

Highlights of This Issue 2327

SMALL MOLECULE THERAPEUTICS

- 2329** Inhibition of the V-ATPase by Archazolid A: A New Strategy to Inhibit EMT
Henriette Merk, Philipp Messer, Maximilian A. Ardelt, Don C. Lamb, Stefan Zahler, Rolf Müller, Angelika M. Vollmar, and Johanna Pachmayr
- 2340** A Bifunctional MAPK/PI3K Antagonist for Inhibition of Tumor Growth and Metastasis
Stefanie Galbán, April A. Apfelbaum, Carlos Espinoza, Kevin Heist, Henry Haley, Karan Bedi, Mats Ljungman, Craig J. Galbán, Gary D. Luker, Marcian Van Dort, and Brian D. Ross
- 2351** Targeting the MAPK Signaling Pathway in Cancer: Promising Preclinical Activity with the Novel Selective ERK1/2 Inhibitor BVD-523 (Ulixertinib)
Ursula A. Germann, Brinley F. Furey, William Markland, Russell R. Hoover, Alex M. Aronov, Jeffrey J. Roix, Michael Hale, Diane M. Boucher, David A. Sorrell, Gabriel Martinez-Botella, Matthew Fitzgibbon, Paul Shapiro, Michael J. Wick, Ramin Samadani, Kathryn Meshaw, Anna Groover, Gary DeCrescenzo, Mark Namchuk, Caroline M. Emery, Saurabh Saha, and Dean J. Welsch
- 2364** Animacroxam, a Novel Dual-Mode Compound Targeting Histone Deacetylases and Cytoskeletal Integrity of Testicular Germ Cell Cancer Cells
Gustav Steinemann, Alexandra Dittmer, Weronika Kuzyniak, Björn Hoffmann, Mark Schrader, Rainer Schobert, Bernhard Biersack, Bianca Nitzsche, and Michael Höpfner
- 2375** The p97 Inhibitor CB-5083 Is a Unique Disrupter of Protein Homeostasis in Models of Multiple Myeloma
Ronan Le Moigne, Blake T. Aftab, Stevan Djakovic, Eugen Dhimolea, Eduardo Valle, Megan Murnane, Emily M. King, Ferdie Soriano, Mary-Kamala Menon, Zhi Yong Wu, Stephen T. Wong, Grace J. Lee, Bing Yao, Arun P. Wiita, Christine Lam, Julie Rice, Jinhai Wang, Marta Chesi, P. Leif Bergsagel, Marianne Kraus, Christoph Driessen, Szerenke Kiss von Soly, F. Michael Yakes, David Wustrow, Laura Shawver, Han-Jie Zhou, Thomas G. Martin III, Jeffrey L. Wolf, Constantine S. Mitsiades, Daniel J. Anderson, and Mark Rolfe

- 2387** Combination Therapy with c-Met and Src Inhibitors Induces Caspase-Dependent Apoptosis of Merlin-Deficient Schwann Cells and Suppresses Growth of Schwannoma Cells
Marisa A. Fuse, Stephani Klingeman Plati, Sarah S. Burns, Christine T. Dinh, Olena Bracho, Denise Yan, Rahul Mittal, Rulong Shen, Julia N. Soulakova, Alicja J. Copik, Xue Zhong Liu, Fred F. Telischi, Long-Sheng Chang, Maria Clara Franco, and Cristina Fernandez-Valle
- 2399** Dual Inhibition of Hedgehog and c-Met Pathways for Pancreatic Cancer Treatment
Agnieszka A. Rucki, Qian Xiao, Stephen Muth, Jianlin Chen, Xu Che, Jennifer Kleponis, Rajni Sharma, Robert A. Anders, Elizabeth M. Jaffee, and Lei Zheng
- 2410** Targeting TAO Kinases Using a New Inhibitor Compound Delays Mitosis and Induces Mitotic Cell Death in Centrosome Amplified Breast Cancer Cells
Chuay-Yeng Koo, Caterina Giacomini, Marta Reyes-Corral, Yolanda Olmos, Ignatius A. Tavares, Charles M. Marson, Spiros Linardopoulos, Andrew N. Tutt, and Jonathan D.H. Morris
- 2422** Targeting Phosphatidylinositol 3-Kinase Signaling Pathway for Therapeutic Enhancement of Vascular-Targeted Photodynamic Therapy
Daniel Kraus, Pratheeba Palasuberniam, and Bin Chen
- 2432** mTOR Kinase Inhibition Effectively Decreases Progression of a Subset of Neuroendocrine Tumors that Progress on Rapalog Therapy and Delays Cardiac Impairment
Melissa A. Orr-Asman, Zhengtao Chu, Min Jiang, Mariah Worley, Kathleen LaSance, Sheryl E. Koch, Vinicius S. Carreira, Hanan M. Dahche, David R. Plas, Kakajan Komurov, Xiaoyang Qi, Carol A. Mercer, Lowell B. Anthony, Jack Rubinstein, and Hala E. Thomas

