# Contents

## Highlights of This Issue 1125

### REVIEW

**1127** Novel Therapeutic Options in Anaplastic Large Cell Lymphoma: Molecular Targets and Immunological Tools
Olaf Merkel, Frank Hamacher, Eveline Sifft, Lukas Kenner, and Richard Greil for the European Research Initiative on Anaplastic Large Cell Lymphoma

**1137** Expression Signatures of the Lipid-Based Akt Inhibitors Phosphatidylinositol Ether Lipid Analogues in NSCLC Cells
Chunyu Zhang, Abdel G. Elkahloun, Hongling Liao, Shannon Delaney, Barbara Saber, Betsy Morrow, George C. Prendergast, M. Christine Hollander, Joell J. Gills, and Phillip A. Dennis

**1149** Silencing IL-13Rα2 Promotes Glioblastoma Cell Death via Endogenous Signaling
Linda C. Hsi, Suman Kundu, Juan Palomo, Bo Xu, Ryan Ficco, Michael A. Vogelbaum, and Martha K. Cathcart

**1161** Cannabidiol Induces Programmed Cell Death in Breast Cancer Cells by Coordinating the Cross-talk between Apoptosis and Autophagy
Ashutosh Shrivastava, Paula M. Kuzontkoski, Jerome E. Groopman, and Anil Prasad

### THERAPEUTIC DISCOVERY

**1173** Time-Course Imaging of Therapeutic Functional Tumor Vascular Normalization by Antiangiogenic Agents
Qingbei Zhang, Vytas Bindokas, Jikun Shen, Hanli Fan, Robert M. Hoffman, and H. Rosie Xing

### PRECLINICAL DEVELOPMENT

**1185** Response of Human Prostate Cancer Cells and Tumors to Combining PARP Inhibition with Ionizing Radiation

**1194** Hsp90 Inhibitor–Mediated Disruption of Chaperone Association of ATR with Hsp90 Sensitizes Cancer Cells to DNA Damage

**1207** Pharmacodynamic Evaluation of the Target Efficacy of SB939, an Oral HDAC Inhibitor with Selectivity for Tumor Tissue
Veronica Novotny-Diermayr, Nina Sausgruber, Yung Kiang Loh, Mohammed Khalid Pasha, Ramesh Jayaraman, Hannes Hentze, Wei-Peng Yong, Boon-Cher Goh, Han-Chong Toh, Kantharaj Ethirajulu, Joy Zhu, and Jeanette Marjorie Wood

**1218** E7080 Suppresses Hematogenous Multiple Organ Metastases of Lung Cancer Cells with Nonmutated Epidermal Growth Factor Receptor
Hirokazu Ogino, Masaki Hanibuchi, Soji Kakuchi, Van The Trung, Hisatsugu Goto, Kenji Ikuta, Tadaaki Yamada, Hisanori Uehara, Akihiro Tsuruoka, Toshimitsu Uenaka, Wei Wang, Qi Li, Shinji Takeuchi, Seiji Yano, Yasuhiko Nishioa, and Saburo Sone

**1229** Characterization of the Oncogenic Activity of the Novel TRIM59 Gene in Mouse Cancer Models
Fatma Valiyeva, Fei Jiang, Ahmed Elmaadawi, Madeleine Moussa, Siu-Pok Yee, Leda Raptis, Jonathan I. Izawa, Burton B. Yang, Norman M. Greenberg, Fen Wang, and Jim W. Xuan
Sorafenib Enhances the Antitumor Effects of Chemoradiation Treatment by Downregulating ERCC-1 and XRCC-1 DNA Repair Proteins
Arti Yadav, Bhavna Kumar, Theodoros N. Teknos, and Pawan Kumar

Novel Acrylonitrile Derivatives, YHO-13177 and YHO-13351, Reverse BCRP/ABCG2-Mediated Drug Resistance In Vitro and In Vivo
Ryuta Yamazaki, Yukiko Nishiyama, Tomio Furuta, Hiroshi Hatano, Yoshiaki Igarashi, Naoyuki Asakawa, Hiroshi Kodaira, Hirokuni Takahashi, Ritsu Aiyama, Takeshi Matsuzaki, Nao Yagi, and Yoshikazu Sugimoto

Synergistic Antitumor Activity of Gemcitabine and ABT-737 In Vitro and In Vivo through Disrupting the Interaction of USP9X and Mcl-1
Chong Zhang, Tian-yu Cai, Hong Zhu, Liu-qing Yang, Hai Jiang, Xiao-wu Dong, Yong-zhou Hu, Neng-ming Lin, Qiao-jun He, and Bo Yang

Development and Characterization of a Potent Immunoconjugate Targeting the Fn14 Receptor on Solid Tumor Cells
Hong Zhou, John W. Marks, Walter N. Hittelman, Hideo Yagita, Lawrence H. Cheung, Michael G. Rosenblum, and Jeffrey A. Winkles

MOLECULAR MEDICINE IN PRACTICE
Chemotherapy Dosing Schedule Influences Drug Resistance Development in Ovarian Cancer
Raquel De Souza, Payam Zahedi, Rose M. Badame, Christine Allen, and Micheline Piquette-Miller

Phase I Trial of Hepatic Arterial Infusion of Nanoparticle Albumin–Bound Paclitaxel: Toxicity, Pharmacokinetics, and Activity
Siqing Fu, Aung Naing, Stacy L. Moulder, Kirk S. Culotta, David C. Madoff, Chaan S. Ng, Timothy L. Madden, Gerald S. Falchook, David S. Hong, and Razelle Kurzrock

ABOUT THE COVER
A novel TRIM family member TRIM59 has proto-oncogenic activity in a transgenic mouse prostate cancer modeling test. Restricted TRIM59 gene expression in the mouse prostate using a prostate tissue-specific gene (PSP94) revealed the full potential for tumorigenesis and developed poorly differentiated cancer of the prostate and comedocarcinoma, which had features of neurocarcinoma (small cell carcinoma) and central necrosis. The PSP94-TRIM59 mice coincided with the upregulation of genes specific to the Ras signaling pathway and bridging genes for SV40Tag-mediated oncogenesis. For details, see the article by Valiyeva and colleagues on page 1229.