


SPECIAL FEATURES

Highlights of This Issue 5191

CCR Translations

- 5193** Unexpected Benefits of Aging for Favorable Responses to PD-1 Blockade in Melanoma?
Graham Pawelec
See related article, p. 5347
- 5195** Two Weeks' Notice from Allogeneic Sources
Mark Anczurowski and Naoto Hirano
See related article, p. 5357


Reviews

- 5198** Immunotherapy of Primary Brain Tumors: Facts and Hopes
Robin A. Buerki, Zinal S. Chheda, and Hideho Okada
- 5206** Targeted Therapy for Premenopausal Women with HR⁺, HER2⁻ Advanced Breast Cancer: Focus on Special Considerations and Latest Advances
 Aditya Bardia and Sara Hurvitz

CLINICAL TRIAL BRIEF REPORT

- 5219** Interim PET Analysis in First-Line Therapy of Multiple Myeloma: Prognostic Value of Δ SUV_{max} in the FDG-Avid Patients of the IMAJEM Study
Clément Bailly, Thomas Carlier, Bastien Jamet, Thomas Eugene, Cyrille Touzeau, Michel Attal, Cyrille Hulin, Thierry Facon, Xavier Leleu, Aurore Perrot, Laurent Garderet, Margaret Macro, Denis Caillot, Philippe Moreau, Françoise Kraeber-Bodéré, and Caroline Bodet-Milin

CLINICAL TRIALS: TARGETED THERAPY

- 5225** Phase I Study of Seviteronel, a Selective CYP17 Lyase and Androgen Receptor Inhibitor, in Men with Castration-Resistant Prostate Cancer
 Shilpa Gupta, Luke T. Nordquist, Mark T. Fleming, William R. Berry, Jingsong Zhang, Sharon L. Ervin, Joel R. Eisner, Edwina S. Baskin-Bey, and Neal D. Shore

- 5233** Safety and Efficacy of Anlotinib, a Multikinase Angiogenesis Inhibitor, in Patients with Refractory Metastatic Soft-Tissue Sarcoma
Yihebal Chi, Zhiwei Fang, Xiaonan Hong, Yang Yao, Ping Sun, Guowen Wang, Feng Du, Yongkun Sun, Qiong Wu, Guofan Qu, Shusen Wang, Jianmin Song, Jianchun Yu, Yongkui Lu, Xia Zhu, Xiaohui Niu, Zhiyong He, Jinwan Wang, Hao Yu, and Jianqiang Cai
- 5239** Nilotinib as Coadjuvant Treatment with Doxorubicin in Patients with Sarcomas: A Phase I Trial of the Spanish Group for Research on Sarcoma
Regina Alemany, David S. Moura, Andres Redondo, Javier Martinez-Trufero, Silvia Calabuig, Carlos Saus, Antonia Obrador-Hevia, Rafael Ramos, Victor H. Villar, Claudia Valverde, Maria Angeles Vaz, Javier Medina, Irene Felipe-Abrio, Nadia Hindi, Miguel Taron, and Javier Martin-Broto

PRECISION MEDICINE AND IMAGING


- 5250** Quantitative Spatial Profiling of PD-1/PD-L1 Interaction and HLA-DR/IDO-1 Predicts Improved Outcomes of Anti-PD-1 Therapies in Metastatic Melanoma
 Douglas B. Johnson, Jennifer Bordeaux, Ju Young Kim, Christine Vaupel, David L. Rimm, Thai H. Ho, Richard W. Joseph, Adil I. Daud, Robert M. Conry, Elizabeth M. Gaughan, Leonel F. Hernandez-Aya, Anastasios Dimou, Pauline Funchain, James Smithy, John S. Witte, Svetlana B. McKee, Jennifer Ko, John M. Wrangle, Bashar Dabbas, Shabnam Tangri, Jelveh Lameh, Jeffrey Hall, Joseph Markowitz, Justin M. Balko, and Naveen Dakappagari
- 5261** Evolutionary Expression of HER2 Conferred by Chromosome Aneuploidy on Circulating Gastric Cancer Cells Contributes to Developing Targeted and Chemotherapeutic Resistance
Yilin Li, Xiaotian Zhang, Dan Liu, Jifang Gong, Daisy Dandan Wang, Shan Li, Zhi Peng, Yanyan Li, Xiaojuan Wang, Peter Ping Lin, Min Li, and Lin Shen

