




Highlights of This Issue 1

SMALL MOLECULE THERAPEUTICS

- 3** Targeting of Hematologic Malignancies with PTC299, A Novel Potent Inhibitor of Dihydroorotate Dehydrogenase with Favorable Pharmaceutical Properties
 Liangxian Cao, Marla Weetall, Christopher Trotta, Katherine Cintron, Jiyuan Ma, Min Jung Kim, Bansri Furia, Charles Romfo, Jason D. Graci, Wencheng Li, Joshua Du, Josephine Sheedy, Jean Hedrick, Nicole Risher, Shirley Yeh, Hongyan Qi, Tamil Arasu, Seongwoo Hwang, William Lennox, Ronald Kong, Janet Petruska, Young-Choon Moon, John Babiak, Thomas W. Davis, Allan Jacobson, Neil G. Almstead, Art Branstrom, Joseph M. Colacino, and Stuart W. Peltz
- 17** Therapeutic Potential of Focal Adhesion Kinase Inhibition in Small Cell Lung Cancer
 Frank Aboubakar Nana, Marylène Lecocq, Maha Zohra Ladjemi, Bruno Detry, Sébastien Dupasquier, Olivier Feron, Pierre P. Massion, Yves Sibille, Charles Pilette, and Sebahat Ocak
- 28** ODM-203, a Selective Inhibitor of FGFR and VEGFR, Shows Strong Antitumor Activity, and Induces Antitumor Immunity
 Tim H. Holmström, Anu-Maarit Moilanen, Tarja Ikonen, Mari L. Björkman, Tero Linnanen, Gerd Wohlfahrt, Stefan Karlsson, Riikka Oksala, Timo Korjamo, Susanta Samajdar, Srinivasan Rajagopalan, Shekar Chelur, Kishore Narayanan, Raghuvver K. Ramachandra, Jiju Mani, Rashmi Nair, Nagaraj Gowda, Thomas Anthony, Samiulla Dhodheri, Subhendu Mukherjee, Ravi K. Ujjinamatada, Nanduri Srinivas, Murali Ramachandra, and Pekka J. Kallio
- 39** Hsp70 Binds to the Androgen Receptor N-terminal Domain and Modulates the Receptor Function in Prostate Cancer Cells
Jun Dong, Zeyu Wu, Dan Wang, Laura E. Pascal, Joel B. Nelson, Peter Wipf, and Zhou Wang
- 51** A Unique Nonsaccharide Mimetic of Heparin Hexasaccharide Inhibits Colon Cancer Stem Cells via p38 MAP Kinase Activation
Rio S. Boothello, Nirmita J. Patel, Chetna Sharon, Elsamani I. Abdelfadiel, Shravan Morla, Donald F. Brophy, H. Robert Lippman, Umesh R. Desai, and Bhaumik B. Patel

- 62** Oleanolic Acid Inhibits Epithelial–Mesenchymal Transition of Hepatocellular Carcinoma by Promoting iNOS Dimerization
Hongzhi Wang, Weilong Zhong, Jianmin Zhao, Heng Zhang, Qiang Zhang, Yuan Liang, Shuang Chen, Huijuan Liu, Shumin Zong, Yixuan Tian, Honggang Zhou, Tao Sun, Yanrong Liu, and Cheng Yang

LARGE MOLECULE THERAPEUTICS

- 75** Immune Effector Functions of Human IgG2 Antibodies against EGFR
 Thies Rösner, Steffen Kahle, Francesca Montenegro, Hanke L. Matlung, J.H. Marco Jansen, Mitchell Evers, Frank Beurskens, Jeanette H.W. Leusen, Timo K. van den Berg, and Thomas Valerius
- 89** Improved Therapeutic Window in BRCA-mutant Tumors with Antibody-linked Pyrrolobenzodiazepine Dimers with and without PARP Inhibition
 Haihong Zhong, Cui Chen, Ravinder Tammali, Shannon Breen, Jing Zhang, Christine Fazenbaker, Maureen Kennedy, James Conway, Brandon W. Higgs, Nicholas Holoweckyj, Rajiv Raja, Jay Harper, Andrew J. Pierce, Ronald Herbst, and David A. Tice
- 100** Anti-MET VHH Pool Overcomes MET-Targeted Cancer Therapeutic Resistance
 Zhipeng Su, Yunchun Han, Qichen Sun, Xiaoxiao Wang, Ting Xu, Wei Xie, and Xing Huang

CANCER BIOLOGY AND TRANSLATIONAL STUDIES

- 112** KRAS and EGFR Amplifications Mediate Resistance to Rociletinib and Osimertinib in Acquired Afatinib-Resistant NSCLC Harboring Exon 19 Deletion/T790M in EGFR
Kaori Nakatani, Toshimitsu Yamaoka, Motoi Ohba, Ken-Ichi Fujita, Satoru Arata, Sojiro Kusumoto, Iori Taki-Takemoto, Daisuke Kamei, Shinichi Iwai, Junji Tsurutani, and Tohru Ohmori
- 127** Enhanced Antitumor Efficacy of Oncolytic Adenovirus-loaded Menstrual Blood-derived Mesenchymal Stem Cells in Combination with Peripheral Blood Mononuclear Cells
Rafael Moreno, Carlos Alberto Fajardo, Marti Farrera-Sal, Ana Judith Perisé-Barrios, Alvaro Morales-Molina, Ahmed Abdullah Al-Zaher, Javier García-Castro, and Ramon Alemany

