## Highlights of This Issue 2617

### REVIEW

**Is Wilms Tumor a Candidate Neoplasia for Treatment with WNT/β-Catenin Pathway Modulators?—A Report from the Renal Tumors Biology-Driven Drug Development Workshop**

Daniela Perotti, Peter Hohenstein, Italia Bongarzone, Mariana Maschietto, Mark Weeks, Paolo Radice, and Kathy Pritchard-Jones

**Inhibition of Wee1 Sensitizes Cancer Cells to Antimetabolite Chemotherapeutics In Vitro and In Vivo, Independent of p53 Functionality**

Annamie A. Van Linden, Dmitry Baturin, James B. Ford, Susan P. Fosmire, Lori Gardner, Christopher Korch, Philip Reigan, and Christopher C. Porter

**The Novel VEGF Receptor/MET–Targeted Kinase Inhibitor TAS-115 Has Marked In Vivo Antitumor Properties and a Favorable Tolerability Profile**

Hidenori Fujita, Kazutaka Miyadera, Masanori Kato, Yayoi Fujikota, Hiroaki Ochiwa, Jinhong Huang, Kimihito Ito, Yoshimi Aoyagi, Toru Takenaka, Takamasu Suzuki, Satoko Ito, Akihiro Hashimoto, Takashi Suefuji, Kosuke Egami, Hideki Kazuno, Yoshimitsu Suda, Kazuto Nishio, and Kazuhiko Yonekura

**Selective Disruption of Rb–Raf-1 Kinase Interaction Inhibits Pancreatic Adenocarcinoma Growth Irrespective of Gemcitabine Sensitivity**

José G. Treviño, Monika Verma, Sandeep Singh, Smitha Pillai, Dongyu Zhang, Daniele Pernazza, Said M. Sebti, Nicholas J. Lawrence, Barbara A. Centeno, and Sri Kumar P. Chellappan

### SMALL MOLECULE THERAPEUTICS

**Urokinase Plasminogen Activator System–Targeted Delivery of Nanobins as a Novel Ovarian Cancer Therapy**


**Apigenin Sensitizes Colon Cancer Cells to Antitumor Activity of ABT-263**

Huanjie Shao, Kai Jing, Esraa Mahmoud, Haihong Huang, Xianjun Fang, and Chunrong Yu

**Small-Molecule Inhibitors of USP1 Target ID1 Degradation in Leukemic Cells**

Helena Mistry, Grace Hsieh, Sara J. Buhrlage, Min Huang, Emnui Park, Gregory D. Cuny, Ilene Galinsky, Richard M. Stone, Nathanael S. Gray, Alan D. D’Andrea, and Kalindi Parmar

**Small Molecule Inhibition of PAX3-FOXO1 through AKT Activation Suppresses Malignant Phenotypes of Alveolar Rhabdomyosarcoma**

Mathivanan Jothi, Munmun Mal, Charles Keller, and Asoke K. Mal

**Targeting Plasminogen Activator Inhibitor-1 Inhibits Angiogenesis and Tumor Growth in a Human Cancer Xenograft Model**

Evan Gomes-Giacoia, Makito Miyake, Steve Goodison, and Charles J. Rosser

**Molecular and Biologic Analysis of Histone Deacetylase Inhibitors with Diverse Specificities**


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LARGE MOLECULE THERAPEUTICS

APG350 Induces Superior Clustering of TRAIL Receptors and Shows Therapeutic Antitumor Efficacy Independent of Cross-Linking via Fc Receptors
Christian Gieffers, Michael Kluge, Christian Merz, Jaromir Sykora, Meinolf Fischer, Marcus Bräschädel, Behnaz Ahangarian Abhari, Peter Hohenberger, Simone Fulda, Harald Fricke, and Oliver Hill

A Heterodimeric Fc-Based Bispecific Antibody Simultaneously Targeting VEGFR-2 and Met Exhibits Potent Antitumor Activity
Hye-Ji Choi, Ye-Jin Kim, Sangho Lee, and Yong-Sung Kim

Long Pentraxin-3 Inhibits Epithelial–Mesenchymal Transition in Melanoma Cells
Roberto Ronca, Emanuela Di Salle, Arianna Giacomini, Daria Leali, Patrizia Alessi, Daniela Coltrini, Cosetta Ravelli, Sara Matarazzo, Domenico Ribatti, William Vermi, and Marco Presta

Sym004, a Novel Anti-EGFR Antibody Mixture, Augments Radiation Response in Human Lung and Head and Neck Cancers
Shyhmin Huang, Chimera R. Peet, Jarob Saker, Chunrong Li, Eric A. Armstrong, Michael Kragh, Mikkel W. Pedersen, and Paul M. Harari

CANCER THERAPEUTICS INSIGHTS

ATP Citrate Lyase Mediates Resistance of Colorectal Cancer Cells to SN38
Yunfei Zhou, Lakshmi Reddy Bollu, Federico Tozzi, Xiangcang Ye, Rajat Bhattacharya, Guang Gao, Elizabeth Dupro, Ling Xia, Jia Lu, Fan Fan, Seth Bellister, Lee M. Ellis, and Zhang Weihua

Redirecting Apoptosis to Aponecrosis Induces Selective Cytotoxicity to Pancreatic Cancer Cells through Increased ROS, Decline in ATP Levels, and VDAC
Richard D. Dinnen, Yuehua Mao, Wanglong Qiu, Nicholas Cassai, Vesna N. Slavkovich, Gwen Nichols, Gloria H. Su, Paul Brandt-Rauf, and Robert L. Fine

