Contents

Highlights of This Issue 6333

SPECIAL FEATURES

CCR Translations

6335 The Role of Protein Kinase CK2 in Glioblastoma Development Haitao Ji and Zhimin Lu

See related article, p. 6484

CCR New Strategies

6338 New Strategies in Radiation Therapy: Exploiting the Full Potential of Protons Radhe Mohan, Anita Mahajan, and Bruce D. Minsky

Molecular Pathways

6344 Molecular Pathways: Protein Methyltransferases in Cancer Robert A. Copeland

CCR Focus

6352 On Masterpieces and Breast Cancer Research Susan E. Bates

6353 Progress in Breast Cancer: Overview Carlos L. Arteaga

6360 Neoadjuvant Therapy as a Platform for Drug Development and Approval in Breast Cancer Aditya Bardia and José Baselga

6371 Incorporating Genomics into Breast Cancer Clinical Trials and Care Adel Tabbey, Cynthia X. Ma, Ron Bose, and Matthew J. Ellis

6380 Tackling the Diversity of Triple-Negative Breast Cancer Nicholas C. Turner and Jorge S. Reis-Filho

6389 Metastasis Dormancy in Estrogen Receptor–Positive Breast Cancer Xiang H.-F. Zhang, Mario Giuliano, Meghana V. Trivedi, Rachel Schiff, and C. Kent Osborne

6398 Can Immunity to Breast Cancer Eliminate Residual Micrometastases? Mary L. Disis and Sasha E. Stanton

HUMAN CANCER BIOLOGY


6419 JMJD2B Promotes Epithelial–Mesenchymal Transition by Cooperating with β-Catenin and Enhances Gastric Cancer Metastasis Li Zhao, Wenjuan Li, Wen Zang, Zhiyang Liu, Xia Xu, Han Yu, Qing Yang, and Jihui Jia


6438 Contrasting Expression Patterns of Histone mRNA and microRNA 760 in Patients with Gastric Cancer Takeshi Iwaya, Takeo Fukagawa, Yutaka Suzuki, Yuseke Takahashi, Genta Sawada, Masahisa Ishibashi, Junji Kurashige, Tomoya Sudo, Fumiaki Tanaka, Kohei Shibata, Fumitaka Endo, Hirokatsu Katagiri, Kaoru Ishida, Kohei Kume, Satoshi Nishizuka, Hisae Inuma, Go Wakabayashi, Masaki Mori, Mitsuru Sasaki, and Koshi Mimori

6450 PI3K Pathway Activation Provides a Novel Therapeutic Target for Pediatric Ependymoma and Is an Independent Marker of Progression-Free Survival Hazel A. Rogers, Cerys Mayne, Rebecca J. Chapman, John-Paul Kilday, Beth Coyle, and Richard G. Grundy
Autotaxin–Lysophosphatidic Acid Signaling Axis Mediates Tumorigenesis and Development of Acquired Resistance to Sunitinib in Renal Cell Carcinoma
Shih-Chi Su, Xiaoxiao Hu, Patrick A. Kenney, Megan M. Merrill, Kara N. Babaian, Xiu-Ying Zhang, Tapati Maity, Shun-Fa Yang, Xin Lin, and Christopher G. Wood

Cidofovir: A Novel Antitumor Agent for Glioblastoma
Piotr Hadaczek, Tomoko Ozawa, Liliana Sorocearu, Yasuyuki Yoshida, Lisa Matlaf, Eric Singer, Estefania Fiallos, C. David James, and Charles S. Cobbs

Targeting Protein Kinase CK2 Suppresses Prosurvival Signaling Pathways and Growth of Glioblastoma
Ying Zheng, Braden C. McFarland, Denis Drygin, Hao Yu, Susan L. Bellis, Hyunsoo Kim, Markus Bredel, and Etty N. Benveniste

Shuya Yano, Hiroshi Tazawa, Yuuri Hashimoto, Yasuhiro Shirakawa, Shinji Kuroda, Masahiko Nishizaki, Hiroyuki Kishimoto, Futoshi Uno, Takeshi Nagasaka, Yasuho Urata, Shunsuke Kagawa, Robert M. Hoffman, and Toshiyoshi Fujiwara

Activity of the Hypoxia-Activated Prodrug, TH-302, in Preclinical Human Acute Myeloid Leukemia Models
Scott Portwood, Deepika Lal, Yung-Chun Hsu, Rodrigo Vargas, Megan K. Johnson, Meir Wetzler, Charles P. Hart, and Eunice S. Wang

The Histone Deacetylase Inhibitor Abexinostat Induces Cancer Stem Cells Differentiation in Breast Cancer with Low JAK3 Expression
Marion A. Salvador, Julien Wicinski, Olivier Cabaud, Yves Toiron, Pascal Finetti, Emmanuelle Josselin, Hélène Lelièvre, Laurence Kraus-Berthier, Stéphane Depil, François Bertucci, Yves Collette, Daniel Birnbaum, Emmanuelle Charafé-Jauffret, and Christophe Ginestier

