

Highlights of This Issue 3329

SPECIAL FEATURES

CCR Translations


- 3331 **A New View of Invasive Lobular Breast Cancer**
Ron Bose
See article by Ross et al., Clin Cancer Res, vol. 19(10), p. 2668–76

- 3334 **Predicting Outcome by Images?**
Dirk De Ruyscher
See article, p. 3591

CCR New Strategies

- 3337 **New Strategies in the Treatment of Multiple Myeloma**
Nikhil C. Munshi and Kenneth C. Anderson

Molecular Pathways

- 3345 **Molecular Pathways: Fumarate Hydratase-Deficient Kidney Cancer—Targeting the Warburg Effect in Cancer**
 W. Marston Linehan and Tracey A. Rouault

- 3353 **Molecular Pathways: Inhibiting Steroid Biosynthesis in Prostate Cancer**
Roberta Ferraldeschi, Nima Sharifi, Richard J. Auchus, and Gerhardt Attard

Review

- 3360 **Cell Trafficking of Endothelial Progenitor Cells in Tumor Progression**
Pilar de la Puente, Barbara Muz, Fedaa Azab, and Abdel Kareem Azab

HUMAN CANCER BIOLOGY

- 3369 **Identification and Selective Degradation of Neopeptide-Containing Truncated Mutant Proteins in the Tumors with High Microsatellite Instability**
Won Kyu Kim, Misun Park, Minhee Park, Yun Ji Kim, Nara Shin, Hyun Ki Kim, Kwon Tae You, and Hoguen Kim


- 3383 **ETS2 Mediated Tumor Suppressive Function and MET Oncogene Inhibition in Human Non–Small Cell Lung Cancer**

Mohamed Kabbout, Melinda M. Garcia, Junya Fujimoto, Diane D. Liu, Denise Woods, Chi-Wan Chow, Gabriela Mendoza, Amin A. Momin, Brian P. James, Luisa Solis, Carmen Behrens, J. Jack Lee, Ignacio I. Wistuba, and Humam Kadara

- 3396 **High Prevalence of BRCA1 and BRCA2 Germline Mutations with Loss of Heterozygosity in a Series of Resected Pancreatic Adenocarcinoma and Other Neoplastic Lesions**

Aimee L. Lucas, Reena Shakya, Marla D. Lipsyc, Elana B. Mitchel, Sheila Kumar, Caroline Hwang, Liyong Deng, Catherine Devoe, John A. Chabot, Matthias Szabolcs, Thomas Ludwig, Wendy K. Chung, and Harold Frucht

- 3404 **Inflammatory Monocyte Mobilization Decreases Patient Survival in Pancreatic Cancer: A Role for Targeting the CCL2/CCR2 Axis**

 Dominic E. Sanford, Brian A. Belt, Roheena Z. Panni, Allese Mayer, Anjali D. Deshpande, Danielle Carpenter, Jonathan B. Mitchem, Stacey M. Plambeck-Suess, Lori A. Worley, Brian D. Goetz, Andrea Wang-Gillam, Timothy J. Eberlein, David G. Denardo, Simon Peter Goedegebuure, and David C. Linehan

- 3416 **RRM2 Regulates Bcl-2 in Head and Neck and Lung Cancers: A Potential Target for Cancer Therapy**

 Mohammad Aminur Rahman, A.R.M. Ruhul Amin, Dongsheng Wang, Lydia Koenig, Sreenivas Nannapaneni, Zhengjia Chen, Zhibo Wang, Gabriel Sica, Xingming Deng, Zhuo (Georgia) Chen, and Dong M. Shin

- 3429 **Downregulation of miR-452 Promotes Stem-Like Traits and Tumorigenicity of Gliomas**

Liping Liu, Kun Chen, Jueheng Wu, Ling Shi, Bo Hu, Shiyuan Cheng, Mengfeng Li, and Libing Song