Table of Contents

139 **TRAF2 Cooperates with Focal Adhesion Signaling to Regulate Cancer Cell Susceptibility to Anoikis**



Sabrina Daniela da Silva, Bin Xu, Mariana Maschietto, Fabio Albuquerque Marchi, Maisa I. Alkailani, Krikor Bijian, Dingzhang Xiao, and Moulay A. Alaoui-Jamali

147 **Identification of the Novel Role of CD24 as an Oncogenesis Regulator and Therapeutic Target for Triple-Negative Breast Cancer**

Shih-Hsuan Chan, Kuo-Wang Tsai, Shu-Yi Chiu, Wen-Hung Kuo, Heng-Yi Chen, Shih Sheng Jiang, King-Jen Chang, Wen-Chun Hung, and Lu-Hai Wang

162 **PRKRA/PACT Expression Promotes Chemoresistance of Mucinous Ovarian Cancer**

Takeshi Hisamatsu, Michael McGuire, Sherry Y. Wu, Rajesha Rupaimoole, Sunila Pradeep, Emine Bayraktar, Kyunghee Noh, Wei Hu, Jean M. Hansen, Yasmin Lyons, Kshipra M. Gharpure, Archana S. Nagaraja, Lingegowda S. Mangala, Takashi Mitamura, Cristian Rodriguez-Aguayo, Young Gyu Eun, Johnathon Rose, Geoffrey Bartholomeusz, Cristina Ivan, Ju-Seog Lee, Koji Matsuo, Michael Frumovitz, Kwong K. Wong, Gabriel Lopez-Berestein, and Anil K. Sood

COMPANION DIAGNOSTIC, PHARMACOGENOMIC, AND CANCER BIOMARKERS

173 **The Increased Expression of Estrogen-Related Receptor α Correlates with Wnt5a and Poor Prognosis in Patients with Glioma**

Liudi Zhang, Yingfeng Zhu, Haixia Cheng, Jinsen Zhang, Yuqian Zhu, Haifei Chen, Lu Chen, Huijie Qi, Guoqiang Ren, Jianmin Tang, Mingkang Zhong, Wei Hua, Xiaojin Shi, and Qunyi Li

185 **Histone Deacetylase Inhibition Has Targeted Clinical Benefit in *ARID1A*-Mutated Advanced Urothelial Carcinoma**

Sumati Gupta, Daniel J. Albertson, Timothy J. Parnell, Andrew Butterfield, Alexis Weston, Lisa M. Pappas, Brian Dalley, John M. O'Shea, William T. Lowrance, Bradley R. Cairns, Joshua D. Schiffman, and Sunil Sharma

196 **Monitoring Tumor Burden in Response to FOLFIRINOX Chemotherapy Via Profiling Circulating Cell-Free DNA in Pancreatic Cancer**

Tao Wei, Qi Zhang, Xiang Li, Wei Su, Guogang Li, Tao Ma, Shunliang Gao, Jianying Lou, Risheng Que, Lei Zheng, Xueli Bai, and Tingbo Liang

204 **A Four-gene Decision Tree Signature Classification of Triple-negative Breast Cancer: Implications for Targeted Therapeutics**

Jelmar Quist, Hasan Mirza, Maggie C.U. Cheang, Melinda L. Telli, Joyce A. O'Shaughnessy, Christopher J. Lord, Andrew N.J. Tutt, and Anita Grigoriadis

MODELS AND TECHNOLOGIES

213 **Multiplex Three-Dimensional Mapping of Macromolecular Drug Distribution in the Tumor Microenvironment**



Steve Seung-Young Lee, Vytautas P. Bindokas, and Stephen J. Kron

227 **Acknowledgment to Reviewers**



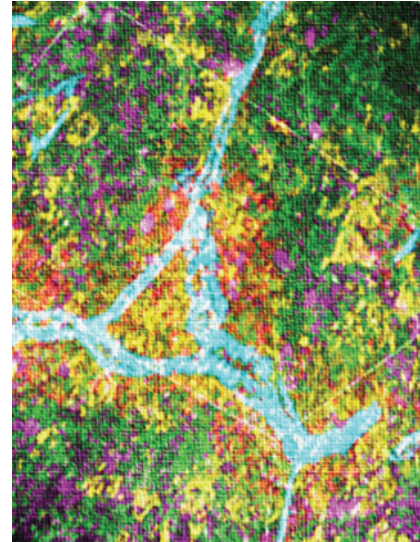
AC icon indicates AuthorChoice

For more information please visit www.aacrjournals.org

Table of Contents

ABOUT THE COVER

Toward examining impacts of the tumor microenvironment on cancer drug delivery, Lee and colleagues applied Transparent Tissue Tomography (T3) as a new tool to visualize macromolecules *in situ*. The cover is adapted from a detail of a T3 snapshot of immunotherapy, showing a section of tumor excised minutes after injecting anti-PD-L1. Antibody (red) flows through the microvasculature (CD31⁺, cyan) and extravasates to bind to its target (PD-L1, magenta) on cancer cells (Her2⁺, green), reactivating cytotoxic T lymphocytes (CD8⁺, yellow) to restore anti-tumor immune response. For details, see article on page 213.



Molecular Cancer Therapeutics

18 (1)

Mol Cancer Ther 2019;18:1-231.

Updated version Access the most recent version of this article at:
<http://mct.aacrjournals.org/content/18/1>

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://mct.aacrjournals.org/content/18/1>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.