


**Highlights of This Issue 3045**

**SPECIAL FEATURES**

**CCR Translations**

- 3047** Manipulating the Epigenome in Germinal Center Lymphomas: Is It Getting Easier and EZier?  
Jennifer E. Amengual and Owen A. O'Connor  
*See related article, p. 3078*

**CCR New Strategies**

- 3050** New Strategies in Ewing Sarcoma: Lost in Translation?  
 Fernanda I. Arnaldez and Lee J. Helman

**Molecular Pathways**

- 3057** Molecular Pathways: PI3K Pathway Phosphatases as Biomarkers for Cancer Prognosis and Therapy  
 Muhan Chen, Dawid G. Nowak, and Lloyd C. Trotman
- 3064** Molecular Pathways: Turning Proteasomal Protein Degradation into a Unique Treatment Approach  
Sebastian Stintzing and Heinz-Josef Lenz

**Review**

- 3071** Molecular Mechanisms of Bone Metastasis and Associated Muscle Weakness  
David L. Waning and Theresa A. Guise

**HUMAN CANCER BIOLOGY**

- 3078** EZH2 Mutations in Follicular Lymphoma from Different Ethnic Groups and Associated Gene Expression Alterations  
Shuangping Guo, John K.C. Chan, Javeed Iqbal, Timothy McKeithan, Kai Fu, Bin Meng, Yi Pan, Wah Cheuk, Donglan Luo, Ruian Wang, Weiwei Zhang, Timothy C. Greiner, and Wing C. Chan  
*See related article, p. 3047*

- 3087** Druggable Oncogene Fusions in Invasive Mucinous Lung Adenocarcinoma  
Takashi Nakaoku, Koji Tsuta, Hitoshi Ichikawa, Kouya Shiraishi, Hiromi Sakamoto, Masato Enari, Koh Furuta, Yoko Shimada, Hideaki Ogiwara, Shun-ichi Watanabe, Hiroshi Nokihara, Kazuki Yasuda, Masaki Hiramoto, Takao Nammo, Teruhide Ishigame, Aaron J. Schetter, Hirokazu Okayama, Curtis C. Harris, Young Hak Kim, Michiaki Mishima, Jun Yokota, Teruhiko Yoshida, and Takashi Kohno

- 3094** GM-CSF Production by Tumor Cells Is Associated with Improved Survival in Colorectal Cancer  
Christian A. Nebiker, Junyi Han, Serenella Eppenberger-Castori, Giandomenica Iezzi, Christian Hirt, Francesca Amicarella, Eleonora Cremonesi, Xaver Huber, Elisabetta Padovan, Basilio Angrisani, Raoul A. Droeser, Raffaele Rosso, Martin Bolli, Daniel Oertli, Urs von Holzen, Michel Adamina, Manuele G. Muraro, Chantal Mengus, Paul Zajac, Giuseppe Sconocchia, Markus Zuber, Luigi Tornillo, Luigi Terracciano, and Giulio C. Spagnoli

- 3107** A MicroRNA Cluster at 14q32 Drives Aggressive Lung Adenocarcinoma  
Ernest Nadal, Jinjie Zhong, Jules Lin, Rishindra M. Reddy, Nithya Ramnath, Mark B. Orringer, Andrew C. Chang, David G. Beer, and Guoan Chen

- 3118** Genome-Wide Study of Hypomethylated and Induced Genes in Patients with Liver Cancer Unravels Novel Anticancer Targets  
Barbara Stefanska, David Cheishvili, Matthew Suderman, Ani Arakelian, Jian Huang, Michael Hallett, Ze-Guang Han, Mamun Al-Mahtab, Sheikh Mohammad Fazle Akbar, Wasif Ali Khan, Rubhana Raqib, Imrana Tanvir, Haseeb Ahmed Khan, Shafaat A. Rabbani, and Moshe Szyf