HDAC Inhibitor Entinostat Restores Responsiveness of Letrozole-Resistant MCF-7Ca Xenografts to Aromatase Inhibitors through Modulation of Her-2
Gauri J. Sabnis, Olga G. Goloubeva, Armina A. Kazi, Preeti Shah, and Angela H. Brodie

Cytoreductive Chemotherapy Improves the Biodistribution of Antibodies Directed against Tumor Necrosis in Murine Solid Tumor Models
Julie K. Jang, Leslie A. Khawli, Ryan Park, Brian W. Wu, Zibo Li, David Canter, Peter S. Conti, and Alan L. Epstein

Microtubule Dynamics Control Tail Retraction in Migrating Vascular Endothelial Cells
Anutosh Ganguly, Hailing Yang, Hong Zhang, Fernando Cabral, and Kamala D. Patel

Another Surprise from Metformin: Novel Mechanism of Action via K-Ras Influences Endometrial Cancer Response to Therapy

Target-Based Therapeutic Matching in Early-Phase Clinical Trials in Patients with Advanced Colorectal Cancer and PIK3CA Mutations

IGFBP2/FAK Pathway Is Causally Associated with Dasatinib Resistance in Non–Small Cell Lung Cancer Cells
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Tunicamycin Potentiates Cisplatin Anticancer Efficacy through the DPACT1/Akt/ABCG2 Pathway in Mouse Xenograft Models of Human Hepatocellular Carcinoma
Helei Hou, Hefen Sun, Ping Lu, Chao Ge, Lixing Zhang, Hong Li, Fangyu Zhao, Hua Tian, Lin Zhang, Taoyang Chen, Ming Yao, and Jinjun Li

Targeting Blockage of STAT3 in Hepatocellular Carcinoma Cells Augments NK Cell Functions via Reverse Hepatocellular Carcinoma–Induced Immune Suppression
Xiaoxia Sun, Qiangjun Sui, Cai Zhang, Zhigang Tian, and Jian Zhang

Treatment with Gefitinib or Lapatinib Induces Drug Resistance through Downregulation of Topoisomerase IIa Expression
Jaishree Bhosle, Konstantinos Kiakos, Andrew C.G. Porter, Jenny Wu, Andreas Makris, John A Hartley, and Daniel Hochhauser

Dual HER/VEGF Receptor Targeting Inhibits In Vivo Ovarian Cancer Tumor Growth
Marc A. Becker, Thahir Farzan, Sean C. Harrington, James W. Krempski, S. John Weroha, Xiaonan Hou, Kimberly R. Kalli, Tai W. Wong, and Paul Haluska

Low Levels of Circulating Estrogen Sensitize PTEN-Null Endometrial Tumors to PARP Inhibition In Vivo
Deanna M. Janzen, Daniel Y. Paik, Miguel A. Rosales, Brian Yep, Donghui Cheng, Owen N. Witte, Huseyin Kayadibi, Christopher M. Ryan, Michael E. Jung, Kym Fuill, and Sanaz Memarzadeh

BRAF V600E Is a Determinant of Sensitivity to Proteasome Inhibitors
Davide Zecchin, Valentina Boscaro, Enzo Medico, Ludovic Barault, Miriam Martini, Sabrina Arena, Carlotta Cancelliere, Alice Bartolini, Emily H. Crowley, Alberto Bardelli, Margherita Gallicchio, and Federica Di Nicolantonio

COMPANION DIAGNOSTICS AND CANCER BIOMARKERS

Molecular Predictors of Sensitivity to the Insulin-like Growth Factor 1 Receptor Inhibitor Figitumumab (CP-751,871)
Adam Pavlicek, Maruja E. Lira, Nathan V. Lee, Keith A. Ching, Jingjing Ye, Joan Cao, Scott J. Garza, Kenneth E. Hook, Mark Ozeck, Stephanie T. Shi, Jing Yuan, Xianxian Zheng, Paul A. Rejto, Julie L.C. Kan, and James G. Christensen

BH3 Profiling Discriminates Response to Cytarabine-Based Treatment of Acute Myelogenous Leukemia
William E. Pierceall, Steven M. Kornblau, Nicole E. Carlson, Xuelin Huang, Noel Blake, Ryan Lena, Michael Elashoff, Marina Konopleva, Michael H. Cardone, and Michael Andreeff

Correction: Impact of Tumor HER2/ERBB2 Expression Level on HER2-Targeted Liposomal Doxorubicin-Mediated Drug Delivery: Multiple Low-Affinity Interactions Lead to a Threshold Effect

Correction: Inhibition of Invasion, Angiogenesis, Tumor Growth, and Metastasis by Adenovirus-Mediated Transfer of Antisense uPAR and MMP-9 in Non–Small Cell Lung Cancer Cells

Acknowledgment to Reviewers

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ABOUT THE COVER

Ovarian cancer is the deadliest gynecologic malignancy in developed countries, but progress in developing new therapies has been elusive. A novel targeted delivery system was developed by conjugating a urokinase plasminogen activator antibody with liposomal nanobins (as shown in the figure) to specifically deliver a therapeutic cargo (arsenic trioxide) into ovarian cancer cells. The targeted nanobins were efficiently internalized by cancer cells and reduced tumor burden in a xenograft model of ovarian cancer through the efficient induction of apoptosis. Urokinase system–targeted delivery of nanobins could serve as a new platform for the treatment of malignancies overexpressing urokinase, including ovarian and breast cancers. For details, see article by Zhang and colleagues, on page 2628.
Molecular Cancer Therapeutics

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