LARGE MOLECULE THERAPEUTICS

- 2442** Potency-matched Dual Cytokine–Antibody Fusion Proteins for Cancer Therapy
Roberto De Luca, Alex Soltermann, Francesca Pretto, Catherine Pemberton-Ross, Giovanni Pellegrini, Sarah Wulhfard, and Dario Neri
- 2452** Vessel-Targeted Chemophototherapy with Cationic Porphyrin-Phospholipid Liposomes
Dandan Luo, Jumin Geng, Nasi Li, Kevin A. Carter, Shuai Shao, G. Ekin Atilla-Gokcumen, and Jonathan F. Lovell

Table of Contents

2462 Wilms Tumor NCAM-Expressing Cancer Stem Cells as Potential Therapeutic Target for Polymeric Nanomedicine

Ela Markovsky, Einav Vax, Dikla Ben-Shushan, Anat Eldar-Boock, Rachel Shukrun, Eilam Yeini, Iris Barshack, Revital Caspi, Orit Harari-Steinberg, Naomi Pode-Shakked, Benjamin Dekel, and Ronit Satchi-Fainaro

CANCER BIOLOGY AND TRANSLATIONAL STUDIES

2473 Inhibition of Discoidin Domain Receptor 1 Reduces Collagen-mediated Tumorigenicity in Pancreatic Ductal Adenocarcinoma

Kristina Y. Aguilera, Huocong Huang, Wenting Du, Moriah M. Hagopian, Zhen Wang, Stefan Hinz, Tae Hyun Hwang, Huamin Wang, Jason B. Fleming, Diego H. Castrillon, Xiaomei Ren, Ke Ding, and Rolf A. Brekken

2486 The Selective Tie2 Inhibitor Rebastinib Blocks Recruitment and Function of Tie2^{Hi} Macrophages in Breast Cancer and Pancreatic Neuroendocrine Tumors



Allison S. Harney, George S. Karagiannis, Jeanine Pignatelli, Bryan D. Smith, Ece Kadioglu, Scott C. Wise, Molly M. Hood, Michael D. Kaufman, Cynthia B. Leary, Wei-Ping Lu, Gada Al-Ani, Xiaoming Chen, David Entenberg, Maja H. Oktay, Yarong Wang, Lawrence Chun, Michele De Palma, Joan G. Jones, Daniel L. Flynn, and John S. Condeelis

2502 Autophagy Inhibition Improves Sunitinib Efficacy in Pancreatic Neuroendocrine Tumors via a Lysosome-dependent Mechanism

Tabea Wiedmer, Annika Blank, Sophia Pantasis, Lea Normand, Ruben Bill, Philippe Krebs, Mario P. Tschan, Ilaria Marinoni, and Aurel Perren

2516 Sphingosine-1-Phosphate Receptor-1 Promotes Environment-Mediated and Acquired Chemoresistance

Veronica Lifshitz, Saul J. Priceman, Wenzhao Li, Gregory Cherryholmes, Heehyoung Lee, Adar Makovski-Silverstein, Lucia Borriello, Yves A. DeClerck, and Hua Yu

2528 PPAR γ Ligand-induced Annexin A1 Expression Determines Chemotherapy Response via Deubiquitination of Death Domain Kinase RIP in Triple-negative Breast Cancers

Luxi Chen, Yi Yuan, Shreya Kar, Madhu M. Kanchi, Suruchi Arora, Ji E. Kim, Pei F. Koh, Einas Yousef, Ramar P. Samy, Muthu K. Shanmugam, Tuan Z. Tan, Sung W. Shin, Frank Arfuso, Han M. Shen, Henry Yang, Boon C. Goh, Joo I. Park, Louis Gaboury, Peter E. Lobie, Gautam Sethi, Lina H.K. Lim, and Alan P. Kumar

2543 TDP1 is Critical for the Repair of DNA Breaks Induced by Sapacitabine, a Nucleoside also Targeting ATM- and BRCA-Deficient Tumors

Muthana Al Abo, Hiroyuki Sasanuma, Xiaojun Liu, Vinodh N. Rajapakse, Shar-yin Huang, Evgeny Kiselev, Shunichi Takeda, William Plunkett, and Yves Pommier

2552 Synthetic Lethality Interaction Between Aurora Kinases and CHEK1 Inhibitors in Ovarian Cancer

Ana Alcaraz-Sanabria, Cristina Nieto-Jiménez, Verónica Corrales-Sánchez, Leticia Serrano-Oviedo, Fernando Andrés-Pretel, Juan Carlos Montero, Miguel Burgos, Juan Llopis, Eva María Galán-Moya, Atanasio Pandiella, and Alberto Ocaña