Table of Contents

- 5272** **Real-Time Tumor Gene Expression Profiling to Direct Gastric Cancer Chemotherapy: Proof-of-Concept "3G" Trial**
Wei Peng Yong, Sun Young Rha, Iain Bee-Huat Tan, Su-Pin Choo, Nicholas L. Syn, Vivien Koh, Shi-Hui Tan, Bernadette Reyna Asuncion, Raghav Sundar, Jimmy Bok-Yan So, Asim Shabbir, Chee-Seng Tan, Hyo-Song Kim, Minkyu Jung, Hyun Cheol Chung, Matthew C.H. Ng, David Wai-Meng Tai, Ming-Hui Lee, Jeanie Wu, Khay Guan Yeoh, and Patrick Tan, on behalf of the Singapore Gastric Cancer Consortium (SGCC)
- 5282** **TERT Promoter Mutation Detection in Cell-Free Tumor-Derived DNA in Patients with IDH Wild-Type Glioblastomas: A Pilot Prospective Study**
Tareq A. Juratli, Sebastian Stasik, Amir Zolal, Caroline Schuster, Sven Richter, Dirk Daubner, Mazen A. Juratli, Rachel Thowe, Silke Hennig, Meriem Makina, Matthias Meinhardt, Tim Lautenschlaeger, Gabriele Schackert, Dietmar Krex, and Christian Thiede
- 5292** **Integrated Analysis of RNA and DNA from the Phase III Trial CALGB 40601 Identifies Predictors of Response to Trastuzumab-Based Neoadjuvant Chemotherapy in HER2-Positive Breast Cancer**
Maki Tanioka, Cheng Fan, Joel S. Parker, Katherine A. Hoadley, Zhiyuan Hu, Yan Li, Terry M. Hyslop, Brandelyn N. Pitcher, Matthew G. Soloway, Patricia A. Spears, Lynn N. Henry, Sara Tolaney, Chau T. Dang, Ian E. Krop, Lyndsay N. Harris, Donald A. Berry, Elaine R. Mardis, Eric P. Winer, Clifford A. Hudis, Lisa A. Carey, and Charles M. Perou
- 5305** **Serum Sex Steroids as Prognostic Biomarkers in Patients Receiving Androgen Deprivation Therapy for Recurrent Prostate Cancer: A Post Hoc Analysis of the PR.7 Trial**
Paul Toren, Azik Hoffman, Keyue Ding, France-Hélène Joncas, Véronique Turcotte, Patrick Caron, Frédéric Pouliot, Yves Fradet, Éric Lévesque, Chantal Guillemette, and Laurence Klotz
- 5313** **SK3 Gene Polymorphism Is Associated with Taxane Neurotoxicity and Cell Calcium Homeostasis**
Carina Rua, Maxime Guéguinou, Imane Soubai, Erika Viel, Marie Potier-Cartreau, Aurélie Chantome, Catherine Barbe, Philippe Bougnoux, Chantal Barin-Le Guellec, and Christophe Vandier

