


## Highlights of This Issue 1391

## REVIEW

- 1393** **Maternal Embryonic Leucine Zipper Kinase: Key Kinase for Stem Cell Phenotype in Glioma and Other Cancers**  
 Ranjit Ganguly, Christopher S. Hong, Luke G.F. Smith, Harley I. Kornblum, and Ichiro Nakano

## SMALL MOLECULE THERAPEUTICS

- 1399** **Moguntinones—New Selective Inhibitors for the Treatment of Human Colorectal Cancer**  
 Annett Maderer, Stanislav Plutizki, Jan-Peter Kramb, Katrin Göpfert, Monika Linnig, Katrin Khillimberger, Christopher Ganser, Eva Laueremann, Gerd Dannhardt, Peter R. Galle, and Markus Moehler

- 1410** **Antitumor Activity of 7-Aminocarboxycoumarin Derivatives, a New Class of Potent Inhibitors of Lactate Influx but Not Efflux**  
 Nihed Draoui, Olivier Schicke, Emmanuel Seront, Caroline Bouzin, Pierre Sonveaux, Olivier Riant, and Olivier Feron

- 1419** **Activity of a Novel Hec1-Targeted Anticancer Compound against Breast Cancer Cell Lines *In Vitro* and *In Vivo***  
 Lynn Y.L. Huang, Chia-Chi Chang, Ying-Shuan Lee, Jia-Ming Chang, Jiann-Jyh Huang, Shih-Hsien Chuang, Kuo-Jang Kao, Gillian M.G. Lau, Pei-Yi Tsai, Chia-Wei Liu, Her-Sheng Lin, and Johnson Y.N. Lau

- 1431** **Coleusin Factor, a Novel Anticancer Diterpenoid, Inhibits Osteosarcoma Growth by Inducing Bone Morphogenetic Protein-2-Dependent Differentiation**  
 Shuo Geng, Bo Sun, Ran Lu, and Jingze Wang

- 1442** **A Novel CDK9 Inhibitor Shows Potent Antitumor Efficacy in Preclinical Hematologic Tumor Models**  
 Tinggui Yin, Maria J. Lallena, Emiko L. Kreklau, Kevin R. Fales, Santiago Carballares, Raquel Torres, Graham N. Wishart, Rose T. Ajamie, Damien M. Cronier, Phillip W. Iversen, Timothy I. Meier, Robert T. Foreman, Douglas Zeckner, Sean E. Sissons, Bart W. Halstead, Aimee B. Lin, Gregory P. Donoho, Yuewei Qian, Shuyu Li, Song Wu, Amit Aggarwal, Xiang S. Ye, James J. Starling, Richard B. Gaynor, Alfonso de Dios, and Jian Du


- 1457** **Identification, Mechanism of Action, and Antitumor Activity of a Small-Molecule Inhibitor of Hippo, TGF- $\beta$ , and Wnt Signaling Pathways**  
 Dipanjan Basu, Robert Lettan, Krishnan Damodaran, Susan Strellec, Miguel Reyes-Mugica, and Abdelhadi Rebbaa

- 1468** ***In Vitro* and *In Vivo* Characterization of Irreversible Mutant-Selective EGFR Inhibitors That Are Wild-Type Sparing**  
 Robert Tjin Tham Sjin, Kwangho Lee, Annette O. Walter, Aleksandr Dubrovskiy, Michael Sheets, Thia St. Martin, Matthew T. Labenski, Zhendong Zhu, Richland Tester, Russell Karp, Aravind Medikonda, Prasoon Chaturvedi, Yixuan Ren, Henry Haringsma, Jeff Etter, Mitch Raponi, Andrew D. Simmons, Thomas C. Harding, Deqiang Niu, Mariana Nacht, William F. Westlin, Russell C. Petteer, Andrew Allen, and Juswinder Singh


- 1480** **MCL-1 Degradation Mediated by JNK Activation via MEKK1/TAK1-MKK4 Contributes to Anticancer Activity of New Tubulin Inhibitor MT189**  
 Wei Wang, Ying-Qing Wang, Tao Meng, Jun-Mei Yi, Xia-Juan Huan, Lan-Ping Ma, Lin-Jiang Tong, Yi Chen, Jian Ding, Jing-Kang Shen, and Ze-Hong Miao

