Contents

Highlights of This Issue 1531

REVIEW
1533  The Role of Autophagy in Cancer: Therapeutic Implications
Zhineng J. Yang, Cheng E. Chee, Shengbing Huang, and Frank A. Sinicrope

THERAPEUTIC DISCOVERY
1542  Potent, Selective Inhibitors of Fibroblast Growth Factor Receptor Define Fibroblast Growth Factor Dependence in Preclinical Cancer Models

1553  Inhibition of Dynamin by Dynole 34-2 Induces Cell Death following Cytokinesis Failure in Cancer Cells

1563  Linear Chain PEGylated Recombinant Bacillus Thiaminolyticus Thiaminase I Enzyme Has Growth Inhibitory Activity against Lymphoid Leukemia Cell Lines
Abigail Daily, Shuqian Liu, Younsoo Bae, Saloni Bhatnagar, and Jeffrey A. Moscov

1571  Antitumor Actions of Ruthenium(III)-Based Nitric Oxide Scavengers and Nitric Oxide Synthase Inhibitors
Frederick W. Flitney, Rebecca J. Pritchard, Gordon D. Kennovin, Stuart K. Bisland, David G. Hirst, and Simon P. Fricker

1581  Compensatory Pathways Induced by MEK Inhibition Are Effective Drug Targets for Combination Therapy against Castration-Resistant Prostate Cancer
Daniel Gioeli, Winfried Wunderlich, Judith Sebalt-Leopold, Stefan Bekiranov, Julia D. Wulfkuhle, Emanuel F. Petricoin III, Mark Conaway, and Michael J. Weber

1591  Histone Deacetylase Cytoplasmic Trapping by a Novel Fluorescent HDAC Inhibitor

1600  Long Pentraxin-3 Inhibits FGF8b-Dependent Angiogenesis and Growth of Steroid Hormone-Regulated Tumors
Daria Leali, Patrizia Alessi, Daniela Coltrini, Roberto Ronca, Michela Corsini, Giorgia Nardo, Stefano Indraccolo, and Marco Presta

1611  Transformation-Dependent Silencing of Tumor-Selective Apoptosis-Inducing TRAIL by DNA Hypermethylation Is Antagonized by Decitabine
Per Lund, Irina Kotova, Valerie Kedinger, Harshal Khanwalkar, Emilie Voltz, William C. Hahn, and Hinrich Gronemeyer

1624  Mechanisms of Action of a Dual Cdc7/Cdk9 Kinase Inhibitor against Quiescent and Proliferating CLL Cells
Alessandro Natoni, Laura S. Murillo, Anna E. Kiszczak, Mark A. Catherwood, Alessia Montagnoli, Afshin Samali, Michael O’Dwyer, and Corrado Santocanale

1635  Synthetic Triterpenoid Cyano Enone of Methyl Boswellate Activates Intrinsic, Extrinsic, and Endoplasmic Reticulum Stress Cell Death Pathways in Tumor Cell Lines
Palaniyandi Ravanand, Renata Sano, Priti Talwar, Satoshi Ogawara, Shu-ichi Matsuzawa, Michael Cuddy, Sanjay K. Singh, G.S.R. Subba Rao, Paturu Kondaiah, and John C. Reed
Inhibition of the Acetyltransferases p300 and CBP Reveals a Targetable Function for p300 in the Survival and Invasion Pathways of Prostate Cancer Cell Lines

Antitumor Activity of a Recombinant Soluble Ectodomain of Mutant Human Fibroblast Growth Factor Receptor-2 IIIc
Ju Wang, Xue-ting Liu, Hui Huang, Gang Xiao, Zhi-you Zhou, Yang Chen, Zhi-hong Yu, Shui-lian He, An-an Chen, Ding-ding Wang, Ying He, Zhi-cheng Zhang, and An Hong

Nerve Growth Factor Links Oral Cancer Progression, Pain, and Cachexia
Yi Ye, Dongmin Dang, Jianan Zhang, Chi T. Viet, David K. Lam, John C. Dolan, Jennifer L. Gibbs, and Brian L. Schmidt

Human Monoclonal Antibody Fragments Binding to Insulin-like Growth Factors I and II with Picomolar Affinity
Qi Zhao, Yang Feng, Zhongyu Zhu, and Dimitar S. Dimitrov

Carfilzomib Interacts Synergistically with Histone Deacetylase Inhibitors in Mantle Cell Lymphoma Cells In Vitro and In Vivo
Girija Dasmahapatra, Dmitry Lembersky, Minkyong P. Son, Elisa Attkisson, Paul Dent, Richard I. Fisher, Jonathan W. Friedberg, and Steven Grant

Impact of APE1/Ref-1 Redox Inhibition on Pancreatic Tumor Growth
Melissa L. Fishel, Yanlin Jiang, N. V. Rajeshkumar, Glenda Scandura, Anthony L. Sinn, Ying He, Changyu Shen, David R. Jones, Karen E. Pollok, Mircea Ivan, Anirban Maitra, and Mark R. Kelley

Spectrum of Cellular Responses to Pyrplatin, a Monofunctional Cationic Antineoplastic Platinum(II) Compound, in Human Cancer Cells
Katherine S. Lovejoy, Maria Serova, Ivan Bieche, Shahin Emami, Maurizio D’Incalci, Massimo Broggi, Eugenio Erba, Christian Gaspar, Esteban Cvitkovic, Sandrine Faivre, Eric Raymond, and Stephen J. Lippard

Liposomal Delivery of MicroRNA-7–Expressing Plasmid Overcomes Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor-Resistance in Lung Cancer Cells

In Vitro and In Vivo Responses of Advanced Prostate Tumors to PSMA ADC, an Auristatin-Conjugated Antibody to Prostate-Specific Membrane Antigen
Xinning Wang, Dangshe Ma, William C. Olson, and Warren D.W. Heston

Discovery of a Small Molecule Targeting IRA2 Deletion in Budding Yeast and Neurofibromin Loss in Malignant Peripheral Nerve Sheath Tumor Cells

Exon 11 Skipping of E-Cadherin RNA Downregulates Its Expression in Head and Neck Cancer Cells
Sanjai Sharma, Wei Liao, Xiaofeng Zhou, David T.W. Wong, and Alan Lichtenstein
ABOUT THE COVER

Nerve growth factor (NGF) immunostaining of human oral squamous cell carcinoma tissues. The image shows high NGF expression in a representative tissue biopsy from an oral cancer patient. Abnormally high levels of NGF are found to play a cardinal role in oral cancer progression, pain, and cachexia through a proinflammatory mechanism. NGF immunoreactions were visualized with diaminobenzidine chromogen (brown) and counterstained with Mayer’s hematoxylin. For details, see article by Ye and colleagues on page 1667.