Highlights of This Issue 1399

SPECIAL FEATURES

CCR Translations

1401  Myeloid Suppressors Decrease Melanoma Survival by Abating Tumor-Fighting T Cells
       Rolf Kiessling, Yumeng Mao, and Yago Pico de Coa
       See related article, p. 1601

Statistics in Clinical Cancer Research

1404  Getting More Out of Survival Data by Using the Hazard Function
       Kenneth R. Hess and Victor A. Levin

Molecular Pathways

1410  Molecular Pathways: HER3 Targeted Therapy
       Kinisha Gala and Sarat Chandarlapaty

CCR Focus

1418  It’s All About the Test: The Complexity of Companion Diagnostic Co-development in Personalized Medicine
       Susan E. Bates

1419  Developing Precision Medicine in a Global World
       Eric H. Rubin, Jeffrey D. Allen, Jan A. Nowak, and Susan E. Bates

1428  Evidence of Clinical Utility: An Unmet Need in Molecular Diagnostics for Patients with Cancer

1445  Similarities and Differences in the Oncology Drug Approval Process between FDA and European Union with Emphasis on In Vitro Companion Diagnostics
       Adrian M. Senderowicz and Otnar Pfaff

1453  FDA Perspective on Companion Diagnostics: An Evolving Paradigm
       Elizabeth A. Mansfield

       Francesco Pignatti, Falk Ehmann, Robert Hemmings, Bertil Jonsson, Micha Nuebling, Marisa Papaluku-Amati, Martin Posch, and Guido Rasi

1469  The Health Technology Assessment of Companion Diagnostics: Experience of NICE
       Sarah K. Byron, Nick Crab, Elisabeth George, Mirella Marlow, and Adrian Newland

HUMAN CANCER BIOLOGY

1477  FOXM1c Promotes Pancreatic Cancer Epithelial-to-Mesenchymal Transition and Metastasis via Upregulation of Expression of the Urokinase Plasminogen Activator System
       Chen Huang, Dachen Xie, Jujuie Cui, Qi Li, Yong Gao, and Kepping Xie

1489  DNA Topoisomerase III Alpha Regulates p53-Mediated Tumor Suppression
       Mei-Yi Hsieh, Jia-Rong Fan, Han-Wen Chang, Hsien-Chin Chen, Tang-Long Shen, Shu-Chun Teng, Yen-Hsiu Yeh, and Tsai-Kun Li

1502  hERG1 Channels Regulate VEGF-A Secretion in Human Gastric Cancer: Clinicopathological Correlations and Therapeutical Implications
       Olivia Croci, Elena Lasraioli, Luca Boni, Serena Polozzo, Maria Raaffella Romoli, Massimo D’Amico, Matteo Stefanini, Silvia Crescioli, Antonio Taddei, Lapo Bencini, Marco Bernini, Marco Farsi, Stefania Beggelli, Aldo Scarpa, Luca Messerini, Anna Tommezzoli, Carla Vindigni, Paolo Morgagni, Luca Saragoni, Elisa Giommoni, Silvia Gasperoni, Francesco Di Costanzo, Franco Roviello, Giovanni De Manzoni, Paolo Bechi, and Anna Rara Arcangeli

1513  Calcium/Calmodulin-Dependent Protein Kinase II and Its Endogenous Inhibitor α in Medullary Thyroid Cancer
       Eleonora Russo, Marcella Salzano, Valentina De Falco, Caterina Mian, Susi Barollin, Agnese Secondo, Maurizio Bifulco, and Mario Vitale
Table of Contents

1521 High-Resolution Array CGH and Gene Expression Profiling of Alveolar Soft Part Sarcoma
Shamini Selvarajah, Saumyadipita Pyne, Eleanor Chen, Ramakrishna Sompalae, Azra H. Ligon, Gunnlaugur P. Nielsen, Glenn Dranoff, Edward Stack, Massimo Loda, and Richard Flavin

1531 TGF-β–Induced Upregulation of malat1 Promotes Bladder Cancer Metastasis by Associating with suz12
Yu Fan, Bing Shen, Mingyue Tan, Xinyu Mu, Yan Qin, Fang Zhang, and Yong Liu

CANCER THERAPY: PRECLINICAL

1542 Preclinical Activity of the Oral Proteasome Inhibitor MLN9708 in Myeloma Bone Disease

1555 Temozolomide Does Not Impair Gene Therapy-Mediated Antitumor Immunity in Syngeneic Brain Tumor Models
Marianela Candolfi, Kader Yagiz, Mia Wibowo, Gabrielle E. Ahlzadeh, Mariana Puntel, Homayon Ghiasi, Neha Kamran, Christopher Paran, Pedro R. Lowenstein, and Maria G. Castro

1566 Hedgehog–GLI Signaling Inhibition Suppresses Tumor Growth in Squamous Lung Cancer
Lingling Huang, Vonn Walter, D. Neil Hayes, and Mark Onaitis

