MOLECULAR CANCER RESEARCH

TABLE OF CONTENTS

HIGHLIGHTS
359  Selected Articles from This Issue

REVIEWS
361  The MEK/ERK Network as a Therapeutic Target in Human Cancer
Renee Barbosa, Lucila A. Acevedo, and Ronen Marmorstein

375  Y-Box Binding Protein-1: A Neglected Target in Pediatric Brain Tumors?
Louisa Taylor, Ian D. Kerr, and Beth Coyle

388  Protein Arginine Methyltransferase 5 (PRMT5) and the ERK1/2 & PI3K Pathways: A Case for PRMT5 Inhibition and Combination Therapies in Cancer
Tzuriel Sapir, David Shifteh, Moshe Pahmer, Sanjay Goel, and Radhashree Maitra

CANCER GENES AND NETWORKS
403  Differential Effects of Clinically Relevant N- versus C-Terminal Truncating CDKN1A Mutations on Cisplatin Sensitivity in Bladder Cancer

414  MYC Activity Inference Captures Diverse Mechanisms of aberrant MYC pathway activation in Human Cancers
Evelien Schaafsma, Yanding Zhao, Lanjing Zhang, Yong Li, and Chao Cheng

429  G9a Promotes Invasion and Metastasis of Non-Small Cell Lung Cancer through Enhancing Focal Adhesion Kinase Activation via NF-κB Signaling Pathway
Ting Sun, Kequiang Zhang, Rajendra P. Pangeni, Jun Wu, Wenhong Li, Yong Du, Yuming Guo, Shyambabu Chaurasiya, Leonidas Arvanitis, and Dan J. Raz

441  N-Acetyl-L-cysteine Promotes Ex Vivo Growth and Expansion of Single Circulating Tumor Cells by Mitigating Cellular Stress Responses
Teng Teng, Mohamed Kamal, Obana Iriondo, Yonatan Amzaleg, Chunqiao Luo, Amal Thomas, Grace Lee, Ching-Ju Hsu, John D. Nguyen, Irene Kang, James Hicks, Andrew Smith, Richard Sposto, and Min Yu

CANCER "-OMICS"
451  5-Azacytidine transiently restores dysregulated erythroid differentiation gene expression in TET2-Deficient erythroleukemia cells
Brian M. Reilly, Timothy Luger, Soo Park, Chan-Wang Jerry Lio, Edahi Gonzalez-Avalos, Emily C. Wheeler, Minjuung Lee, Laura Williamson, Tiffany Tanaka, Dinh Diep, Kun Zhang, Yun Huang, Anjana Rao, and Rafael Bejar

465  Characterization of clonal evolution in microsatellite unstable metastatic cancers through multiregional tumor sequencing
Russell Bonneville, Anoosha Paruchuri, Michele R. Wing, Melanie A. Krook, Julie W. Reeser, Hui-Zi Chen, Thuy Dao, Eric Samorodnitsky, Amy M. Smith, Lianbo Yu, Nicholas Nowacki, Wei Chen, and Sameek Roychowdhury

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TABLE OF CONTENTS

METABOLISM

475 Metabolomics of Prostate Cancer Gleason Score in Tumor Tissue and Serum
Kathryn L. Penney, Svitlana Tyekucheva, Jacob Rosenthal, Habiba El Fandy, Ryan Carelli, Stephanie Borzstein, Giorgia Zadra, Giuseppe Nicolò Fanelli, Lavinia Stefanizzi, Francesca Giunchi, Mark Pomerantz, Samuel Peisch, Hannah Coulson, Rosina Lis, Adam S. Kibel, Michelangelo Fiorentino, Renato Umeton, and Massimo Loda

SIGNAL TRANSDUCTION AND FUNCTIONAL IMAGING

485 AXL Inhibition Induces DNA Damage and Replication Stress in Non–Small Cell Lung Cancer Cells and Promotes Sensitivity to ATR Inhibitors
Kavya Ramkumar, C. Allison Stewart, Kasey R. Cargill, Carminia M. Della Corte, Qi Wang, Li Shen, Lixia Diao, Robert J. Cardnell, David H. Peng, B. Leticia Rodriguez, You-Hong Fan, John V. Heymach, Jing Wang, Carl M. Gay, Don L. Gibbons, and Lauren A. Byers

TUMOR MICROENVIRONMENT AND IMMUNOBIOLOGY

498 A New Pipeline to Predict and Confirm Tumor Neoantigens Predict Better Response to Immune Checkpoint Blockade
Yelena Lazdun, Han Si, Todd Creasy, Koustubh Ranade, Brandon W. Higgs, Katie Streicher, and Nicholas M. Durham

507 Multigorgan Signaling Mobilizes Tumor-Associated Erythroid Cells Expressing Immune Checkpoint Molecules
Yasuyo Sano, Toshihi Yoshida, Min-Kyung Choo, Yaneq Jiménez-Andrade, Kathryn R. Hill, Katia Georgopoulos, and Jin Mo Park

516 Omega-3 Eicosapentaenoic Acid Reduces Prostate Tumor Vascularity
Nikunj Gevariya, Gabriel Lachance, Karine Robitaille, Charles Joly Beauparlant, Lisanne Beaudoin, Éric Fournier, Yves Fradet, Arnaud Droit, Pierre Julien, André Marette, Alain Bergeron, and Vincent Fradet

528 Hypoxic Induction of Exosome Uptake through Proteoglycan-Dependent Endocytosis Fuels the Lipid Droplet Phenotype in Glioma
Myriam Cerezo-Magaña, Helena C. Christianson, Toin H. van Kuppevelt, Karin Forsberg-Nilsson, and Mattias Belting

ABOUT THE COVER

DNA methylation is commonly dysregulated in a wide array of cancers, and numerous therapeutics have been developed to target this pathway. 5-Azaoytidine is a DNA hypomethylating agent that can be particularly effective treatment in TET2-mutated myelodysplastic syndrome patients. The cover depicts hexagonal bins representing the density of CpG loci in a differential analysis of DNA methylation comparing targeted bisulfite sequencing data from TET2 wild-type and TET2 knockout human erythroleukemia cell lines (density gradient from red to blue, with red indicating larger number of CpG loci falling within the hexagonal bin and blue indicating a lesser number). The authors found that TET2 is essential for maintaining low levels of DNA methylation at erythroid-specific transcriptional enhancers, and that 5-Azaoytidine can counteract aberrant hypermethylation of these enhancers when TET2 is mutated. For more information, see the article on page 451.