### Highlights of This Issue 4975

#### SPECIAL FEATURES

**Editorial**

4977  
**AACR Cancer Progress Report 2014: Transforming Lives Through Research**  
Jesse Potash and Kenneth C. Anderson

**Policy Statement**

4978  
**Reliable and Effective Diagnostics Are Keys to Accelerating Personalized Cancer Medicine and Transforming Cancer Care: A Policy Statement from the American Association for Cancer Research**  
Charles L. Sawyers and Laura J. van ‘t Veer

**CCR Translations**

4982  
**The Future of Cancer Therapy: Selecting Patients Likely to Respond to PD1/L1 Blockade**  
Antoni Ribas and Paul C. Tumeh  
*See related article, p. 5064*

**CCR New Strategies**

4985  
**New Strategies in Acute Promyelocytic Leukemia: Moving to an Entirely Oral, Chemotherapy-Free Upfront Management Approach**  
Amer M. Zeidan and Steven D. Gore

**CCR Perspectives in Drug Approval**

4994  
**FDA Approval Summary: Vemurafenib for Treatment of Unresectable or Metastatic Melanoma with the BRAF<sup>V600E</sup> Mutation**  
Geoffrey Kim, Amy E. McKee, Yang-Min Ning, Maitreyee Hazarika, Marc Theoret, John R. Johnson, Qiang Casey Xu, Shenghui Tang, Rajeshwari Sridhara, Xiaoping Jiang, Kun He, Donna Roscoe, W. David McGuinn, Whitney S. Helms, Anne Marie Russell, Sarah Pope Mikinski, Jeanne Fourie Zirkelbach, Justin Earp, Qi Liu, Anna Ibrahim, Robert Justice, and Richard Pazdur

### Molecular Pathways

5001  
**Molecular Pathways: Deregulation of Histone H3 Lysine 27 Methylation in Cancer—Different Paths, Same Destination**  
Teresa Ezponda and Jonathan D. Licht

### CANCER THERAPY: CLINICAL

5009  
**A Recombinant Modified Vaccinia Ankara Vaccine Encoding Epstein–Barr Virus (EBV) Target Antigens: A Phase I Trial in UK Patients with EBV-Positive Cancer**  

5023  
**Phase II Study of Bevacizumab, Temozolomide, and Hypofractionated Stereotactic Radiotherapy for Newly Diagnosed Glioblastoma**  

5032  
**Phase I First-in-Human Study of CUDC-101, a Multitargeted Inhibitor of HDACs, EGFR, and HER2 in Patients with Advanced Solid Tumors**  
Toshio Shimizu, Patricia M. LoRusso, Kyri P. Papadopoulos, Amita Patnaik, Muralidhar Beeram, Lon S. Smith, Drew W. Rasco, Theresa A. Mays, Glenda Chambers, Anna Ma, Jing Wang, Robert Laliberte, Maurizio Voi, and Anthony W. Tolcher
Table of Contents

PERSONALIZED MEDICINE AND IMAGING

5052 Prolongation of Overall Survival in Advanced Lung Adenocarcinoma Patients with the XAGE1 (GAGED2a) Antibody
Yoshihiro Ohue, Koji Kurose, Yu Mizote, Hirofumi Matsumoto, Yumi Nishio, Midori Isobe, Minoru Fukuda, Akiko Uenaka, Mikio Oka, and Eiichi Nakayama

5064 Association of PD-1, PD-1 Ligands, and Other Features of the Tumor Immune Microenvironment with Response to Anti–PD-1 Therapy
Janis M. Taube, Alison Klein, Julie R. Brahmer, Haiying Xu, Xiaoyu Pan, Jung H. Kim, Lieping Chen, Drew M. Pardoll, Suzanne L. Topalian, and Robert A. Anders
See related commentary, p. 4982

CANCER THERAPY: PRECLINICAL

5075 Anti-CCR4 Monoclonal Antibody Mogamulizumab for the Treatment of EBV-Associated T- and NK-Cell Lymphoproliferative Diseases
Tetsuhiro Kanazawa, Yutaka Hiramatsu, Seiko Iwata, Mohammed Siddiquey, Yoshiyata Sato, Michio Suzuki, Yoshinori Ito, Fumi Goshima, Takayuki Murata, and Hiroshi Kimura

5085 Combined Inhibition of Wee1 and PARP1/2 for Radiosensitization in Pancreatic Cancer
David Karnak, Carl G. Engelke, Leslie A. Parsels, Tasneem Kausar, Dongping Wei, Jordan R. Robertson, Katherine B. Marsh, Mary A. Davis, Lili Zhao, Jonathan Maybaum, Theodore S. Lawrence, and Meredith A. Morgan

5097 Overexpression of Smad7 Blocks Primary Tumor Growth and Lung Metastasis Development in Osteosarcoma
Audrey Lamora, Julie Talbot, Gwenola Bougras, Jérôme Amiaud, Marion Leduc, Julie Chesneau, Julien Taurelle, Verena Stresing, Marie Cécile Le Deley, Marie Françoise Heymann, Dominique Heymann, François Redini, and Franck Verrecchia

BIOLOGY OF HUMAN TUMORS

5113 Clinical Implications of Phosphorylated STAT3 Expression in De Novo Diffuse Large B-cell Lymphoma
Chi Young Ok, Jiaju Chen, Zijian Y. Xu-Monette, Alexandar Tzankov, Ganrajra C. Manyam, Ling Li, Carlo Visco, Santiago Montes-Moreno, Karen Dybkær, April Chiu, Attilio Orazi, Youli Zu, Govind Bhagat, Kristy L. Richards, Eric D. Hsi, William W.L. Choi, J. Han van Krieken, Jooryung Huh, Xiaoying Zhao, Maurilio Ponzoni, Andrés J.M. Ferreri, Francesco Bertoni, John F. Farnen, Michael B. Möller, Miguel A. Piris, Jane N. Winter, L. Jeffrey Medeiros, and Ken H. Young

5124 Low PIAS3 Expression in Malignant Mesothelioma Is Associated with Increased STAT3 Activation and Poor Patient Survival
Snehal Dabir, Amy Kluge, Adam Kresak, Michael Yang, Pingfu Fu, Bernd Groner, Gary Wildey, and Afshin Dowlati

5133 The Prostate Cancer Susceptibility Variant rs2735839 Near KLK3 Gene Is Associated with Aggressive Prostate Cancer and Can Stratify Gleason Score 7 Patients
Yonggang He, Jian Gu, Sara Strom, Christopher J. Logothetis, Jeri Kim, and Xifeng Wu

LETTERS TO THE EDITOR

5140 Tumor Stromal Phenotypes Define VEGF Sensitivity—Letter
5141  Tumor Stromal Phenotypes Define VEGF Sensitivity—Response
Neil R. Smith, Dawn Baker, Matthew Farren, Aurelien Pommier, Ruth Swann, Xin Wang,
Sunita Mistry, Karen McDaid, Jane Kendrew, Chris Womack, Stephen R. Wedge, and
Simon T. Barry

CORRECTION
5142  Correction: A Severe Combined Immunodeficient–hu In Vivo Mouse Model of Human Primary Mantle Cell Lymphoma

ABOUT THE COVER
The cover shows acetylated histone H3 immunohistochemistry staining of skin biopsy at half an hour after the fifth doses of CUDC-101 treatment in the 275-mg/m² cohort. CUDC-101 induces the accumulation of acetylated histone H3. For details, see the article by Shimizu and colleagues on page 5032 of this issue.