Highlights of This Issue 4293

SPECIAL FEATURES

CCR Translations

4295  "License to Kill" Reflects Joint Action of CD4 and CD8 T Cells
Cornelis J.M. Melief
See related article, p. 4508

CCR Perspectives in Drug Approval

4297  Developing Standards for Breakthrough Therapy Designation in Oncology
Sandra J. Horning, Daniel A. Haber, Wendy K.D. Selig, S. Percy Ivy, Samantha A. Roberts, Jeff D. Allen, Ellen V. Sigal, and Charles L. Sawyers
See related article, p. 4305

4305  Accelerated Approval and Breakthrough Therapy Designation: Oncology Drug Development on Speed?
James C. Yao, Funda Meric-Bernstam, J. Jack Lee, and S. Gail Eckhardt
See related article, p. 4297

Molecular Pathways

4309  Molecular Pathways: Reactive Oxygen Species Homeostasis in Cancer Cells and Implications for Cancer Therapy
Veronique Nogueira and Nissim Hay

Reviews

4315  Impact of Bioinformatic Procedures in the Development and Translation of High-Throughput Molecular Classifiers in Oncology
Charles Ferté, Andrew D. Trister, Erich Huang, Brian M. Bot, Justin Guinney, Frederic Commo, Solveig Sieberts, Fabrice André, Benjamin Besse, Jean-Charles Soria, and Stephen H. Friend

4326  BRAF in Melanoma: Current Strategies and Future Directions
April K.S. Salama and Keith T. Flaherty

HUMAN CANCER BIOLOGY

Regulation of Cell Proliferation and Migration by Keratin19-Induced Nuclear Import of Early Growth Response-1 in Breast Cancer Cells
Ji-hyun Ju, Wonsok Yang, Kyung-min Lee, Sunhwa Oh, KeeSoo Nam, Sarah Shim, Soon Young Shin, Myung Chan Gye, In-Sun Chu, and Incheol Shin

CANCER THERAPY: PRECLINICAL

Effective Activity of Cytokine-Induced Killer Cells against Autologous Metastatic Melanoma Including Cells with Stemness Features
Loretta Gammaitoni, Lidia Giraudo, Valeria Leuci, Maja Todorovic, Giulia Mesiano, Franco Picciotto, Alberto Pisacane, Alessandro Zaccagna, Maria Giuseppa Volpe, Susanna Gallo, Daniela Caravelli, Elena Giaccone, Tiziana Venesio, Antonella Balsamo, Ymera Pignochino, Giovanni Grignani, Fabrizio Carnevale-Schianca, Massimo Aglietta, and Dario Sangiolo

Contribution of Abcc4-Mediated Gastric Transport to the Absorption and Efficacy of Dasatinib
Brian D. Furmanski, Shuiying Hu, Ken-ichi Fujita, Lie Li, Alice A. Gibson, Laura J. Janke, Richard T. Williams, John D. Schuetz, Alex Sparreboom, and Sharyn D. Baker

Novel Targeting of Phospho-cMET Overcomes Drug Resistance and Induces Antitumor Activity in Multiple Myeloma
Michele Moschetta, Antonio Basile, Arianna Ferrucci, Maria Antonia Frassanito, Luigia Rao, Roberto Ria, Antonio Giovanni Solimando, Nicola Giuliani, Angelina Boccarelli, Fabio Fumarola, Mauro Coluccia, Bernardo Rossini, Simona Ruggieri, Beatrice Nico, Eugenio Maiorano, Domenico Ribatti, Aldo M. Roccaro, and Angelo Vacca
Vemurafenib Synergizes with Nutlin-3 to Deplete Survivin and Suppresses Melanoma Viability and Tumor Growth
Zhenyu Ji, Raj Kumar, Michael Taylor, Anpuchchelvi Rajadurai, Alexander Marzuka-Alcalá, Y. Erin Chen, Ching-Ni Jenny Njauw, Keith Flaherty, Goran Jonsson, and Hensin Tsao

Acquired Resistance to Anti-VEGF Therapy in Glioblastoma Is Associated with a Mesenchymal Transition
Yuji Piao, Ji Liang, Lindsay Holmes, Verlene Henry, Erik Sulman, and John F. de Groot

β-Mannosylceramide Activates Type I Natural Killer T Cells to Induce Tumor Immunity without Inducing Long-Term Functional Anergy
Jessica J. O’Konek, Shingo Kato, Satomi Takao, Liat Izhak, Zheng Xia, Peter Illarionov, Gurdfyal S. Besra, Masaki Terabe, and Jay A. Berzofsky