- 1492** **A Small Molecule That Binds and Inhibits the ETV1 Transcription Factor Oncoprotein**  
 Marius S. Pop, Nicolas Stransky, Colin W. Garvie, Jean-Philippe Theurillat, Emily C. Hartman, Timothy A. Lewis, Cheng Zhong, Elizabeth K. Culyba, Fallon Lin, Douglas S. Daniels, Raymond Pagliarini, Lucienne Ronco, Angela N. Koehler, and Levi A. Garraway

- 1503** **Immunotherapy for Hepatoma Using a Dual-Function Vector with Both Immunostimulatory and Pim-3-Silencing Effects**  
 Qie Guo, Peixiang Lan, Xin Yu, Qiuju Han, Jian Zhang, Zhigang Tian, and Cai Zhang

- 1514** **Dual Targeting of Integrin  $\alpha_3\beta_3$  and Matrix Metalloproteinase-2 for Optical Imaging of Tumors and Chemotherapeutic Delivery**  
 Jessica L. Crisp, Elamprakash N. Savariar, Heather L. Glasgow, Lesley G. Ellies, Michael A. Whitney, and Roger Y. Tsien



# Table of Contents

- 1526** **Natural Compound Alternol Induces Oxidative Stress–Dependent Apoptotic Cell Death Preferentially in Prostate Cancer Cells**  
 Yuzhe Tang, Ruibao Chen, Yan Huang, Guodong Li, Yiling Huang, Jiepeng Chen, Lili Duan, Bao-Ting Zhu, J. Brantley Thrasher, Xu Zhang, and Benyi Li

## LARGE MOLECULE THERAPEUTICS

- 1537** **Anetumab Ravtansine: A Novel Mesothelin-Targeting Antibody–Drug Conjugate Cures Tumors with Heterogeneous Target Expression Favored by Bystander Effect**  
 Sven Golfier, Charlotte Kopitz, Antje Kahnert, Iring Heisler, Christoph A. Schatz, Beatrix Stelte-Ludwig, Anke Mayer-Bartschmid, Kerstin Unterschemmann, Sandra Bruder, Lars Linden, Axel Harrenga, Peter Hauff, Frank-Detlef Scholle, Beate Müller-Tiemann, Bertolt Kreft, and Karl Ziegelbauer
- 1549** **Preclinical Characterization of AMG 330, a CD3/CD33-Bispecific T-Cell-Engaging Antibody with Potential for Treatment of Acute Myelogenous Leukemia**  
 Matthias Friedrich, Anja Henn, Tobias Raum, Monika Bajtus, Katja Matthes, Larissa Hendrich, Joachim Wahl, Patrick Hoffmann, Roman Kischel, Majk Kvesic, Jerry W. Sloodstra, Patrick A. Baeuerle, Peter Kufer, and Benno Rattel
- 1558** **Targeting Integrin  $\alpha 6$  Stimulates Curative-Type Bone Metastasis Lesions in a Xenograft Model**  
Terry H. Landowski, Jaime Gard, Erika Pond, Gerald D. Pond, Raymond B. Nagle, Christopher P. Geffre, and Anne E. Cress
- 1567** **Effector-Mediated Eradication of Precursor B Acute Lymphoblastic Leukemia with a Novel Fc-Engineered Monoclonal Antibody Targeting the BAFF-R**  
Reshmi Parameswaran, Min Lim, Fei Fei, Hisham Abdel-Azim, Anna Arutyunyan, Isabelle Schiffer, Margaret E. McLaughlin, Hermann Gram, Heather Huet, John Groffen, and Nora Heisterkamp