**CANCER THERAPY: PRECLINICAL**

- 3133** P-Glycoprotein, CYP3A, and Plasma Carboxylesterase Determine Brain and Blood Disposition of the mTOR Inhibitor Everolimus (Afinitor) in Mice  
Seng Chuan Tang, Rolf W. Sparidans, Ka Lei Cheung, Tatsuki Fukami, Selvi Durmus, Els Wagenaar, Tsuyoshi Yokoi, Bart J.M. van Vlijmen, Jos H. Beijnen, and Alfred H. Schinkel

# Table of Contents

- 3146** Sustained Inhibition of Receptor Tyrosine Kinases and Macrophage Depletion by PLX3397 and Rapamycin as a Potential New Approach for the Treatment of MPNSTs  
Parag P. Patwardhan, Oliver Surriga, Michael J. Beckman, Elisa de Stanchina, Ronald P. Dematteo, William D. Tap, and Gary K. Schwartz
- 3159** Autophagy Inhibition Augments the Anticancer Effects of Epirubicin Treatment in Anthracycline-Sensitive and -Resistant Triple-Negative Breast Cancer  
 Suganthi Chittaranjan, Svetlana Bortnik, Wieslawa H. Dragowska, Jing Xu, Namal Abeyundara, Amy Leung, Nancy E. Go, Lindsay DeVorkin, Sherry A. Weppler, Karen Gelmon, Donald T. Yapp, Marcel B. Bally, and Sharon M. Gorski
- 3174** Small-Molecule RA-9 Inhibits Proteasome-Associated DUBs and Ovarian Cancer *In Vitro* and *In Vivo* via Exacerbating Unfolded Protein Responses  
Kathleen Coughlin, Ravi Anchoori, Yoshie Iizuka, Joyce Meints, Lauren MacNeill, Rachel Isaksson Vogel, Robert Z. Orłowski, Michael K. Lee, Richard B.S. Roden, and Martina Bazzaro
- 3187** Gemcitabine and CHK1 Inhibition Potentiate EGFR-Directed Radioimmunotherapy against Pancreatic Ductal Adenocarcinoma  
Fares Al-Ejeh, Marina Pajic, Wei Shi, Murugan Kalimutho, Mariska Miranda, Adnan M. Nagrial, Angela Chou, Andrew V. Biankin, Sean M. Grimmond, for the Australian Pancreatic Cancer Genome Initiative, Michael P. Brown, and Kum Kum Khanna
- 3198** Niclosamide Inhibits Androgen Receptor Variants Expression and Overcomes Enzalutamide Resistance in Castration-Resistant Prostate Cancer  
Chengfei Liu, Wei Lou, Yezi Zhu, Nagalakshmi Nadiminty, Chad T. Schwartz, Christopher P. Evans, and Allen C. Gao
- 3211** RNAi Screen Identifies a Synthetic Lethal Interaction between PIM1 Overexpression and PLK1 Inhibition  
Riet van der Meer, Ha Yong Song, Seong-Hoon Park, Sarki A. Abdulkadir, and Meejeon Roh
- 3222** Hydroxychloroquine Inhibits Autophagy to Potentiate Antiestrogen Responsiveness in ER<sup>+</sup> Breast Cancer  
Katherine L. Cook, Anni Wärrä, David R. Soto-Pantoja, Pamela AG. Clarke, M. Idalia Cruz, Alan Zwart, and Robert Clarke
- IMAGING, DIAGNOSIS, PROGNOSIS**
- 3233** Expression Signature Defined by *FOXM1*-*CCNB1* Activation Predicts Disease Recurrence in Non-Muscle-Invasive Bladder Cancer  
Seon-Kyu Kim, Yun-Gil Roh, Kiejung Park, Tae-Hong Kang, Wun-Jae Kim, Ju-Seog Lee, Sun-Hee Leem, and In-Sun Chu
- 3244** Combined PET/MRI Improves Diagnostic Accuracy in Patients with Prostate Cancer: A Prospective Diagnostic Trial  
Markus Hartenbach, Sabrina Hartenbach, Winfried Bechtloff, Burkhardt Danz, Klaus Kraft, Burkhard Klemenz, Christoph Sparwasser, and Marcus Hacker
- 3254** Impact of Initial FDG-PET/CT and Serum-Free Light Chain on Transformation of Conventionally Defined Solitary Plasmacytoma to Multiple Myeloma  
Guillemette Fouquet, Stéphanie Guidez, Charles Herbaux, Zoé Van de Wyngaert, Sarah Bonnet, David Beauvais, Hélène Demarquette, Salim Adib, Bénédicte Hivert, Mathieu Wemeau, Céline Berthon, Louis Terriou, Valérie Coiteux, Margaret Macro, Olivier Decaux, Thierry Facon, Damien Huglo, and Xavier Leleu
- 3261** *CHFR* Promoter Methylation Indicates Poor Prognosis in Stage II Microsatellite Stable Colorectal Cancer  
Arjen H.G. Cleven, Sarah Derks, Muriel X.G. Draht, Kim M. Smits, Veerle Melotte, Leander Van Neste, Benjamin Tournier, Valerie Jooste, Caroline Chapusot, Matty P. Weijnenberg, James G. Herman, Adriaan P. de Bruïne, and Manon van Engeland
- 3272** Genetic Variations Associated with Postoperative Recurrence in Stage I Non-Small Cell Lung Cancer  
Kyong-Ah Yoon, Mee Kyung Jung, Donghoon Lee, Kieun Bae, Jung Nam Joo, Geon Kook Lee, Hyun-Sung Lee, and Jin Soo Lee