Sensitization of Pancreatic Cancer to Chemoradiation by the Chk1 Inhibitor MK8776
Carl G. Engelke, Leslie A. Parsels, Yushen Qian, Qiang Zhang, David Karnak, Jordan R. Robertson, Daria M. Tanska, Dongping Wei, Mary A. Davis, Joshua D. Parsels, Lili Zhao, Joel K. Greenson, Theodore S. Lawrence, Jonathan Maybaum, and Meredith A. Morgan

Inhibition of Protein Phosphatase 2A Radiosensitizes Pancreatic Cancers by Modulating CDC25C/CDK1 and Homologous Recombination Repair
Dongping Wei, Leslie A. Parsels, David Karnak, Mary A. Davis, Joshua D. Parsels, Amanda C. Marsh, Lili Zhao, Jonathan Maybaum, Theodore S. Lawrence, Yi Sun, and Meredith A. Morgan

Development and Preclinical Characterization of a Humanized Antibody Targeting CXCL12

Memantine Protects Rats Treated with Intrathecal Methotrexate from Developing Spatial Memory Deficits
Peter D. Cole, Veena Vijayanathan, Nafeea F. Ali, Mark E. Waghshul, Eric J. Tanenbaum, Jeremy Price, Vidhi Dalal, and Maria E. Gulinello

A Novel Aldehyde Dehydrogenase-3 Activator (Alda-89) Protects Submandibular Gland Function from Irradiation without Accelerating Tumor Growth
Nan Xiao, Hongbin Cao, Che-Hong Chen, Christina S. Kong, Rehan Ali, Cato Chan, Davud Sirjani, Edward Graves, Albert Koong, Amato Giaccia, Daria Mochly-Rosen, and Quynh-Thu Le

Nimboline, a Limonoid Triterpene, Inhibits Growth of Human Colorectal Cancer Xenografts by Suppressing the Proinflammatory Microenvironment
Subash C. Gupta, Sahdeo Prasad, Dhanya R. Sethumadhavan, Mangalam S. Nair, Yin-Yuan Mo, and Bharat R. Aggarwal

Identification of Circulating MicroRNA Signatures for Breast Cancer Detection
Maurice Chan, Chiew Suan Liaw, Shen Mo Ji, Hwee Huang Tan, Chow Yin Wong, Aye Aye Thike, Puay Hoon Tan, Gay Hui Ho, and Ann Siew-Gek Lee

Phase II Randomized Trial Comparing High-Dose IFN-α2b with Temozolomide Plus Cisplatin as Systemic Adjuvant Therapy for Resected Mucosal Melanoma
Bin Lian, Lu Si, Chuan Liang Cui, Zhihong Chi, Xinan Sheng, Lili Mao, Siming Li, Yan Kong, Bixia Tang, and Jun Guo

Phase I Trial of a New Schedule of Romidepsin in Patients with Advanced Cancers
Laleh Amiri-Kordestani, Victoria Luchenko, Cody J. Peer, Kambiz Ghafoori, James Reynolds, Deb Draper, Robin Frye, Sue Woo, David Venzon, John Wright, Monica Skarulis, William D. Figg, Tito Fojo, Susan E. Bates, and Richard L. Piekarz
Identification of Promiscuous KIF20A Long Peptides Bearing Both CD4+ and CD8+ T-cell Epitopes: KIF20A-Specific CD4+ T-cell Immunity in Patients with Malignant Tumor
Yusuke Tomita, Akira Yuno, Hirotake Tsukamoto, Satoru Senju, Yasuhiro Kuroda, Masatoshi Hirayama, Atsushi Irie, Kenta Kawahara, Junji Yatsuda, Akinobu Hamada, Hirofumi Jono, Koji Yoshida, Takuya Tsunoda, Hirotsgu Kohrogi, Yoshihiro Yoshitake, Yusuke Nakamura, Masanori Shinohara, and Yasuharu Nishimura
See commentary, p. 4295

Clinical, Pathologic, and Biologic Features Associated with BRAF Mutations in Non–Small Cell Lung Cancer
Stephanie Cardarella, Atsuko Ogino, Mizuki Nishino, Mohit Butaney, Jeanne Shen, Christine Lydon, Beow Y. Yeap, Lynette M. Sholl, Bruce E. Johnson, and Pasi A. Jänne

LETTER TO THE EDITOR
Oncolytic Virotherapy Trials—Letter
Akseli Hemminki, Minna Oksanen, and Maiju Merisalo-Soikkeli

PREDICTIVE BIOMARKERS AND PERSONALIZED MEDICINE
Ki67 Measured after Neoadjuvant Chemotherapy for Primary Breast Cancer

CORRECTION
Correction: MSH6 Mutations Arise in Glioblastomas during Temozolomide Therapy and Mediate Temozolomide Resistance

ABOUT THE COVER
The cover shows Rad51 foci (red) in pancreatic cancer cells treated with gemcitabine and radiation. Nuclei are stained with DAPI (blue). For details, see the article by Engelke and colleagues on page 4412 of this issue.