2563 T790M-Selective EGFR-TKI Combined with Dasatinib as an Optimal Strategy for Overcoming EGFR-TKI Resistance in T790M-Positive Non-Small Cell Lung Cancer

Satomi Watanabe, Takeshi Yoshida, Hisato Kawakami, Naoki Takegawa, Junko Tanizaki, Hidetoshi Hayashi, Masayuki Takeda, Kimio Yonesaka, Junji Tsurutani, and Kazuhiko Nakagawa

2572 Characterization of *In Vivo* Resistance to Osimertinib and JNJ-61186372, an EGFR/Met Bispecific Antibody, Reveals Unique and Consensus Mechanisms of Resistance

Kristina B. Emdal, Antje Dittmann, Raven J. Reddy, Rebecca S. Lescarbeau, Sheri L. Moores, Sylvie Laquerre, and Forest M. White

2586 EZH2 Inhibition by Tazemetostat Results in Altered Dependency on B-cell Activation Signaling in DLBCL



Dorothy Brach, Danielle Johnston-Blackwell, Allison Drew, Trupti Lingaraj, Vinny Motwani, Natalie M. Warholic, Igor Feldman, Christopher Plescia, Jesse J. Smith, Robert A. Copeland, Heike Keilhack, Elayne Chan-Penebre, Sarah K. Knutson, Scott A. Ribich, Alejandra Raimondi, and Michael J. Thomenius

COMPANION DIAGNOSTIC, PHARMACOGENOMIC, AND CANCER BIOMARKERS

2598 Tumor Mutational Burden as an Independent Predictor of Response to Immunotherapy in Diverse Cancers




Aaron M. Goodman, Shumei Kato, Lyudmila Bazhenova, Sandip P. Patel, Garrett M. Frampton, Vincent Miller, Philip J. Stephens, Gregory A. Daniels, and Razelle Kurzrock

Table of Contents

- 2609** TTK Inhibitors as a Targeted Therapy for *CTNNB1* (β -catenin) Mutant Cancers
Guido J.R. Zaman, Jeroen A.D.M. de Roos, Marion A.A. Libouban, Martine B.W. Prinsen, Jos de Man, Rogier C. Buijsman, and Joost C.M. Uitdehaag
- 2618** Estrogen Receptor β Is a Novel Target in Acute Myeloid Leukemia
Sarah-Grace Rota, Alessia Roma, Iulia Dude, Christina Ma, Robert Stevens, Janet MacEachern, Joanna Graczyk, Shaundrei Mabriel G. Espiritu, Praveen N. Rao, Mark D. Minden, Elena Kreinin, David A. Hess, Andrew C. Doxey, and Paul A. Spagnuolo

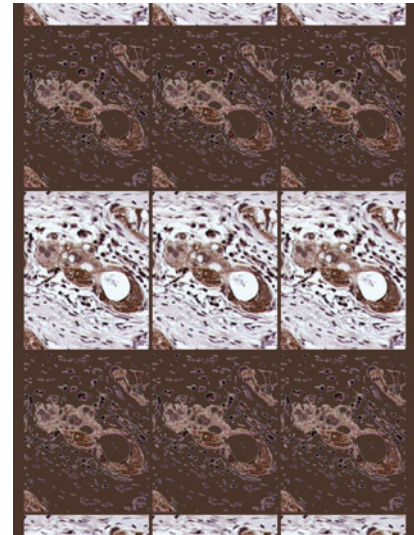
MODELS AND TECHNOLOGIES

- 2627** Oncolytic Reactivation of KSHV as a Therapeutic Approach for Primary Effusion Lymphoma
Feng Zhou, Michiko Shimoda, Laura Olney, Yuanzhi Lyu, Khiem Tran, Guochun Jiang, Kazushi Nakano, Ryan R. Davis, Clifford G. Tepper, Emanuel Maverakis, Mel Campbell, Yuanpei Li, Satya Dandekar, and Yoshihiro Izumiya

 AC icon indicates AuthorChoice
For more information please visit www.aacrjournals.org

ABOUT THE COVER

The extracellular matrix limits the efficacy of chemotherapy in pancreatic ductal adenocarcinoma (PDA) in part by active cell signaling. Discoidin domain receptor 1 (DDR1) is a receptor tyrosine kinase that binds fibrillar collagens and is expressed by PDA tumor cells. The image shows phosphorylated DDR1 staining in human PDA highlighting active collagen signaling in PDA tumor cells. Aguilera and colleagues demonstrate that pharmacologic inhibition of DDR1 with the small molecule 7r substantially improves the efficacy of standard chemotherapy in robust preclinical models of PDA in the absence of additional normal tissue toxicity.



Molecular Cancer Therapeutics

16 (11)

Mol Cancer Ther 2017;16:2327-2638.

Updated version Access the most recent version of this article at:
<http://mct.aacrjournals.org/content/16/11>

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/16/11>.
Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.