**Contents**

**Highlights of This Issue** 3089

**SPECIAL FEATURES**

3091  
How to Train Your Biomarker  
Douglas Yee  
*See article p. 3193*

3094  
Inhibition of the PI3K Pathway: Hope We Can Believe in?  
Michiel S. van der Heijden and René Bernards

3100  
Immunogenic Tumor Cell Death for Optimal Anticancer Therapy: The Calreticulin Exposure Pathway  
Laurence Zitvogel, Oliver Kepp, Laura Senovilla, Laurie Menger, Nathalie Chaput, and Guido Kroemer

3106  
Controversies in Cancer Stem Cells: Targeting Embryonic Signaling Pathways  
Naoko Takebe and S. Percy Ivy

3113  
The Difficulty of Targeting Cancer Stem Cell Niches  
Mark A. LaBarge

3130  
Targeting Hedgehog—a Cancer Stem Cell Pathway  
Akil A. Merchant and William Matsui

3141  
Targeting Notch to Target Cancer Stem Cells  
Antonio Pannuti, Kimberly Foreman, Paola Rizzo, Clodia Osipo, Todd Golde, Barbara Osborne, and Lucio Miele

3153  
Targeting Wnt Signaling: Can We Safely Eradicate Cancer Stem Cells?  
Fumi Takahashi-Yanaga and Michael Kahn

**HUMAN CANCER BIOLOGY**

3163  
Molecular Diagnosis of Activating EGFR Mutations in Non–Small Cell Lung Cancer Using Mutation-Specific Antibodies for Immunohistochemical Analysis  
Akiko Kawahara, Chizuko Yamamoto, Kazutaka Nakashima, Koichi Azuma, Satoshi Hatori, Masaki Kashihara, Hisamichi Aizawa, Yuji Basaki, Michihiko Kuwano, Masayoshi Kage, Tetsuya Mitsudomi, and Mayumi Ono

3171  
Aurora Kinase A Promotes Ovarian Tumorigenesis through Dysregulation of the Cell Cycle and Suppression of BRCA2  
Gong Yang, Bin Chang, Fan Yang, Xiaoping Guo, Kathy Qi Cai, Xue (Sherry) Xiao, Huamin Wang, Subrata Sen, Mien-Chie Hung, Gordon B. Mills, Sandy Chang, Asha S. Multani, Imelda Mercado-Uribe, and Jinsong Liu

3182  
FTY720 Shows Promising In vitro and In vivo Preclinical Activity by Downmodulating Cyclin D1 and Phospho-Akt in Mantle Cell Lymphoma  
Qing Liu, Lapo Alinari, Ching-Shih Chen, Fengting Yan, James T. Dalton, Rosa Lapalombella, Xiaoli Zhang, Rajeswaran Mani, Teresa Lin, John C. Byrd, Robert A. Baiocchi, and Natarajan Muthusamy

3193  
Development of an Integrated Genomic Classifier for a Novel Agent in Colorectal Cancer: Approach to Individualized Therapy in Early Development  
Todd M. Pitts, Alk Choon Tan, Gillian N. Kulikowsk, John J. Tentler, Amy M. Brown, Sara A. Flanigan, Stephen Leong, Christopher D. Coldren, Fred R. Hirsch, Marilella Varella-Garcia, Christopher Korch, and S. Gail Eckhardt  
*See commentary p. 3091*
CANCER THERAPY: CLINICAL

3260 Phase II Clinical and Pharmacokinetic Study of Plitidepsin 3-Hour Infusion Every Two Weeks Alone or with Dexamethasone in Relapsed and Refractory Multiple Myeloma
Maria Victoria Mateos, Maria Teresa Cibeira, Paul G. Richardson, Felipe Prosper, Albert Oriol, Javier de la Rubia, Juan José Lahuerta, Ramón García-Sanz, Sonia Esteve, Sergio Szyldergemajn, Claudia Corrado, Harald Singer, Constantine S. Mitsiades, Kenneth C. Anderson, Joan Bladé, and Jesús San Miguel

3270 Biobehavioral, Immune, and Health Benefits following Recurrence for Psychological Intervention Participants
Barbara L. Andersen, Lisa M. Thornton, Charles L. Shapiro, William B. Farrar, Bethany L. Mundy, Hae-Chung Yang, and William E. Carson III

3279 AdCD40L Immunogene Therapy for Bladder Carcinoma—The First Phase I/IIa Trail
Per-Uno Malmström, Angelica S.I. Loskog, Camilla A. Lindqvist, Sara M. Mangsbo, Moa Fransson, Alkwin Wanders, Truls Gårdmark, and Thomas H. Tötterman

3288 Imatinib Mesylate as a Preoperative Therapy in Dermatofibrosarcoma: Results of a Multicenter Phase II Study on 25 Patients

IMAGING, DIAGNOSIS, PROGNOSIS

3215 Drug-Induced Vessel Remodeling in Bone Metastases as Assessed by Dynamic Contrast Enhanced Magnetic Resonance Imaging and Vessel Size Imaging: A Longitudinal In vivo Study
Tobias Bäuerle, Maximilian Merz, Dorde Komljenovic, Stefan Zwick, and Wolfhard Semmler

3226 Complement Factor H Autoantibodies Are Associated with Early Stage NSCLC
Nita Amornsiripanitch, Shaolin Hong, Michael J. Campa, Michael M. Frank, Elizabeth B. Gottlin, and Edward F. Patz, Jr.

3232 A Four-Kallikrein Panel Predicts Prostate Cancer in Men with Recent Screening: Data from the European Randomized Study of Screening for Prostate Cancer, Rotterdam

3240 HDAC5 and HDAC9 in Medulloblastoma: Novel Markers for Risk Stratification and Role in Tumor Cell Growth
Till Milde, Ina Oechme, Andrey Korshunov, Annette Kopp-Schneider, Marc Remke, Paul Northcott, Hedwig E. Deubzer, Marco Lodrini, Michael D. Taylor, Andreas von Deimling, Stefan Pfister, and Olaf Witt

3253 Overexpression of p73 as a Tissue Marker for High-Risk Gastritis
Gonzalo Carrasco, Jose Diaz, Jose R. Valbuena, Paulina Ibanez, Paz Rodriguez, Gabriela Araya, Carolina Rodriguez, Javiera Torres, Ignacio Duarte, Edmundo Aravena, Fernando Mena, Carlos Barrientos, and Alejandro H. Corvalan

3259 Molecular Imaging of N-linked Glycosylation Suggests Glycan Biosynthesis Is a Novel Target for Cancer Therapy
Joseph N. Contessa, Mahaveer S. Bhojani, Hudson H. Freeze, Brian D. Ross, Alnawaz Rehemtulla, and Theodore S. Lawrence
ABOUT THE COVER

Early detection of gastric cancer requires risk assessment of premalignant conditions. The cover image shows a positive and negative representative immunostain of eight tissue markers (BRCA1, HSP90, EGFR, p73, STAT1, FHIT, p16INK4a and p53) and EBER-1 expression in tissue microarrays of early gastric cancer, nontumor adjacent mucosa, and chronic gastritis control cases, where p73 emerges and may have a potential role in the assessment of high-risk gastritis. Moreover, integration of these findings with histological features shows that overexpression of p73 is the most relevant finding. For further details, please see the article by Carrasco and colleagues on page 3253 of this issue.