TRANSLATIONAL CANCER MECHANISMS AND THERAPY

- 5321** **Single-Molecule Sequencing Reveals Patterns of Preexisting Drug Resistance That Suggest Treatment Strategies in Philadelphia-Positive Leukemias**
 Michael W. Schmitt, Justin R. Pritchard, Scott M. Leighow, Bella I. Aminov, Lan Beppu, Daniel S. Kim, J. Graeme Hodgson, Victor M. Rivera, Lawrence A. Loeb, and Jerald P. Radich
- 5335** **Local Phototherapy Synergizes with Immunoadjuvant for Treatment of Pancreatic Cancer through Induced Immunogenic Tumor Vaccine**
 Feifan Zhou, Jingxuan Yang, Yuqing Zhang, Mingyang Liu, Mark L. Lang, Min Li, and Wei R. Chen
- 5347** **Age Correlates with Response to Anti-PD1, Reflecting Age-Related Differences in Intratumoral Effector and Regulatory T-Cell Populations**
Curtis H. Kugel III, Stephen M. Douglass, Marie R. Webster, Amanpreet Kaur, Qin Liu, Xiangfan Yin, Sarah A. Weiss, Farbod Darvishian, Rami N. Al-Rohil, Abibatou Ndoeye, Reeti Behera, Gretchen M. Alicea, Brett L. Ecker, Mitchell Fane, Michael J. Allegranza, Nikolaos Svoronos, Vinit Kumar, Daniel Y. Wang, Rajasekharan Somasundaram, Siwen Hu-Lieskovan, Alpaslan Ozgun, Meenhard Herlyn, Jose R. Conejo-Garcia, Dmitry Gabrilovich, Erica L. Stone, Theodore S. Nowicki, Jeffrey Sosman, Rajat Rai, Matteo S. Carlino, Georgina V. Long, Richard Marais, Antoni Ribas, Zeynep Eroglu, Michael A. Davies, Bastian Schilling, Dirk Schadendorf, Wei Xu, Ravi K. Amaravadi, Alexander M. Menzies, Jennifer L. McQuade, Douglas B. Johnson, Iman Osman, and Ashani T. Weeraratna
See related commentary, p. 5193
- 5357** **Induction of Neoantigen-Specific Cytotoxic T Cells and Construction of T-cell Receptor-Engineered T Cells for Ovarian Cancer**
 Tatsuo Matsuda, Matthias Leisegang, Jae-Hyun Park, Lili Ren, Taigo Kato, Yuji Ikeda, Makiko Harada, Kazuma Kiyotani, Ernst Lengyel, Gini F. Fleming, and Yusuke Nakamura
See related commentary, p. 5195
- 5368** **Resistance to Radiotherapy and PD-L1 Blockade Is Mediated by TIM-3 Upregulation and Regulatory T-Cell Infiltration**
Ayman Oweida, Mohammad K. Hararah, Andy Phan, David Binder, Shilpa Bhatia, Shelby Lennon, Sanjana Bukkapatnam, Benjamin Van Court, Nomin Uyanga, Laurel Darragh, Hyun Min Kim, David Raben, Aik Choon Tan, Lynn Heasley, Eric Clambey, Raphael Nemenoff, and Sana D. Karam

Table of Contents

- 5381** D-2-Hydroxyglutarate Is an Intercellular Mediator in IDH-Mutant Gliomas Inhibiting Complement and T Cells
Lingjun Zhang, Mia D. Sorensen, Bjarne W. Kristensen, Guido Reifenberger, Thomas M. McIntyre, and Feng Lin

- 5392** Metabolic Reprogramming by Dual AKT/ERK Inhibition through Imipridones Elicits Unique Vulnerabilities in Glioblastoma
Chiaki T. Ishida, Yiru Zhang, Elena Bianchetti, Chang Shu, Trang T.T. Nguyen, Giulio Kleiner, Maria J. Sanchez-Quintero, Catarina M. Quinzii, Mike-Andrew Westhoff, Georg Karpel-Massler, Varun V. Prabhu, Joshua E. Allen, and Markus D. Siegelin

- 5407** Cancer-Stimulated CAFs Enhance Monocyte Differentiation and Protumoral TAM Activation via IL6 and GM-CSF Secretion
Haaglim Cho, Youngha Seo, Kin Man Loke, Seon-Wook Kim, Seong-Min Oh, Jun-Hyeong Kim, Jihee Soh, Hyoen Sik Kim, Hyunju Lee, Jin Kim, Jung-Joon Min, Da-Woon Jung, and Darren Reece Williams

- 5422** The Splicing Factor PTBP1 Promotes Expression of Oncogenic Splice Variants and Predicts Poor Prognosis in Patients with Non-muscle-Invasive Bladder Cancer
Pamela Bielli, Valentina Panzeri, Rossano Lattanzio, Simona Mutascio, Marco Pieraccioli, Elisabetta Volpe, Vincenzo Pagliarulo, Mauro Piantelli, Antonella Giannantoni, Savino M. Di Stasi, and Claudio Sette

- 5433** The Proteome of Prostate Cancer Bone Metastasis Reveals Heterogeneity with Prognostic Implications
Diego Iglesias-Gato, Elin Thysell, Stefka Tyanova, Sead Crnalic, Alberto Santos, Thiago S. Lima, Tamar Geiger, Jürgen Cox, Anders Widmark, Anders Bergh, Matthias Mann, Amilcar Flores-Morales, and Pernilla Wikström

