

Highlights of This Issue 5395

SPECIAL FEATURES

CCR Translations

5397 Who's Eligible Anyway? Risk Modeling for Clinical Trial Accrual

Kathryn F. Mileham and Edward S. Kim
See related article, p. 5408

5400 Bringing Blood-Based Molecular Testing to the Clinic

Filip Janku and Razelle Kurzrock
See related article, p. 5564

Molecular Pathways

5403 Molecular Pathways: Targeting Steroid Receptor Coactivators in Cancer

David M. Lonard and Bert W. O'Malley

Review

5408 Challenges Facing Early Phase Trials Sponsored by the National Cancer Institute: An Analysis of Corrective Action Plans to Improve Accrual


Holly A. Massett, Grace Mishkin, Larry Rubinstein, S. Percy Ivy, Andrea Denicoff, Elizabeth Godwin, Kate DiPiazza, Jennifer Bolognese, James A. Zwiebel, and Jeffrey S. Abrams
See related commentary, p. 5397

CCR Focus

5418 Multiple Myeloma: Multiplying Therapies

Susan E. Bates

5419 Progress and Paradigms in Multiple Myeloma

 Kenneth C. Anderson

5428 New Developments in Diagnosis, Prognosis, and Assessment of Response in Multiple Myeloma

Ola Landgren and S. Vincent Rajkumar

5434 Gene Expression Profiles in Myeloma: Ready for the Real World?

Raphael Szalat, Herve Avet-Loiseau, and Nikhil C. Munshi

5443 Integration of Novel Agents into the Care of Patients with Multiple Myeloma

Robert Z. Orlowski and Sagar Lonial

5453 Immune Therapies in Multiple Myeloma

Shaji K. Kumar and Kenneth C. Anderson

CANCER THERAPY: CLINICAL

5461 Immunomodulatory Activity of Nivolumab in Metastatic Renal Cell Carcinoma



Toni K. Choueiri, Mayer N. Fishman, Bernard Escudier, David F. McDermott, Charles G. Drake, Harriet Kluger, Walter M. Stadler, Jose Luis Perez-Gracia, Douglas G. McNeel, Brendan Curti, Michael R. Harrison, Elizabeth R. Plimack, Leonard Appleman, Lawrence Fong, Laurence Albiges, Lewis Cohen, Tina C. Young, Scott D. Chasalow, Petra Ross-Macdonald, Shivani Srivastava, Maria Jure-Kunkel, John F. Kurland, Jason S. Simon, and Mario Sznol

5472 The Effect of Hepatic Impairment on Outcomes in Phase I Clinical Trials in Cancer Subjects

Aaron S. Mansfield, Michelle A. Rudek, Diana Vulih, Gary L. Smith, Pamela Jo Harris, and S. Percy Ivy, on behalf of the NCI Organ Dysfunction Working Group

PERSONALIZED MEDICINE AND IMAGING

5480 Circulating Tumor DNA as an Early Indicator of Response to T-cell Transfer Immunotherapy in Metastatic Melanoma

Liqiang Xi, Trinh Hoc-Tran Pham, Eden C. Payabyab, Richard M. Sherry, Steven A. Rosenberg, and Mark Raffeld

5487 Baseline Biomarkers for Outcome of Melanoma Patients Treated with Pembrolizumab

Benjamin Weide, Alexander Martens, Jessica C. Hassel, Carola Berking, Michael A. Postow, Kees Bisschop, Ester Simeone, Johanna Mangana, Bastian Schilling, Anna Maria Di Giacomo, Nicole Brenner, Katharina Kähler, Lucie Heinzerling, Ralf Gutzmer, Armin Bender, Christoffer Gebhardt, Emanuela Romano, Friedegund Meier, Peter Martus, Michele Maio, Christian Blank, Dirk Schadendorf, Reinhard Dummer, Paolo A. Ascierto, Geke Hospers, Claus Garbe, and Jedd D. Wolchok

5497 Use of Liquid Biopsies in Clinical Oncology: Pilot Experience in 168 Patients



Maria Schwaederle, Hatim Husain, Paul T. Fanta, David E. Piccioni, Santosh Kesari, Richard B. Schwab, Sandip P. Patel, Olivier Harismendy, Megumi Ikeda, Barbara A. Parker, and Razelle Kurzrock



Table of Contents

5506 Noninvasive Detection of Metastases and Follicle Density in Ovarian Tissue Using Full-Field Optical Coherence Tomography