# Table of Contents

- 3280** Molecular Biomarkers of Residual Disease after Surgical Debulking of High-Grade Serous Ovarian Cancer  
Susan L. Tucker, Kshipra Gharpure, Shelley M. Herbrich, Anna K. Unruh, Alpa M. Nick, Erin K. Crane, Robert L. Coleman, Jamie Guenthoer, Heather J. Dalton, Sherry Y. Wu, Rajesha Rupaimoole, Gabriel Lopez-Berestein, Bulent Ozpolat, Cristina Ivan, Wei Hu, Keith A. Baggerly, and Anil K. Sood

## CANCER THERAPY: CLINICAL

- 3289** Erlotinib, Erlotinib–Sulindac versus Placebo: A Randomized, Double-Blind, Placebo-Controlled Window Trial in Operable Head and Neck Cancer  
Neil D. Gross, Julie E. Bauman, William E. Gooding, William Denq, Sufi M. Thomas, Lin Wang, Simion Chiosea, Brian L. Hood, Melanie S. Flint, Mai Sun, Thomas P. Conrads, Robert L. Ferris, Jonas T. Johnson, Seungwon Kim, Athanassios Argiris, Lori Wirth, Marina N. Nikiforova, Jill M. Siegfried, and Jennifer R. Grandis

## PREDICTIVE BIOMARKERS AND PERSONALIZED MEDICINE

- 3299**  FGFR1 mRNA and Protein Expression, not Gene Copy Number, Predict FGFR TKI Sensitivity across All Lung Cancer Histologies  
Murry W. Wynes, Trista K. Hinz, Dexiang Gao, Michael Martini, Lindsay A. Marek, Kathryn E. Ware, Michael G. Edwards, Diana Böhm, Sven Perner, Barbara A. Helfrich, Rafal Dziadziuszko, Jacek Jassem, Szymon Wojtylak, Aleksandra Sejda, Joseph M. Gozgit, Paul A. Bunn Jr, D. Ross Camidge, Aik-Choon Tan, Fred R. Hirsch, and Lynn E. Heasley
- 3310** Blood mRNA Expression Profiling Predicts Survival in Patients Treated with Tremelimumab  
Yvonne Saenger, Jay Magidson, Bobby Liaw, Ellen de Moll, Sara Harcharik, Yichun Fu, Karl Wassmann, David Fisher, John Kirkwood, William K. Oh, and Philip Friedlander

