, and Maurizio Scaltriti

IMAGING, DIAGNOSIS, PROGNOSIS

- 2613 **Proximal Fluid Proteome Profiling of Mouse Colon Tumors Reveals Biomarkers for Early Diagnosis of Human Colorectal Cancer**
Remond J.A. Fijneman, Meike de Wit, Maral Pourghiasian, Sander R. Piersma, Thang V. Pham, Marc O. Warmoes, Mehrdad Lavaei, Chloe Piso, Fiona Smit, Pien M. Delis-van Diemen, Sietze T. van Turenhout, Jochim S. Terhaar sive Droste, Chris J.J. Mulder, Marinus A. Blankenstein, Els C. Robanus-Maandag, Ron Smits, Riccardo Fodde, Victor W.M. van Hinsbergh, Gerrit A. Meijer, and Connie R. Jimenez

CANCER THERAPY: CLINICAL

- 2625 **Insulin Growth Factor-Receptor (IGF-1R) Antibody Cixutumumab Combined with the mTOR Inhibitor Temsirolimus in Patients with Refractory Ewing's Sarcoma Family Tumors**
Aung Naing, Patricia LoRusso, Siqing Fu, David S. Hong, Pete Anderson, Robert S. Benjamin, Joseph Ludwig, Helen X. Chen, Laurence A. Doyle, and Razelle Kurzrock

2632 **Requirements to Assess Feasibility of Phase 0 Trials during Major Abdominal Surgery: Variability of PARP Activity**

Florian Heitz, Andreas du Bois, Justine Rochon, Stefanie Scheil-Bertram, Rita Hils, Annette Fisseler-Eckhoff, Jana Barinoff, Christine Kaub, and Philipp Harter

2638 **The Cyclin-Dependent Kinase Inhibitor Flavopiridol Potentiates Doxorubicin Efficacy in Advanced Sarcomas: Preclinical Investigations and Results of a Phase I Dose-Escalation Clinical Trial**

Jason J. Luke, David R. D'Adamo, Mark A. Dickson, Mary Louise Keohan, Richard D. Carvajal, Robert G. Maki, Elisa de Stanchina, Elgilda Musi, Samuel Singer, and Gary K. Schwartz

2648 **Denosumab Dose Selection for Patients with Bone Metastases from Solid Tumors**

Sameer Doshi, Liviawati Sutjandra, Jenny Zheng, Winnie Sohn, Mark Peterson, Graham Jang, Andrew T. Chow, and Juan Jose Pérez-Ruixo

2658 **A Phase I Dose–Escalation Study of Regorafenib (BAY 73–4506), an Inhibitor of Oncogenic, Angiogenic, and Stromal Kinases, in Patients with Advanced Solid Tumors**

Klaus Mross, Annette Frost, Simone Steinbild, Susanne Hedbom, Martin Büchert, Ulrike Fasol, Clemens Unger, Jörn Krätzschar, Roland Heinig, Oliver Boix, and Olaf Christensen

2668 **Phase I Trial of Intraperitoneal Pemetrexed, Cisplatin, and Paclitaxel in Optimally Debulked Ovarian Cancer**

Setsuko K. Chambers, H-H. Sherry Chow, Mike F. Janicek, Janiel M. Cragun, Kenneth D. Hatch, Haiyan Cui, Cynthia Laughren, Mary C. Clouser, Janice L. Cohen, Heather M. Wright, Nisreen Abu Shahin, and David S. Alberts

2679 **Phase I Study of Vincristine, Irinotecan, and ¹³¹I-Metaiodobenzylguanidine for Patients with Relapsed or Refractory Neuroblastoma: A New Approaches to Neuroblastoma Therapy Trial**

Steven G. DuBois, Louis Chesler, Susan Groshen, Randall Hawkins, Fariba Goodarzian, Hiroyuki Shimada, Greg Yanik, Michael Tegen, Clinton Stewart, Yael P. Mosse, John M. Maris, Denice Tsao-Wei, Araz Marachelian, Judith G. Villablanca, and Katherine K. Matthay

2687 **A Phase I Pharmacokinetic and Pharmacodynamic Study of CHR-3996, an Oral Class I Selective Histone Deacetylase Inhibitor in Refractory Solid Tumors**