3439	<p>TIE-2 and VEGFR Kinase Activities Drive Immunosuppressive Function of TIE-2-Expressing Monocytes in Human Breast Tumors</p> <p>Mark Ibberson, Sylvian Bron, Nicolas Guex, Eveline Faes-van't Hull, Assia Ifticene-Treboux, Luc Henry, Hans-Anton Lehr, Jean-François Delaloye, George Coukos, Ioannis Xenarios, and Marie-Agnès Doucey</p>	3508	<p>Synergistic Effects of Metformin Treatment in Combination with Gefitinib, a Selective EGFR Tyrosine Kinase Inhibitor, in LKB1 Wild-type NSCLC Cell Lines</p> <p>Floriana Morgillo, Ferdinando Carlo Sasso, Carminia Maria Della Corte, Donata Vitagliano, Elena D'Aiuto, Teresa Troiani, Erika Martinelli, Ferdinando De Vita, Michele Orditura, Raffaele De Palma, and Fortunato Ciardiello</p>
3450	<p>Altered DNA Methylation Landscapes of Polycomb-Repressed Loci Are Associated with Prostate Cancer Progression and ERG Oncogene Expression in Prostate Cancer</p> <p>Ken Kron, Dominique Trudel, Vijayanti Pethe, Laurent Briollais, Neil Fleshner, Theodorus van der Kwast, and Bharati Bapat</p>	3520	<p>NMS-E973, a Novel Synthetic Inhibitor of Hsp90 with Activity against Multiple Models of Drug Resistance to Targeted Agents, Including Intracranial Metastases</p> <p>Gianpaolo Fogliatto, Laura Gianellini, Maria G. Brasca, Elena Casale, Dario Ballinari, Marina Ciomei, Anna Degrassi, Anna De Ponti, Massimiliano Germani, Marco Guanci, Mauro Paolucci, Paolo Polucci, Micaela Russo, Francesco Sola, Barbara Valsasina, Carlo Visco, Fabio Zuccotto, Daniele Donati, Eduard Felder, Enrico Pesenti, Arturo Galvani, Sergio Mantegani, and Antonella Isacchi</p>
3462	<p>PD-L1 Expression Is Characteristic of a Subset of Aggressive B-cell Lymphomas and Virus-Associated Malignancies</p> <p>Benjamin J. Chen, Bjoern Chapuy, Jing Ouyang, Heather H. Sun, Margaretha G.M. Roemer, Mina L. Xu, Hongbo Yu, Christopher D.M. Fletcher, Gordon J. Freeman, Margaret A. Shipp, and Scott J. Rodig</p>	3533	<p>PI3K Pathway Dependencies in Endometrioid Endometrial Cancer Cell Lines</p> <p>Britta Weigelt, Patricia H. Warne, Maryou B. Lambros, Jorge S. Reis-Filho, and Julian Downward</p>
3474	<p>Nonequivalent Gene Expression and Copy Number Alterations in High-Grade Serous Ovarian Cancers with BRCA1 and BRCA2 Mutations</p> <p>Joshy George, Kathryn Alsop, Dariush Etemadmoghadam, Heather Hondow, Thomas Mikeska, Alexander Dobrovic, Anna deFazio, for the Australian Ovarian Cancer Study Group, Gordon K. Smyth, Douglas A. Levine, Gillian Mitchell, and David D. Bowtell</p>	3545	<p>Immunomodulatory Monoclonal Antibodies Combined with Peptide Vaccination Provide Potent Immunotherapy in an Aggressive Murine Neuroblastoma Model</p> <p>Emily L. Williams, Stuart N. Dunn, Sonya James, Peter W. Johnson, Mark S. Cragg, Martin J. Glennie, and Juliet C. Gray</p>
3485	<p>A NOTCH3 Transcriptional Module Induces Cell Motility in Neuroblastoma</p> <p>Johan van Nes, Alvin Chan, Tim van Groningen, Peter van Sluis, Jan Koster, and Rogier Versteeg</p>	3556	<p>Therapeutic Enhancement of ER Stress by Insulin-Like Growth Factor I Sensitizes Myeloma Cells to Proteasomal Inhibitors</p> <p>Inès Tagoug, Lars Petter Jordheim, Stéphanie Herveau, Eva-Laure Matera, Anne-Laure Huber, Kamel Chettab, Serge Manié, and Charles Dumontet</p>

CANCER THERAPY: PRECLINICAL

3495	<p>Targeting the CD20 and CXCR4 Pathways in Non-Hodgkin Lymphoma with Rituximab and High-Affinity CXCR4 Antagonist BKT140</p> <p>Katia Beider, Elena Ribakovskiy, Michal Abraham, Hanna Wald, Lola Weiss, Evgenia Rosenberg, Eithan Galun, Abraham Avigdor, Orly Eizenberg, Amnon Peled, and Arnon Nagler</p>	3567	<p>Anti-HDGF Targets Cancer and Cancer Stromal Stem Cells Resistant to Chemotherapy</p> <p>Jun Zhao, Mark Z. Ma, Hening Ren, Zhenqiu Liu, Martin J. Edelman, Hong Pan, and Li Mao</p>
------	--	------	--

3577 **Disrupting Protein NEDDylation with MLN4924 Is a Novel Strategy to Target Cisplatin Resistance in Ovarian Cancer**
Steffan T. Nawrocki, Kevin R. Kelly, Peter G. Smith, Claudia M. Espitia, Anthony Possemato, Sean A. Beausoleil, Michael Milhollen, Stephen Blakemore, Michael Thomas, Allison Berger, and Jennifer S. Carew