## CANCER BIOLOGY AND SIGNAL TRANSDUCTION

- 1578** **Inhibition of mTOR Signaling Reduces PELP1-Mediated Tumor Growth and Therapy Resistance**  
Vijay K. Gonugunta, Gangadhara R. Sareddy, Samaya Rajeshwari Krishnan, Valerie Cortez, Sudipa Saha Roy, Rajeshwar Rao Tekmal, and Ratna K. Vadlamudi
- 1589** **Inhibition of Akt Reverses the Acquired Resistance to Sorafenib by Switching Protective Autophagy to Autophagic Cell Death in Hepatocellular Carcinoma**  
Bo Zhai, Fengli Hu, Xian Jiang, Jun Xu, Dali Zhao, Bing Liu, Shangha Pan, Xuesong Dong, Gang Tan, Zheng Wei, Haiquan Qiao, Hongchi Jiang, and Xueying Sun
- 1599** **MAPK Pathway Inhibition Enhances the Efficacy of an Anti-Endothelin B Receptor Drug Conjugate by Inducing Target Expression in Melanoma**  
Jyoti Asundi, Jennifer A. Lacap, Suzanna Clark, Michelle Nannini, Leslie Roth, and Paul Polakis
- 1611** **KRAS Mutation Status Is Associated with Enhanced Dependency on Folate Metabolism Pathways in Non–Small Cell Lung Cancer Cells**  
Diarmuid M. Moran, Patricia B. Trusk, Karen Pry, Keren Paz, David Sidransky, and Sarah S. Bacus
- 1625** **Nedd8-Activating Enzyme Inhibitor MLN4924 Provides Synergy with Mitomycin C through Interactions with ATR, BRCA1/BRCA2, and Chromatin Dynamics Pathways**  
 Khristofer Garcia, Jonathan L. Blank, David C. Bouck, Xiaozhen J. Liu, Darshan S. Sappal, Greg Hather, Katherine Cosmopoulos, Michael P. Thomas, Mike Kuranda, Michael D. Pickard, Ray Liu, Syamala Bandi, Peter G. Smith, and Eric S. Lightcap
- 1636** **Differential Antitumor Activity of Aflibercept and Bevacizumab in Patient-Derived Xenograft Models of Colorectal Cancer**  
 Marielle Chiron, Rebecca G. Bagley, Jack Pollard, Parminder K. Mankoo, Christophe Henry, Loïc Vincent, Catherine Geslin, Nina Baltes, and Donald A. Bergstrom

# Table of Contents

**1645** **New Insights into PARP Inhibitors' Effect on Cell Cycle and Homology-Directed DNA Damage Repair**

Petar Jelinic and Douglas A. Levine

**1655** **ABT-737 Promotes the Dislocation of ER Luminal Proteins to the Cytosol, Including Pseudomonas Exotoxin**

Antonella Antignani, Robert Sarnovsky, and David J. FitzGerald

## MODELS AND TECHNOLOGIES

**1664** **Culture Dimensionality Influences the Resistance of Glioblastoma Stem-like Cells to Multikinase Inhibitors**

Gonzalo Fernandez-Fuente, Pilar Mollinedo, Lara Grande, Alfonso Vazquez-Barquero, and Jose L. Fernandez-Luna

## LETTERS TO THE EDITOR

**1673** **Efficacy of Zibotentan in Colorectal Cancer—Letter**

Panagiotis J. Vlachostergios

**1674** **Efficacy of Zibotentan in Colorectal Cancer—Response**

Samer-ul Haque, Hazel Welch, Michael Dashwood, Bala Ramesh, and Marilena Loizidou

## CORRECTION

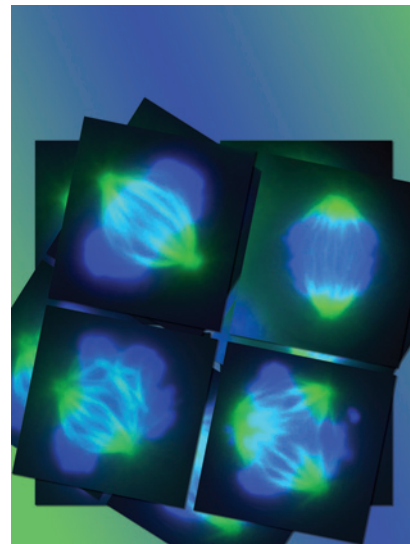
**1675** **Correction: Characterisation of the Novel Apoptotic and Therapeutic Activities of the Histone Deacetylase Inhibitor Romidepsin**

 AC icon indicates Author Choice

For more information please visit [www.aacrjournals.org](http://www.aacrjournals.org)

## ABOUT THE COVER

NDC80/Hec1 is a key component of the kinetochore complex and is overexpressed in a variety of human cancers, making it an attractive molecular target for cancer. Cells defective in Hec1 show chromosomal and spindle abnormalities, which eventually lead to apoptotic cell death. A novel pharmacokinetically improved Hec1-targeted compound, TAI-95, was characterized using immunofluorescence. Treatment of cancer cells with TAI-95 lead to the formation of multipolar spindles, which disrupts the normal mitotic process and leads to cell death. For details, see article by Huang and colleagues on page 1419.



# Molecular Cancer Therapeutics

13 (6)

*Mol Cancer Ther* 2014;13:1391-1675.

**Updated version** Access the most recent version of this article at:  
<http://mct.aacrjournals.org/content/13/6>

**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](mailto:pubs@aacr.org).

**Permissions** To request permission to re-use all or part of this article, use this link <http://mct.aacrjournals.org/content/13/6>.  
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.