Udai Banerji, Leni van Doorn, Dionysis Papadatos-Pastos, Rebecca Kristeleit, Phillip Debnam, Matthew Tall, Adam Stewart, Florence Raynaud, Michelle Dawn Garrett, Martin Toal, Leon Hoofman, Johann Sebastian De Bono, Jaap Verweij, and Ferry ALM Eskens

PREDICTIVE BIOMARKERS AND PERSONALIZED MEDICINE

2695 **A Comprehensive Analysis of Human Gene Expression Profiles Identifies Stromal Immunoglobulin κ C as a Compatible Prognostic Marker in Human Solid Tumors**

Marcus Schmidt, Birte Hellwig, Seddik Hammad, Annah Othman, Miriam Lohr, Zonglin Chen, Daniel Boehm, Susanne Gebhard, Ilka Petry, Antje Lebrecht, Cristina Cadenas, Rosemarie Marchan, Joanna D. Stewart, Christine Solbach, Lars Holmberg, Karolina Edlund, Hanna Göransson Kultima, Achim Rody, Anders Berglund, Mats Lambe, Anders Isaksson, Johan Botling, Thomas Karn, Volkmar Müller, Aslihan Gerhold-Ay, Christina Cotarelo, Martin Sebastian, Ralf Kronenwett, Hans Bojar, Hans-Anton Lehr, Ugur Sahin, Heinz Koelbl, Mathias Gehrman, Patrick Micke, Jörg Rahnenführer, and Jan G. Hengstler

See commentary p. 2417

2704 **Common PIK3CA Mutants and a Novel 3' UTR Mutation Are Associated with Increased Sensitivity to Saracatinib**

John J. Arcaroli, Kevin S. Quackenbush, Rebecca W. Powell, Todd M. Pitts, Anna Spreafico, Marileila Varela-Garcia, Lynne Bemis, Aik Choon Tan, Jaclyn M. Reinemann, Basel M. Touban, Arvind Dasari, S. Gail Eckhardt, and Wells A. Messersmith

LETTERS TO THE EDITOR

2715 | **Population Pharmacokinetics of Busulfan in Children–Letter**
Laurent Nguyen, Angelo Paci, and Gilles Vassal

2717 | **Population Pharmacokinetics of Busulfan in Children–Response**
Mirjam N. Trame, Martin Bergstrand, Mats O. Karlsson, and Georg Hempel

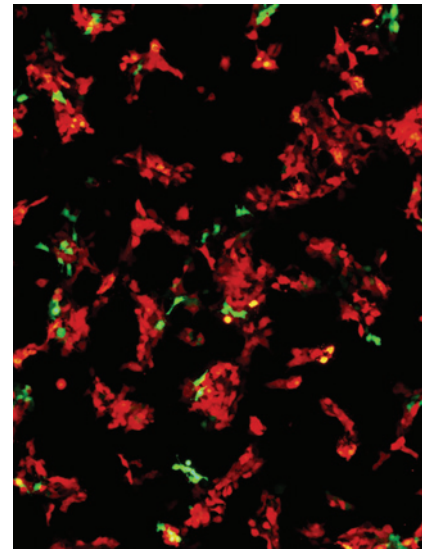
CORRECTIONS

2719 | **Correction: Pancreatic Tumor Suppression by Benzyl Isothiocyanate Is Associated with Inhibition of PI3K/AKT/FOXO Pathway**

2720 | **Correction: *PTEN* Deletion in Prostate Cancer Cells Does Not Associate with Loss of RAD51 Function: Implications for Radiotherapy and Chemotherapy**

ABOUT THE COVER

Jag1, a Notch ligand, enhances proliferation of adrenocortical carcinoma (ACC) cells. Pictured are ACC cells expressing dsRedII (Red) cocultured with ACC cells coexpressing GFP (GFP) and Jag1 shRNA. With cells plated at a ratio of 90% to 10% (red and green cells, respectively), Jag1 knockdown was found to diminish ACC cell proliferation in a non-cell-autonomous manner consistent with a Notch receptor-dependent effect of Jag1 on adrenal cancer growth. For details, see the article by Simon and colleagues on page 2452 of this issue.



Clinical Cancer Research

18 (9)

Clin Cancer Res 2012;18:2415-2720.

Updated version Access the most recent version of this article at:
<http://clincancerres.aacrjournals.org/content/18/9>

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/18/9>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.