Highlights of This Issue 3999

SPECIAL FEATURES

CCR Translations

4001 How to Develop Treatments for Biologically Heterogeneous "Diseases" Richard M. Simon See article p. 4004

Statistics in Clinical Cancer Research

4004 Design of a Phase III Clinical Trial with Prospective Biomarker Validation: SWOG S0819 Mary W. Redman, John J. Crowley, Roy S. Herbst, Fred R. Hirsch, and David R. Gandara See commentary p. 4001

Molecular Pathways

4013 Molecular Pathways: Targeting Phosphoinositide 3-Kinase p110-Delta in Chronic Lymphocytic Leukemia Sarah E.M. Herman and Amy J. Johnson

4019 Molecular Pathways: Involving Microenvironment Damage Responses in Cancer Therapy Resistance Yu Sun and Peter S. Nelson

HUMAN CANCER BIOLOGY

4026 Molecular Profiling Reveals Low- and High-Grade Forms of Primary Melanoma Katja Harbst, Johan Staaf, Martin Lauss, Anna Karlsson, Anna Maisback, Iva Johansson, Per-Ola Bendahl, Johan Vallon-Christersson, Therese Törngren, Henrik Ekedahl, Jürgen Geisler, Markus Höglund, Mattias Ringné, Lotta Lundgren, Karin Jirstrom, Hakan Olsson, Christian Ingvar, Åke Borg, Hensin Tsao, and Göran Jonsson


4048 EZH2-Regulated DAB2IP Is a Medulloblastoma Tumor Suppressor and a Positive Marker for Survival Michiel Smits, Sjoerd van Rijn, Esther Hullemann, Dennis Biesmans, Danny G. van Vuuren, Marcel Kool, Christine Haberler, Eleonora Aronica, W. Peter Vandertop, David P. Noske, and Thomas Würdinger

4059 Overexpression of GOLPH3 Promotes Proliferation and Tumorigenicity in Breast Cancer via Suppression of the FOXO1 Transcription Factor Zhuo-Li Zeng, Huanxin Lin, Xiaohui Zhao, Guanglin Liu, Xi Wang, Ruihua Xu, Kun Chen, Jun Li, and Libing Song

CANCER THERAPY: PRECLINICAL

4070 Inhibition of Histone Deacetylation Potentiates the Evolution of Acquired Temozolomide Resistance Linked to MGMT Upregulation in Glioblastoma Xenografts Gaspar J. Kitange, Ann C. Mladek, Brett L. Carlson, Mark A. Schroeder, Jenny L. Pokorny, Ling Cen, Paul A. Decker, Wenting Wu, Gwen A. Lomberk, Shiv K. Gupta, Raul A. Urrutia, and Jann N. Sarkaria

4080 IGKV3 Proteins as Candidate "Off-the-Shelf" Vaccines for Kappa-Light Chain–Restricted B-Cell Non-Hodgkin Lymphomas Debora Martorelli, Massimo Guidoboni, Valli De Re, Elena Muraro, Riccardo Turrini, Anna Merlo, Elisa Pasini, Laura Caggiari, Luca Romagnoli, Michele Spina, Roberta Mortarini, Daniela Gasparotto, Mario Mazzucato, Antonino Carbone, Antonio Rosato, Andrea Anichini, and Riccardo Dolcetti
The Antibody-Based Delivery of Interleukin-12 to the Tumor Neovasculature Eradicates Murine Models of Cancer in Combination with Paclitaxel
Nadine Pasche, Sarah Wulhfard, Francesca Pretto, Elisa Carugati, and Dario Neri

Cancer Network Disruption by a Single Molecule Inhibitor Targeting Both Histone Deacetylase Activity and Phosphatidylinositol 3-Kinase Signaling
Changgeng Qian, Cheng-Jung Lai, Rudi Bao, Da-Gong Wang, Jing Wang, Guang-Xin Xu, Ruzanna Atoyun, Hui Qu, Ling Yin, Maria Sansson, Brian Zilicak, Anna Wai See Ma, Steven DellaRocca, Mylissa Borek, Hai-Xiao Zhai, Xiong Cai, and Maurizio Voi

