

Highlights of This Issue 4537**SPECIAL FEATURES****CCR Translations**

- 4539** PD-1 Axis Inhibitors in EGFR- and ALK-Driven Lung Cancer: Lost Cause?
Scott Gettinger and Katerina Politi
See related article, p. 4585

- 4542** EPIC Early Detection of Ovarian Cancer
Steven J. Skates
See related article, p. 4664


CCR Drug Updates

- 4545** FDA Approval: Uridine Triacetate for the Treatment of Patients Following Fluorouracil or Capecitabine Overdose or Exhibiting Early-Onset Severe Toxicities Following Administration of These Drugs
Gwynn Ison, Julia A. Beaver, W. David McGuinn Jr, Todd R. Palmby, Jeannette Dinin, Rosane Charlab, Anshu Marathe, Runyan Jin, Qi Liu, Xiao Hong Chen, Xavier Ysern, Olen Stephens, Ge Bai, Yaning Wang, Sarah E. Dorff, Joyce Cheng, Shenghui Tang, Rajeshwari Sridhara, William Pierce, Amy E. McKee, Amna Ibrahim, Geoffrey Kim, and Richard Pazdur


Molecular Pathways

- 4550** Molecular Pathways: Immune Checkpoint Antibodies and their Toxicities
Sophie Cousin and Antoine Italiano

PERSPECTIVES

- 4556** The Obama Administration's Cancer Moonshot: A Call for Proteomics
 Thomas P. Conrads and Emanuel F. Petricoin III

CANCER THERAPY: CLINICAL

- 4559** Phase I Clinical Trial of Marizomib (NPI-0052) in Patients with Advanced Malignancies Including Multiple Myeloma: Study NPI-0052-102 Final Results
 Simon J. Harrison, Paul Mainwaring, Timothy Price, Michael J. Millward, Peeter Padrik, Craig R. Underhill, Paul K. Cannell, Steven D. Reich, Mohit Trikha, and Andrew Spencer

- 4567** A Phase I Dose-Escalation Study Evaluating the Safety Tolerability and Pharmacokinetics of CUDC-427, a Potent, Oral, Monovalent IAP Antagonist, in Patients with Refractory Solid Tumors

Anthony W. Tolcher, Johanna C. Bendell, Kyriakos P. Papadopoulos, Howard A. Burris, Amita Patnaik, Wayne J. Fairbrother, Harvey Wong, Nageshwar Budha, Walter C. Darbonne, Franklin Peale, Michael Mamounas, Stephanie Royer-Joo, Ron Yu, Chia C. Portera, and Jeffrey R. Infante

- 4574** A Phase I, First-in-Human Study of AMG 780, an Angiopoietin-1 and -2 Inhibitor, in Patients with Advanced Solid Tumors

Afshin Dowlati, Gordana Vlahovic, Ronald B. Natale, Erik Rasmussen, Indrajeet Singh, Yuying C. Hwang, John Rossi, Michael B. Bass, Gregory Friberg, and Cheryl A. Pickett


- 4585** EGFR Mutations and ALK Rearrangements Are Associated with Low Response Rates to PD-1 Pathway Blockade in Non-Small Cell Lung Cancer: A Retrospective Analysis

Justin F. Gainor, Alice T. Shaw, Lecia V. Sequist, Xiujun Fu, Christopher G. Azzoli, Zofia Piotrowska, Tiffany G. Huynh, Ling Zhao, Linnea Fulton, Katherine R. Schultz, Emily Howe, Anna F. Farago, Ryan J. Sullivan, James R. Stone, Subba Digumarthy, Teresa Moran, Aaron N. Hata, Yukako Yagi, Beow Y. Yeap, Jeffrey A. Engelman, and Mari Mino-Kenudson
See related commentary, p. 4539

- 4594** Dual Block with Lapatinib and Trastuzumab Versus Single-Agent Trastuzumab Combined with Chemotherapy as Neoadjuvant Treatment of HER2-Positive Breast Cancer: A Meta-analysis of Randomized Trials

Matteo Clavarezza, Matteo Puntoni, Alessandra Gennari, Laura Paleari, Nicoletta Provinciali, Mauro D'Amico, and Andrea DeCensi

PERSONALIZED MEDICINE AND IMAGING

- 4604** Development and Clinical Validation of a Blood Test Based on 29-Gene Expression for Early Detection of Colorectal Cancer


