Contents

Highlights of This Issue 3089

SPECIAL FEATURES

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

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

CCR Translations

3091

3100

Cancer Stem Cells and Self-renewal
Catherine Adell O’Brien, Antonija Kreso, and Catriona H.M. Jamieson

3121 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

CCR Focus

3105 Drugs That Target the Stemness Pathways
Susan E. Bates

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

3113 Cancer Stem Cells and Self-renewal
Catherine Adell O’Brien, Antonija Kreso, and Catriona H.M. Jamieson

3117 Aurora Kinase A Promotes Ovarian Tumorigenesis through Dysregulation of the Cell Cycle and Suppression of BRCA2
Gong Yang, Bin Chang, Fan Yang, Xiaoqing Guo, Kathy Qi Cai, Xue (Sherry) Xiao, Hua Min Wang, Subrata Sen, Mien-Chie Hung, Gordon B. Mills, Sandy Chang, Asha S. Maltani, Imelda Mercado-Uribe, and Jinsong Liu

Molecular Pathways

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

HUMAN CANCER BIOLOGY

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

3163 Molecular Diagnosis of Activating EGFR Mutations in Non–Small Cell Lung Cancer Using Mutation–Specific Antibodies for Immunohistochemical Analysis
Akikiko Kawahara, Chizuko Yamamoto, Kazutaka Nakashima, Koichi Azuma, Satoshi Hattori, Masaki Kashihara, Hisamichi Aizawa, Yuji Basaki, Michihiiko Kuvano, 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, Xiaoqing Guo, Kathy Qi Cai, Xue (Sherry) Xiao, Hua Min Wang, Subrata Sen, Mien-Chie Hung, Gordon B. Mills, Sandy Chang, Asha S. Maltani, Imelda Mercado-Uribe, and Jinsong Liu

CANCER THERAPY: PRECLINICAL

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, Feng Guo, 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, Aik Choon Tan, Gillian N. Kulikowski, 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
María Victoria Mateos, María Teresa Cibeira, Paul G. Richardson, Felipe Prosper, Albert Oriol, Javier de la Rubia, Juan José Lahuerta, Ramón García-Sanz, Sonia Extremera, Sergio Szylbergmajn, 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 Trial
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

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

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

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

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

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

3205 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

IMAGING, DIAGNOSIS, PROGNOSIS
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.