- 3319** Association Study of the let-7 miRNA-Complementary Site Variant in the 3' Untranslated Region of the KRAS Gene in Stage III Colon Cancer (NCCTG N0147 Clinical Trial)  
Dan Sha, Adam M. Lee, Qian Shi, Steven R. Alberts, Daniel J. Sargent, Frank A. Sinicrope, and Robert B. Diasio

- 3328** Correlation of Somatic Mutations and Clinical Outcome in Melanoma Patients Treated with Carboplatin, Paclitaxel, and Sorafenib  
Melissa A. Wilson, Fengmin Zhao, Richard Letrero, Kurt D'Andrea, David L. Rimm, John M. Kirkwood, Harriet M. Kluger, Sandra J. Lee, Lynn M. Schuchter, Keith T. Flaherty, and Katherine L. Nathanson

- 3338**  Hsa-miR-31-3p Expression Is Linked to Progression-free Survival in Patients with KRAS Wild-type Metastatic Colorectal Cancer Treated with Anti-EGFR Therapy  
Gilles Manceau, Sandrine Imbeaud, Raphaële Thiébaud, François Liébaert, Karine Fontaine, Francis Rousseau, Bérengère Génin, Delphine Le Corre, Audrey Didelot, Marc Vincent, Jean-Baptiste Bachet, Benoist Chibaudel, Olivier Bouché, Bruno Landi, Frédéric Bibeau, Karen Leroy, Frédérique Penault-Llorca, Jean-Luc Van Laethem, Pieter Demetter, Sabine Tejpar, Simona Rossi, Neda Mosakhani, Pia Österlund, Raija Ristamäki, Virinder Sarhadi, Sakari Knuutila, Valérie Boige, Thierry André, and Pierre Laurent-Puig

- 3348** The Role of Relative Lymphocyte Count as a Biomarker for the Effect of Catumaxomab on Survival in Malignant Ascites Patients: Results from a Phase II/III Study  
Markus M. Heiss, Michael A. Ströhlein, Carsten Bokemeyer, Dirk Arnold, Simon L. Parsons, Diane Seimetz, Horst Lindhofer, Elisabeth Schulze, and Michael Hennig

## RETRACTION

- 3358** Retraction: Molecular Analysis of Non-Small Cell Lung Cancer Identifies Subsets with Different Sensitivity to Insulin-like Growth Factor I Receptor Inhibition

 AC icon indicates Author Choice

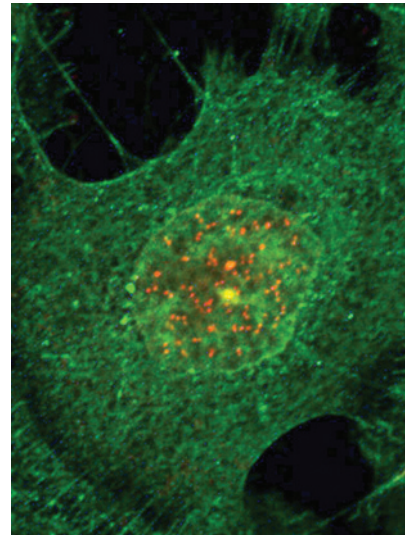
 CME icon indicates that this article is available for continuing medical education credit at <http://cme.aacrjournals.org>

For more information please visit [www.aacrjournals.org](http://www.aacrjournals.org)

# Table of Contents

## ABOUT THE COVER

The cover shows immunofluorescence image of PIM1 and PLK1 from DU145 cells (PIM1, green; PLK1, red). Immunofluorescence staining shows co-localization of endogenous PIM1 and PLK1 at centrosome (yellow) but not in kinetochore. For details, see the article by van der Meer and colleagues on page 3211 of this issue.



# Clinical Cancer Research

**20 (12)**

*Clin Cancer Res* 2014;20:3045-3358.

**Updated version** Access the most recent version of this article at:  
<http://clincancerres.aacrjournals.org/content/20/12>

**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](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link <http://clincancerres.aacrjournals.org/content/20/12>.  
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.