REVIEW

Is Wilms Tumor a Candidate Neoplasm 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

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, Eummi 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

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

Annemie 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 Fujikawa, Hiroaki Ochiwa, Jinhong Huang, Kimihiro Ito, Yoshimi Aoyagi, Toru Takenaka, Takamasu Suzuki, Satoko Ito, Akihiro Hashimoto, Takashi Suefuji, Kosuke Egami, Hideki Kazuno, Yoshimitsu Suda, Kazuto Nishio, and Kazuhiko Yonekura

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


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 Srikumar P. Chellappan
LARGE MOLECULE THERAPEUTICS

2735 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 Brunschädell, Behnaz Ahangarian Abhari, Peter Hohenberger, Simone Fulda, Harald Fricke, and Oliver Hill

2748 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

2760 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

CANCER THERAPEUTICS INSIGHTS

2782 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 Dupre, Liang Xia, Ji Lu, Fan Fan, Seth Bellister, Lee M. Ellis, and Zhang WeiHua

2792 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

2804 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

2817 Crizotinib, a c-Met Inhibitor, Prevents Metastasis in a Metastatic Uveal Melanoma Model
Oliver Surriga, Vinagolu K. Rajasekhar, Grazia Ambrosini, Yildirim Dogan, Ruimin Huang, and Gary K. Schwartz

2827 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

2837 Microtubule Dynamics Control Tail Retraction in Migrating Vascular Endothelial Cells
Anutosh Ganguly, Hailing Yang, Hong Zhang, Fernando Cabral, and Kamala D. Patel

2847 Another Surprise from Metformin: Novel Mechanism of Action via K-Ras Influences Endometrial Cancer Response to Therapy

2857 Target-Based Therapeutic Matching in Early-Phase Clinical Trials in Patients with Advanced Colorectal Cancer and PIK3CA Mutations

2864 IGFBP2/FAK Pathway Is Causally Associated with Dasatinib Resistance in Non-Small Cell Lung Cancer Cells
Haibo Lu, Li Wang, Wen Gao, Jieru Meng, Bingbing Dai, Shuhong Wu, John Minna, Jack A. Roth, Wayne L. Hofstetter, Stephen G. Swisher, and Bingliang Fang
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 Fauilli, and Sanaz Memarzadeh

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

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

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

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