Inge T.A. Peters, Paulien L. Stegehuis, Ronald Peek, Florine L. Boer, Erik W. van Zwet, Jeroen Eggemont, Johan R. Westphal, Peter J.K. Kuppen, J. Baptist Trimbos, Carina G.J.M. Hilders, Boudewijn P.F. Lelieveldt, Cornelis J.H. van de Velde, Tjalling Bosse, Jouke Dijkstra, and Alexander L. Vahrmeijer

5514 High CDK6 Protects Cells from Fulvestrant-Mediated Apoptosis and is a Predictor of Resistance to Fulvestrant in Estrogen Receptor-Positive Metastatic Breast Cancer

Carla L. Alves, Daniel Elias, Maria Lyng, Martin Bak, Tove Kirkegaard, Anne E. Lykkesfeldt, and Henrik J. Ditzel

CANCER THERAPY: PRECLINICAL

5527 The Potent ALK Inhibitor Brigatinib (AP26113) Overcomes Mechanisms of Resistance to First- and Second-Generation ALK Inhibitors in Preclinical Models



Sen Zhang, Rana Anjum, Rachel Squillace, Sara Nadworny, Tianjun Zhou, Jeff Keats, Yaoyu Ning, Scott D. Wardwell, David Miller, Youngchul Song, Lindsey Eichinger, Lauren Moran, Wei-Sheng Huang, Shuangying Liu, Dong Zou, Yihan Wang, Qurish Moheemad, Hyun Gyung Jang, Emily Ye, Narayana Narasimhan, Frank Wang, Juan Miret, Xiaotian Zhu, Tim Clackson, David Dalgarno, William C. Shakespeare, and Victor M. Rivera

5539 The Dual Inhibition of RNA Pol I Transcription and PIM Kinase as a New Therapeutic Approach to Treat Advanced Prostate Cancer

Richard J. Rebello, Eric Kusnadi, Donald P. Cameron, Helen B. Pearson, Analia Lesmana, Jennifer R. Devlin, Denis Drygin, Ashlee K. Clark, Laura Porter, John Pedersen, Shahneen Sandhu, Gail P. Risbridger, Richard B. Pearson, Ross D. Hannan, and Luc Furic

BIOLOGY OF HUMAN TUMORS

5553 Density, Distribution, and Composition of Immune Infiltrates Correlate with Survival in Merkel Cell Carcinoma

Laurence Feldmeyer, Courtney W. Hudgens, Genevieve Ray-Lyons, Priyadharsini Nagarajan, Phyu P. Aung, Jonathan L. Curry, Carlos A. Torres-Cabala, Barbara Mino, Jaime Rodriguez-Canales, Alexandre Reuben, Pei-Ling Chen, Jennifer S. Ko, Steven D. Billings, Roland L. Bassett, Ignacio I. Wistuba, Zachary A. Cooper, Victor G. Prieto, Jennifer A. Wargo, and Michael T. Tetzlaff

5564 Genomic Copy Number Profiling Using Circulating Free Tumor DNA Highlights



Heterogeneity in Neuroblastoma

Mathieu Chicard, Sandrine Boyault, Leo Colmet Daage, Wilfrid Richer, David Gentien, Gaelle Pierron, Eve Lapouble, Angela Bellini, Nathalie Clement, Isabelle Iacono, Stéphanie Bréjon, Marjorie Carrere, Cécile Reyes, Toby Hocking, Virginie Bernard, Michel Peuchmaur, Nadège Corradini, Cécile Faure-Conter, Carole Coze, Dominique Plantaz, Anne Sophie Defachelles, Estelle Thebaud, Marion Gambart, Frédéric Millot, Dominique Valteau-Couanet, Jean Michon, Alain Puisieux, Olivier Delattre, Valérie Combaret, and Gudrun Schleiermacher

See related commentary, p. 5400

5574 Human Microbiome *Fusobacterium Nucleatum* in Esophageal Cancer Tissue Is Associated with Prognosis

Kensuke Yamamura, Yoshifumi Baba, Shigeki Nakagawa, Kosuke Mima, Keisuke Miyake, Kenichi Nakamura, Hiroshi Sawayama, Koichi Kinoshita, Takatsugu Ishimoto, Masaaki Iwatsuki, Yasuo Sakamoto, Yoichi Yamashita, Naoya Yoshida, Masayuki Watanabe, and Hideo Baba