Targeting Src and Tubulin in Mucinous Ovarian Carcinoma
Tao Liu, Wei Hu, Heather J. Dalton, Hyun Jin Choi, Jie Huang, Yu Kang, Sunila Pradeep, Takahito Miyake, Jian H. Song, Yunfei Wen, Chunhua Lu, Chad V. Pecot, Justin Bottsford-Miller, Behrouz Zand, Nicholas B. Jennings, Cristina Ivan, Gary E. Gallick, Keith A. Buggerly, David G. Hangauer, Robert L. Coleman, Michael Frumovitz, and Anil K. Sood

Novel Methylation Biomarker Panel for the Early Detection of Pancreatic Cancer

EZH2 Protein Expression Associates with the Early Pathogenesis, Tumor Progression, and Prognosis of Non–Small Cell Lung Carcinoma

End-Therapy Positron Emission Tomography for Treatment Response Assessment in Follicular Lymphoma: A Systematic Review and Meta-analysis
Junhee Pyo, Kyung Won Kim, Heather A. Jacene, Christopher G. Sakellis, Jennifer R. Brown, and Annick D. Van den Abbeele

A Phase I Trial of Imetelstat in Children with Refractory or Recurrent Solid Tumors: A Children’s Oncology Group Phase I Consortium Study (ADVL1112)
Patrick A. Thompson, Rachid Drissi, Jodi A. Muscal, Eshini Panditharatna, Maryam Fouladi, Ashish M. Ingle, Charlotte H. Ahern, Joel M. Reid, Tong Lin, Brenda J. Weigel, and Susan M. Blaney

IMAGING, DIAGNOSIS, PROGNOSIS

Endothelial Cell-Specific Knockout of Apolipoprotein E Enhances Cerebral Ischemia-Induced Neuronal Injury and Infarct Volume
Keun-Young Noh, Hyun Jeong, Jeonghun Lee, Su-Bin Kang, and Ki-Chul Lee

Cancer-Associated Fibroblasts Act as a Reservoir of Cancer Stem Cells in Breast Cancer
Sung-Jin Jeong, Xingcheng Gu, Lisa V. Yee,2 Hye Joo Jung, David Moskaluk, Anna H. Ross, and Daniel Buck

Cancer Therapy: Preclinical

Cancer Therapy: Clinical

Clinical Cancer Research
Effects of Adjuvant Chemoradiotherapy on the Frequency and Function of Regulatory T Cells in Patients with Head and Neck Cancer
Patrick J. Schuler, Malgorzata Harasymczuk, Bastian Schilling, Zenichiro Saze, Laura Strauss, Stephan Lang, Jonas T. Johnson, and Theresa L. Whiteside

ECOG Phase II Trial of Graded-Dose Peginterferon α-2b in Patients with Metastatic Melanoma Overexpressing Basic Fibroblast Growth Factor (E2602)
Ronald S. Go, Sandra J. Lee, Donghoon Shin, Steven M. Callister, Dean A. Jobe, Robert M. Conry, Ahmad A. Tahrini, and John M. Kirkwood

Photodynamic Therapy with 3-(1'-Hexyloxyethyl) Pyropheophorbide a for Cancer of the Oral Cavity
Nestor Rigual, Gal Shafirstein, Michele T. Cooper, Heinz Baumann, David A. Bellnier, Ulas Sunar, Erin C. Tracy, Daniel J. Rohrbach, Gregory Wilding, Wei Tan, Maureen Sullivan, Mihai Merzianu, and Barbara W. Henderson

A Phase II and Biomarker Study of Ramucirumab, a Human Monoclonal Antibody Targeting the VEGF Receptor-2, as First-Line Monotherapy in Patients with Advanced Hepatocellular Cancer
Andrew X. Zhu, Richard S. Finn, Mary Mulcahy, Jayne Gurtler, Weijing Sun, Jonathan D. Schwartz, Rita P. Dalal, Adarsh Joshi, Rebecca R. Hozak, Yihuan Xu, Marek Ancukiewicz, Rakesh K. Jain, Francis W. Nugent, Dan G. Duda, and Keith Stuart

A Comparative Analysis of Prognostic Factor Models for Follicular Lymphoma Based on a Phase III Trial of CHOP–Rituximab versus CHOP + 131Iodine—Tositumomab

Quantification of Excision Repair Cross-Complementing Group 1 and Survival in p16-Negative Squamous Cell Head and Neck Cancers
Ranee Mehra, Fang Zhu, Dong-Hua Yang, Kathy Q. Cai, JoEllen Weaver, Mahendra K. Singh, Anna S. Nikonova, Erica A. Golemis, Douglas B. Flieder, Harry S. Cooper, Miriam Lango, John A. Ridge, and Barbara Burtness

AC icon indicates Author Choice
CME icon indicates that this article is available for continuing medical education credit at http://cme.aacrjournals.org
For more information please visit www.aacrjournals.org
ABOUT THE COVER

The cover shows a human U251-MG glioblastoma cell transfected with 100 nM of non-target siRNA. Phalloidin (green) and DAPI (blue) staining shows organized F-actin and cell morphology. For details, see the article by Zheng and colleagues on page 6484 of this issue.