- 5445** CD30 Characterizes Polylobated Lymphocytes and Disease Progression in HTLV-1-Infected Individuals
Makoto Nakashima, Tadanori Yamochi, Mariko Watanabe, Kaoru Uchimaru, Atee Utsunomiya, Masaaki Higashihara, Toshiki Watanabe, and Ryouichi Horie

- 5458** Tyrosine Kinase Inhibitors Increase MCL1 Degradation and in Combination with BCLXL/BCL2 Inhibitors Drive Prostate Cancer Apoptosis
Seiji Arai, Oliver Jonas, Matthew A. Whitman, Eva Corey, Steven P. Balk, and Sen Chen

- 5471** *IFNLA-ΔG* Allele Is Associated with an Interferon Signature in Tumors and Survival of African-American Men with Prostate Cancer
Wei Tang, Tiffany A. Wallace, Ming Yi, Cristina Magi-Galluzzi, Tiffany H. Dorsey, Olusegun O. Onabajo, Adeola Obajemu, Symone V. Jordan, Christopher A. Loffredo, Robert M. Stephens, Robert H. Silverman, George R. Stark, Eric A. Klein, Ludmila Prokunina-Olsson, and Stefan Ambis

LETTERS TO THE EDITOR

- 5482** Accuracy, Safety, and Reliability of Novel Phase I Designs—Letter
Nolan A. Wages and Thomas M. Braun
- 5483** Accuracy, Safety, and Reliability of Novel Phase I Designs—Response
Heng Zhou, Ying Yuan, and Lei Nie

CORRECTIONS

- 5485** Correction: MONARCH 1, A Phase II Study of Abemaciclib, a CDK4 and CDK6 Inhibitor, as a Single Agent, in Patients with Refractory HR⁺/HER2⁻ Metastatic Breast Cancer
- 5486** Correction: Relationship between Tumor Biomarkers and Efficacy in EMILIA, a Phase III Study of Trastuzumab Emtansine in HER2-Positive Metastatic Breast Cancer
- 5487** Correction: Pharmacology in the Era of Targeted Therapies: The Case of PI3K Inhibitors
- 5488** Correction: A Phase I Study of the Heat Shock Protein 90 Inhibitor Alveuspimycin (17-DMAG) Given Intravenously to Patients with Advanced Solid Tumors

RETRACTION

- 5489** Retraction: NRH:Quinone Oxidoreductase 2-Deficient Mice Are Highly Susceptible to Radiation-induced B-Cell Lymphomas
Karim Iskander, Roberto J. Barrios, and Anil K. Jaiswal



AC icon indicates AuthorChoice

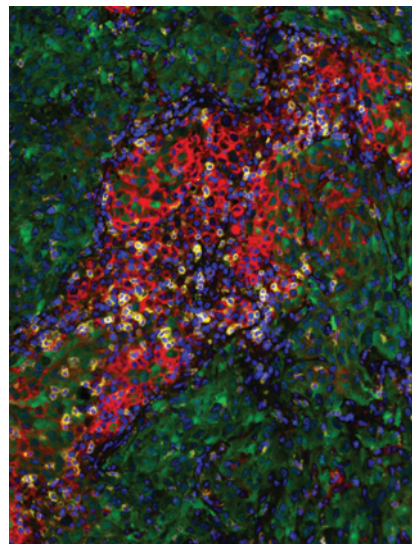
For more information please visit www.aacrjournals.org



Table of Contents

ABOUT THE COVER

The cover shows a section of an adrenal biopsy from a patient with metastatic melanoma who responded to anti-PD1 therapy. Fluorescent immunohistochemical staining shows high colocalization of PD-L1 (red) and PD1 (yellow) with S100 (green) and DAPI (blue). For details, see the article by Johnson and colleagues on page 5250 of this issue.



Clinical Cancer Research

24 (21)

Clin Cancer Res 2018;24:5191-5489.

Updated version Access the most recent version of this article at:
<http://clincancerres.aacrjournals.org/content/24/21>

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/24/21>.
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.