IMAGING, DIAGNOSIS, PROGNOSIS

3591 **Tumor Heterogeneity and Permeability as Measured on the CT Component of PET/CT Predict Survival in Patients with Non-Small Cell Lung Cancer**
Thida Win, Kenneth A. Miles, Sam M. Janes, Balaji Ganeshan, Manu Shastry, Raymondo Endozo, Marie Meagher, Robert I. Shortman, Simon Wan, Irfan Kayani, Peter J. Ell, and Ashley M. Groves
See commentary, p. 3334

3600 **MicroRNA Array Analysis Finds Elevated Serum miR-1290 Accurately Distinguishes Patients with Low-Stage Pancreatic Cancer from Healthy and Disease Controls**
Ang Li, Jun Yu, Haeryoung Kim, Christopher L. Wolfgang, Marcia Irene Canto, Ralph H. Hruban, and Michael Goggins

CANCER THERAPY: CLINICAL

3611 **Clinical Activity and Safety of Combination Therapy with Temsirolimus and Bevacizumab for Advanced Melanoma: A Phase II Trial (CTEP 7190/Mel47)**
Craig L. Slingluff Jr, Gina R. Petroni, Kerrington R. Molhoek, David L. Brautigam, Kimberly A. Chianese-Bullock, Amber L. Shada, Mark E. Smolkin, Walter C. Olson, Alison Gaucher, Cheryl Murphy Chase, William W. Grosh, Geoffrey R. Weiss, Aubrey G. Wagenseller, Anthony J. Olszanski, Lainie Martin, Sofia M. Shea, Gulsun Erdag, Prahlad Ram, Jeffrey E. Gershenwald, and Michael J. Weber

3621 **Platinum-Based Chemotherapy for Variant Castrate-Resistant Prostate Cancer**
Ana M. Aparicio, Andrea L. Harzstark, Paul G. Corn, Sijin Wen, John C. Araujo, Shi-Ming Tu, Lance C. Pagliaro, Jeri Kim, Randall E. Millikan, Charles Ryan, Nizar M. Tannir, Amado J. Zurita, Paul Mathew, Wadih Arap, Patricia Troncoso, Peter F. Thall, and Christopher J. Logothetis

3631 **Phase I Study of Pazopanib in Patients with Advanced Solid Tumors and Hepatic Dysfunction: A National Cancer Institute Organ Dysfunction Working Group Study**
Stephen I. Shibata, Vincent Chung, Timothy W. Synold, Jeffrey A. Longmate, A. Benjamin Suttle, Lone H. Ottesen, Heinz-Josef Lenz, Shivaani Kummar, R. Donald Harvey, Anne L. Hamilton, Bert H. O'Neil, John Sarantopoulos, Patricia LoRusso, Michelle A. Rudek, Afshin Dowlati, Daniel L. Mulkerin, Chandra P. Belani, Leena Gandhi, S. Cecilia Lau, S. Percy Ivy, and Edward M. Newman

3640 **Vaccination with Dendritic Cell/Tumor Fusions following Autologous Stem Cell Transplant Induces Immunologic and Clinical Responses in Multiple Myeloma Patients**
Jacalyn Rosenblatt, Irit Avivi, Baldev Vasir, Lynne Uhl, Nikhil C. Munshi, Tami Katz, Bimalangshu R. Dey, Poorvi Somaiya, Heidi Mills, Federico Campigotto, Edie Weller, Robin Joyce, James D. Levine, Dimitrios Tzachanis, Paul Richardson, Jacob Laubach, Noopur Raje, Vassiliki Boussiotis, Yan Emily Yuan, Lina Bisharat, Viki Held, Jacob Rowe, Kenneth Anderson, Donald Kufe, and David Avigan

3649 **A Multicenter, First-in-Pediatrics, Phase 1, Pharmacokinetic and Pharmacodynamic Study of Ridaforolimus in Patients with Refractory Solid Tumors**
Lia Gore, Tanya M. Trippett, Howard M. Katzenstein, Jessica Boklan, Aru Narendran, Amy Smith, Margaret E. Macy, Katherine Rolla, for the Pediatric Oncology Experimental Therapeutics Investigators' Consortium (POETIC), Narayana Narashimhan, Rachel M. Squillace, Christopher D. Turner, Frank G. Haluska, and Michael Nieder

3659 **A Phase I, Open-Label Study of Siltuximab, an Anti-IL-6 Monoclonal Antibody, in Patients with B-Cell Non-Hodgkin Lymphoma, Multiple Myeloma, or Castleman Disease**
Razelle Kurzrock, Peter M. Voorhees, Corey Casper, Richard R. Furman, Luis Fayad, Sagar Lonial, Hossein Borghaei, Sundar Jagannath, Lubomir Sokol, Saad Z. Usmani, Helgi van de Velde, Xiang Qin, Thomas A. Puchalski, Brett Hall, Manjula Reddy, Ming Qi, and Frits van Rhee