Laura Ciarloni, Sahar Hosseinian Ehrensberger, Natsuko Imaizumi, Sylvain Monnier-Benoit, Cristina Nichita, Seung-Jae Myung, Joo Sung Kim, Si Young Song, Tae Il Kim, Boudewijn van der Weg, Rémy Meier, Jan Borovicka, Christoph Beglinger, Cédric Vallet, Philippe Maerten, Curzio Rüegg, and Gian Dorta



Table of Contents

4612 WRN Promoter CpG Island Hypermethylation Does Not Predict More Favorable Outcomes for Patients with Metastatic Colorectal Cancer Treated with Irinotecan-Based Therapy

Linda J.W. Bosch, Yanxin Luo, Victoria V. Lao, Petur Snaebjornsson, Geert Trooskens, Ilse Vlassenbroeck, Sandra Mongera, Weiliang Tang, Piri Welsh, James G. Herman, Miriam Koopman, Iris D. Nagtegaal, Cornelis J.A. Punt, Wim van Criekinge, Gerrit A. Meijer, Raymond J. Monnat Jr, Beatriz Carvalho, and William M. Grady

4623 Comprehensive Molecular Characterization of Salivary Duct Carcinoma Reveals Actionable Targets and Similarity to Apocrine Breast Cancer

Martin G. Dalin, Alexis Desrichard, Nora Katabi, Vladimir Makarov, Logan A. Walsh, Ken-Wing Lee, Qingguo Wang, Joshua Armenia, Lyndsay West, Snjezana Dogan, Lu Wang, Deepa Ramaswami, Alan L. Ho, Ian Ganly, David B. Solit, Michael F. Berger, Nikolaus D. Schultz, Jorge S. Reis-Filho, Timothy A. Chan, and Luc G.T. Morris

4634 Targeted Dual-Modality Imaging in Renal Cell Carcinoma: An *Ex Vivo* Kidney Perfusion Study

Marlène C.H. Hekman, Otto C. Boerman, Mirjam de Weijert, Desirée L. Bos, Egbert Oosterwijk, Hans F. Langenhuisen, Peter F.A. Mulders, and Mark Rijpkema

4643 Proteomic Profiling Identifies PTK2/FAK as a Driver of Radioresistance in HPV-negative Head and Neck Cancer

Heath D. Skinner, Uma Giri, Liang Yang, Sang Hyeok Woo, Michael D. Story, Curtis R. Pickering, Lauren A. Byers, Michelle D. Williams, Adel El-Naggar, Jing Wang, Lixia Diao, Li Shen, You Hong Fan, David P. Molkentine, Beth M. Beadle, Raymond E. Meyn, Jeffrey N. Myers, and John V. Heymach

4651 Analytic Validation of RNA *In Situ* Hybridization (RISH) for AR and AR-V7 Expression in Human Prostate Cancer

Liana B. Guedes, Carlos L. Morais, Fawaz Almutairi, Michael C. Haffner, Qizhi Zheng, John T. Isaacs, Emmanuel S. Antonarakis, Changxue Lu, Harrison Tsai, Jun Luo, Angelo M. De Marzo, and Tamara L. Lotan

CANCER THERAPY: PRECLINICAL

4664 A Prospective Evaluation of Early Detection Biomarkers for Ovarian Cancer in the European EPIC Cohort

Kathryn L. Terry, Helena Schock, Renée T. Fortner, Anika Hüsing, Raina N. Fichorova, Hidemi S. Yamamoto, Allison F. Vitonis, Theron Johnson, Kim Overvad, Anne Tjønneland, Marie-Christine Boutron-Ruault, Sylvie Mesrine, Gianluca Severi, Laure Dossus, Sabina Rinaldi, Heiner Boeing, Vassiliki Benetou, Pagona Lagiou, Antonia Trichopoulou, Vittorio Krogh, Elisabetta Kuhn, Salvatore Panico, H. Bas Bueno-de-Mesquita, N. Charlotte Onland-Moret, Petra H. Peeters, Inger Torhild Gram, Elisabete Weiderpass, Eric J. Duell, Maria-Jose Sanchez, Eva Ardanaz, Nerea Etxezarreta, Carmen Navarro, Annika Idahl, Eva Lundin, Karin Jirstrom, Jonas Manjer, Nicholas J. Wareham, Kay-Tee Khaw, Karl Smith Byrne, Ruth C. Travis, Marc J. Gunter, Melissa A. Merritt, Elio Riboli, Daniel W. Cramer, and Rudolf Kaaks
See related commentary, p. 4542