5582 Significance of TP53 Mutation in Wilms Tumors with Diffuse Anaplasia: A Report from the Children's Oncology Group

Ariadne H.A.G. Ooms, Samantha Gadd, Daniela S. Gerhard, Malcolm A. Smith, Jaime M. Guidry Auvil, Daoud Meerzaman, Qing-Rong Chen, Chih Hao Hsu, Chunhua Yan, Cu Nguyen, Ying Hu, Yussanne Ma, Zusheng Zong, Andrew J. Mungall, Richard A. Moore, Marco A. Marra, Vicki Huff, Jeffrey S. Dome, Yueh-Yun Chi, Jing Tian, James I. Geller, Charles G. Mullighan, Jing Ma, David A. Wheeler, Oliver A. Hampton, Amy L. Walz, Marry M. van den Heuvel-Eibrink, Ronald R. de Krijger, Nicole Ross, Julie M. Gastier-Foster, and Elizabeth J. Perlman

5592 CD44 Expression Level and Isoform Contributes to Pancreatic Cancer Cell Plasticity, Invasiveness, and Response to Therapy



Shujie Zhao, Chen Chen, Katherine Chang, Anand Karnad, Jaishree Jagirdar, Addanki P. Kumar, and James W. Freeman

5605 Tyrosine Kinase Signaling in Clear Cell and Papillary Renal Cell Carcinoma Revealed by Mass Spectrometry-Based Phosphotyrosine Proteomics

Scott M. Haake, Jiannong Li, Yun Bai, Fumi Kinose, Bin Fang, Eric A. Welsh, Roy Zent, Jasreman Dhillon, Julio M. Pow-Sang, Y. Ann Chen, John M. Koomen, W. Kimryn Rathmell, Mayer Fishman, and Eric B. Haura

Table of Contents

LETTERS TO THE EDITOR

5617 Focusing on Core Patient-Reported Outcomes in Cancer Clinical Trials—Letter

Mogens Groenvold, Neil K. Aaronson, Anne-Sophie E. Darlington, Deborah Fitzsimmons, Eva Greimel, Bernhard Holzner, Jaap C. Reijneveld, Krzysztof A. Tomaszewski, Irma Verdonck-de Leeuw, and Lonneke van de Poll-Franse, on behalf of the EORTC Quality of Life Group

5618 Focusing on Core Patient-Reported Outcomes in Cancer Clinical Trials—Response

Paul G. Kluetz, Elektra J. Papadopoulou, Laura Lee Johnson, Martha Donoghue, Virginia E. Kwitkowski, Wen-Hung Chen, Rajeshwari Sridhara, Ann T. Farrell, Patricia Keegan, Geoffrey Kim, and Richard Pazdur

CORRECTION

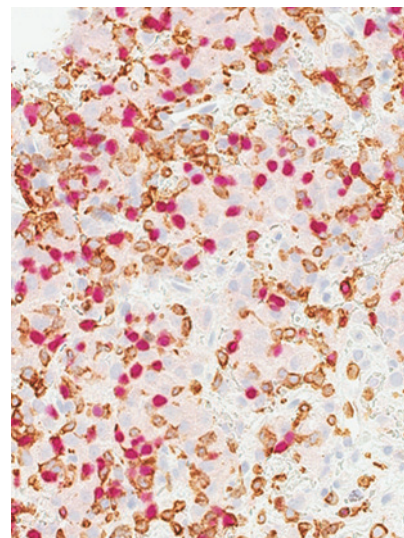
5619 Correction: The MEK1/2 Inhibitor Pimasertib Enhances Gemcitabine Efficacy—Response

 AC icon indicates Author Choice

For more information please visit www.aacrjournals.org

ABOUT THE COVER

The cover shows immunohistochemical staining of tumor-associated lymphocytes in a tumor biopsy of a nivolumab-treated patient with mRCC. Immunohistochemical staining shows enrichment in CD3⁺ (brown) and a modest enrichment in CD4⁺ (purple) cells at cycle 2, day 8 of nivolumab treatment relative to baseline (not shown). FoxP3 (nuclei, red) stain is also included. For details, see the article by Choueiri and colleagues on page 5461 of this issue.



Clinical Cancer Research

22 (22)

Clin Cancer Res 2016;22:5395-5619.

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

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, contact the AACR Publications Department at permissions@aacr.org.