Metronomic Activity of CD44-Targeted Hyaluronic Acid-Paclitaxel in Ovarian Carcinoma
Sun Joo Lee, Sukhen C. Ghosh, Hee Dong Han, Rebecca L. Stone, Justin Bottsford-Miller, De Yue Shen, Edmond J. Auzenne, Alejandro Lopez-Araujo, Chunhua Lu, Masato Nishimura, Chad V. Pecot, Behrouz Zand, Duangmani Thanapprapasr, Nicholas B Jennings, Yu Kang, Jie Huang, Wei Hu, Jim Kloetgeraard, and Anil K. Sood

Progenitor-like Traits Contribute to Patient Survival and Prognosis in Oligodendrogial Tumors
Felicia Soo-Lee Ng, Tan Boon Toh, Esther Hui-Ling Ting, Geraldene Rong-Hui Koh, Edwin Sandanaraj, Mark Phong, Swee Seong Wong, Siew Hong Leong, Oi Lian Kon, Greg Tucker-Kellogg, Wai Hoe Ng, Ivan Ng, Carol Tang, and Beng Ti Ang

Breast Cancer Cell Targeting by Prenylation Inhibitors Elucidated in Living Animals with a Bioluminescence Reporter
Sharon L. Chinault, Julie L. Prior, Kevin M. Kaltenbronn, Anya Penly, Katherine N. Weilbaecher, David Piwnica-Worms, and Kendall J. Blumer

The Prognostic Significance of Vasohibin-1 Expression in Patients with Upper Urinary Tract Urothelial Carcinoma
Yasumasa Miyazaki, Takeo Kosaka, Shuji Mikami, Eiji Kikuchi, Nobuyuki Tanaka, Takahiro Maeda, Masaru Ishida, Akira Miyajima, Ken Nakagawa, Yasunori Okada, Yasufumi Sato, and Mototsugi Oya

Performance of p16/Ki-67 Immunostaining to Detect Cervical Cancer Precursors in a Colposcopy Referral Population
Nicolas Wentzensen, Lauren Schwartz, Rosemary E. Zuna, Katie Smith, Cara Mathews, Michael A. Gold, R. Andy Allen, Roy Zhang, S. Terence Dunn, Joan L. Walker, and Mark Schiffman

ERG Rearrangement for Predicting Subsequent Cancer Diagnosis in High-Grade Prostatic Intraepithelial Neoplasia and Lymph Node Metastasis
Xin Gao, Liao-Yuan Li, Fang-Jian Zhou, Ke-Ji Xie, Chun-Kui Shao, Zu-Lan Su, Qi-Peng Sun, Ming-Xun Chen, Jun Pang, Xiang-Yu Zhou, Jian-Guang Qiu, Xing-Qiao Wen, Ming Yang, Xian-Zhong Bai, Hao Zhang, Li Ling, and Zhong Chen

IMAGING, DIAGNOSIS, PROGNOSIS

PREDICTIVE BIOMARKERS AND PERSONALIZED MEDICINE

Pretreatment EBV-DNA Copy Number Is Predictive of Response and Toxicities to SMILE Chemotherapy for Extranodal NK/T-cell Lymphoma, Nasal Type
ABOUT THE COVER

The recently discovered recurrent ERG rearrangement is highly specific for prostate cancer. There are significant associations of ERG rearrangement in preoperative biopsies with pelvic lymph node metastasis for patients with prostate cancer. The fluorescence in situ hybridization image shows representative nuclei of a prostate cancer gland. One yellow/one green/one red in a nucleus represents abnormal signal patterns indicative of an ERG rearrangement. For details, please see the article by Gao and colleagues on page 4163 of this issue.