4676 RNA-seq Identification of RACGAP1 as a Metastatic Driver in Uterine Carcinosarcoma

Shijun Mi, Mingyan Lin, Jurriaan Brouwer-Visser, Jennifer Heim, David Smotkin, Tiffany Hebert, Marc J. Gunter, Gary L. Goldberg, Deyou Zheng, and Gloria S. Huang

4687 Preclinical Evaluation of Fatty Acid Synthase and EGFR Inhibition in Triple-Negative Breast Cancer



Ariadna Giró-Perafita, Sònia Palomerias, David H. Lum, Adriana Blancafort, Gemma Viñas, Glòria Oliveras, Ferran Pérez-Bueno, Ariadna Sarrats, Alana L. Welm, and Teresa Puig

4698 A Synthetic Cell-Penetrating Dominant-Negative ATF5 Peptide Exerts Anticancer Activity against a Broad Spectrum of Treatment-Resistant Cancers

Georg Karpel-Massler, Basil A. Horst, Chang Shu, Lily Chau, Takashi Tsujiuchi, Jeffrey N. Bruce, Peter Canoll, Lloyd A. Greene, James M. Angelastro, and Markus D. Siegelin

4712 Carfilzomib Triggers Cell Death in Chronic Lymphocytic Leukemia by Inducing Proapoptotic and Endoplasmic Reticulum Stress Responses

Betty Lamothe, William G. Wierda, Michael J. Keating, and Varsha Gandhi

Table of Contents

BIOLOGY OF HUMAN TUMORS

4727 Prognostic Value of Programmed Death Ligand 1 and Programmed Death 1 Expression in Thymic Carcinoma

Shintaro Yokoyama, Hiroaki Miyoshi, Kazutaka Nakashima, Joji Shimono, Toshihiro Hashiguchi, Masahiro Mitsuoka, Shinzo Takamori, Yoshito Akagi, and Koichi Ohshima

4735 Subtypes of HPV-Positive Head and Neck Cancers Are Associated with HPV Characteristics, Copy Number Alterations, PIK3CA Mutation, and Pathway Signatures

Yanxiao Zhang, Lada A. Koneva, Shama Virani, Anna E. Arthur, Alisha Virani, Pelle B. Hall, Charles D. Warden, Thomas E. Carey, Douglas B. Chepeha, Mark E. Prince, Jonathan B. McHugh, Gregory T. Wolf, Laura S. Rozek, and Maureen A. Sartor

4746 APOBEC3G Expression Correlates with T-Cell Infiltration and Improved Clinical Outcomes in High-grade Serous Ovarian Carcinoma

Brandon Leonard, Gabriel J. Starrett, Matthew J. Maurer, Ann L. Oberg, Mieke Van Bockstal, Jo Van Dorpe, Olivier De Wever, Jozien Helleman, Anieta M. Sieuwerts, Els M.J.J. Berns, John W.M. Martens, Brett D. Anderson, William L. Brown, Kimberly R. Kalli, Scott H. Kaufmann, and Reuben S. Harris

CORRECTION

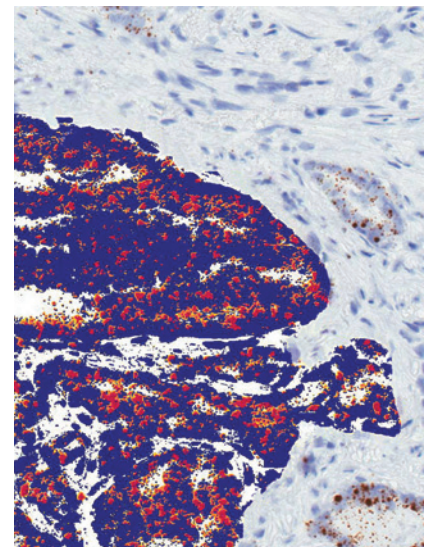
4756 Correction: Novel Antitumor Effect of Estradiol in Athymic Mice Injected with a T47D Breast Cancer Cell Line Overexpressing Protein Kinase C Alpha

 AC icon indicates Author Choice

For more information please visit www.aacrjournals.org

ABOUT THE COVER

The cover shows digital image analysis of androgen receptor splice variant AR-V7 expression as detected by chromogenic RNA *in situ* hybridization assay in a primary prostate tumor. Blue pixels highlight tumor epithelial cells and red pixels highlight areas of AR-V7 RNA expression. For details, see the article by Guedes and colleagues on page 4651 of this issue.



Clinical Cancer Research

22 (18)

Clin Cancer Res 2016;22:4537-4756.

Updated version Access the most recent version of this article at:
<http://clincancerres.aacrjournals.org/content/22/18>

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/22/18>.
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.