3671 **First-in-Human Phase I Dose-Escalation Study of the HSP90 Inhibitor AUY922 in Patients with Advanced Solid Tumors**
Cristiana Sessa, Geoffrey I. Shapiro, Kapil N. Bhalla, Carolyn Britten, Karen S. Jacks, Monica Mita, Vali Papadimitrakopoulou, Tim Pluard, Thomas A. Samuel, Mikhail Akimov, Cornelia Quadt, Cristina Fernandez-Ibarra, Hong Lu, Stuart Bailey, Sandra Chica, and Udai Banerji

3693 **Targeting FGFR with Dovitinib (TKI258): Preclinical and Clinical Data in Breast Cancer**
Fabrice André, Thomas Bachelot, Mario Campone, Florence Dalenc, Jose M. Perez-Garcia, Sara A. Hurvitz, Nicholas Turner, Hope Rugo, John W. Smith, Stephanie Deudon, Michael Shi, Yong Zhang, Andrea Kay, Diana Graus Porta, Alejandro Yovine, and José Baselga

PREDICTIVE BIOMARKERS AND PERSONALIZED MEDICINE

3681 **Identification and Analysis of *In Vivo* VEGF Downstream Markers Link VEGF Pathway Activity with Efficacy of Anti-VEGF Therapies**
Matthew J. Brauer, Guanglei Zhuang, Maike Schmidt, Jenny Yao, Xiumin Wu, Joshua S. Kaminker, Stefanie S. Jurinka, Ganesh Kolumam, Alicia S. Chung, Adrian Jubb, Zora Modrusan, Tomoko Ozawa, C. David James, Heidi Phillips, Benjamin Haley, Rachel N.W. Tam, Anne C. Clermont, Jason H. Cheng, Sherry X. Yang, Sandra M. Swain, Daniel Chen, Stefan J. Scherer, Hartmut Koeppen, Ru-Fang Yeh, Peng Yue, Jean-Philippe Stephan, Priti Hegde, Napoleone Ferrara, Mallika Singh, and Carlos Bais

3703 **Lactate Dehydrogenase B: A Metabolic Marker of Response to Neoadjuvant Chemotherapy in Breast Cancer**
Jennifer B. Dennison, Jennifer R. Molina, Shreya Mitra, Ana M. González-Angulo, Justin M. Balko, María G. Kuba, Melinda E. Sanders, Joseph A. Pinto, Henry L. Gómez, Carlos L. Arteaga, Robert E. Brown, and Gordon B. Mills

CORRECTIONS

3714 **Correction: Translating the Therapeutic Potential of AZD4547 in *FGFR1*-Amplified Non-Small Cell Lung Cancer through the Use of Patient-Derived Tumor Xenograft Models**

3715 **Correction: c-Src Activation Mediates Erlotinib Resistance in Head and Neck Cancer by Stimulating c-Met**

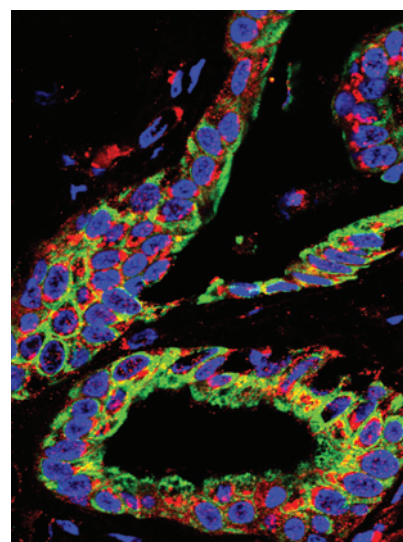
AC icon indicates Author Choice

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

The cover shows a section from a human pancreatic ductal adenocarcinoma stained for cytokeratin 7 (green) and CCL2 (red) with a nuclear (Topro) counterstain (blue). Immunofluorescence confocal image ($\times 63$) reveals that the malignant ductal epithelium as well as cells within the tumor stroma produce CCL2. This chemokine plays a key role in the recruitment of inflammatory monocytes ($CCR2^+$) from the bone marrow to both the primary tumor and premetastatic liver, where these cells promote growth and metastasis in pancreatic cancer. For details, see the article by Sanford and colleagues on page 3404 of this issue.



Clinical Cancer Research

19 (13)

Clin Cancer Res 2013;19:3329-3715.

Updated version Access the most recent version of this article at:
<http://clincancerres.aacrjournals.org/content/19/13>

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/19/13>.
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.