## THERAPEUTIC DISCOVERY

### Antisense Inhibition of Survivin Expression as a Cancer Therapeutic
Rosa A. Carrasco, Nancy B. Stamm, Eric Marcusson, George Sandusky, Philip Iversen, and Bharvin K.R. Patel

### Spliceosome-Mediated RNA Trans-Splicing Facilitates Targeted Delivery of Suicide Genes to Cancer Cells
Christina Gruber, Iris K. Gratz, Eva M. Murauer, Elisabeth Mayr, Ulrich Koller, Leena Bruckner-Tuderman, Guerrino Meneguzzi, Helmut Hintner, and Johann W. Bauer

### A Robust High-Content Imaging Approach for Probing the Mechanism of Action and Phenotypic Outcomes of Cell-Cycle Modulators
Jeffrey J. Sutherland, Jonathan Low, Wayne Blosser, Michele Dowless, Thomas A. Engler, and Louis F. Stancato

### Anticancer Activity of a Combination of Cisplatin and Fisetin in Embryonal Carcinoma Cells and Xenograft Tumors
Rakshamani Tripathi, Tanmoy Samadder, Sarika Gupta, Avadhesha Surolia, and Chandrima Shaha

### p53R2 Inhibits the Proliferation of Human Cancer Cells in Association with Cell-Cycle Arrest
Keqiang Zhang, Jun Wu, Xiewei Wu, Xiaochen Wang, Yan Wang, Ning Zhou, Mei-ling Kuo, Xiyong Liu, Bingsen Zhou, Lufen Chang, David Ann, and Yun Yen

## PRECLINICAL DEVELOPMENT

### Interpreting Mammalian Target of Rapamycin and Cell Growth Inhibition in a Genetically Engineered Mouse Model of NF1-Deficient Astrocytes
Sutapa Banerjee, Scott M. Gianino, Feng Gao, Uwe Christians, and David H. Gutmann

### Low-Dose Fractionated Radiation Potentiates the Effects of Cisplatin Independent of the Hyper-Radiation Sensitivity in Human Lung Cancer Cells
Seema Gupta, Tulay Korus-Sengul, Susanne M. Arnold, Gayatri R. Devi, Mohammed Mohiuddin, and Mansoor M. Ahmed

### Silencing of Tubulin Binding Cofactor C Modifies Microtubule Dynamics and Cell Cycle Distribution and Enhances Sensitivity to Gemcitabine in Breast Cancer Cells
Rouba Hage-Sleiman, Stéphanie Herveau, Eva-Laure Matera, Jean-Fabien Laurier, and Charles Dumontet

### Chromatin Structure Predicts Epigenetic Therapy Responsiveness in Sarcoma
Joslyn Mills, Todd Hricik, Sara Siddiqui, and Igor Matushansky

### Ovarian Cancer Stem Cell–Like Side Populations Are Enriched Following Chemotherapy and Overexpress EZH2
Siân Rizzo, Jenny M. Hersey, Paul Mellor, Wei Dai, Alessandra Santos-Silva, Daniel Liber, Louisa Luk, Ian Titley, Craig P. Carden, Garry Box, David L. Hudson, Stanley B. Kaye, and Robert Brown

### Knockdown of Oncogenic KRAS in Non–Small Cell Lung Cancers Suppresses Tumor Growth and Sensitizes Tumor Cells to Targeted Therapy
Noriaki Sunaga, David S. Shames, Luc Girard, Michael Peyton, Jill E. Larsen, Hisao Imai, Junichi Soh, Mitsuo Sato, Noriko Yanagitani, Kyoichi Kaira, Yang Xie, Adi F. Gazdar, Masatomo Mori, and John D. Minna
Transcription Factor Stat5 Knockdown Enhances Androgen Receptor Degradation and Delays Castration-Resistant Prostate Cancer Progression In vivo

Christian Thomas, Amina Zoubeidi, Hidetoshi Kuruma, Ladan Fazli, Francois Lamoureux, Eliana Beraldi, Brett P. Monia, A. Robert MacLeod, Joachim W. Thuroff, and Martin E. Gleave

Preclinical Pharmacology, Antitumor Activity, and Development of Pharmacodynamic Markers for the Novel, Potent AKT Inhibitor CCT128930


ABOUT THE COVER

Multivariate analysis and high-content imaging allow the detailed investigation of treatment effects at the cellular level, yet the reproducibility of such assessments has not been thoroughly investigated. A model calibrated at each experiment accounts for variation in experimental conditions and allows for the reproducible assessment of phenotype induced by cell cycle modulators. An extensive survey of cell cycle inhibitors highlights the prevalence of phenotypic variability in response to agents within a mechanistic class and the occurrence of concentration-dependent changes in phenotype. For details, see the article by Sutherland and colleagues on page 242.