1576 The Nedd8-Activating Enzyme Inhibitor MLN4924 Thwarts Microenvironment-Driven NF-κB Activation and Induces Apoptosis in Chronic Lymphocytic Leukemia B Cells
J. Claire Godbersen, Leigh Ann Humphries, Olga V. Danilova, Peter E. Kebbekus, Jennifer R. Brown, Alan Eastman, and Alexey V. Danilov

1590 Rapid Induction of Androgen Receptor Splice Variants by Androgen Deprivation in Prostate Cancer

IMAGING, DIAGNOSIS, PROGNOSIS

1601 Myeloid-Derived Suppressor Cells Predict Survival of Patients with Advanced Melanoma: Comparison with Regulatory T Cells and NY-ESO-1- or Melan-A–Specific T Cells
Benjamin Weide, Alexander Martens, Henning Zelba, Christina Stutz, Evelyne Derhovanessian, Anna Maria Di Giacomo, Michele Maio, Antje Sucker, Bastian Schilling, Dirk Schadendorf, Petra Büttner, Claus Garbe, and Graham Pawelec
See related article, p. 1401

1610 Radiation-Enhanced Lung Cancer Progression in a Transgenic Mouse Model of Lung Cancer Is Predictive of Outcomes in Human Lung and Breast Cancer
Oliver Delgado, Kimberly G. Batten, James A. Richardson, Xian-Jin Xie, Adi F. Gazdar, Aadil A. Kaisani, Luc Girard, Carmen Behrens, Milind Suraokar, Gail Fasciani, Woodring E. Wright, Michael D. Story, Ignacio I. Wistuba, John D. Minna, and Jerry W. Shay

1623 EASL- and mRECIST-Evaluated Responses to Combination Therapy of Sorafenib with Transarterial Chemoembolization Predict Survival in Patients with Hepatocellular Carcinoma
Lei Liu, Weijuan Wang, Hui Chen, Yan Zhao, Wei Bai, Zhanxin Yin, Chuangye He, Jia Jia, Man Yang, Jelai Xia, Daiming Fan, and Guohong Han

1632 Positron Emission Tomography Imaging with 18F-Labeled ZHER2:2891 Affibody for Detection of HER2 Expression and Pharmacodynamic Response to HER2-Modulating Therapies
Sebastian Trousil, Susan Hoppmann, Quang-Đè Nguyen, Maciej Kaliszczak, Giampaolo Tomasi, Peter Iveson, Duncan Hiscock, and Eric O. Abogye

CANCER THERAPY: CLINICAL

1644 A Phase I, Pharmacokinetic, and Pharmacodynamic Study of Panobinostat, an HDAC Inhibitor, Combined with Erlotinib in Patients with Advanced Aerodigestive Tract Tumors
Phase I Study of Oral Rigosertib (ON 01910. Na), a Dual Inhibitor of the PI3K and Plk1 Pathways, in Adult Patients with Advanced Solid Malignancies

Phase I Dose-Escalation Study of Onartuzumab as a Single Agent and in Combination with Bevacizumab in Patients with Advanced Solid Malignancies
Ravi Salgia, Premal Patel, John Bothos, Wei Yu, Steve Eppler, Priti Hegde, Shuang Bai, Surinder Kaur, Ihsan Nijem, Daniel V.T. Catenacci, Amy Peterson, Mark J. Ratain, Blase Polite, Janice M. Mehnert, and Rebecca A. Moss

A Functional Germline Variant in GLI1 Implicates Hedgehog Signaling in Clinical Outcome of Stage II and III Colon Carcinoma Patients

Noninvasive Detection of Response and Resistance in EGFR-Mutant Lung Cancer Using Quantitative Next-Generation Genotyping of Cell-Free Plasma DNA

Inactivation of the CDKN2A Tumor-Suppressor Gene by Deletion or Methylation Is Common at Diagnosis in Follicular Lymphoma and Associated with Poor Clinical Outcome
Abdulmohsen Alhejaily, Andrew G. Day, Harriet E. Feilotter, Tara Baetz, and David P. LeBrun

A Functional Germline Variant in GLI1 Implicates Hedgehog Signaling in Clinical Outcome of Stage II and III Colon Carcinoma Patients

Noninvasive Detection of Response and Resistance in EGFR-Mutant Lung Cancer Using Quantitative Next-Generation Genotyping of Cell-Free Plasma DNA

Correction: Carbonic Anhydrase IX Promotes Tumor Growth and Necrosis In Vivo and Inhibition Enhances Anti-VEGF Therapy

The cover shows a section of an intracranial glioblastoma (GBM). GBM cells express the fluorescent protein citrine (green) and the High-mobility group protein B1 (HMGB1) fused to the red fluorescent protein cherry. In living cells HMGB1 is located in the nucleus; upon cell death, HMGB1 is translocated to the cytoplasm and is eventually secreted. Circulating levels of HMGB1 may constitute a noninvasive surrogate biomarker of therapeutic efficacy. For details, see the article by Candolfi and colleagues on page 1555 of this issue.